

Regular Board of Directors Meeting  
Monday, September 8, 2025 6:00 PM  
Lower Platte North NRD Office  
P.O. Box 126  
Wahoo, NE 68066

1. Call to Order

**NOTE: The agenda is on file at the LPNNRD office and may be changed up to 24 hours prior to the meeting as scheduled.**

1.A. Meeting Notice

1.B. Inform Public on Location of Copy of "Open Meeting Act"

1.C. Pledge of Allegiance

2. Roll Call

2.A. Introductions

3. Approval of Agenda

Are there any additions or corrections to the agenda?

4. Comments - Advisors/Guests

4.A. Guest Comments

4.B. NRCS Report

4.C. NARD Report

4.D. NRC Report

4.E. Managers Report

4.F. Education Program

5. Approval of Minutes

Are there any additions or corrections to the Minutes? If not they will be approved on the consent agenda.

6. Report of Standing Committees

6.A. Executive Committee - Action as Required

6.A.1. UNFINISHED BUSINESS

6.A.2. MEETINGS

6.A.2.a. Pending

6.A.2.a.1. NARD Fall Conference

The NARD Fall Conference is scheduled for September 28-30 in Kearney. Early Registration is due by September 5th. Please let Breunig know if you are interested in attending.

The following Directors are registered to attend: Hilger, Saalfeld, McKnight, Seier and Johnson.

6.A.2.b. Reports

6.A.3. MANAGEMENT ITEMS

6.A.3.a. Directors Absence

6.A.3.b. Monthly Education Program

6.A.3.c. November Board Meeting

Discussion is needed about where we plan to meet for the November Board Meeting.

6.A.3.d. FNIC Insurance Renewal

Matt Greenway with FNIC will be available to answer any questions on our Commercial Package Insurance renewal effective 10/1/25

LINES OF BUSINESS	ANNUALIZED EXPIRING
Property	\$35,850
Crime	\$382
Inland Marine	\$10,815
Business Auto	\$15,026
General Liability	\$38,309
Public Officials and Management Liability	\$5,751
Worker's Compensation	\$23,248
Commercial Excess	\$25,348
Cyber Liability	\$5,855
Policy Fee	\$500
Tax	\$183.15
<b>Total</b>	<b>\$6,538.15</b>
<b>Total Premium</b>	<b>\$161,267.1</b>

6.A.3.e. Potential New Policy - Unused Dwelling Units

As discussed at last month's board meeting, we have received a request to assign one of our available dwelling units assigned to our Wanahoo property to a neighboring landowner. John Noonan will be in attendance to answer any questions and a potential new policy is attached.

6.A.3.f. NE Land Trust Sponsorship Request

The NE Land Trust is asking or looking for sponsorships/donations for their Fall Reception in October at Happy Hollow CC. The event recognizes the projects and people the Land Trust has worked with in obtaining easements. It also promotes their mission. They are seeking a total of \$5000 to fund the event.

6.A.3.g. Amphitheater Update

Staff is planning a public meeting/open house on Sept. 4th to share all available information relating to a potential amphitheater with the public. Plans are to have an afternoon meeting and an evening meeting in the LPNNRD boardroom.

6.A.4. EQUIPMENT

6.A.5. PERSONNEL

6.A.5.a. Butler/Colfax NRCS Field Office Assistant

Gottschalk has met with both employees to discuss and explain the action taken by the board at last month's meeting and a recommendation will be made to the committee.

6.A.5.b. Water Specialist Position Opening

Jacob Stover has informed me he has been offered and has accepted a position with Benesch Engineering in Omaha. We would like to thank Jacob for his dedication and time spent here at Lower Platte North NRD and wish him luck as he advances his professional career.

Jacob's last day will be September 19th, and we will begin advertising for his replacement immediately.

6.A.6. FINANCE

6.A.6.a. Approval of Financial Reports

Grant will review the Draft July Financial Statements. We will not approve until after we receive the Annual Audit.

6.A.6.b. Approval of Managers Time and Expense Sheets

Attached find Gottschalk's time and expense sheets.

6.A.6.c. Accounts over 90 Days

6.A.6.d. Budget and Set Property Tax Rate

As discussed at last month's Board meeting, our plan is to once again maintain the same tax asking of \$3,480,714.52 as is has been the past nine years. Our total expenses are \$13,124,670.

Attached find a breakdown of the 2025 valuation by each county.

Due to increased valuations, we will be lowering our tax levy from .025767 to .024053 to support our previously approved budget of \$13,124,670.

**A motion will be needed at Board Meeting - To approve the State Budget that includes total expenditures of \$13,124,670 with a tax levy rate of .024053 for a tax asking of \$3,480,714.52.**

6.B. Operations Committee - Action as Required

6.B.1. UNFINISHED BUSINESS

We do not have unfinished business to consider.

6.B.2. WILD NE AND OTHER PROGRAMS

Nothing to report

6.B.3. OPERATION & MAINTENANCE & OTHER ITEMS

The O & M crew did maintenance & inspections on five watershed dams. We also assisted DNR Dam Safety with the Wanahoo Dam inspection. We continue

to spray areas with tree problems and have also had a drone spray some larger areas. We have started our mowing circuit of some of our dams, levee systems and Rawhide Ditch 8.

We have beaver plugging the riser on Cottonwood 6-E again. A trapper will attempt to catch them.

6.B.3.a. Rehabilitation of Cottowood 21-A, NRCS & HDR

The Watershed Work Plan-Environmental Assessment Study is still in Little Rock, AR reviewing the comments made by the NRCS and HDR. When that is approved, HDR can start the Planning and Design Phase of the dam.

6.B.3.b. Wanahoo Basin Damage & Repair, FEMA, & Houston Engineering

Mike Sotak, Houston Engineering, presented the Technical Memorandum to the Committee. A draft Technical Memorandum (attached) will be sent to all board members for review before the Board meeting. He reviewed the repair and mitigation options for the Wanahoo basin. The Breakwater and Wetland Weir will have to go through the 408 process with the COE. This will happen later this Fall.

Houston Engineering and Staff will make recommendations on repairs and mitigation to the basin and spillway conduits with Board approval. FEMA would like us to keep this process moving. Our promptness is important at this time.

6.B.3.c. Office Generac Generator Warranty & Plan

A Generac representative was here on August 19th to show staff inspection items if we choose a maintenance package that requires staff to review maintenance items during the year.

1) We have a two-year warranty on the office Generac generator. Year one is comprehensive (bumper to bumper), and the second year is parts only. Do we want an extended warranty of 5, 7, or 10 years? These plans have comprehensive coverage. The 5-year plan is \$1150, the 7-year is \$2132 and the 10-year is \$3446. After 2000 hours on the generator there is no warranty coverage. The Committee wants to go through the first year to see how it goes, then consider an extended warranty if we wish.

2) There are a couple of preventative maintenance plans, Silver and Bronze. Attached are two quotes, one for the Silver Plan in which they come out twice a year for a major inspection and a minor. The Bronze Plan is a major inspection once a year and staff would be required to do quarterly inspections for warranty purposes. Also attached is a list of service items for the plans. Staff is confident they can do the minor inspection/maintenance and recommend the Bronze Plan.

6.B.3.d. Electrical Service & Light at the Czechland Boat Ramp

Earlier this year we asked for a quote from Limbach Electric of North Bend to run electricity and install a light at the Czechland boat ramp. His quote of \$5,927 is attached. We have had fishermen request a low-level light over the years, so when taking their boats out at night they can see.

6.B.3.e. Power Saw/Mulcher for Bobcat T770

The district needs to replace a power saw for the Bobcat. Find updated quotes attached and a picture of a disc mulcher. There is a quote for a drum mulcher also for comparison. Staff would prefer the disc mulcher because it would work faster than a drum and to eliminate having to use two Bobcats, one cutting the other piling and hauling.

The non-Bobcat quotes do not include the Forestry Application Kit and Engine Compartment Seal Kit as listed on the Bobcat quote. Those kits would have to be ordered through Bobcat. The Forestry Kit is a safer glass door.

6.B.4. ROCK AND JETTY

We have not received any request.

6.B.5. LAKE WANAHOO

6.B.5.a. Lake Wanahoo Permit Sales

For the month of July, the District received \$6,502.50 in annual park permit revenue.

6.B.5.b. Lake Wanahoo Camping Revenue

For the month of July, the District received \$17,720.24 in camping revenue.

6.B.5.c. Education Building Fire Pit Space Renovation

The fire pit area behind the education building at Lake Wanahoo needs to be renovated. The fire pit itself is falling apart, the pea gravel surface material is constantly moving around, exposing the fabric underneath and ending up in the turf. This material is also hard for some guests to walk on. We would like to remove the pea gravel and existing fire pit, and replace them with concrete and a more durable fire pit. I reached out to 5 different contractors for bids and got the following results: one wasn't interested, one submitted a bid of \$10,925.00, and the other three never responded. It is our recommendation to award the project to Metro Grading for their bid of \$10,925.00.

6.B.5.d. Clint Johannes Education Building

The Clint Johannes Education Building at Lake Wanahoo was rented 23 times in August, with 3 NRD events. Revenue for the month was \$1,825.

6.B.6. INFORMATION AND EDUCATION

6.B.6.a. Information

6.B.6.a.1. Radio & Digital Display Ads

The KTIC radio ads for July featured a reminder for variances. September's ad will feature environmental education opportunities with the NRD. The produced ad for September was not available yet.

The new digital display ads will begin on September 8. This has replaced the Wahoo newspaper e-ads and was added to this year's budget. Attached is a breakdown of the demographics and zip codes we are targeting for these ads. The ads can be changed as often as once a

month or every couple of months. The topic for September will be environmental education opportunities. The digital display ads will be billed monthly.

6.B.6.a.2. Analytics

Top Posts for Facebook and X during August 1 - 26 included:

- September Coffee, Lakeside flyer
- Newman Grove public hearing information
- Rawhide Creek open house information
- August Coffee, Lakeside flyer
- NRD Recreation Exploration

On the LPNNRD website, we received traffic from NARD (22), Facebook (18), Nebraska Game and Parks (4), Nebraska tourism (2), and Saunders County Fair website (2).

The full reports are attached.

6.B.6.a.3. Website Update

RedThread has been working on updating the LPNNRD website. Recently they updated it to be compliant with regulations regarding ADA accessibility for web and mobile sites. Other minor changes have been spacing and making sure text does not run off the page when viewed on mobile devices and tablets. They will continue working on this in September. If you notice any issues when you are looking at the website please let Lacey know so we can have this addressed.

6.B.6.a.4. Water Department Newsletter

The second digital newsletter for the Water Resources Department went out on August 12th and received a great response. This newsletter covered updates to the draft copy of the Groundwater Management Plan, Wellhead Protection Program public meetings, and announcing producer text message alerts. Daryl reported he had a few calls that week regarding the Groundwater Management Plan. We have had 2 people opt in to the text message alerts.

Contacts	Emails Delivered	Open Rate	Clicks to links in Email	Unsubscribes
1,303	1,209	52.36%	298	9

6.B.6.a.5. Water Department Video

In an effort to create more consistent messaging, we are working on creating or updating videos that feature each department of the Lower Platte North NRD. The groundwater video is the next one on the list as the current one is 6 years old and not the best quality. We were very pleased with the work RedThread has done with previous videos and we are hoping to replicate these. RedThread created a quote at \$14,000 (almost double as much as the previous video). I have since reached out

to Three Pillars Media in Lincoln, Unanimous in Lincoln, and Creative Olsen in Omaha. After a meeting with Unanimous, they could not complete our request within our budget.

**Three Pillars Media:** would provide pre-production planning, 1-person crew for up to 8 hours production, royalty free music, travel (estimated at \$105 built in to proposal), photography on location.

**Final product includes:** 30-second commercial, 15-second cut down, and minimum of 100 edited photographs.

**Total proposal:** \$4,500

**Creative Olsen:** pre-production planning, 1-person crew for up to 8 hours production (any additional hours billed at \$275 per hour), travel costs additional (\$0.70/mile from office to filming location and back).

**Final product includes:** 30-second edited video with 3 rounds of revision, 15-second video with 3 rounds of revision.

**Total proposal:** \$4,300 + travel costs

6.B.6.b. Education

6.B.6.b.1. Past events

- **August 4th:** Wildflowers and Wine (9)
- **August 7th:** Coffee Lakeside: Specialty Crops (10)
- **August 7th:** Last nocturnal night of the summer! (10)
- 

6.B.6.b.2. Upcoming events

- **September 9th-10th:** Bishop Nuemann M.S.
  - **September 11th:** Coffee Lakeside Mammals of NE
  - **September 17th:** David City High Ability Learners & Wachiska Prairie Day
  - **September 19th:** Wahoo high school Careers
  - **September 22nd:** Starry Night event
  - **September 24th:** Fremont M.S. outdoor day
  - **September 30th:** Wachiska Prairie Day
  - **September 30th-October 3rd:** Ag Week at the fairgrounds
- St. Wenceslaus TBD & other Classroom Visits

6.B.7. RURAL WATER SYSTEMS

6.B.7.a. Colon System

Staff repaired a residential service line leak in Colon. Staff is also working with the Village for a new hydrant hook-up for their new park.

Routine sampling completed, meters read and bills to be mailed 8/29.

6.B.7.b. Bruno System

The Village of Abie has formally requested the NRD about developing/expanding the Bruno RWD to include Abie. This will have to

include an updated feasibility study (original completed 2006) as well as funding.

Staff completed the tri-annual disinfectant residual testing for the Bruno RWD. This is required due to David City treating the water they supply the district.

Routine sampling completed, meters read and bills to be mailed 8/29.

6.B.7.c. Other

## 6.C. Water Committee - Action as Required

### 6.C.1. UNFINISHED BUSINESS

### 6.C.2. REGULATORY

#### 6.C.2.a. GROUND WATER MANAGEMENT AREA

##### 6.C.2.a.1. Variance Request in the Hydrologically Connected Area (Limited Development Area)

The deadline is September 15th for applications.

##### 6.C.2.a.2. Variance Requests in the Non-Hydrologically Connected Area (Normal Development Area)

There are four applications submitted for review at the Committee Meeting.

- Kevin Wolfe - SE1/4 14-16-8E, Saunders County, new well variance (West of Leshara)
- Todd Yindrick - E SE 22-15-3E, Butler County, expansion of acres from existing well (East of David City). This tract was approved for an Expansion of Acres Variance with allocation in 2023. Todd's allocation was 14.30, and he used 12.06 in the first 2 years. If approved, the Expansion of Acres Variance with allocation will lapse.
- Bryan Hein - NW1/4 7-15-3E, Butler County (2 miles north of David City)
- Bryan Hein - SE1/4 17-15-3E, Butler County (1 mile east of David City)

Bryan Hein is going through the process of getting the correct permits from David City. Bryan reported that he has all the permits from Planning and Zoning, but City Council needs to approve.

By Groundwater Rules and Regulations, the NRD is allowed to issue up to 75 Acre Feet of Depletion in the Non-Hydrologically Connected Area (Normal Development Area). The total of the four applications was 70.302 Acre Feet.

##### 6.C.2.a.3. Variance Requests in the Restricted Development Areas

Both applications were reviewed by Katie Cameron. Two applications have been received, with one application adjacent to the white area (NHCA) and the other next to the blue (HCA). In the past, we reviewed

these applications in what area they are adjacent to, so we will only be reviewing one application this month.

- Gregg Fujan - SW SW 29-15-6E, Saunders County (SW of Malmo)  
Greg has sent his yield history map for this field.

Comments from Katie with her interpretation attached.

The SW SW 29-15N-6E, Saunders County... looks to be on a glacial till edge area but maybe a 10 to 20 foot-thick sand and gravel are available around 80 feet + or - . This area is hard to map the extent of units because of the apparent past glacial processes, and we don't have many wells (however, each of the nearby wells does show saturated thicknesses of gravel available in the top 100ft). The nearest AEM line is ~800 feet to the west in Section 30 (north-south line L1004700). I couldn't recommend any specific direction and would reiterate that the yellow hatch estimated areas on the Google Earth map are very rough with question marks on the boundary extents. Deeper Dakota we don't know the character, but based on 02-LPN-2015 by Malmo, the variable Dakota units might be interpreted as more sandstone dominant than is actually present (log summary depicted on AEM L504800 profile for reference).

Thanks!

Katie

Section P - Restricted Development Area from the Groundwater Rules and Regulations is attached.

Staff recommends allowing this variance with the stipulation of Section P from Groundwater Rules and Regulations are followed before a well permit is issued.

6.C.2.a.4. Variance Extension in Restricted Development Area  
Variance LPN-V-024-0644 was approved for Larry Rasmussen in a restricted area on 10/15/2024. The site is located in the NW 1/4 27-16-8 and within 1 mile of the Hydrologically Connected Area. Larry consulted with Katie Cameron on test hole locations and each site did not prove to be able to produce an irrigation well. He contacted Jesse Korus about utilizing tTem, a version of AEM, but is pulled behind a 4-wheeler. Larry would like to extend his variance until February 1, 2026, to allow him to do one more investigation with the tTem. Larry has agreed to provide any information he gathered to the NRD. The Committee would like to see what the data shows and suggested having staff notify Committee members when tTem is at the field.

6.C.2.a.5. Well Permit Program

6.C.2.a.6. Groundwater Management Plan

A draft of the GWMP has been emailed to the stakeholders along with an email blast to 1303 contacts. Results from the email are shown with the campaign attached.

The second digital newsletter for the Water Resources Department went out on August 12<sup>th</sup> and overall had a good response. This newsletter covered updates to the draft copy of the Groundwater Management Plan, Wellhead Protection Program public meetings, and announcing producer text message alerts. Daryl reported he had a few calls that week regarding

the Groundwater Management Plan. We have had 2 people opt in to the text message alerts.

Contacts	Emails Delivered	Open Rate	Clicks to links in Email	Unsubscribes
1,303	1,209	52.36%	298	9

A draft public review copy of the Groundwater Management is attached. Shown are the comments from a stakeholder.

"I have reviewed the document and want to congratulate all on a very robust and informative document with great background a clearly defined mission statement with actionable goals and objectives. Minor issues are listed below."

- Page 7, 1.5.1. 'Sampling area greater than 9 sq miles, unless a well-head protection area' . I'm was unclear whether being within a WHP increased or decreased the requirement for sampling. **(Can reword)** The Committee decided to reword to sample 50% of the high capacity well within a Wellhead Boundary.
- Section 1.5.4 - Hurray for you/us? Good call.
- Page 13, Fig 8. May consider replacing brighter with warmer and darker with cooler in describing colors on the map. Also Permeability...it would help my understanding as it relates to surface recharge if a map could show the range of permeability in inches/hour. **(This would be hard to do with this type of map but can visit with LRE)** The Committee decided that permeability is variable and to put in the map might be misleading. They recommend rewording for better understanding.
- Section 2.7 ....water level rises and declines changes affect... Perhaps rephrase as 'water level changes (rise or decline) affect'? Please define "dewatering activities" **(Can reword and clarify)**. Committee decided to re-phase the water level change but decided not to define de-watering because of its different uses.
- Page 30, Paragraph 2 - spelling error ntrual = natural; overtime = over time. **(can correct)** Will correct
- Page 31, Section 2.1.5, 7<sup>th</sup> bullet. Spring filed = filled. **(can correct)** Will correct
- Page 35, Section 3.2, Paragraph 2. Consider moving the sentence, "This map also provides a general representation of areas that are more likely to naturally recharge groundwater" to the end of the paragraph to avoid confusion switching from artificial recharge. May consider exchanging, "This map" with Figure 26. You may consider taking out the reference to a 1 to 5 scale since it is not on the map and just state from Very Low to Very High as shown in Figure 26. **(Can reword and correct)** Committee agreed on rewording and taking out the 1 to 5 scale.
- Section 3.2 continued. I would like to see this section expanded to include other "treatment" options that reflect the majority of the land use in the LPNRD (i.e. soy/corn production), such as grassy buffer strips, cover crops, reduced tillage, maintaining crop residues, perineal rotation cropping. **(Discussion with Committee)** Committee decide to leave this as is as best management practices could change or new ones are utilized.

- Interesting that Fremont used about 3X as much water per person than Wahoo. Perhaps the difference is due to industrial uses? What programs are available for industries to reduce harmful artificial discharge and who manages those? **(These are the numbers)** The Committee decided to leave as is.
- Section 3.3, Paragraph 2. Table 5 and 6 in the text and Table 6 and 7 shown in the legends. **(Can Correct)** Will correct
- In my opinion, Table 8 would be more informative if the gallons used by each category was provided in addition to the break down of type of wells. For example, Community/Industry is only 1% of wells but may account for a large % of water useage. **(May not have accurate numbers available but can investigate)** The Committee recommends leaving as it is because it is a snapshot of usage.
- Section 4.1.1, Paragraph 3. Land use categories could use additional clarification. Irrigated farmland is 5 and all other is 1? What about a factory or processing plant or feedlot that discharges into a tributary or over land? **(Can Clarify)** Committee suggested to clarify
- Page 44. HOW do we get neonicotinoids on the list for monitoring? **Discussion** The Committee recommended leaving this off the list.
- Section 4.2, Paragraph 1, Line 8, trave=travel **(can correct)** Will correct
- Section 5. 1.3 Objective 3.4, with thin = within **(thin is correct)** Will try to reword
- Section 5.1.4, Nitrate Risk Too? Please add an explanatory phrase for this title. **(Can correct with more explanation)** Will correct and add a brief explanation.

The plan is to hold the hearing for the GWMP on October 13 at 5 pm in the NRD Board Room in Wahoo. Public notice by State Statue requires 3 consecutive weeks in a row with the last notice 7 days prior to the hearing. Public notices would be published for the weeks of September 15, 22 and 29.

Recommend moving forward with corrections being done by the Board Meeting. Set the hearing date for October 13 at 5 pm.

Staff and LRE have made the corrections to the GWMP since the committee meeting, which is attached as LPN GWMP - Final 11.0.

An invoice is attached from LRE for \$1,552.52.

6.C.2.a.7. Cost Share Programs

Tim Svatora Installed an RO Unit through our RO Unit Cost share program.

We are offering to pay 75% of the total cost up to \$800.

Tim Svatora one RO Unit cost share of \$800.

#### 6.C.2.a.7.A. Irrigation Well Sample Kits

The NRD has received a few kits, but a number of producers have not used their wells. Some producers do not plan on laying out pipes or putting their power unit out by the well. This might be a year to waive the requirement to collect a water sample from the Water Quality Phase Areas. The bottles in the kits are good until September 2026, so producers would just keep the kits if they have ordered and paid for them. If a water sample has been received, the NRD could not charge them for next year's kit.

6.C.2.a.8. Voluntary Integrated Water Management Plan - LPNNRD  
DWEE staff will be at the September 28 Water Committee Meeting to give the annual update.

#### 6.C.2.b. CHEMIGATION

For 2025 we have 660 renewals and 42 new permit applications for a current total of 702. Inspections for 174 renewal permits have been completed.

#### 6.C.2.c. GROUND WATER QUALITY SAMPLING

##### **2025 Irrigation Sampling**

-28 out of the 53 Statewide Network Wells have been sampled. All nitrate samples with some pesticide, chloride, sodium, and uranium.

-10 out of the 53 wells said no to sampling, due to pivots already being winterized, and rain.

-Potential to sample 15 more wells.

##### **Data & Analysis**

-Further analysis of sample results will be completed in the fall/winter.

-Analysis will include a district-wide map of nitrate levels, comparisons from historical data, comparisons from a wet to dry year, and other contaminant analysis as needed.

#### 6.C.3. GROUND WATER PROGRAMS

##### 6.C.3.a. DECOMMISSIONED WELL PROGRAM

###### 6.C.3.a.1. Well Estimates

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

###### 6.C.3.a.2. Plugged Wells

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

6.C.3.b. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

6.C.3.b.1. Phase Area Update

We are still receiving invoices for Flow Meter Cost Share.

Russell Shonka 4 \$ 4,000.00

6.C.3.c. SOURCE WATER PROTECTION

6.C.3.c.1. NET Grant-Source Water Monitoring Project

The LPNNRD has been in the process of filling out a NET grant application for the Source Water Monitoring Project. This project would succeed in the goal of adding more dedicated monitoring wells into the district. This project originally applied for the Water Sustainability fund, but was not accepted. The cost of the total project is estimated at \$447,702, with the LPNNRD matching 40% of that cost at \$179,081 over a 3-year period, equaling \$59,693.67 per year. The Grant is due by September 2nd.

6.C.3.c.2. Mead Source Water Protection Grant

The Village of Mead is applying for the Source Water Protection Grant. The LPNNRD has been assisting in the application process. The total cost of the project is estimated at \$45,700 with the LPNNRD cash-match of \$5,000 dollars as well as assisting the community in updating the Wellhead Protection Plan, water sampling, and public outreach.

6.C.3.c.3. Yutan Source Water Protection Grant

The City of Yutan is pursuing the Source Water Protection Grant and the LPNNRD is currently assisting with the application process. The estimated total of this project is \$48,500 with the NRD putting in a cash-match of \$3,000 dollars. The LPNNRD will also assist in water sampling in the proposed project area and helping with components of updating the Wellhead Protection Plan.

6.C.4. SURFACE WATER PROGRAMS

6.C.4.a. STATE LAKES, FOR THE WEEK OF

This week's beach Bacteria and Harmful Algal Bloom results are now posted on the DWEE web page ([Current Health Alerts and Sampling Results For This Week](#)).

Cub Creek Lake in Jefferson County will remain on Health Alert this week after testing high for microcystin. Bluestem Lake in Lancaster County will be removed from Health Alert.

Eight beaches tested above 235 colonies/100 mL for *E. coli* bacteria.

Rain events can cause large jumps in the *E. coli* levels. It is everywhere in our environment and the rain will wash into our lakes. Just remember that sunlight is a great disinfectant on *E. coli*. So,

when the sun does shine those *E. coli* levels will drop quickly.

There is 1 beach on Health Alert this week.

**Current Lakes on "Health Alert"**

Lake	County	Microcystin (ppb)	Sample Date
Cub Creek Lake	Jefferson	30.12	9/1/2025

When a lake exceeds 8 ppb of microcystin it will be placed on Health Alert. If a lake is under a Health Alert, signs will be posted recommending people avoid full body contact activities such as swimming, wading, skiing, jet skiing, etc.

There are 8 beaches with *E.coli* testing above 235 colonies/100 mL.

**Lakes with High *E.coli* Bacteria**

Lake	County	<i>E.coli</i> (MPN)	Sample Date
Bluestem Lake	Lancaster	>2,419	9/1/2025
Branched Oak Lake at Area 10 Beach	Lancaster	>2,419	9/1/2025
Branched Oak Lake at Liebers Point Beach	Lancaster	270	9/1/2025
Kirkman's Cove Lake	Richardson	>2,419	9/2/2025
Lake C.W. McConaughy at Martin Bay Beach	Keith	387	9/2/2025
Lone Star Lake	Fillmore	>2,419	9/1/2025
Maple Creek Recreation Area Lake	Colfax	>2,419	9/2/2025
Swan Creek Lake (5A)	Saline	2,420	9/1/2025

When *E. coli* bacteria levels test above 235 colonies/100 mL a Health Alert is not issued. However, conditions are at a higher risk to human health when swimming. Considering the more rapid changes in bacteria conditions, signs are not posted with these higher levels. Although, we want people to be aware of beach conditions and use their own judgment as to whether they use a listed water body.

Have a good week!

Justin Haas

State Lakes Coordinator

Department of Water, Energy and Environment

245 Fallbrook Blvd., Suite 100

Lincoln, NE 68509-8922

Direct: 402-471-4224 | Main Office: 402-471-2186

6.C.5. OTHER

6.C.5.a. COMMENTS FROM THE PUBLIC

6.D. Projects Committee - Action as Required

6.D.1. UNFINISHED BUSINESS

6.D.2. SWCP

6.D.2.a. SWCP Application Approvals

We recieved our FY26 NSWCP allocation from DWEE: \$93,020.16. DWEE confirmed that there is no cash-carryover from FY25, however, ALL unused NSWCP funds have been pooled into a general fund that will be exhausted before an NRD will tap into their respective FY26 allocation. The general fund sat at \$2,050,000.00 as of 8/18. Listed are the remaining applications to be approved:

KYLE OSMERA	\$	15,000.00	TOT/WASCB
KAREN SMAUS	\$	15,000.00	TOT/WASCB
TOM SAMEK	\$	15,000.00	TOT/WASCB
RONALD SWOBODA	\$	10,625.01	TOT/WASCB
JAMES KUBIK	\$	15,000.00	TOT
BEN SPATZ	\$	15,000.00	TOT/COVER CROPS
MICHAEL ANDERSEN	\$	6,038.53	GWW
SCOTT FORAL	\$	15,000.00	TOT

- 6.D.2.b. SWCP Payments
- 6.D.2.c. SWCP Cancellations
- 6.D.2.d. Wahoo Creek Cost Share Approvals

6.D.3. JOINT WATER MANAGEMENT ADVISORY BOARD (JWMAB)

- 6.D.3.a. East Fremont/Elkhorn Township Drainage - FEMA HMPG
- 6.D.3.b. West Fremont - FEMA BRIC
- 6.D.3.c. Rawhide Creek Watershed - NRCS WFPO  
 A public open house occurred on August 21st at the UNL Extension office in Fremont. A summary of responses will be compiled and added to the final EA document.
- 6.D.3.d. North Bend Drainage District
- 6.D.3.e. Cotterell Diking and Drainage District

6.D.4. SHELL CREEK WATERSHED

- 6.D.4.a. Shell Creek Implementation - 319 & NET  
 Staff will submit an NET application, due September 2nd, requesting \$200,000 for the next 3 fiscal years (July 1, 2026 through June 30th, 2029). The next SCWIG meeting is TBD.  
 Bill Bos submitted an two applications for approval:

Eldon  
 Mohrmann Onsite Wastewater                      \$10,500

Tony  
 Brandt Cover Crop                                      \$5,500

With the potential of more cover crop applications coming in after committee/board meetings and the preferred timeframe for seeding being now, staff would like the ability to approve eligible cover crop applications

as we receive them to prevent seeding delay.

#### 6.D.5. WAHOO CREEK WATERSHED

##### 6.D.5.a. WCW Construction

On 8/21 LPN staff hosted NRCS State Office staff for a field tour of WCW sites 26 & 27 (pic attached). Allen Gehring, State Engineer, has requested to bring an engineering class from UNL to the sites the first week of November.

Monthly construction update meeting was 8/26 (agenda attached):

- Earthfill has begun at Site 27.
- Overexcavation/channel cleanout continues at 26A; more than contractor anticipated due to glacial outwash/sand layer and subsurface moisture.

TCI invoice and Olsson invoice attached

##### 6.D.5.b. Dam Site Planning Update

###### 6.D.5.b.1. Design - Olsson

Olsson is wrapping up DNR reviews for site 77, then will send off to NRCS National Watershed Center (NWC) in Ft. Worth. The NWC review is required for site 77 due to it's size, and hazard class rating. That review should take a couple months.

Site 84 has been submitted to NRCS state office for final review.

Revisions continue to our ACOE 404 permit reflecting comments received on our biological assessment.

Attached is a progress report, and July invoice. The invoice reflects the "held" billings that were approved with the last contract amendment. A monthly breakdown of held billings is also attached.

###### 6.D.5.b.2. Real Estate - Olsson & Great Plains Appraisal

Danielle and Cody will be available at committee meeting to discuss current status of acquisitions and landowner appraisals.

The ECP Corporation acquisition (Site 84) did not get ratified at the last Board meeting due to oversight. We will need official Board approval of the acquisition, \$4,144.00

###### 6.D.5.b.3. Funding - NRCS WFPO & NeDNR JEDI

##### 6.D.5.c. Water Quality - NWQI & 319

We have met with the State NRCS to ask questions and get next steps for the NWQI program. The next step for Jake is approaching the local agronomists/coops in the area to promote the program and work with them on the potential for atrazine substitutions and to share with them the pay rates on them through NWQI. Deadlines for applications are going to be in mid-November, and we are planning on doing more outreach before then with radio ads as well as social media announcements.

#### 6.D.6. LOWER PLATTE RIVER CORRIDOR ALLIANCE

6.D.7. MORSE BLUFF FLOOD REDUCTION

Gottschalk and Chapman were on the agenda for the Saunders County Board meeting on August 19th to discuss our potential repair project. Several directors and twenty to thirty members of the public were present. The County requested an updated estimate from their engineer, Mainelli Wagner & Associates. Our next step is securing grant funding and working with both Boards to negotiate an interlocal agreement detailing who is responsible for what.

6.D.8. LESHARA DRAINAGE IMPROVEMENT

6.D.9. EROSION AND SEDIMENT RULES AND REGULATIONS

Elliott was subpoenaed to testify at a hearing on 8/28 for the ongoing Mike Kaspar/Cliff Prochaska lawsuit.

6.D.10. HAZARD MITIGATION PLAN UPDATE

We held a meeting with JEO to discuss public outreach with the HMP and Drought Plan. We will be looking to get into contact with 3 communities to look at the potential of adopting ordinances based off of triggers from historical pumping and available data. These communities will be chosen based off the drought vulnerability matrix from the drought mitigation plan.

Invoice is attached.

6.D.11. OTHER

6.D.12. ADJOURNMENT

7. Additional Action Items

7.A. Discussion on Neighboring Wanahoo Property

8. Approval of Bills Pending

9. Consent Agenda Adoption

10. Comments from Directors/Guests

11. Meeting Establishment/Adjournment

**NOTE: The agenda is on file at the LPNNRD office and may be changed up to 24 hours prior to the meeting as scheduled.**

## **Manager's Report – September 8, 2025**

- We continue to settle into our new office and are working closely with Scheele/Kayton and JEO on the punch-list issues as well as some other smaller issues that have arisen in the past few weeks. We are also working with Cornhusker Industries to finalize delivery on our remaining office furniture. I continue to ask all board members to be sure to mention any building issues you see or are aware of.
- Our Wahoo Creek Projects are moving along very well. Thompson Construction Inc. continues to make good progress on all three sites with the agreeable recent weather. State NRCS representatives conducted a site visit last month and are happy with the progress they saw.
- We received our 2025 updated property valuations last month and used them to create our levy calculations for FY '26. As in previous years, we held our levy hearing before tonight's meeting providing opportunity for input and questions from the public. Once again, for the 9<sup>th</sup> year in a row, Lower Platte North NRD has maintained a level tax asking of \$ 3,480,715 with a lowered levy rate of .024053. We are all aware of the economic environment we have lived through for the past nine years and I challenge any state, city or local political subdivision to match what we have done. I applaud our directors over the years for their dedication to remaining fiscally responsible.
- After tonight's meeting, management will finalize our state budget and submit it to all required agencies by the September 30<sup>th</sup> deadline.
- Management continues to keep a close watch on the federal budget and how it may affect our Wahoo Creek funding. The ongoing need for the federal WFPO program funding is being relayed to our Washing D.C. representation and I have been reaching out personally to each of our Senators and Congressmen's offices. NRCS officials have informed me there does appear to be funding for Watershed Programs but how much is yet to be determined.
- Two public information meetings for a proposed amphitheater located on our Wanahoo property were held on Thursday September 4<sup>th</sup> with a very good turnout at each meeting. Preliminary information was shared and members of the public had the opportunity to ask questions and voice their concerns or support.
- We have entered our Fall camping season at all our recreation areas and are preparing for upcoming projects. Lighting will be installed at our Czechland boat ramp, 20 additional 50 amp camping sites will be installed at Lake Wanahoo and our FEMA covered, 2024 flood damage repairs will be bid and completed along our Wanahoo fishing jetties and east hiking trails.
- And finally, Jacob Stover informed me he has been offered and accepted a job offer with Benesch Engineering in Omaha. I would like to thank Jacob for his service and dedication to Lower Platte North NRD and wish him well in his professional future.

Stay safe and have a great month!

Eric Gottschalk, General Manager

**LOWER PLATTE NORTH NRD MINUTES**  
**BOARD MEETING**  
**August 11, 2025**

The regular monthly meeting of the Lower Platte North NRD Board of Directors was called to order at 6:00 p.m. at the Lower Platte North NRD Office, Wahoo NE on Monday, August 11, 2025.

**1. NOTICE OF MEETING**

The agenda and supporting documents are available on the district's website – [www.lpnnrd.org](http://www.lpnnrd.org). A copy of the Nebraska Open Meetings Law has been posted on the NRD's website.

The advanced notice of our August 11, 2025, board meeting was posted on the Lower Platte North NRD website and posted in the Wahoo Newspaper on August 1, 2025.

Chair Sabatka informed those present that a copy of the "Open Meetings Act" is posted for public viewing.

Pledge of Allegiance

**2. ROLL CALL - INTRODUCTIONS**

**DIRECTORS PRESENT AND CONSTITUTING A QUORUM:**

Birkel	Engel	Goldsberry
Hanson	Harders	Hilger
Johnson, Duane	Johnson, Jerry	Lawrence
McKnight	Meduna	Olson
Saalfeld	Saeger	Seier
Tonnies	Yosten	Sabatka

**DIRECTORS ABSENT**

Bailey

**STAFF AND GUESTS:**

Gottschalk	Breunig	Chapman
Lausterer	Shupe	Lonnie Hansen
Andrew Phillips	Marlin Fujan	Tim Schulz
Carrie Wiese	Andersen (Zoom)	Brockman (Zoom)
Pittman (Zoom)	Heimann (Zoom)	Elliott (Zoom)
Beethe (Zoom)	Sabatka (Zoom)	O'Brien (Zoom)
Danielle Allen (Zoom)		

**3. APPROVAL OF AGENDA**

**4. COMMENTS - ADVISORS/GUESTS/DIRECTORS**

**a. Guest Comments**

**b. NRCS Report**

Shupe gave the NRCS report.

**c. NARD Report**

Hilger gave the NARD report.

**d. NRC Report - None**

**e. Manager Report - None**

**f. Education Program**

**At this time item 6.D.5.b.1. was taken.**

Andrew Phillips, Olsson Associates was present to discuss Engineering write-offs that have occurred over the last 7 years and a proposed amendment #5 to the current contract. Meduna made the motion, seconded by Harders to approve amendment #5 and pay Olsson half up front and the second half when project is completed. Motion failed.

**AYE:** Harders, Meduna

**NAY:** Birkel, Engel, Goldsberry, Hanson, Hilger, Johnson, D., Johnson, J., Lawrence, McKnight, Olson, Saalfeld, Saeger, Seier, Tonnie, Yosten, Sabatka

Hanson made the motion, seconded by Engel, to approve Amendment #5 to the Wahoo Creek Watershed Part II: Sites 55, 66, 77, 84, 85 and 86 contract and authorize Chair Sabatka to sign agreement. Motion carried.

**AYE:** Birkel, Engel, Goldsberry, Hanson, Hilger, Johnson, D., Johnson, J., Lawrence, McKnight, Olson, Saalfeld, Saeger, Seier, Tonnie, Yosten, Sabatka

**NAY:** Harders, Meduna

**5. APPROVAL OF MINUTES**

Johnson, J. made the motion, seconded by Saalfeld, to approve the minutes from the July 14, 2025, Board Meeting. Motion carried on consent agenda.

**6. REPORT OF STANDING COMMITTEES**

**A. EXECUTIVE COMMITTEE REPORT**

**1. UNFINISHED BUSINESS - None**

**2. Meetings**

**a. Pending**

**1. Budget Workshop – Update Given**

**2. NARD Fall Conference – Update Given**

**b. Reports**

**1. NRC Report – Update Given**

**3. Management Items**

**a. Director Absences – Update Given**

**b. Monthly Education Program – Taken Earlier**

**c. 600' Wanahoo Setback**

Lawrence made the motion, seconded by Hanson, to remove the 600' hunting setback on the west boundary of the Wanahoo Property. Motion carried.

**AYE:** Hanson, Hilger, Johnson, J., Lawrence, McKnight, Olson, Saeger, Seier, Tonnie, Sabatka

**NAY:** Birkel, Engel, Goldsberry, Harders, Johnson, D., Meduna, Saalfeld, Yosten

Item 6.A.3.f. - Amphitheater Update was taken at this time.

Sabatka made the motion, seconded by Johnson, J., to go into Executive Session at 7:05 p.m. for the purposes of discussing donors finances to support proposed amphitheater and authorize the following staff to stay: Lonnie Hansen, Tim Shultz, Legal Counsel Lausterer; Staff: Gottschalk, Breunig and Chapman. Motion carried all members present voting aye.

Sabatka made the motion, seconded by Engel, to go out of executive session at 7:34 p.m. Motion carried all members present voting aye.

**d. Wanahoo Property Building Unit Discussion**

Olson made the motion, seconded by Harders, to grant John Noonan a “building unit” to further develop his ground. Motion failed.

**AYE:** Goldsberry, Harders, Olson, Saeger, Tonnie

**NAY:** Birkel, Engel, Hanson, Johnson, D., Johnson, J., Lawrence, McKnight, Meduna, Saalfeld, Seier, Yosten, Sabatka

**ABSTAIN:** Hilger

**e. New Office**

**1. Irrigation and Landscaping Update**

Johnson, J. made the motion, seconded by Saalfeld, to have staff prepare bid documents and go to bid on irrigation system around the office for fall construction. Motion carried on consent agenda.

**2. Window Coverings for Office**

Saalfeld made the motion, seconded by Seier, to purchase window coverings for all offices, conference rooms, break room and board room and have them installed at a cost not to exceed \$18,500. Motion carried all members present voting aye.

**3. Camera/IT Update**

Tonnie made the motion, seconded by Hanson, to have 7 security cameras installed by Diode not to exceed \$10,000. Motion carried.

**AYE:** Engel, Goldsberry, Hanson, Harders, Hilger, Johnson, D., Johnson, J., Lawrence, McKnight, Meduna, Olson, Saalfeld, Saeger, Seier, Tonnie, Yosten, Sabatka

**ABSTAIN:** Birkel

**f. Amphitheater Update – This item was taken earlier**

**4. Equipment - None**

**5. Personnel**

**a. Staff Responsibility Adjustments**

Saalfeld made the motion, seconded by Tonnie, to move Jake Pittman from a Water Technician to a Water Specialist and add Building Maintenance Specialist to Sean O’Brien position. It is further recommended to adjust their salaries due to their added responsibilities as discussed at Executive Committee. Motion carried all members present voting aye.

**b. NRCS Office Consolidation**

Johnson, J., made the motion, seconded by McKnight, to work toward combining the Butler and Colfax NRCS Field Office Assistant staff to one position to reduce costs and consolidate the workload. Motion carried.

**AYE:** Engel, Goldsberry, Hanson, Hilger, Johnson, D., Johnson, J., Lawrence, McKnight, Meduna, Saalfeld, Saeger, Seier, Tonnies, Yosten, Sabatka

**NAY:** Birkel

**ABSENT:** Harders, Olson

**6. Finance**

**a. Approval of Financial Reports – Update Given**

**b. Approval of Managers’ Expenses**

Johnson, J. made the motion, seconded by Saalfeld, to approve Manager Gottschalk’s time and expense sheets as attached to the Executive Committee Minutes. Motion carried on consent agenda.

**c. Accounts Over 90 Days - Update Given**

**d. FY 2026 Budget**

McKnight made the motion, seconded by Engel, to approve the Fiscal Year 2026 budget with total expenditures of \$13,124,670. Motion carried all members present voting aye.

Johnson, J. made the motion, seconded by Saalfeld, that the August LPNNRD Executive Committee Minutes be received and placed on file. Motion carried on consent agenda.

**B. OPERATIONS COMMITTEE REPORT**

**1. UNFINISHED BUSIINESS – None**

**2. WILD NE AND OTHER PROGRAMS – None**

**3. OPERATION AND MAINTENANCE & OTHER ITEMS**

**a. Rehabilitation of Cottonwood 21-A – NRCS & HDR – Update Given**

**b. Wanahoo Basin Investigation for Damage**

Johnson, J., made the motion, seconded by Saalfeld, to go to bid for the repairs to the Wanahoo hiking trail, fishing jetties and pedestrian bridge as designed by Houston Engineering. Motion carried.

**AYE:** Birkel, Engel, Goldsberry, Hanson, Harders, Hilger, Johnson, J., Lawrence, McKnight, Meduna, Olson, Saalfeld, Saeger, Seier, Yosten, Sabatka

**NAY:** Johnson, D.

**ABSTAIN:** Tonnies

**c. Office Generac Generator Warranty & Plan – Update Given**

**d. Grass Drill Revenues – Update Given**

**e. National Guard Camp Fuse Plug Reimbursement to LPSNRD**

Johnson, J. made the motion, seconded by Saalfeld, to reimburse LPSNRD \$14,641.66 for their local share in the repair of the Ashland Guard Camp Fuse Plug after the 2019 Flood. Motion carried on consent agenda.

**4. ROCK AND JETTY – Update Given**

**5. LAKE WANAHOO**

**a. Lake Wanahoo Permit Sales - Update Given**

**b. Lake Wanahoo Camping Revenue – Update Given**

**c. Clint Johannes Education Building Rentals – Update Given**

**d. Wanahoo Property 600' Setback**

**6. INFORMATION & EDUCATION**

**a. Information**

**1. Radio and Digital Ads – Update Given**

**2. Analytics – Update Given**

**3. Summer Newsletter – Update Given**

**b. Education**

**1. Past Events – Update Given**

**2. Upcoming Events – Update Given**

**3. Native Nook – Update Given**

**7. RURAL WATER SYSTEMS**

**a. Colon – Update Given**

**b. Bruno – Update Given**

**c. Operation Budget – Update Given**

**d. Other - None**

Johnson, J. made the motion, seconded by Saalfeld, that the August LPNNRD Operations Committee Minutes be received and placed on file. Motion carried on consent agenda.

**C. WATER COMMITTEE REPORT**

**1. UNFINISHED BUSINESS – NONE**

**2. REGULATORY**

**a. GROUNDWATER MANGEMENT AREA**

**1. Variance Request in Hydrologically Connected Area (Limited Development Area) – Update Given**

**2. Variance Requests in Non-Hydrologically Connected Area (Normal Development Area) – Update Given**

**3. Variance Requests in Restricted Development Areas – Update Given**

**4. Well Permit Program**

**a. Lindsay Manufacturing**

Hilger made the motion, seconded by Birkel, to approve the well permit for Lindsay Manufacturing for the NE¼ SW¼ S17-30-3W, Platte County with the conditions of approval from the Village of Lindsay. Motion carried all members present voting aye.

**b. Public Water Supply Well Permit**

Hilger made the motion, seconded by Saalfeld, to approve the public water supply well permit for Camp Moses-Merrill in the SE¼ S3-17N-5E, Saunders County. Motion carried all members present voting aye. Motion carried all members present voting aye.

**5. UNL Demonstration Fields – Update Given**

**6. Groundwater Management Plan – Update Given**

**7. Special Quantity Subareas – Update Given**

**8. Cost-Share Programs**

Johnson, J. made the motion, seconded by Saalfeld, to pay Allen Svatora \$505.45 and Dan Stevenson \$375 for cost-share on the installation of a RO Unit. Motion carried on consent agenda.

**a. Irrigation Well Sample Kits – Update Given**

**b. Chemigation – Update Given**

**c. Ground Water Quality Sampling – Update Given**

**3. GROUND WATER PROGRAMS**

**a. Decommissioned Well Program**

**1. Well Estimates – Update Given**

**2. Plugged Wells – Update Given**

**b. LOWER PLATTE NORTH NRD GROUND WATER STUDIES**

**1. Phase Area Update**

Johnson, J. made the motion, seconded by Saalfeld, to approve the following flow meter cost-share payments: William Klug - \$4,000; Hilland Valley Farm -\$1,000; Benjamin Klug - \$1,000; Keith Kallweit -\$1,000; Motion carried on consent agenda.

**c. New Monitoring Wells and Equipment – Update Given**

**d. Source Water Protection – Update Given**

**e. GMDA Conference – Update Given**

**4. SURFACE WATER PROGRAM -Update Given**

**a. State Lakes - Update Given**

**5. IRRIGATION DEMONSTRATION – Update Given**

**6. OTHER**

**a. FY 2026 Budget – Update Given**

**b. Comments from the Public – None**

Johnson, J. made the motion, seconded by Saalfeld, that the August LPNNRD Water Committee Minutes be received and placed on file. Motion carried on consent agenda.

**D. PROJECTS COMMITTEE REPORT**

**1. UNFINISHED BUSINESS – NONE**

**2. SWCP**

**a. Application Approvals**

Yosten made the motion, seconded by Seier, to approve listed applications totaling \$190,723.66 for with \$85,723.66 of that amount for cover crops pending state funding allocation. Motion carried all members present voting aye.

**b. SWCP Payments**

Johnson, J. made the motion, seconded by Saalfeld, to approve SWCP payments of \$12,106.02 to JV Acres Partnership for TOT/WASCB and \$13,701.06 to Clifford Prochaska for WASCB. Motion carried on consent agenda.

**c. SWCP Cancellations – None**

**d. Wahoo Creek Cost Share Applications - None**

**3. JOINT WATER MANAGEMENT ADVISORY BOARD – Update Given**

**a. East Fremont/Elkhorn Township Drainage – EMDA HMPG – Update Given**

**b. West Fremont – FEMA BRIC – Update Given**

**c. Rawhide Creek Watershed NRCSA WFPO – Update Given**

**d. North Bend Drainage District – Update Given**

**e. Cotterell Diking and Drainage District**

Johnson, J. made the motion, seconded by Saalfeld, to approve cost-share of 40% up to \$6,000 for purchasing, hauling, and stockpiling concrete near the Cotterell dike for potential future emergency flood reduction purposes. Motion carried on consent agenda.

**4. SHELL CREEK WATERSHED**

**a. Shell Creek Implementation – 319 and NET**

Johnson, J. made the motion, seconded by Saalfeld, to approve cost-share payments for onsite wastewater systems in Platte County to Rick Loseke for \$6,310.63 and Jeff Klug for \$7,364.84. Motion

carried on consent agenda.

**5. WAHOO CREEK WATERSHED**

**a. Wahoo Creek Construction – Update Given**

**b. Dam Site Planning – Update Given**

**1. Design Olsson – This item taken earlier**

**2. Real Estate Olsson & Great Plains Appraisal – This item will be taken at the end of the meeting.**

**3. Funding – NRCS WFPO and NeDNR JEDI – Update Given**

**c. Water Quality – NWQI & 319 – Update Given**

**6. LOWER PLATTE RIVER COODOR ALLIANCE – Update Given**

**7. MORSE BLUFF FLOOD CONTROL PROJECT – Update Given**

**8. LESHARA DRAINAGE IMPROVEMENT – Update Given**

**9. EROSION AND SEDIMENT RULES AND REGULATIONS - None**

**10. HAZARD MITIGATION – Update Given**

**11. OTHER – Update Given**

**a. FY2026 Budget**

Johnson, J. made the motion, seconded by Saalfeld, that the August LPNNRD Projects Committee Minutes be received and placed on file. Motion carried on consent agenda.

**7. ADDITIONAL ACTION ITEMS - NONE**

**8. BILLS TO BE APPROVED**

Olson made the motion, seconded by Tonnies, that all bills be approved, and warrants be drawn in payment of the same. Motion carried all members present voting aye.

**9. CONSENT AGENDA ADOPTION**

Johnson J. made the motion, seconded by Saalfeld, to approve the August Consent. Motion carried all members present voting aye.

**Item 6.D.5.b.2. - Real Estate – Olsson and Great Plains Appraisal was taken at this time.**

Sabatka made the motion, seconded by Saalfeld, to go into Executive Session at 9:09 p.m. for the purposes of discussing Upper Wahoo Creek Watershed land rights and authorize the following staff to stay: Danielle Allen, Olsson; Legal Counsel Lausterer; Staff: Gottschalk, Elliott, Breunig and Chapman. Motion carried all members present voting aye.

Sabatka made the motion, seconded by Birkel, to go out of executive session at 10:18 p.m. Motion carried all members present voting aye.

**10. COMMENTS FROM DIRECTORS/GUESTS**

**11. MEETING ESTABLISHMENT AND ADJOURNMENT**

The September Board of Directors Meeting will be held on Monday, September 8, 2025, 6:00 p.m. Meeting adjourned at 10:20 p.m.

Discussion on all agenda items that have "Update Given" can be found in corresponding Committee Minutes.

The undersigned, the duly elected and acting Secretary of the Lower Platte North Natural Resources District (the "District"), hereby certifies that the foregoing is a true and correct copy of the minutes of the Meeting of the Board of Directors of the District held on August 11, 2025, that all of the matters and subjects discussed at the meeting were contained in the agenda for the meeting, kept continually current and readily available for public inspection at the principal office of the District during normal business hours, and except for items of emergency nature, the agenda was not altered later than twenty-four (24) hours before the scheduled commencement of the meeting; that at least one copy of all reproducible material discussed at the meeting was available at the meeting for examination and copying by members of the public; that the above minutes were in written form and available for public inspection within ten working days or prior to the next convened meeting, whichever occurred earlier; and, that reasonable efforts were made to provide all news media requesting notification of the meeting and of the time and place of said meeting and the subjects to be discussed at said meeting.

---

Bill Saeger, Secretary

**NARD Fall Conference  
September 28-30, 2025**

<b>Name</b>	<b>Registration</b>	<b>Sunday</b>	<b>Monday</b>	<b>Confirmation #</b>
Daryl Andersen	Full Registration	x	x	
Adam Brockmann	Full Registration	x	x	
Jill Breunig	Full Registration	X	X	
Ryan Champan	Full Registration	x	x	
Jake Pittman	Full Registration	X	X	
Lacey Sabatka	?			
Jake Maslonka	Full Registration		X	
Kaitlyn Bargaen	Full Registration		x	
Sean O'Brien	Full Registration	X	X	
Eric Gottschalk	Full Registration		X	
Mark Seier	Full Registration	x	x	
Dave Saalfeld	Full Registration	x	x	
Bob Hilger	Full Registration	x	x	
Jerry Johnson	Full Registration	X	X	
Thomas McKnight (king)	Full Registration	x	x	

If you are not going to use your room on Sunday night it is your responsibility to cancel it. If you are staying at the Hampton Inn the number is 308-234-3400. The Hampton has a 24 hour cancellation policy. All rooms are setup for Direct Bill. Please let me know if you have any questions. Thanks - Jill







## PROPOSAL OF INSURANCE

Lower Platte North NRD

8/26/2025



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# WE'RE FNIC

It's not just a new name and brand. It's the transformation of seventeen individual insurance agencies uniting their brands, experiences, stories, and futures into ONE.

As a subsidiary of the Lauritzen Corporation, First Insurance Group, LLC, built its reputation in local communities across Nebraska, Iowa, South Dakota, and Illinois. Together, our decentralized operating model of individual agencies has performed exceptionally, with each agency developing and nurturing meaningful client and carrier partnerships. However, it was clear that the more we worked together and shared resources, the better we could serve our partners.

Unifying our brand and organization truly makes that a reality. This new identity is a meaningful and decisive step that will lead to greater efficiencies, improved access to our teams of talented people, and strengthened support of the communities in which we work.

Even as individual agencies, our core values were always aligned. Our name has changed, but those values haven't. Our focus is the support our clients and communities through relationships based on our guiding principles, including trust, integrity, and communication.

First National Bank of Omaha, FNBO, also affiliated with the Lauritzen Corporation, has long been a supportive and collaborative partner. Our new name and logo proudly highlight that relationship in an exciting way and signal our joint stability, breadth of knowledge, and depth of resources. The Circle One icon represents all that we share in common: our people, values, family ownership, and our commitment to serving our clients.

## WHAT WE DO

FNIC is a regional market leader for Insurance & Financial Benefits. Our clients and company partners recognize our innovation and the lengths we go to understand their operations and risk initiatives. The results of that are the long-lasting relationships we've built over time.

Our team of over 250 employees, supporting multiple insurance and risk management areas, truly operates as an extension of your business. We see and comprehend the details and offer solutions for:



COMMERCIAL  
INSURANCE



EMPLOYEE  
BENEFITS



SURETY  
BONDS



FARM & CROP  
INSURANCE



PERSONAL  
INSURANCE



FNIC is more than an insurance agency; we're a true insurance partner capable of delivering relevant insurance and risk management advice.

# PRODUCTS & SERVICES

## EMPLOYEE BENEFITS

- Group Medical Plans
  - Private Exchange
  - Health Reimbursement Accounts
  - Health Savings Accounts
  - Fully Insured
  - Self-Funding
- Basic & Supplemental Life Insurance
- Voluntary Benefits
- Short & Long-Term Disability
- Plan Document & SPD Development
- Employee Communications & Education
- Web-Based HR Portal
- Consulting Services
- Owner-Based Planning
- Executive Benefits

## PERSONAL INSURANCE

- Homes & Condominiums
- Farms & Ranches
- Automobile & Recreation Vehicles
- Antique Automobiles
- Art, Furs, Collections, Jewelry
- Watercraft
- Umbrella & Personal Excess Liability
- Flood
- Earthquake

## COMMERCIAL INSURANCE

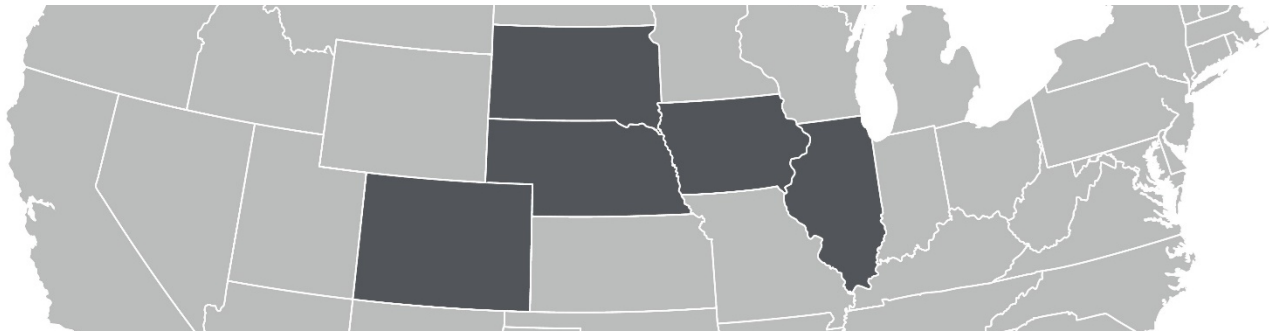
- Property
  - Business Income & Extra Expense
  - Irrigation Systems
  - Livestock Mortality
- Auto
- Farm & Ranch Insurance
- Crop Insurance
- Workers' Compensation
- Domestic/Farm Workers Employers' Liability
- General Liability
- Umbrella & Excess Liability
- Professional Liability
- Directors & Officers Liability
- Employment Practices Liability
- Cyber Liability
- Pollution Liability
- Captive & Insurance Management
- Risk Management Consulting
- Risk Analysis & Risk Transfer Review
- Loss Control Services

## SURETY BONDS

- Bid Bonds
- Performance Bonds
- Miscellaneous Bonds
- Financial Analysis
- Financial Presentation to Surety
- Contractor Prequalification Assistance
- Consulting Services
- Banker, Attorney & CPA Referral

# LOCATIONS

Our reach extends across Nebraska, Iowa, South Dakota, Illinois, and Colorado with office locations and professionals where you need them to be.



## NEBRASKA

124 W 3rd St  
Alliance, NE 69301

1413 W 6th St  
Chadron, NE 69337

620 W Main St  
Alma, NE 68920

515 Minor Ave  
Bertrand, NE 68927

211 Commercial St  
Loomis, NE 68958

2205 N 6th St  
Beatrice, NE 68310

1529 Lincoln St  
Blair, NE 68008

303 S 13th St  
Tekamah, NE 68061

610 N Main St  
Fremont, NE 68025

102 W Main St  
Bloomfield, NE 68718

25414 Park Ave  
Niobrara, NE 68760

201 N Dewey St  
North Platte, NE 69101

397 N 4th St  
David City, NE 68632

810 Allen Drive  
Grand Island, NE 68803

422 N Hastings Ave, Suite 107  
Hastings, NE 68901

601 R Street, Suite 150  
Lincoln, NE 68501

700 Lincoln Ave  
York, NE 68467

## IOWA

201 S Division St  
Audubon, IA 50025

105 N Main St  
Kimballton, IA 51543

120 N Elm St  
Avoca, IA 51521

152 N Elm St  
Avoca, IA 51521

1209 Broadway  
Denison, IA 51442

2010 23rd St  
Harlan, IA 51537

425 East St  
Shelby, IA 51570

407 Howard St  
Emerson, IA 51533

1609 N Broadway  
Red Oak, IA 51566

1015 South Grand  
Spencer, IA 51301

327 9th St  
Sibley, IA 51249

868 Main St  
Ocheyedan, IA 51354

## SOUTH DAKOTA

210 N Lawler St  
Mitchell, SD 57301

505 W 7th St  
Woonsocket, SD 57385

## ILLINOIS

11000 E Rt 34, Suite 1  
Plano, IL 60545

613 E Church St  
Sandwich, IL 60548

4520 W Algonquin Rd  
Lake in the Hills, IL 60156

Rockford . DeKalb . Geneva

## COLORADO

750 N Lincoln Ave  
Loveland, CO 80537

## FNIC HEADQUARTERS

14010 FNB Parkway, Suite 300  
Omaha, NE 68154

# YOUR TEAM

We value your business, but most importantly, we will value building a relationship based on trust with you and your staff.

## AGENT

### **Matt Greenway**

Sales Executive

P: (402) 861-7143

*Matt.Greenway@fnicgroup.com*

## ACCOUNT MANAGER

### **April Chaney, CRIS**

Sr. Account Manager, Commercial Insurance

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*April.Chaney@fnicgroup.com*

## CLAIMS REPRESENTATIVE

### **Robyn Meyers, AINS, AAI**

Sr. Claims Specialist

P: (402) 861-7052

*Robyn.Meyers@fnicgroup.com*

# NAMED INSUREDS & LOCATION SCHEDULE

## NAMED INSUREDS

Lower Platte North NRD

## MAILING ADDRESS

P O Box 126  
Wahoo, NE 68066

## LOCATION SCHEDULE

LOC	BLDG	ADDRESS	DESCRIPTION
1	1	2221 County Road 27, Prague, NE 68050	Storage
2	1	1700 County Road N, Wahoo, NE 68066	6 Primitive Cabins
2	2	1700 County Road N, Wahoo, NE 68066	Steel Bridge
2	3	1700 County Road N, Wahoo, NE 68066	Astro Building
3	1	265 Cherry Street, Colon, NE 68018	Well House
4	1	1655 County Road 16, Wahoo, NE 68066	Education Center
5	1	1616 County Road 17, Wahoo, NE 68066	Office
5	2	1616 County Road 17, Wahoo, NE 68066	Meter House
5	3	1616 County Road 17, Wahoo, NE 68066	Wanahoo Storage
5	4	1616 County Road 17, Wahoo, NE 68066	Vehicle Storage Building
5	5	1616 County Road 17, Wahoo, NE 68066	Generator

# PROPERTY

COMPANY <b>National Union Fire Insurance Co.                  Of Pittsburgh, PA</b>	POLICY NUMBER <b>FUTURE GPNUPF002963904</b>	POLICY TERM <b>10/1/2025 to 10/1/2026</b>
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## NAMED INSUREDS

Lower Platte North NRD

## COVERAGES

BLANKET LIMITS								
BNKT	BLDG	OCCUPANCY	SUBJECT	AMOUNT	VALUATION	COINS	CAUSE OF LOSS	DEDUCTIBLE
1			Blanket Building & Business Personal Property	\$6,589,758	R	100%	Special	\$1,000

LOCATION #1: 2221 COUNTY ROAD 27, PRAGUE, NE 68050								
BNKT	BLDG	OCCUPANCY	SUBJECT	AMOUNT	VALUATION	COINS	CAUSE OF LOSS	DEDUCTIBLE
1	1	Storage	Building	\$26,334	R	100%	Special	\$1,000
1	1	Storage	Business Personal Property	\$15,442	R	100%	Special	\$1,000

LOCATION #2: 1700 COUNTY ROAD N, WAHOO, NE 68066								
BNKT	BLDG	OCCUPANCY	SUBJECT	AMOUNT	VALUATION	COINS	CAUSE OF LOSS	DEDUCTIBLE
1	1	6 Primitive Cabins	Building	\$87,740	R	100%	Special	\$1,000
1	2	Steel Bridge	Building	\$79,002	R	100%	Special	\$1,000
	3	Astro Building	Building	\$60,000	R	100%	Special	\$1,000

# PROPERTY CONTINUED

## LOCATION #3: 265 CHERRY STREET, COLON, NE 68018

BNKT	BLDG	OCCUPANCY	SUBJECT	AMOUNT	VALUATION	COINS	CAUSE OF LOSS	DEDUCTIBLE
1	1	Well House	Building	\$13,826	R	100%	Special	\$1,000

## LOCATION #4: 1655 COUNTY ROAD 16, WAHOO, NE 68066

BNKT	BLDG	OCCUPANCY	SUBJECT	AMOUNT	VALUATION	COINS	CAUSE OF LOSS	DEDUCTIBLE
1	1	Education Center	Building	\$409,450	R	100%	Special	\$1,000
1	1	Education Center	Business Personal Property	\$10,816	R	100%	Special	\$1,000

## LOCATION #5: 1616 COUNTY ROAD 17, WAHOO, NE 68066

BNKT	BLDG	OCCUPANCY	SUBJECT	AMOUNT	VALUATION	COINS	CAUSE OF LOSS	DEDUCTIBLE
1	1	Office	Business Personal Property	\$397,764	R	100%	Special	\$1,000
1	1	Office	Building	\$4,888,000	R	100%	Special	\$1,000
1	2	Meter House	Building	\$85,584	R	100%	Special	\$1,000
1	2	Meter House	Business Personal Property	\$5,200	R	100%	Special	\$1,000
1	3	Wanahoo Storage	Building	2000,000	R	100%	Special	\$1,000
1	3	Wanahoo Storage	Business Personal Property	\$5,200	R	100%	Special	\$1,000
1	4	Vehicle Storage Building	Building	\$225,000	R	100%	Special	\$1,000
1	4	Vehicle Storage Building	Business Personal Property	\$5,200	R	100%	Special	\$1,000
1	5	Generator	Building	\$70,000	R	100%	Specil	\$1,000

# PROPERTY CONTINUED

VALUATION DEFINITIONS		
(A) Actual Cash Value	(G) Guaranteed Replacement Cost	(R) Replacement Cost
(B) Business Income Changes	(I) Invoice Cost	(S) Stated Amount
(C) Agreed Amount (Waived Coinsurance) and Replacement Cost	(L) Actual Loss Sustained	(T) Total Insured Value
(D) Reproduction	(M) Market Value	(U) Full Value Replacement Cost
(E) Agreed Amount (Waived Coinsurance)	(O) Other	(V) Agreed Value
(F) Functional Replacement Cost	(P) Selling Price	(X) Extended Value Replacement Cost

*Due to rising construction costs, we encourage you to review your property insurance limits to ensure they accurately reflect current values. We strongly suggest consulting with a local general contractor or obtaining a formal property appraisal to determine appropriate replacement costs. It is the policyholder's responsibility to select adequate property insurance coverage. An accurate, up-to-date building appraisal can help you set appropriate insurance limits and reduce the risk of being underinsured. Please note that Replacement Cost Estimators (RCEs) are third-party tools designed to provide estimated replacement costs. However, these estimates are not guaranteed, as actual replacement costs can only be determined when a loss occurs, and the structure is rebuilt.*

## ADDITIONAL COVERAGES

DESCRIPTION	LIMIT 1	LIMIT 2	DEDUCTIBLE
Water Contamination Notification Expense	\$25,000	\$0	
Claims Expense	\$20,000		
Building Glass Tenant			
Damage to Building from Theft	\$100,000		
Non-Owned Detached Trailers	\$50,020		
Spoilage Due to Off Premises Electrical Service Interruption	\$50,000		
Lock Replacement	\$25,000	\$0	
Arson, Theft or Vandalism Information Reward	\$25,000		\$0
Preservation of Property			
Pollution Remediation Expenses	\$100,000	\$25,000	
Personal Effects	\$25,000		
Newly Acquired Property Business Personal Property	\$500,000		
Newly Acquired Property Buildings	\$1,000,000		
Limited Fungus, Wet Rot & Bacteria	\$25,000		
Fire Eqtinguishing Recharge Costs			\$0
Commandeered Property			
Debris Removal	\$100,000		
Deductible Waiver			
Extra Expense per Occurrence	\$250,000		

# PROPERTY CONTINUED

DESCRIPTION	LIMIT 1	LIMIT 2	DEDUCTIBLE
Loss of Business Income per Occurrence	\$250,000		
Valuable Papers	\$50,000		
Trees, Shrubs, Plants & Lawns	\$25,000		
Software	\$500,000		
Outdoor Property Increased Limit	\$934,072		
In Transit or Off Premises	\$100,000		
Fine Arts (With certified Appraisal)	\$50,000		
Crisis Incident Response Coverage-Munic & Spc Districts	\$25,000		\$0
Fine Arts w/o Certified Appraisal (\$1,500 per item)	\$25,000		
Accounts Receivable	\$50,000		

## FORMS AND ENDORSEMENTS

Amendment of coverage underground piping
Cyber Incident Exclusion
Green Coverages Endorsement
Equipment Breakdown
Ordinance Coverage Amendment

## ADDITIONAL INTERESTS

NAME	INTEREST
Wells Fargo Financial Leasing, Inc c/o Lease Insurance Services P O Box 979284 Miami FL 33197	Loss Payee 1616 County Road 17 Wahoo, NE 68066, Building #1

# CRIME

COMPANY National Union Fire Insurance Co. Of Pittsburgh, PA	POLICY NUMBER FUTURE GPNUPF002963904	POLICY TERM 10/1/2025 to 10/1/2026
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## COVERAGES

LOCATION #0: , ,		
DESCRIPTION	LIMIT	DEDUCTIBLE
Employee Dishonesty	\$50,000	\$250
Forgery or Alteration	\$50,000	\$250
Theft of Money and Securities - Inside Premises	\$50,000	\$250
Robbery or Burglary of Other Property - Inside the Premises	\$5,000	\$250
Theft of Money and Securities - Outside Premises	\$50,000	\$250
Computer Fraud	\$50,000	\$250
Funds Transfer Fraud	\$50,000	\$250
Money Orders and Counterfeit Currency	\$25,000	\$250
Fraudulent Impersonation	\$25,000	\$250

## ADDITIONAL COVERAGES

DESCRIPTION	LIMIT	DEDUCTIBLE
INVESTIGATIVE COSTS EXPENSE COVERAGE	\$10,000	\$0

## FORMS AND ENDORSEMENTS

NAME
EXCLUDE DESIGNATED PERSONS OR CLASSES OF PERSONS AS EMPLOYEES
AMENDATORY ENDORSEMENT
NEBRASKA CHANGES – ACTUAL CASH VALUE

# INLAND MARINE

COMPANY <b>National Union Fire Insurance Co.                  Of Pittsburgh, PA</b>	POLICY NUMBER <b>FUTURE GPNUPF002963904</b>	POLICY TERM <b>10/1/2025 to 10/1/2026</b>
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## COVERAGES

DESCRIPTION	VALUE
Valuation	Actual Cash Value
Deductible	\$250

## UNSCHEDULED EQUIPMENT

DESCRIPTION	MAXIMUM ITEM	INSURANCE AMOUNT
Blanket Tools & Equipment	\$10,000	\$503,306

## SCHEDULED EQUIPMENT

ITEM	DESCRIPTION	ID/SERIAL NUMBER	INSURANCE AMOUNT
2	GPS Survey Equipment	35283 & 442-1358	\$25,000
3	Bobcat T770 Bobcat T770 w/ Attachmtd	AN8T12102	\$72,000
5	Great Plains Drill	GP2685XX	\$31,000
7	Great Plains Ed Wheel No Till	1006NT	\$18,000
9	2016 John Deere 825I XUV 2016 John Deere 825I XUV	1M0825GELGM117	\$13,000
10	2018 Polaris Ranger UTV 2018 Polaris Ranger UTV	3NSRMA576JE360923	\$10,000
11	2021 Bobcat CT4045 Tractor w/Loader	B4V201192	\$27,319
14	2023 Kawasaki 4010 FE Mule	JK1AFCZ15PB501328	\$19,086
15	John Deere 1550 John Deere 1550 Mower w/ Side Deck	1TC1550DKPS10041	\$25,718
16	2023 Bobcat T770 2023 Bobcat T770 Track Loader w/ Bucket	AT6340841	\$76,871
17	1986 John Deere 1050 1986 John Deere 1050 Tractor	CH1050S015299	\$12,000
18	Great Plaines Great Plains No-Till Grass Drill	1005NG-1	\$12,000
19	2024 John Deere 6155 2024 John Deere 6155 Tractor with Duels	1L06155MTPG211082	\$170,132
20	2022 John Deere FC15R 2022 John Deere FC15R Flex Wing Rotary C	1P0FC3RGCNF001217	\$30,955

# EQUIPMENT FLOATER CONTINUED

ITEM	DESCRIPTION	ID/SERIAL NUMBER	INSURANCE AMOUNT
21	2023 Bobcat E60 R2 2023 Bobcat E60 R2 Excavator with Attach	B4GR16417	\$100,108
22	2023 Bobcat UW56 2023 Bobcat UW56 w/ Attachments	B4RC15304	\$84,183
23	2018 Sun Tracker Pontoon Pontoon Boat	BUJ58446K718	\$18,500
24	2023 John Deere JD 72" Diesel Fron Mower	TC1445D80442	\$10,000
25	JLG Industries ET500J JLG Industries ET500J Boom Lift	0030018342	\$58,000
27	EM950.1100 Portable Probe EM950.1100 Portable Probe Velocity &		\$12,310
28	2023 John Deere Z950M 2023 John Deere Z950M ZTrak w/ Accessory	1TC950MCHPT123751	\$14,247
29	John Deere Z950M John Deere Z950M ZTrak w/ Assesories	1TC950MCESS141781	\$14,250
30	John Deere Z950M John Deere Z950M ZTrak w Assessories	1TC950MCCRS141047	\$14,250

## ADDITIONAL COVERAGES

DESCRIPTION	LIMIT	DEDUCTIBLE
Watercraft extension	\$25,000	
Rented/Borrowed Equipment	\$100,000	\$1,000
Debris Removal	\$15,000	
Tools & Equipm Owned by Employees	\$25,000	\$0
Rental Reimbursement for Scheduled Equipment		\$72
Unmanned Aircraft (Drones)	\$25,000	\$500
Fire Department Charge	\$1,000	\$0
Fire Extinguishing Recharge Cost		\$0
Newly Acquired Scheduled Equip		\$1,000
Deductible Waiver		

## ADDITIONAL INTERESTS

NAME	INTEREST
Nebraska Environmental Trust	Loss Payee and Additional Insured

# EQUIPMENT FLOATER CONTINUED

## FORMS AND ENDORSEMENTS

NAME
Cyber Incident Exclusion
Drone-SDRC2V1 SKYD102-S4ND \$1,500

# BUSINESS AUTO

COMPANY	POLICY NUMBER	POLICY TERM
National Union Fire Insurance Co. Of Pittsburgh, PA	FUTURE GPNUPF002963904	10/1/2025 to 10/1/2026

## NAMED INSUREDS

Lower Platte North NRD

## COVERAGES

DESCRIPTION	AUTO SYMBOL	LIMITS & DEDUCTIBLES
Combined Single Limit	1	\$1,000,000
Medical Payments	7	\$5,000
Uninsured Motorists - Each Accident	6	\$1,000,000
Underinsured Motorists - Combined Single Limit	6	\$1,000,000
Comprehensive	2, 8	See Vehicle Schedule
Collision	2, 8	See Vehicle Schedule
Hired / Borrowed Auto Liability - <b>States: NE, - If Any Basis: Yes</b>	Included	\$1,000,000
Non-owned Auto Liability - <b>States: NE,</b>	Included	\$1,000,000

### SYMBOL DEFINITIONS

(1) Any Auto	(4) Owned Autos Other Than Private Passenger	(7) Autos Specified on Schedule
(2) All Owned Autos	(5) All Owned Autos Requiring No-Fault Coverage	(8) Hired Autos
(3) Owned Private Passenger Autos	(6) Owned Autos Subject to Compulsory U.M. Law	(9) Non-Owned Autos

## DRIVERS

NAME	DATE OF BIRTH	LICENSE NUMBER	STATE	DOC	EXCLUDED
Abbot, Sydney	4/27/1994	H13342052	NE	No	
Andersen, Daryl	9/13/1958	G32001497	NE	No	
Breunig, Jill	7/1/1970	G06004100	NE	No	
Brueggemann, Will	9/26/1994	H13458676	NE	No	
Chapman, Ryan	11/25/1981	H12395339	NE	No	

# BUSINESS AUTO CONTINUED

NAME	DATE OF BIRTH	LICENSE NUMBER	STATE	DOC	EXCLUDED
Elliott, Sean	12/11/1979	H12358301	NE	No	
Gottschalk, Eric	3/24/1965	G06015054	NE	No	
Heimann, Robert	4/16/1961	G02032371	NE	No	
Moore, David	4/25/1970	G81000428	NE	No	
Mullen, Richard	6/9/1948	G01233263	NE	No	
Oaklund, Russell	7/13/1957	G38005115	NE	No	
Poole, Christopher	1/11/1976	H12234461	NE	No	
Rezac, Karen	3/22/1964	G06011028	NE	No	
Sabatka, Lacey	4/6/1989	H12995455	NE	No	
Bargen, Kaithlyn	7/20/2001	H13844919	NE	No	
Beethe, Brandon	10/9/1988	H12963364	NE	No	
Euse, Carson	3/29/1992	H13202492	NE	No	
Speichinger, Jonathan	2/8/1980	H12321405	NE	No	
Stover, Jacob	10/25/2000	H13822615	NE	No	

## ADDITIONAL COVERAGES

DESCRIPTION	LIMIT 1	LIMIT 2	DEDUCTIBLE
EHA Hired PD Coll Ded			\$250
EHA Hired PD Comp Ded			\$100

## FORMS AND ENDORSEMENTS

NAME
Auto Liability Extension Endorsement
Auto Physical Damage Extension Endorsement
Commandeered Auto Definition Endorsment
Pollution Liability - Broadened Coverage for Covered Autos - Business
Professional Services not Covered
Claims free Deductible Waiver Auto PD

# VEHICLE SCHEDULE

VEH	INSD #	GARAGING LOCATION	YEAR	MAKE	MODEL	VIN	LIAB	MED PAY	PIP	UM/ UIM	COMP DED	COLL DED	VAL/ AMOUNT
1		Wahoo, NE	2001	Tandem Axle	Car Trailer	1S9FP20241W3342	✓				\$1,000	\$1,000	Actual Cash Value \$5,000
2		Wahoo, NE	2001	Dodge	W3500	386MF36621M268547	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$9,000
3		Wahoo, NE	2008	Dodge	Ram 2500	3D7KS26A48G152083	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$19,500
4		Wahoo, NE	2005	Dodge	Ram 1500	1D7HU16N95J616559	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$8,000
5		Wahoo, NE	2011	Carry-On Utility	Trailer	4YMUL0810BM023034	✓				\$1,000	\$1,000	Actual Cash Value \$3,500
6		Wahoo, NE	2013	H & H Utility	Trailer	533US121XDC223378	✓				\$1,000	\$1,000	Actual Cash Value \$5,000
8		Wahoo, NE	2014	Ford	F150	1FTFX1EF2EKD82911	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$18,500
9		Wahoo, NE	2017	Ford	Fusion	3FA6P0G72HR113622	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$14,500
9		Wahoo, NE	2016	Carry-On Utility	Trailer	4YMBU1214HM000240	✓				\$1,000	\$1,000	Actual Cash

## VEHICLE SCHEDULE CONTINUED

VEH	INSD #	GARAGING LOCATION	YEAR	MAKE	MODEL	VIN	LIAB	MED PAY	PIP	UM/ UIM	COMP DED	COLL DED	VAL/ AMOUNT
													Value \$1,390
10		Wahoo, NE	2017	Chevy	Silverado 1500	1GCVKNEC7HZ315255	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$28,318
11		Wahoo, NE	2018	Low Pro Load	Trailer	4ZEDT1631J1156023	✓				\$1,000	\$1,000	Actual Cash Value \$8,700
12		Wahoo, NE	2013	Alum LW	Utility Trailer	1YGUS1012DB095571	✓				\$1,000	\$1,000	Actual Cash Value \$1,700
13		Wahoo, NE	2018	Chevy	Silverado 1500	1GCVKNEC6JZ316502	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$27,074
14		Wahoo, NE	2019	Chevy	Silverado 1500	1GCUYAEF1KZ314901	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$30,658
15		Wahoo, NE	2020	Chevy	Silverado 1500	1GC2YNE76LF298379	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$30,730
16		Wahoo, NE	2022	Chevy	Colorado	1GCGTBEN4N1126966	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$28,300
17		Wahoo, NE	2024	Ford	F350	1FD8X3HN5REC08953	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$56,009

## VEHICLE SCHEDULE CONTINUED

VEH	INSD #	GARAGING LOCATION	YEAR	MAKE	MODEL	VIN	LIAB	MED PAY	PIP	UM/ UIM	COMP DED	COLL DED	VAL/ AMOUNT
18		Wahoo, NE	2023	Chevy	Colorado	1GCPTBEK0P1198952	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$35,402
19		Wahoo, NE	2024	Diamond	Boat Trailer	46UFU252XR1288970	✓				\$1,000	\$1,000	Actual Cash Value \$32,766
20		Wahoo, NE	2025	Ford	F150	1FTFX1L83SKD07988	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$42,341
21		Wahoo, NE	2018	Sun Tracker	Boat Trailer	4TM13RN29JB002344	✓	✓		✓	\$1,000	\$1,000	Actual Cash Value \$
22		Wahoo, NE	2025	Diamond	C Trailer	46UDD142XS1295734	✓				\$1,000	\$1,000	Actual Cash Value \$25,057

# GENERAL LIABILITY

COMPANY <b>National Union Fire Insurance Co.                  Of Pittsburgh, PA</b>	POLICY NUMBER <b>FUTURE GPNUPF002963904</b>	POLICY TERM <b>10/1/2025 to 10/1/2026</b>
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## COVERAGES

DESCRIPTION	LIMITS
General Aggregate	\$3,000,000
Products & Completed Operations Aggregate	\$3,000,000
Personal & Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000
Damage to Rented Premises	\$1,000,000
Medical Expense (Any One Person)	\$10,000

## DAM, RESERVOIR OR LEVEE FAILURE COVERAGE

DAM NAME
TROUBLE CREEK DAM
CLEAR CREEK 22-A
BELLWOOD 2-C
DUCK CREEK 2
COTTONWOOD CREEK 7-A
COTTONWOOD 6-B
BELLWOOD 4-L
LAKE WANAHOO DAM
SAND SITE 24

## ADDITIONAL COVERAGES

DESCRIPTION	LIMIT	DEDUCTIBLE
Watercraft Liability		
Unmanned Aircraft (Drones) Included		
Failure to Supply Water		
Pollution Liability		
Defense Costs in Addition to Limits		
Contractual Liability		
Damage to Property of Persons Receiving Services		\$100
Good Samaritan Liability		

# GENERAL LIABILITY CONTINUED

## FORMS AND ENDORSEMENTS

NAME
Access or Disclosure of Confidential Data Exclusion
Specific Operations Exclusion-Schools
Total Exclusion-Perfluoroalkyl and Polyfluoroalkyl Substance(PFAS)
Water or Wastewater Professional Activity Liability Endorsement
Total Exclusion PFAS
Exclusion Violation of Law Addressing data Privacy
Exclusion Cyber Incident

## ADDITIONAL INTERESTS

NAME	INTEREST
Nebraska Environmental Trust	Loss Payee and Additional Insured

# PUBLIC OFFICIALS AND MANAGEMENT LIABILITY

COMPANY <b>National Union Fire Insurance Co. Of Pittsburgh, PA</b>	POLICY NUMBER <b>FUTURE GPNUPF002963904</b>	POLICY TERM <b>10/1/2025 to 10/1/2026</b>
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## LIMITS

DESCRIPTION	LIMIT
Coverage A Limit - Each Wrongful Act or Offense	\$1,000,000
Coverage B Each Action	\$5,000
Coverage A & B Aggregate	\$3,000,000

## ADDITIONAL COVERAGES

DESCRIPTION
Defense Expense in Additiona to Limit
Wrongful Acts
Employment Practices
Employee Benefits

## FORMS AND ENDORSEMENTS

NAME
AMENDMENT OF PROFESSIONAL LIABILITY EXCL
TOTAL EXCLUSION – PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS)
AMENDATORY ENDORSEMENT EEOC ADMINISTRATIVE HEARINGS COVERAGE
AMENDATORY ENDORSEMENT INJUNCTIVE OR DECLARATORY RELIEF
Exclusion Confidential Information
Exclusion Electronic Information Security Event

# WORKER'S COMPENSATION

COMPANY <b>RAS</b>	POLICY NUMBER <b>Pending</b>	POLICY TERM <b>10/1/2025 to 10/1/2026</b>
-----------------------	---------------------------------	----------------------------------------------

## NAMED INSUREDS

Lower Platte North NRD

## LOCATION SCHEDULE

LOC	ADDRESS
01	511 Commercial Park Rd, Wahoo, NE 68066

## COVERAGES

DESCRIPTION	LIMIT
Employers Liability: Each Accident	\$500,000
Employers Liability: Disease – Policy Limit	\$500,000
Employers Liability: Disease – Each Employee	\$500,000
Workers Compensation: Statutory Benefit	Included
Part 1: Workers Compensation States	NE

## CLASS CODES

STATE	LOC	CODE	DESCRIPTION	ESTIMATED ANNUAL PAYROLL
NE	01	0042	Landscape Gardening & Drivers	\$220,365
NE	01	8601	Air Flow Testing And Balancing Exclusively	\$747,207
NE	01	8603	Architectural Or Engineering Firm - Clerical	\$372,965
NE	01	8742	Salespersons, Collectors Or Messengers--Outside	\$0
NE	01	8810	Clerical Office Noc	\$16,903
NE	01	9102	Lawn Maintenance - Commercial Or Domestic & Drivers	\$107,210

## PREMIUM CALCULATIONS

STATE OF NEBRASKA	
DESCRIPTION	FACTOR
Experience or Merit Modification	1.55

# WORKER'S COMPENSATION CONTINUED

## INCLUDED / EXCLUDED INDIVIDUALS

NAME	TITLE	INCLUDED	EXCLUDED
Board Of Directors Included			

## FORMS AND ENDORSEMENTS

NAME
Premium Discount Endorsement
Ne Exp Rating MOD
Premium Discount
Catastrophe (Other Than Certified Acts of Terrorism) Premium
Terrorism Risk Insurance Prg ReAuthorization Act Disclosure
90-Day Reporting Requirement-Notification of Change in Ownership Endorsement

# COMMERCIAL EXCESS

COMPANY <b>National Union Fire Insurance Co. Of Pittsburgh, PA</b>	POLICY NUMBER <b>FUTURE GPNUPF002963904</b>	POLICY TERM <b>10/1/2025 to 10/1/2026</b>
---------------------------------------------------------------------------	------------------------------------------------	----------------------------------------------

## COVERAGES

DESCRIPTION	LIMIT
Each Occurrence	\$4,000,000
Annual Aggreg	\$4,000,000
Retained Limit	\$0

## UNDERLYING COVERAGES

DESCRIPTION	CARRIER / POLICY #	POLICY PERIOD	LIMIT
Automobile Liability Combined Single Limit	National Union Fire Insurance Co. Of Pittsburgh, PA / FUTURE GPNUPF002963904	10/1/25 to 10/1/26	\$1,000,000
General Liability Each Occurrence General Aggregate Product & Completed Ops Agg Personal & Advertising Injury Damage to Rented Premises Medical Expenses	National Union Fire Insurance Co. Of Pittsburgh, PA / FUTURE GPNUPF002963904	10/1/25 to 10/1/26	\$1,000,000 \$3,000,000 \$3,000,000 \$1,000,000 \$1,000,000 \$10,000
Employers Liability Each Accident Disease Each Employee Disease Policy Limit	National Union Fire Insurance Co. Of Pittsburgh, PA / FUTURE WC024501355	10/1/25 to 10/1/26	\$500,000 \$500,000 \$500,000
Public Officials and Management Liability Poml	National Union Fire Insurance Co. Of Pittsburgh, PA / FUTURE GPNUPF002963904	10/1/25 to 10/1/26	\$3,000,000
Public Officials and Management Liability Poml	National Union Fire Insurance Co. Of Pittsburgh, PA / FUTURE GPNUPF002963904	10/1/25 to 10/1/26	\$1,000,000

# COMMERCIAL UMBRELLA CONTINUED

## ADDITIONAL COVERAGES

DESCRIPTION	LIMIT
Unmanned Aircraft Liability coverage	\$1,000,000
Products-Completed Operations Aggregate Limit of Insurance	\$4,000,000
Coverage for Designated Dams, Levees, dikes or Reservoirs	
Trouble Creek Dam	
Clear Creek 22-A	
Bellwood 2-C	
Duck Creek 2	
Cottonwood Creek 7-A	
Cottonwood 6-B	
Bellwood 4-L	
Sand Creek 24	

## FORMS AND ENDORSEMENTS

NAME
Erisa Exclusion
Pollution Liability Exclusion - Glatfelter Public Practice
Sublimited Coverages Endorsement
Products- Completed Operations Aggregate Limit
Cap on Losses from Certified Acts of Terrorism

# CYBER LIABILITY

COMPANY  
CFC Underwriting Limited

POLICY NUMBER  
FUTURE ESN0040083379

POLICY TERM  
10/1/2025 to 10/1/2026

## NAMED INSUREDS

Lower Platte North NRD

## LOCATION SCHEDULE

LOC	BLDG	ADDRESS	DESCRIPTION
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## COVERAGE TYPE

Claims Made Form

## LIMITS

DESCRIPTION	LIMIT	DEDUCTIBLE
INCIDENT RESPONSE COSTS	\$1,000,000	\$0
LEGAL AND REGULATORY COSTS	\$1,000,000	\$5,000
IT SECURITY AND FORENSIC COSTS	\$1,000,000	\$5,000
CRISIS COMMUNICATION COSTS	\$1,000,000	\$5,000
PRIVACY BREACH MANAGEMENT COSTS	\$1,000,000	\$5,000
THIRD PARTY PRIVACY BREACH MANAGEMENT COSTS	\$1,000,000	\$5,000
POST BREACH REMEDIATION COSTS	\$50,000	\$0
FUNDS TRANSFER FRAUD	\$250,000	\$5,000
THEFT OF FUNDS HELD IN ESCROW	\$250,000	\$5,000
THEFT OF PERSONAL FUNDS	\$250,000	\$5,000
EXTORTION	\$1,000,000	\$5,000
CORPORATE IDENTITY THEFT	\$250,000	\$5,000
TELEPHONE HACKING	\$250,000	\$5,000
PUSH PAYMENT FRAUD	\$50,000	\$5,000
UNAUTHORIZED USE OF COMPUTER RESOURCES	\$250,000	\$5,000
SYSTEM DAMAGE AND RECTIFICATION COSTS	\$1,000,000	\$5,000
INCOME LOSS AND EXTRA EXPENSE	\$1,000,000	\$5,000
ADDITIONAL EXTRA EXPENSE	\$100,000	\$5,000
DEPENDENT BUSINESS INTERRUPTION	\$1,000,000	\$5,000

# CYBER LIABILITY CONTINUED

DESCRIPTION	LIMIT	DEDUCTIBLE
CONSEQUENTIAL REPUTATIONAL HARM	\$1,000,000	\$5,000

## ADDITIONAL COVERAGES

DESCRIPTION	LIMIT	DEDUCTIBLE
CLAIM PREPARATION COSTS	\$25,000	\$0
HARDWARE REPLACEMENT COSTS	\$1,000,000	\$5,000
NETWORK SECURITY LIABILITY	\$1,000,000	\$5,000
PRIVACY LIABILITY	\$1,000,000	\$5,000
MANAGEMENT LIABILITY	\$1,000,000	\$5,000
REGULATORY FINES	\$1,000,000	\$5,000
PCI FINES, PENALTIES AND ASSESSMENTS	\$1,000,000	\$5,000
DEFAMATION	\$1,000,000	\$5,000
INTELLECTUAL PROPERTY RIGHTS INFRINGEMENT	\$1,000,000	\$5,000
COURT ATTENDANCE COSTS	\$100,000	\$0
REPUTATIONAL HARM PERIOD		
INDEMNITY PERIOD		
WAITING PERIOD		

## FORMS AND ENDORSEMENTS

Subjectivity Condition Clause
AmWINS Special Amendatory Clause
Policyholder Disclosure Notice Of Terrorism Insurance Coverage
Schedule Of Information
Complaints Notice (USA)

# MARKETING SUMMARY

1. Accident Fund - Declined, Loss History
2. AmTrust – File Closed, Can't compete on pricing/coverages
3. Encova - Quoted \$28,964
4. Glatfelter (Incumbent) WC – Non-Renewing
5. Markel – Waiting for carrier response
6. MEM - Declined, Loss History
7. Pie – Waiting for carrier response
8. RAS - Quoted \$24,010
9. SFM - Declined, Loss History

# PREMIUM COMPARISON

LINES OF BUSINESS	ANNUALIZED EXPIRING	RENEWAL	DIFFERENCE
Property	\$35,850	\$45,295	\$9,445
Crime	\$382	\$382	\$0
Inland Marine	\$10,815	\$10,809	-\$6
Business Auto	\$15,026	\$14,533	-\$493
General Liability	\$38,309	\$36,721	-\$1,588
Public Officials and Management Liability	\$5,751	\$5,370	-\$381
Worker's Compensation	\$23,248	\$24,010	\$762
Commercial Excess	\$25,348	\$24,252	-\$1,096
Cyber Liability	\$5,855	\$5,855	\$46.35
Policy Fee	\$500	\$545	
Tax	\$183.15	\$184.50	
<b>Total</b>	<b>\$6,538.15</b>	<b>\$6,584.50</b>	
<b>Total Premium</b>	<b>\$161,267.15</b>	<b>\$167,956.50</b>	<b>\$6,689.35</b>

*A change in terms, conditions or premiums may occur after binding upon underwriter's receipt and review of subjectivities, or the failure to provide subjectivities on a timely basis.*

## AVAILABLE PREMIUM PAYMENT PLANS AND AM BEST RATING:

- Glatfelter Program (Package) – Agency Bill - Annual
- CFC (Cyber) – Agency Bill - Annual
- RAS (WC) – Direct Bill – Annual Pay, Two Pay, Four Pay, Ten Pay

## SUBJECTIVITIES:

- Package:
  - Signed GPP Renewal Questionnaire
  - Signed Auto UIM Form
  - Signed Statement of Values
- Cyber Liability:
  - Satisfactory confirmation that you have downloaded & registered our incident response mobile app, details of which can be found here: <https://www.cfc.com/en-us/response/cyber-response-app/>
  - Signed version of the application form submitted, dated within 30 days of the required inception date
  - Please provide name, position, email and telephone number for the designated contact to receive security related alerts and targeted threat intelligence
- Work Comp:
  - Signed accord applications

# PREMIUM COMPARISON CONTINUED

## IMPORTANT NOTES AND COMMENTS REGARDING QUOTATIONS:

- Property values increased 8% for Inflation

## OPTIONS:

- Property:
  - Increase Deductible to \$10,000 – Annual Property Premium \$35,285. Savings of \$8,836

# RATE COMPARISON – WORKERS COMPENSATION

COMPANY <b>National Union Fire Insurance Co.                  Of Pittsburgh, PA</b>	POLICY NUMBER <b>WC024501355</b>	POLICY TERM <b>10/1/2024 to 10/1/2025</b>
--------------------------------------------------------------------------------------------	-------------------------------------	----------------------------------------------

STATE	CODE	DESCRIPTION	LAST TERM PAYROLL	THIS TERM PAYROLL	LAST TERM RATE	THIS TERM RATE
NE	0042	Landscape Gardening & Drivers	\$144,681	\$144,681	5.48000	5.71000
NE	8601	Air Flow Testing And Balancing Exclusively	\$705,950	\$705,950	0.23000	0.25000
NE	8603	Architectural Or Engineering Firm - Clerical	\$336,579	\$336,579	0.06000	0.07000
NE	8742	Salespersons, Collectors Or Messengers--Outside	\$0	\$0	0.24000	0.27000
NE	8810	Clerical Office Noc	\$16,903	\$16,903	0.14000	0.15000
NE	9102	Lawn Maintenance - Commercial Or Domestic & Drivers	\$167,606	\$167,606	2.85000	2.96000

	LAST YEAR MOD	THIS YEAR MOD
<b>EXPERIENCE MOD</b>	1.70	1.55

# DISCLOSURES

*This proposal contains a brief description of coverages offered and is based upon underwriting information gathered from the client. It is not a legal contract. It neither modifies nor supersedes the insuring agreements, terms, conditions and exclusions of the policies referenced, which constitute the sole agreement between the insurer and the insured. The exclusions shown in the proposal are for discussion purposes only. The policy is not necessarily limited to only those exclusions. Refer to the actual policy for all exclusions. We suggest that you carefully review your coverage limits and applicable conditions. We are pleased to assist you with your own final determination of the values you decide to insure. Higher limits and/or optional coverages may be available. Specimen copies of all policies can be provided for review prior to the binding of coverage, upon request. Coverage cannot be bound or altered by voicemail, email or text and will not be effective until it is acknowledged by your licensed insurance professional.*

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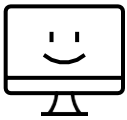
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We've made it easier than ever to quickly and conveniently make a payment to FNIC. Just visit [fnicgroup.appliedpay.com](https://fnicgroup.appliedpay.com) to pay online safely and securely from anywhere. **It's fast, easy, and mobile-friendly!**



#### STEP 1 | Visit Website

Visit the website located at: [fnicgroup.appliedpay.com](https://fnicgroup.appliedpay.com)

- Enter your information (located on your invoice), and click **Next**



#### STEP 2 | Add Invoice(s)

Select the invoice(s) you would like to pay and click **Next**

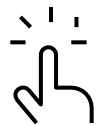
- *Please note there is a \$1,000,000 payment limit per transaction*



#### STEP 3 | Payment Method

Select your payment method of Credit Card or ACH and complete your payment information

- *Online payments include a fee payable to AppliedPay*
- *3.5% fee for Credit Card Payments | \$4.00 flat fee for ACH Payments*



#### STEP 4 | Send Payment

Click **Pay** to submit your payment.

- You will receive a payment receipt at the email address provided
- For faster payments, create an account and enroll in AutoPay

402.861.7000 | [fnicgroup.com](https://fnicgroup.com)

# STATEMENT OF VALUES

LOCATION #1: 2221 COUNTY ROAD 27, PRAGUE, NE 68050								
BLDG	SUBJECT	AMOUNT	COINS	VALUATION	OCCUPANCY	YEAR BUILT	CONST	SQ FEET
1	Building	\$26,334	100%	R	Storage	1996	Frame	1,000
1	Business Personal Property	\$15,442	100%	R	Storage	1996	Frame	1,000

LOCATION #2: 1700 COUNTY ROAD N, WAHOO, NE 68066								
BLDG	SUBJECT	AMOUNT	COINS	VALUATION	OCCUPANCY	YEAR BUILT	CONST	SQ FEET
1	Building	\$87,740	100%	R	6 Primitive Cabins	2020	Frame	120
2	Building	\$79,002	100%	R	Steel Bridge	2010	Superior Non-Combustible	
3	Building	\$60,000	100%	R	Astro Building			
3	Business Personal Property	\$5,200	100%	R	Astro Building			

LOCATION #3: 265 CHERRY STREET, COLON, NE 68018								
BLDG	SUBJECT	AMOUNT	COINS	VALUATION	OCCUPANCY	YEAR BUILT	CONST	SQ FEET
1	Building	\$13,826	100%	R	Well House	1975	Frame	312

LOCATION #4: 1655 COUNTY ROAD 16, WAHOO, NE 68066								
BLDG	SUBJECT	AMOUNT	COINS	VALUATION	OCCUPANCY	YEAR BUILT	CONST	SQ FEET
1	Building	\$409,450	100%	R	Education Center	2020	Frame	2,400
1	Business Personal Property	\$10,816	100%	R	Education Center	2020	Frame	2,400

# STATEMENT OF VALUES CONTINUED

LOCATION #5: 1616 COUNTY ROAD 17, WAHOO, NE 68066								
BLDG	SUBJECT	AMOUNT	COINS	VALUATION	OCCUPANCY	YEAR BUILT	CONST	SQ FEET
1	Building	\$4,888,000	100%	R	Office	2025	Frame	13,000
1	Business Personal Property	\$397,764	100%	R	Office	2025	Frame	13,000
2	Building	\$85,584	100%	R	Meter House	2004	Concrete Block	256
2	Business Personal Property	\$5,200	100%	R	Meter House	2004	Concrete Block	256
3	Building	\$200,000	100%	R	Wanahoo Storage			
3	Business Personal Property	\$5,200	100%	R	Wanahoo Storage			
4	Building	\$225,000	100%	R	Vehicle Storage Building			
4	Business Personal Property	\$5,200	100%	R	Vehicle Storage Building			
5	Building	\$70,000	100%	R	Generator			

VALUATION DEFINITIONS		
(A) Actual Cash Value	(G) Guaranteed Replacement Cost	(R) Replacement Cost
(B) Business Income Changes	(I) Invoice Cost	(S) Stated Amount
(C) Agreed Amount (Waived Coinsurance) and Replacement Cost	(L) Actual Loss Sustained	(T) Total Insured Value
(D) Reproduction	(M) Market Value	(U) Full Value Replacement Cost
(E) Agreed Amount (Waived Coinsurance)	(O) Other	(V) Agreed Value
(F) Functional Replacement Cost	(P) Selling Price	(X) Extended Value Replacement Cost

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

# STATE OF NE SURPLUS LINES CONSENT FORM

**Named Insured**

Lower Platte North NRD  
P O Box 126  
Wahoo, NE, 68066

**Policy Number**

TBD

**Policy Term**

10/01/2025 to 10/01/2026

**WITH REGARD TO THIS APPLICATION/QUOTE/BINDER/POLICY FOR ISSUANCE, SAID COVERAGE OR PORTIONS THEREOF, MAY BE WRITTEN BY AN INSURANCE COMPANY THAT IS NOT LICENSED TO BUSINESS IN THE STATE OF NE AND IN THE EVENT OF THE INSOVLENCY OF SUCH COMPANY, THE POLICY WILL NOT BE COVERED BY THE NE PROPERTY AND LIABILITY INSURANCE GUARANTY ASSOCIATION.**

---

Signature of Insured

---

Date Signed



601 R St, Suite 150  
Lincoln, NE 68501

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company/FNICgroup



/FNICgroup

## **LPNNRD Property Dwelling Units**

In an effort to be good neighbors and to work with neighboring landowners adjacent to Lower Platte North NRD properties and upon written request, LPNNRD will consider, on a case-by-case basis, the assigning of one (1) dwelling unit, if available and allowable by Saunders County Zoning. This will be a one time donation to the current owner and will not extend to any family members, heirs or future owners once one unit has been assigned.

Financial Statements and Accountant's Compilation Report

**Lower Platte North Natural Resources District**

July 31, 2025

Preliminary Draft



CPAs & Consultants | Wealth Management





CPAs & Consultants | Wealth Management



ACCOUNTANT'S COMPILATION REPORT

The Board of Directors  
Lower Platte North Natural Resources District  
Wahoo, Nebraska

Management is responsible for the accompanying financial statements of the Lower Platte North Natural Resources District, which comprise the Statements of Net Position as of July 31, 2025, and the related Statements of Activities for the month then ended in accordance with accounting principles generally accepted in the United States of America. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the financial statements, nor were we required to perform any procedures to verify the accuracy or the completeness of the information provided by management. We do not express an opinion, a conclusion, nor provide any form of assurance on these financial statements.

Management has elected to omit substantially all of the disclosures and statements of cash flows required by accounting principles generally accepted in the United States of America. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the Organization's financial position, results of operations, and cash flows. Accordingly, the financial statements are not designed for those who are not informed about such matters.

The accompanying Statements of Activities – Actual vs. Budget are presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management. The supplemental information, except the budget information, was subject to our compilation engagement. We have not audited or reviewed the supplementary information and do not express an opinion, a conclusion, nor provide any assurance on such information. The budget information presented in the Actual vs. Budget is of a nonaccounting nature and has not been subjected to our compilation engagement.

We are not independent with respect to the Lower Platte North Natural Resources District.

Lincoln, Nebraska

August XX, 2025

7140 Stephanie Lane | P.O. Box 23110 | Lincoln, NE | 68542-3110 | p: 402.423.4343 | f: 402.423.4346

1314 Andrews Drive | Norfolk, NE | 68701 | p: 402.379.9294 | f: 402.379.2338

1121 North 102nd Court | Suite 100 | Omaha, NE | 68114 | p: 402.895.5050 | f: 402.895.5723

## Lower Platte North NRD Statements of Net Position

	Natural Resources District As of 07/31/2025	Rural Water-Bruno As of 07/31/2025	Rural Water-Colon As of 07/31/2025	All Districts As of 07/31/2025
<b>Assets</b>				
<b>Current Assets</b>				
Cash and Cash Equivalents				
101000 - Change Box	0.00	60.00	90.00	150.00
101200 - Change Box - Game & Parks	150.00	0.00	0.00	150.00
101300 - Change Box - Lake Wanhoo	825.00	0.00	0.00	825.00
102001 - Cash - Union Bank	148,543.99	0.00	0.00	148,543.99
103000 - Cash - County Treasurer	58,020.88	0.00	0.00	58,020.88
104000 - Cash - Education Building Res.	12,235.00	0.00	0.00	12,235.00
111100 - Investments - NRD - NPAIT	2,675.84	0.00	0.00	2,675.84
111105 - Union Bank STFIT	1,478,846.66	0.00	0.00	1,478,846.66
<b>Total Cash and Cash Equivalents</b>	<b>1,701,297.37</b>	<b>60.00</b>	<b>90.00</b>	<b>1,701,447.37</b>
Accounts Receivable, Net				
Accounts Receivable				
105000 - Accounts Receivable	2,294,654.69	5,073.37	7,680.30	2,307,408.36
105060 - Due from Bruno Water Fund	191,870.98	0.00	0.00	191,870.98
105070 - Due from Colon Water Fund	6,849.05	0.00	0.00	6,849.05
109000 - Taxes Receivable	1,359,222.87	0.00	0.00	1,359,222.87
<b>Total Accounts Receivable</b>	<b>3,852,597.59</b>	<b>5,073.37</b>	<b>7,680.30</b>	<b>3,865,351.26</b>
<b>Total Accounts Receivable, Net</b>	<b>3,852,597.59</b>	<b>5,073.37</b>	<b>7,680.30</b>	<b>3,865,351.26</b>
Inventory				
165503 - Rural Water Inventory	0.00	6,389.25	9,583.86	15,973.11
<b>Total Inventory</b>	<b>0.00</b>	<b>6,389.25</b>	<b>9,583.86</b>	<b>15,973.11</b>
Prepaid Expenses				
116000 - Prepaid Expenses	39,689.69	0.00	0.00	39,689.69
<b>Total Prepaid Expenses</b>	<b>39,689.69</b>	<b>0.00</b>	<b>0.00</b>	<b>39,689.69</b>
Other Current Assets				
111225 - Investments - Borrow Fund - NPAIT	145,562.42	0.00	0.00	145,562.42
111250 - Investments - Alliance GIS Project	8,704.04	0.00	0.00	8,704.04
111550 - Investments - Elkhorn Breakout	148,907.88	0.00	0.00	148,907.88
111600 - Investments - Wanhoo SRA	596,177.65	0.00	0.00	596,177.65
111650 - Investments - Colon Reserve NPAIT	0.00	0.00	9,778.52	9,778.52
<b>Total Other Current Assets</b>	<b>899,351.99</b>	<b>0.00</b>	<b>9,778.52</b>	<b>909,130.51</b>
<b>Total Current Assets</b>	<b>6,492,936.64</b>	<b>11,522.62</b>	<b>27,132.68</b>	<b>6,531,591.94</b>
<b>Fixed Assets, Net of Depreciation</b>				
Fixed Assets				
140210 - Water Line Capital Improvement	0.00	726,156.51	1,180,075.05	1,906,231.56
140226 - Colon Water Loan Fees	0.00	0.00	2,000.00	2,000.00
160000 - Conservation Property	123,971.00	0.00	0.00	123,971.00
161000 - Land	12,622,416.58	0.00	0.00	12,622,416.58
162000 - Infrastructure	31,675,926.79	0.00	0.00	31,675,926.79
162500 - Land Improvements	623,922.90	0.00	0.00	623,922.90
163000 - Buildings	5,775,015.69	0.00	0.00	5,775,015.69
165000 - Machinery & Equipment	118,302.67	0.00	0.00	118,302.67
165100 - Machinery & Equipment - O & M	709,293.90	0.00	0.00	709,293.90
165200 - Machinery & Equipment - Water	345,887.45	0.00	0.00	345,887.45
165300 - Machinery & Equipment - Projects	87,917.52	0.00	0.00	87,917.52
165400 - Machinery & Equipment - I & E	2,628.66	0.00	0.00	2,628.66
165505 - Rural Water Equipment	0.00	20,511.18	30,766.78	51,277.96
165507 - Lake Wanhoo Equipment	66,743.35	0.00	0.00	66,743.35
167000 - Auto and Truck	373,215.97	0.00	0.00	373,215.97
169000 - Equipment	5,892.79	0.00	0.00	5,892.79
169100 - Office Equipment	61,776.58	0.00	0.00	61,776.58
169200 - Computer Equipment	87,301.47	0.00	0.00	87,301.47
169300 - GIS Equipment	13,422.53	0.00	0.00	13,422.53

See Accountant's Compilation Report

## Lower Platte North NRD Statements of Net Position

	Natural Resources District As of 07/31/2025	Rural Water-Bruno As of 07/31/2025	Rural Water-Colon As of 07/31/2025	All Districts As of 07/31/2025
169400 - Director's Computers	2,903.67	0.00	0.00	2,903.67
169500 - Master Data Base Water	340,295.00	0.00	0.00	340,295.00
169700 - GW Monitoring Equipment	129,185.43	0.00	0.00	129,185.43
<b>Total Fixed Assets</b>	<b>53,166,019.95</b>	<b>746,667.69</b>	<b>1,212,841.83</b>	<b>55,125,529.47</b>
<b>Accumulated Depreciation</b>				
140228 - Accum Depr - Colon Loan Fees	0.00	0.00	858.38	858.38
162900 - Accum Depr - Infra. & Land Imp.	5,061,371.89	0.00	0.00	5,061,371.89
164000 - Accum Depr - Buildings	147,034.38	0.00	0.00	147,034.38
165700 - Accum Depr - Water Line	0.00	157,261.99	300,819.70	458,081.69
166000 - Accum Depr - Machinery & Equipment	652,793.34	14,750.05	22,124.86	689,668.25
168000 - Accum Depr - Auto & Truck	260,924.13	0.00	0.00	260,924.13
169550 - Accum Depr - Master DB Water	137,356.85	0.00	0.00	137,356.85
170000 - Accum Depr - Office Equipment	110,577.10	0.00	0.00	110,577.10
<b>Total Accumulated Depreciation</b>	<b>6,370,057.69</b>	<b>172,012.04</b>	<b>323,802.94</b>	<b>6,865,872.67</b>
<b>Total Property and Equipment</b>	<b>46,795,962.26</b>	<b>574,655.65</b>	<b>889,038.89</b>	<b>48,259,656.80</b>
<b>Total Assets</b>	<b>\$ 53,288,898.90</b>	<b>\$ 586,178.27</b>	<b>\$ 916,171.57</b>	<b>\$ 54,791,248.74</b>
<b>Liabilities and Fund Balance</b>				
<b>Liabilities</b>				
<b>Current Liabilities</b>				
Accounts Payable				
201000 - Accounts Payable	361,408.21	5,352.13	2,642.02	369,402.36
201100 - Sewer Collections Payable	0.00	0.00	2,633.60	2,633.60
202060 - Due to General Fund	0.00	191,870.98	6,849.05	198,720.03
<b>Total Accounts Payable</b>	<b>361,408.21</b>	<b>197,223.11</b>	<b>12,124.67</b>	<b>570,755.99</b>
Accrued Liabilities				
200700 - Colon RW Accrued Interest	0.00	0.00	770.40	770.40
206001 - Accrued Compensated Absences	251,470.81	4,192.66	6,288.99	261,952.46
<b>Total Accrued Liabilities</b>	<b>251,470.81</b>	<b>4,192.66</b>	<b>7,059.39</b>	<b>262,722.86</b>
Other Current Liabilities				
204000 - Deposits	0.00	400.00	3,600.00	4,000.00
204500 - Deferred Income	45,221.63	0.00	0.00	45,221.63
204600 - Education Building Deposits	12,685.00	0.00	0.00	12,685.00
207300 - Sales Tax Payable	26.93	163.95	181.48	372.36
207304 - Sales Tax Payable Czechland	99.39	0.00	0.00	99.39
207305 - Lodging Tax Czechland	251.70	0.00	0.00	251.70
207306 - Sales Tax Payable Wanahoo	1,085.84	0.00	0.00	1,085.84
207307 - Lodging Tax Wanahoo	987.12	0.00	0.00	987.12
231000 - Permits Liability - DEE	30.00	0.00	0.00	30.00
<b>Total Other Current Liabilities</b>	<b>60,387.61</b>	<b>563.95</b>	<b>3,781.48</b>	<b>64,733.04</b>
<b>Total Current Liabilities</b>	<b>673,266.63</b>	<b>201,979.72</b>	<b>22,965.54</b>	<b>898,211.89</b>
<b>Long Term Liabilities</b>				
Note Payable - Long Term				
200600 - Note Payable - Colon Rural Water	0.00	0.00	21,330.94	21,330.94
<b>Total Long Term Note Payable</b>	<b>0.00</b>	<b>0.00</b>	<b>21,330.94</b>	<b>21,330.94</b>
<b>Total Long Term Liabilities</b>	<b>0.00</b>	<b>0.00</b>	<b>21,330.94</b>	<b>21,330.94</b>
<b>Total Liabilities</b>	<b>673,266.63</b>	<b>201,979.72</b>	<b>44,296.48</b>	<b>919,542.83</b>
<b>Fund Balances</b>				
Net Assets				
Net Assets - Not Designated	48,464,341.70	385,812.72	870,459.68	49,720,614.10

See Accountant's Compilation Report

**Lower Platte North NRD  
Statements of Net Position**

	Natural Resources District As of 07/31/2025	Rural Water-Bruno As of 07/31/2025	Rural Water-Colon As of 07/31/2025	All Districts As of 07/31/2025
Net Assets - Designated				
12 - Districtwide Flood Reduction	3,000,000.00	0.00	0.00	3,000,000.00
8 - Farm Bill Tech Assistance	125,191.00	0.00	0.00	125,191.00
10 - Groundwater Sinking	100,000.00	0.00	0.00	100,000.00
4 - Intergov'tl Emergency Repair	100,000.00	0.00	0.00	100,000.00
13 - Joint Water Mgmt E Fremont	440,000.00	0.00	0.00	440,000.00
11 - Large Structure O&M	200,000.00	0.00	0.00	200,000.00
5 - Project Op and Maintenance	100,000.00	0.00	0.00	100,000.00
6 - Shell Creek Land Treatment	100,000.00	0.00	0.00	100,000.00
7 - Water Studies	30,000.00	0.00	0.00	30,000.00
Total Net Assets - Designated	<u>4,195,191.00</u>	<u>0.00</u>	<u>0.00</u>	<u>4,195,191.00</u>
Total Net Assets	52,659,532.70	385,812.72	870,459.68	53,915,805.10
Change in Net Position	(43,900.43)	(1,614.17)	1,415.41	(44,099.19)
Total Fund Balances	<u>52,615,632.27</u>	<u>384,198.55</u>	<u>871,875.09</u>	<u>53,871,705.91</u>
<b>Total Liabilities and Fund Balance</b>	<b><u>\$ 53,288,898.90</u></b>	<b><u>\$ 586,178.27</u></b>	<b><u>\$ 916,171.57</u></b>	<b><u>\$ 54,791,248.74</u></b>

**Lower Platte North NRD  
Statements of Activities  
For the Month Ended**

	Natural Resources District Month Ending 07/31/2025	Rural Water-Bruno Month Ending 07/31/2025	Rural Water-Colon Month Ending 07/31/2025	All Districts Month Ending 07/31/2025
<b>Income</b>				
<b>Federal Income</b>				
303206 - Wahoo Creek 319 Grant	0.00	0.00	0.00	0.00
303207 - Shell Creek 319 Grant	1,134.92	0.00	0.00	1,134.92
303209 - Shell Creek Phase II 319 - NDEE	0.00	0.00	0.00	0.00
303210 - Shell Creek Phase II - 319 DEQ	0.00	0.00	0.00	0.00
303225 - Wahoo Creek WS PL566	0.00	0.00	0.00	0.00
303250 - Water Smart Grant	0.00	0.00	0.00	0.00
303400 - Sand and Duck 319	0.00	0.00	0.00	0.00
303475 - Cottonwood 319	0.00	0.00	0.00	0.00
303960 - Hazard Mitigation - Federal	3,772.50	0.00	0.00	3,772.50
303961 - FEMA - Flood Funds	41,397.00	0.00	0.00	41,397.00
303966 - FEMA - Hazard Mitigation Plan Update	0.00	0.00	0.00	0.00
303962 - NEMA - Flood Funds	6,899.50	0.00	0.00	6,899.50
303963 - FEMA - 428 Funds	0.00	0.00	0.00	0.00
303964 - Federal - NRCS	2,208.93	0.00	0.00	2,208.93
303965 - Federal Wanahoo - Stilling	0.00	0.00	0.00	0.00
303967 - SWP - NWQI	0.00	0.00	0.00	0.00
<b>Total Federal Income</b>	<b>\$ 55,412.85</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>	<b>\$ 55,412.85</b>
<b>State Income</b>				
301203 - Motor Vehicle Pro-Rate	232.28	0.00	0.00	232.28
301309 - Water Sustainability Fund	4,200.00	0.00	0.00	4,200.00
301310 - Shell Creek NET	109,201.78	0.00	0.00	109,201.78
301325 - JEDI Funding	127,900.49	0.00	0.00	127,900.49
304100 - Lake Wanahoo - Other	1,783.33	0.00	0.00	1,783.33
<b>Total State Income</b>	<b>243,317.88</b>	<b>0.00</b>	<b>0.00</b>	<b>243,317.88</b>
<b>Local Income</b>				
304105 - Education Building Rent	1,537.50	0.00	0.00	1,537.50
304112 - Dirt Sales - Wanahoo	521.51	0.00	0.00	521.51
304500 - JWMAB	3,395.25	0.00	0.00	3,395.25
<b>Total Local Income</b>	<b>5,454.26</b>	<b>0.00</b>	<b>0.00</b>	<b>5,454.26</b>
<b>Rural Water Income</b>				
304240 - Water Sales	0.00	5,018.00	4,628.75	9,646.75
304295 - Colon Sewer Fees	0.00	0.00	2,777.60	2,777.60
304261 - Other Revenue	0.00	4.55	66.32	70.87
<b>Total Rural Water Income</b>	<b>0.00</b>	<b>5,022.55</b>	<b>7,472.67</b>	<b>12,495.22</b>
<b>Property Tax Income</b>				
305100 - General Fund Property Taxes-Boone	3,572.07	0.00	0.00	3,572.07
305200 - General Fund Property Taxes-Butler	9.09	0.00	0.00	9.09
305300 - General Fund Property Taxes-Colfax	25.50	0.00	0.00	25.50
305400 - General Fund Property Taxes-Dodge	16.72	0.00	0.00	16.72
305500 - General Fund Property Taxes-Madison	13.54	0.00	0.00	13.54
305600 - General Fund Property Taxes-Platte	39.03	0.00	0.00	39.03
305700 - General Fund Property Taxes-Saunders	52.46	0.00	0.00	52.46
<b>Total Property Tax Income</b>	<b>3,728.41</b>	<b>0.00</b>	<b>0.00</b>	<b>3,728.41</b>
<b>Investment Income</b>				
311350 - Interest - NPAIT Elkhorn	533.53	0.00	0.00	533.53
311400 - Interest - NPAIT Wanahoo SRA	2,135.99	0.00	0.00	2,135.99
311500 - Interest - NPAIT NRD	9.61	0.00	0.00	9.61
311600 - Interest - STFIT NRD	7,090.21	0.00	0.00	7,090.21
311700 - Interest - UBT NRD	51.51	0.00	0.00	51.51
304350 - Colon RW Interest - NPAIT	0.00	0.00	35.02	35.02
<b>Total Investment Income</b>	<b>9,820.85</b>	<b>0.00</b>	<b>35.02</b>	<b>9,855.87</b>
<b>Miscellaneous Income</b>				
309400 - Sales - Other	75.00	0.00	0.00	75.00
309500 - Equipment Rent	972.60	0.00	0.00	972.60
310000 - Chemigation Permits	510.00	0.00	0.00	510.00
310100 - Check Valve Sales	232.59	0.00	0.00	232.59
310200 - Czechland Camping Fees	1,617.26	0.00	0.00	1,617.26
310201 - Wanahoo Park Permits	6,502.50	0.00	0.00	6,502.50
310202 - Lake Wanahoo Camping	17,720.24	0.00	0.00	17,720.24
313000 - Miscellaneous Income	1,382.85	0.00	0.00	1,382.85
315000 - RWD Administrative Fees	482.34	0.00	0.00	482.34
316000 - Employee/Director Reimb	334.14	0.00	0.00	334.14
<b>Total Miscellaneous Income</b>	<b>29,829.52</b>	<b>0.00</b>	<b>0.00</b>	<b>29,829.52</b>

**Lower Platte North NRD  
Statements of Activities  
For the Month Ended**

	Natural Resources District Month Ending 07/31/2025	Rural Water-Bruno Month Ending 07/31/2025	Rural Water-Colon Month Ending 07/31/2025	All Districts Month Ending 07/31/2025
<b>Total Income</b>	<b>347,563.77</b>	<b>5,022.55</b>	<b>7,507.69</b>	<b>360,094.01</b>
<b>Expenses</b>				
<b>Administration Expenses</b>				
<b>Dues &amp; Membership</b>				
410202 - Dues & Membership - NACD	148.00	0.00	0.00	148.00
410203 - Dues - NARD	2,768.95	0.00	0.00	2,768.95
410204 - Dues - NWRA	1,950.00	0.00	0.00	1,950.00
<b>Total Dues &amp; Membership</b>	<b>4,866.95</b>	<b>0.00</b>	<b>0.00</b>	<b>4,866.95</b>
<b>Fees and Licenses</b>				
410304 - NRD Union Bank Fees	50.52	0.00	0.00	50.52
<b>Total Fees and Licenses</b>	<b>50.52</b>	<b>0.00</b>	<b>0.00</b>	<b>50.52</b>
<b>Insurance</b>				
410501 - Insurance-Auto	1,146.33	0.00	0.00	1,146.33
410502 - Insurance-Errors & Omissions	479.25	0.00	0.00	479.25
410504 - Insurance-Liability	5,849.60	0.00	0.00	5,849.60
410505 - Insurance-Property	6,608.67	0.00	0.00	6,608.67
<b>Total Insurance</b>	<b>14,083.85</b>	<b>0.00</b>	<b>0.00</b>	<b>14,083.85</b>
<b>Interest Expense</b>				
410600 - Interest Expense	0.00	0.00	77.04	77.04
<b>Total Interest Expense</b>	<b>0.00</b>	<b>0.00</b>	<b>77.04</b>	<b>77.04</b>
<b>Legal Notices</b>				
410701 - Legal Notices	12.04	0.00	0.00	12.04
<b>Total Legal Notices</b>	<b>12.04</b>	<b>0.00</b>	<b>0.00</b>	<b>12.04</b>
<b>Maintenance Contracts</b>				
410800 - Maintenance Contracts	258.72	0.00	0.00	258.72
<b>Total Maintenance Contracts</b>	<b>258.72</b>	<b>0.00</b>	<b>0.00</b>	<b>258.72</b>
<b>Office Supply &amp; Expense</b>				
410902 - Office Supplies & Equip	13.29	0.00	0.00	13.29
410906 - Office Expense - Other	6,872.28	0.00	0.00	6,872.28
<b>Total Office Supply &amp; Expense</b>	<b>6,885.57</b>	<b>0.00</b>	<b>0.00</b>	<b>6,885.57</b>
<b>Computer Supply &amp; Expense</b>				
411004 - Computer Software	459.02	0.00	0.00	459.02
411006 - Email	414.00	0.00	0.00	414.00
411011 - Computers & Equipment	3,736.45	0.00	0.00	3,736.45
<b>Total Computer Supply &amp; Expense</b>	<b>4,609.47</b>	<b>0.00</b>	<b>0.00</b>	<b>4,609.47</b>
<b>Postage</b>				
411200 - Postage	86.45	0.00	0.00	86.45
<b>Total Postage</b>	<b>86.45</b>	<b>0.00</b>	<b>0.00</b>	<b>86.45</b>
<b>Professional Services</b>				
411301 - Prof Serv-Accounting	7,700.00	0.00	0.00	7,700.00
411311 - Washington Expense	2,300.00	0.00	0.00	2,300.00
<b>Total Professional Services</b>	<b>10,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>10,000.00</b>
<b>Support to Organizations</b>				
411501 - Locally Lead Conservation Groups	1,000.00	0.00	0.00	1,000.00
<b>Total Support to Organizations</b>	<b>1,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1,000.00</b>
<b>Telephone Expense</b>				
411601 - Telephone - Cellular	966.56	0.00	0.00	966.56
411602 - Local Phone & Internet	747.04	0.00	0.00	747.04
<b>Total Telephone Expense</b>	<b>1,713.60</b>	<b>0.00</b>	<b>0.00</b>	<b>1,713.60</b>
<b>Total Administration Expenses</b>	<b>43,567.17</b>	<b>0.00</b>	<b>77.04</b>	<b>43,644.21</b>
<b>Information &amp; Education Expenses</b>				
<b>Education</b>				
420109 - Education Outreach	924.55	0.00	0.00	924.55
<b>Total Education</b>	<b>924.55</b>	<b>0.00</b>	<b>0.00</b>	<b>924.55</b>
<b>Information</b>				
420201 - Annual Report/Viaduct	6,149.00	0.00	0.00	6,149.00
420209 - Ktic Ad	248.00	0.00	0.00	248.00
420211 - E-Ads	280.00	0.00	0.00	280.00
<b>Total Information</b>	<b>6,677.00</b>	<b>0.00</b>	<b>0.00</b>	<b>6,677.00</b>
<b>Scholarships and Grants</b>				
420309 - Middle/High School Natural Resources Grant	4,500.00	0.00	0.00	4,500.00
<b>Total Scholarships and Grants</b>	<b>4,500.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4,500.00</b>

**Lower Platte North NRD  
Statements of Activities  
For the Month Ended**

	Natural Resources District Month Ending 07/31/2025	Rural Water-Bruno Month Ending 07/31/2025	Rural Water-Colon Month Ending 07/31/2025	All Districts Month Ending 07/31/2025
<b>Other</b>				
420402 - Cooperative Projects/Donations	44.54	0.00	0.00	44.54
420404 - Promotional Materials	127.00	0.00	0.00	127.00
<b>Total Other</b>	<b>171.54</b>	<b>0.00</b>	<b>0.00</b>	<b>171.54</b>
<b>Total Information &amp; Education Expenses</b>	<b>12,273.09</b>	<b>0.00</b>	<b>0.00</b>	<b>12,273.09</b>
<b>Operation &amp; Maintenance</b>				
<b>Auto and Truck</b>				
430101 - Auto & Truck Gas	1,733.04	0.00	0.00	1,733.04
430102 - Auto & Truck R&M	1,456.67	0.00	0.00	1,456.67
<b>Total Auto and Truck</b>	<b>3,189.71</b>	<b>0.00</b>	<b>0.00</b>	<b>3,189.71</b>
<b>Building Maintenance</b>				
430201 - Bldg Maintenance	267.08	0.00	0.00	267.08
430203 - Garbage Maintenance	101.72	0.00	0.00	101.72
<b>Total Building Maintenance</b>	<b>368.80</b>	<b>0.00</b>	<b>0.00</b>	<b>368.80</b>
<b>Operation and Maintenance</b>				
430401 - Czechland & Homestead	997.07	0.00	0.00	997.07
430402 - Equipment Upkeep	1,390.49	0.00	0.00	1,390.49
430403 - Operation & Maintenance	373.40	0.00	0.00	373.40
430406 - Wanahoo Park Operation	3,892.11	0.00	0.00	3,892.11
430407 - Monitoring Wanahoo Dam	3,616.75	0.00	0.00	3,616.75
430408 - Wanahoo Rec Mgmt	7,974.92	0.00	0.00	7,974.92
430409 - Lake Wanahoo Education Building	542.81	0.00	0.00	542.81
<b>Total Operation and Maintenance</b>	<b>18,787.55</b>	<b>0.00</b>	<b>0.00</b>	<b>18,787.55</b>
<b>Other</b>				
430804 - O&M One-Call Services	11.63	0.00	0.00	11.63
<b>Total Other</b>	<b>11.63</b>	<b>0.00</b>	<b>0.00</b>	<b>11.63</b>
<b>Total Operation &amp; Maintenance</b>	<b>22,357.69</b>	<b>0.00</b>	<b>0.00</b>	<b>22,357.69</b>
<b>Personnel Expenses</b>				
<b>Director Expense</b>				
440101 - Director Meeting Expense	166.00	0.00	0.00	166.00
<b>Total Director Expense</b>	<b>166.00</b>	<b>0.00</b>	<b>0.00</b>	<b>166.00</b>
<b>Employee Benefits</b>				
440301 - Dental Insurance	1,815.39	0.00	0.00	1,815.39
440302 - Health Insurance	31,715.21	0.00	0.00	31,715.21
440303 - Retirement Benefit - 414H	3,103.50	0.00	0.00	3,103.50
440306 - Workmans Comp Benefit	1,937.33	0.00	0.00	1,937.33
440307 - Employee Benefits - Other	(30.52)	0.00	0.00	(30.52)
<b>Total Employee Benefits</b>	<b>38,540.91</b>	<b>0.00</b>	<b>0.00</b>	<b>38,540.91</b>
<b>Payroll Taxes</b>				
440401 - FICA - ER	2,952.39	0.00	0.00	2,952.39
440402 - Medicare - ER	690.49	0.00	0.00	690.49
<b>Total Payroll Taxes</b>	<b>3,642.88</b>	<b>0.00</b>	<b>0.00</b>	<b>3,642.88</b>
<b>Personnel Expense</b>				
440501 - Personnel Meeting Exp	1,943.47	0.00	0.00	1,943.47
440502 - Personnel Mileage Exp	35.70	0.00	0.00	35.70
440504 - Personnel Uniform Exp	748.00	0.00	0.00	748.00
<b>Total Personnel Expense</b>	<b>2,727.17</b>	<b>0.00</b>	<b>0.00</b>	<b>2,727.17</b>
<b>Salaries</b>				
440601 - Salaries - Administration	9,770.61	0.00	0.00	9,770.61
440602 - Salaries - Clerical	1,128.41	0.00	0.00	1,128.41
440604 - Salaries - I & E	4,265.16	0.00	0.00	4,265.16
440605 - Salaries - Op & Maint	8,588.56	0.00	0.00	8,588.56
440606 - NRCS Support	5,225.86	0.00	0.00	5,225.86
440607 - Salaries - Projects	3,896.64	0.00	0.00	3,896.64
440608 - Salaries - Water	16,614.48	0.00	0.00	16,614.48
440616 - Lake Wanahoo Park Op.	7,131.83	0.00	0.00	7,131.83
<b>Total Salaries</b>	<b>56,621.55</b>	<b>0.00</b>	<b>0.00</b>	<b>56,621.55</b>
<b>Total Personnel Expenses</b>	<b>101,698.51</b>	<b>0.00</b>	<b>0.00</b>	<b>101,698.51</b>
<b>Projects Expenses</b>				
<b>Inter-Governmental</b>				
450119 - JWMAB Dodge Co	5,327.00	0.00	0.00	5,327.00
450123 - Hazard Mitigation Update	5,030.00	0.00	0.00	5,030.00
<b>Total Inter-Governmental</b>	<b>10,357.00</b>	<b>0.00</b>	<b>0.00</b>	<b>10,357.00</b>
<b>Total Projects Expenses</b>	<b>10,357.00</b>	<b>0.00</b>	<b>0.00</b>	<b>10,357.00</b>

**Lower Platte North NRD  
Statements of Activities  
For the Month Ended**

	Natural Resources District Month Ending 07/31/2025	Rural Water-Bruno Month Ending 07/31/2025	Rural Water-Colon Month Ending 07/31/2025	All Districts Month Ending 07/31/2025
<b>Water Expenses</b>				
<b>Groundwater Management Plan</b>				
460102 - GWMP - Information & Education	449.02	0.00	0.00	449.02
<b>Total Groundwater Management Plan</b>	<b>449.02</b>	<b>0.00</b>	<b>0.00</b>	<b>449.02</b>
<b>Groundwater Programs</b>				
460201 - Decommissioned Wells	1,178.54	0.00	0.00	1,178.54
460204 - GW Quality Program	1,359.80	0.00	0.00	1,359.80
460206 - Monitoring Wells	3,755.67	0.00	0.00	3,755.67
<b>Total Groundwater Programs</b>	<b>6,294.01</b>	<b>0.00</b>	<b>0.00</b>	<b>6,294.01</b>
<b>Regulatory</b>				
460301 - Chemigation	11.75	0.00	0.00	11.75
<b>Total Regulatory</b>	<b>11.75</b>	<b>0.00</b>	<b>0.00</b>	<b>11.75</b>
<b>Surface Water Programs</b>				
460403 - Stream Flow	4,213.00	0.00	0.00	4,213.00
<b>Total Surface Water Programs</b>	<b>4,213.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4,213.00</b>
<b>Special Projects</b>				
460504 - ENWRA	2,500.00	0.00	0.00	2,500.00
460519 - Hydrological Study	7,000.00	0.00	0.00	7,000.00
<b>Total Special Projects</b>	<b>9,500.00</b>	<b>0.00</b>	<b>0.00</b>	<b>9,500.00</b>
<b>Land Treatment</b>				
450803 - Shell Creek Watershed Plan 319	109,656.63	0.00	0.00	109,656.63
<b>Total Land Treatment</b>	<b>109,656.63</b>	<b>0.00</b>	<b>0.00</b>	<b>109,656.63</b>
<b>Total Water Expenses</b>	<b>130,124.41</b>	<b>0.00</b>	<b>0.00</b>	<b>130,124.41</b>
<b>Rural Water District Expenses</b>				
570201 - Water Purchase	0.00	5,161.38	1,380.49	6,541.87
570207 - Other Expenses	0.00	0.00	80.30	80.30
570208 - Lpnnrd Adm. Fee	0.00	250.90	231.44	482.34
570210 - Health/Life/Vision/LTD - ER	0.00	202.67	304.00	506.67
570211 - Dental - ER	0.00	21.72	32.59	54.31
570212 - 414H ER Contributions	0.00	71.90	107.84	179.74
570215 - ER Social Security Tax	0.00	55.12	120.25	175.37
570216 - ER Medicare Tax	0.00	12.89	28.12	41.01
570217 - Salaries	0.00	35.42	(553.00)	(517.58)
570219 - Fees And Licenses	0.00	17.13	25.68	42.81
570220 - Rural Water One-Call	0.00	1.79	5.36	7.15
570223 - Rural Water Gasoline	0.00	127.89	72.98	200.87
570308 - Colon Meter House Expense	0.00	0.00	108.52	108.52
570309 - Colon Sewer Collections	0.00	0.00	2,633.60	2,633.60
<b>Total Rural Water District Expenses</b>	<b>0.00</b>	<b>5,958.81</b>	<b>4,578.17</b>	<b>10,536.98</b>
<b>Depreciation Expense</b>				
<b>Depreciation</b>				
908000 - Depreciation Expense	71,086.33	677.91	1,432.90	73,197.14
908350 - Amortization Expense - Colon	0.00	0.00	4.17	4.17
<b>Total Depreciation</b>	<b>71,086.33</b>	<b>677.91</b>	<b>1,437.07</b>	<b>73,201.31</b>
<b>Total Depreciation Expense</b>	<b>71,086.33</b>	<b>677.91</b>	<b>1,437.07</b>	<b>73,201.31</b>
<b>Total Expenses</b>	<b>391,464.20</b>	<b>6,636.72</b>	<b>6,092.28</b>	<b>404,193.20</b>
<b>Total Change in Net Position</b>	<b>\$ (43,900.43)</b>	<b>\$ (1,614.17)</b>	<b>\$ 1,415.41</b>	<b>\$ (44,099.19)</b>

**Lower Platte North NRD**  
**Supplemental Schedule**  
Statements of Activities - Actual vs. Budget

	Month Ending 07/31/2025 <small>MTD Actual</small>	Annual Budget June 30, 2026 <small>FY2026</small>	\$ Difference Annual Budget	Percentage Annual Budget
<b>Change in Net Position</b>				
<b>Income</b>				
<b>Federal Income</b>				
303206 - Wahoo Creek 319 Grant	0.00	50,000.00	(50,000.00)	0.00 %
303207 - Shell Creek 319 Grant	1,134.92	361,046.00	(359,911.08)	0.31 %
303225 - Wahoo Creek WS PL566	0.00	1,350,000.00	(1,350,000.00)	0.00 %
303960 - Hazard Mitigation - Federal	3,772.50	14,000.00	(10,227.50)	26.95 %
303961 - FEMA - Flood Funds	41,397.00	750,000.00	(708,603.00)	5.52 %
303962 - NEMA - Flood Funds	6,899.50	125,000.00	(118,100.50)	5.52 %
303963 - FEMA - 428 Funds	0.00	951,000.00	(951,000.00)	0.00 %
303964 - Federal - NRCS	2,208.93	425,000.00	(422,791.07)	0.52 %
303967 - SWP - NWQI	0.00	60,000.00	(60,000.00)	0.00 %
<b>Total Federal Income</b>	<b>55,412.85</b>	<b>4,086,046.00</b>	<b>(4,030,633.15)</b>	<b>1.36 %</b>
<b>State Income</b>				
301201 - Natural Resources WQ Fund	0.00	50,000.00	(50,000.00)	0.00 %
301202 - Decommissioned Wells	0.00	5,000.00	(5,000.00)	0.00 %
301203 - Motor Vehicle Pro-Rate	232.28	8,400.00	(8,167.72)	2.77 %
301309 - Water Sustainability Fund	4,200.00	92,000.00	(87,800.00)	4.57 %
301310 - Shell Creek NET	109,201.78	196,818.00	(87,616.22)	55.48 %
301321 - NET Grant	0.00	27,960.00	(27,960.00)	0.00 %
301325 - JEDI Funding	127,900.49	4,500,000.00	(4,372,099.51)	2.84 %
301900 - State Grant - NE Buffer Strip	0.00	62,000.00	(62,000.00)	0.00 %
304100 - Lake Wanahoo - Other	1,783.33	25,000.00	(23,216.67)	7.13 %
<b>Total State Income</b>	<b>243,317.88</b>	<b>4,967,178.00</b>	<b>(4,723,860.12)</b>	<b>4.90 %</b>
<b>Local Income</b>				
304105 - Education Building Rent	1,537.50	17,000.00	(15,462.50)	9.04 %
304112 - Dirt Sales - Wanahoo	521.51	7,500.00	(6,978.49)	6.95 %
304400 - Flow Meter Maint. Reimb.	0.00	500.00	(500.00)	0.00 %
304500 - JWMAB	3,395.25	17,223.00	(13,827.75)	19.71 %
<b>Total Local Income</b>	<b>5,454.26</b>	<b>42,223.00</b>	<b>(36,768.74)</b>	<b>12.92 %</b>
<b>Property Tax Income</b>				
305100 - General Fund Property Taxes-Boone	3,572.07	96,000.00	(92,427.93)	3.72 %
305200 - General Fund Property Taxes-Butler	9.09	370,000.00	(369,990.91)	0.00 %
305300 - General Fund Property Taxes-Colfax	25.50	318,500.00	(318,474.50)	0.01 %
305400 - General Fund Property Taxes-Dodge	16.72	1,064,000.00	(1,063,983.28)	0.00 %
305500 - General Fund Property Taxes-Madison	13.54	48,500.00	(48,486.46)	0.03 %
305600 - General Fund Property Taxes-Platte	39.03	401,000.00	(400,960.97)	0.01 %
305700 - General Fund Property Taxes-Saunders	52.46	1,185,000.00	(1,184,947.54)	0.00 %
<b>Total Property Tax Income</b>	<b>3,728.41</b>	<b>3,483,000.00</b>	<b>(3,479,271.59)</b>	<b>0.11 %</b>
<b>Investment Income</b>				
311350 - Interest - NPAIT Elkhorn	533.53	6,000.00	(5,466.47)	8.89 %
311400 - Interest - NPAIT Wanahoo SRA	2,135.99	25,000.00	(22,864.01)	8.54 %
311500 - Interest - NPAIT NRD	9.61	100.00	(90.39)	9.61 %
311600 - Interest - STFIT NRD	7,090.21	120,000.00	(112,909.79)	5.91 %
311700 - Interest - UBT NRD	51.51	800.00	(748.49)	6.44 %
<b>Total Investment Income</b>	<b>9,820.85</b>	<b>151,900.00</b>	<b>(142,079.15)</b>	<b>6.47 %</b>
<b>Miscellaneous Income</b>				
309100 - Sales - Trees	0.00	16,000.00	(16,000.00)	0.00 %
309350 - Sales - Well Permits	0.00	1,500.00	(1,500.00)	0.00 %

**Lower Platte North NRD**  
**Supplemental Schedule**  
Statements of Activities - Actual vs. Budget

	Month Ending 07/31/2025 <small>MTD Actual</small>	Annual Budget June 30, 2026 <small>FY2026</small>	\$ Difference Annual Budget	Percentage Annual Budget
309360 - Sales - Sample Kits	0.00	4,000.00	(4,000.00)	0.00 %
309400 - Sales - Other	75.00	1,800.00	(1,725.00)	4.17 %
309500 - Equipment Rent	972.60	6,500.00	(5,527.40)	14.96 %
310000 - Chemigation Permits	510.00	24,000.00	(23,490.00)	2.13 %
310100 - Check Valve Sales	232.59	1,500.00	(1,267.41)	15.51 %
310200 - Czechland Camping Fees	1,617.26	13,000.00	(11,382.74)	12.44 %
310201 - Wanahoo Park Permits	6,502.50	65,000.00	(58,497.50)	10.00 %
310202 - Lake Wanahoo Camping	17,720.24	120,000.00	(102,279.76)	14.77 %
312000 - Salaries-Other NRD	0.00	104,101.00	(104,101.00)	0.00 %
313000 - Miscellaneous Income	1,382.85	10,000.00	(8,617.15)	13.83 %
315000 - RWD Administrative Fees	482.34	5,500.00	(5,017.66)	8.77 %
316000 - Employee/Director Reimb	334.14	3,000.00	(2,665.86)	11.14 %
317000 - Loss Or Gain On Sale Of Assets	0.00	50,000.00	(50,000.00)	0.00 %
318000 - Special Project Income	0.00	25,000.00	(25,000.00)	0.00 %
<b>Total Miscellaneous Income</b>	<b>29,829.52</b>	<b>450,901.00</b>	<b>(421,071.48)</b>	<b>6.62 %</b>
<b>Total Income</b>	<b>347,563.77</b>	<b>13,181,248.00</b>	<b>(12,833,684.23)</b>	<b>2.64 %</b>
<b>Expenses</b>				
<b>Administration Expenses</b>				
<b>Dues &amp; Membership</b>				
410201 - Dues & Membership - Chamber	0.00	450.00	(450.00)	0.00 %
410202 - Dues & Membership - NACD	148.00	1,776.00	(1,628.00)	8.33 %
410203 - Dues - NARD	2,768.95	33,227.00	(30,458.05)	8.33 %
410204 - Dues - NWRA	1,950.00	1,950.00	0.00	100.00 %
410205 - Dues & Membership - Other	0.00	3,200.00	(3,200.00)	0.00 %
<b>Total Dues &amp; Membership</b>	<b>4,866.95</b>	<b>40,603.00</b>	<b>(35,736.05)</b>	<b>11.99 %</b>
<b>Fees and Licenses</b>				
410302 - NRD Fees And Licenses	0.00	20,000.00	(20,000.00)	0.00 %
410304 - NRD Union Bank Fees	50.52	600.00	(549.48)	8.42 %
<b>Total Fees and Licenses</b>	<b>50.52</b>	<b>20,600.00</b>	<b>(20,549.48)</b>	<b>0.25 %</b>
<b>GIS</b>				
410401 - GIS Activities	0.00	2,000.00	(2,000.00)	0.00 %
<b>Total GIS</b>	<b>0.00</b>	<b>2,000.00</b>	<b>(2,000.00)</b>	<b>0.00 %</b>
<b>Insurance</b>				
410501 - Insurance-Auto	1,146.33	16,000.00	(14,853.67)	7.16 %
410502 - Insurance-Errors & Omissions	479.25	7,100.00	(6,620.75)	6.75 %
410504 - Insurance-Liability	5,849.60	71,000.00	(65,150.40)	8.24 %
410505 - Insurance-Property	6,608.67	50,000.00	(43,391.33)	13.22 %
<b>Total Insurance</b>	<b>14,083.85</b>	<b>144,100.00</b>	<b>(130,016.15)</b>	<b>9.77 %</b>
<b>Legal Notices</b>				
410701 - Legal Notices	12.04	4,000.00	(3,987.96)	0.30 %
410702 - Other Notices and Advertising	0.00	100.00	(100.00)	0.00 %
<b>Total Legal Notices</b>	<b>12.04</b>	<b>4,100.00</b>	<b>(4,087.96)</b>	<b>0.29 %</b>
<b>Maintenance Contracts</b>				
410800 - Maintenance Contracts	258.72	9,000.00	(8,741.28)	2.87 %
<b>Total Maintenance Contracts</b>	<b>258.72</b>	<b>9,000.00</b>	<b>(8,741.28)</b>	<b>2.87 %</b>
<b>Office Supply &amp; Expense</b>				
410901 - Copier Supplies	0.00	1,000.00	(1,000.00)	0.00 %
410902 - Office Supplies & Equip	13.29	6,000.00	(5,986.71)	0.22 %
410903 - Franklin Supplies	0.00	500.00	(500.00)	0.00 %

**Lower Platte North NRD**  
**Supplemental Schedule**  
Statements of Activities - Actual vs. Budget

	Month Ending 07/31/2025 <small>MTD Actual</small>	Annual Budget June 30, 2026 <small>FY2026</small>	\$ Difference Annual Budget	Percentage Annual Budget
410904 - Letterhead, Envelopes & Forms	0.00	3,500.00	(3,500.00)	0.00 %
410905 - Reference Books	0.00	1,000.00	(1,000.00)	0.00 %
410906 - Office Expense - Other	6,872.28	9,500.00	(2,627.72)	72.34 %
<b>Total Office Supply &amp; Expense</b>	<b>6,885.57</b>	<b>21,500.00</b>	<b>(14,614.43)</b>	<b>32.03 %</b>
<b>Computer Supply &amp; Expense</b>				
411002 - Computer Consultant	0.00	28,000.00	(28,000.00)	0.00 %
411003 - Computer Repairs & Parts	0.00	5,000.00	(5,000.00)	0.00 %
411004 - Computer Software	459.02	13,500.00	(13,040.98)	3.40 %
411005 - Computer Magazines/Video	0.00	100.00	(100.00)	0.00 %
411006 - Email	414.00	1,000.00	(586.00)	41.40 %
411011 - Computers & Equipment	3,736.45	16,000.00	(12,263.55)	23.35 %
411012 - Website Design & Hosting	0.00	5,350.00	(5,350.00)	0.00 %
<b>Total Computer Supply &amp; Expense</b>	<b>4,609.47</b>	<b>68,950.00</b>	<b>(64,340.53)</b>	<b>6.69 %</b>
<b>Postage</b>				
411200 - Postage	86.45	7,000.00	(6,913.55)	1.24 %
<b>Total Postage</b>	<b>86.45</b>	<b>7,000.00</b>	<b>(6,913.55)</b>	<b>1.24 %</b>
<b>Professional Services</b>				
411301 - Prof Serv-Accounting	7,700.00	97,020.00	(89,320.00)	7.94 %
411302 - Prof Serv-Annual Audit	0.00	15,650.00	(15,650.00)	0.00 %
411304 - Prof Serv-Legal - General	0.00	15,000.00	(15,000.00)	0.00 %
411305 - Prof Serv-Legal-Other	0.00	3,000.00	(3,000.00)	0.00 %
411307 - Prof Services-Other	0.00	3,600.00	(3,600.00)	0.00 %
411311 - Washington Expense	2,300.00	28,800.00	(26,500.00)	7.99 %
<b>Total Professional Services</b>	<b>10,000.00</b>	<b>163,070.00</b>	<b>(153,070.00)</b>	<b>6.13 %</b>
<b>Rent Expense</b>				
411400 - Rent Expense	0.00	1,500.00	(1,500.00)	0.00 %
<b>Total Rent Expense</b>	<b>0.00</b>	<b>1,500.00</b>	<b>(1,500.00)</b>	<b>0.00 %</b>
<b>Support to Organizations</b>				
411501 - Locally Lead Conservation Groups	1,000.00	1,500.00	(500.00)	66.67 %
411502 - R C & D Organizations	0.00	500.00	(500.00)	0.00 %
<b>Total Support to Organizations</b>	<b>1,000.00</b>	<b>2,000.00</b>	<b>(1,000.00)</b>	<b>50.00 %</b>
<b>Telephone Expense</b>				
411601 - Telephone - Cellular	966.56	12,500.00	(11,533.44)	7.73 %
411602 - Local Phone & Internet	747.04	9,000.00	(8,252.96)	8.30 %
<b>Total Telephone Expense</b>	<b>1,713.60</b>	<b>21,500.00</b>	<b>(19,786.40)</b>	<b>7.97 %</b>
<b>Utilities</b>				
411700 - Utilities Expense	0.00	12,000.00	(12,000.00)	0.00 %
<b>Total Utilities</b>	<b>0.00</b>	<b>12,000.00</b>	<b>(12,000.00)</b>	<b>0.00 %</b>
<b>Total Administration Expenses</b>	<b>43,567.17</b>	<b>517,923.00</b>	<b>(474,355.83)</b>	<b>8.41 %</b>
<b>Information &amp; Education Expenses</b>				
<b>Education</b>				
420103 - Land & Range Judging Contest	0.00	2,000.00	(2,000.00)	0.00 %
420104 - Outdoor Classrooms	0.00	2,500.00	(2,500.00)	0.00 %
420106 - Miscellaneous Education Expense	0.00	500.00	(500.00)	0.00 %
420107 - Water Testing Event	0.00	500.00	(500.00)	0.00 %
420108 - Spring Conservation Sensation	0.00	3,000.00	(3,000.00)	0.00 %
420109 - Education Outreach	924.55	3,000.00	(2,075.45)	30.82 %
<b>Total Education</b>	<b>924.55</b>	<b>11,500.00</b>	<b>(10,575.45)</b>	<b>8.04 %</b>
<b>Information</b>				

**Lower Platte North NRD**  
**Supplemental Schedule**  
Statements of Activities - Actual vs. Budget

	Month Ending 07/31/2025 <small>MTD Actual</small>	Annual Budget June 30, 2026 <small>FY2026</small>	\$ Difference Annual Budget	Percentage Annual Budget
420201 - Annual Report/Viaduct	6,149.00	18,000.00	(11,851.00)	34.16 %
420202 - Books And Pamphlets	0.00	800.00	(800.00)	0.00 %
420203 - Expositions And Display	0.00	2,000.00	(2,000.00)	0.00 %
420205 - Phrography, Cameras, Video	0.00	1,500.00	(1,500.00)	0.00 %
420206 - Soil & Water Stewardship Mat.	0.00	100.00	(100.00)	0.00 %
420208 - Miscellaneous	0.00	1,500.00	(1,500.00)	0.00 %
420209 - Ktic Ad	248.00	8,500.00	(8,252.00)	2.92 %
420211 - E-Ads	280.00	0.00	280.00	0.00 %
420212 - TV Promotion	0.00	3,500.00	(3,500.00)	0.00 %
420213 - Promotion Videos	0.00	5,000.00	(5,000.00)	0.00 %
<b>Total Information</b>	<b>6,677.00</b>	<b>40,900.00</b>	<b>(34,223.00)</b>	<b>16.33 %</b>
<b>Scholarships and Grants</b>				
420305 - Camp And Workshop Scholarships	0.00	3,000.00	(3,000.00)	0.00 %
420307 - Shell Crk Watershd Scholarship	0.00	3,000.00	(3,000.00)	0.00 %
420308 - Pollinator Program	0.00	500.00	(500.00)	0.00 %
420309 - Middle/High School Natural Resources Grant	4,500.00	4,500.00	0.00	100.00 %
<b>Total Scholarships and Grants</b>	<b>4,500.00</b>	<b>11,000.00</b>	<b>(6,500.00)</b>	<b>40.91 %</b>
<b>Other</b>				
420401 - Art Supplies	0.00	250.00	(250.00)	0.00 %
420402 - Cooperative Projects/Donations	44.54	500.00	(455.46)	8.91 %
420404 - Promotional Materials	127.00	4,000.00	(3,873.00)	3.18 %
420405 - Recognition Banquet & Awards	0.00	1,000.00	(1,000.00)	0.00 %
420407 - Cooperative Partnerships	0.00	1,000.00	(1,000.00)	0.00 %
420409 - N.American Envirothon	0.00	100.00	(100.00)	0.00 %
420410 - Continuing Ed - I&E Dept	0.00	500.00	(500.00)	0.00 %
<b>Total Other</b>	<b>171.54</b>	<b>7,350.00</b>	<b>(7,178.46)</b>	<b>2.33 %</b>
<b>Total Information &amp; Education Expenses</b>	<b>12,273.09</b>	<b>70,750.00</b>	<b>(58,476.91)</b>	<b>17.35 %</b>
<b>Operation &amp; Maintenance</b>				
<b>Auto and Truck</b>				
430101 - Auto & Truck Gas	1,733.04	22,000.00	(20,266.96)	7.88 %
430102 - Auto & Truck R&M	1,456.67	7,200.00	(5,743.33)	20.23 %
<b>Total Auto and Truck</b>	<b>3,189.71</b>	<b>29,200.00</b>	<b>(26,010.29)</b>	<b>10.92 %</b>
<b>Building Maintenance</b>				
430201 - Bldg Maintenance	267.08	3,500.00	(3,232.92)	7.63 %
430202 - Office Cleaning	0.00	6,500.00	(6,500.00)	0.00 %
430203 - Garbage Maintenance	101.72	1,400.00	(1,298.28)	7.27 %
<b>Total Building Maintenance</b>	<b>368.80</b>	<b>11,400.00</b>	<b>(11,031.20)</b>	<b>3.24 %</b>
<b>Community Forestry Program</b>				
430300 - Community Forestry	0.00	2,000.00	(2,000.00)	0.00 %
<b>Total Community Forestry Program</b>	<b>0.00</b>	<b>2,000.00</b>	<b>(2,000.00)</b>	<b>0.00 %</b>
<b>Operation and Maintenance</b>				
430401 - Czechland & Homestead	997.07	7,000.00	(6,002.93)	14.24 %
430402 - Equipment Upkeep	1,390.49	12,000.00	(10,609.51)	11.59 %
430403 - Operation & Maintenance	373.40	100,000.00	(99,626.60)	0.37 %
430404 - Tree Supplies	0.00	250.00	(250.00)	0.00 %
430406 - Wanahoo Park Operation	3,892.11	60,000.00	(56,107.89)	6.49 %
430407 - Monitoring Wanahoo Dam	3,616.75	16,000.00	(12,383.25)	22.60 %
430408 - Wanahoo Rec Mgmt	7,974.92	60,000.00	(52,025.08)	13.29 %
430409 - Lake Wanahoo Education Building	542.81	15,000.00	(14,457.19)	3.62 %

**Lower Platte North NRD**  
**Supplemental Schedule**  
Statements of Activities - Actual vs. Budget

	Month Ending 07/31/2025 MTD Actual	Annual Budget June 30, 2026 FY2026	\$ Difference Annual Budget	Percentage Annual Budget
<b>Total Operation and Maintenance</b>	<b>18,787.55</b>	<b>270,250.00</b>	<b>(251,462.45)</b>	<b>6.95 %</b>
<b>Project Repairs</b>				
430503 - Project Repairs - Other	0.00	20,000.00	(20,000.00)	0.00 %
430504 - Rawhide Channel Maintenance	0.00	2,000.00	(2,000.00)	0.00 %
<b>Total Project Repairs</b>	<b>0.00</b>	<b>22,000.00</b>	<b>(22,000.00)</b>	<b>0.00 %</b>
<b>Steam Bank Stabilization</b>				
430601 - Stream Bank - Perennial Streams	0.00	5,000.00	(5,000.00)	0.00 %
430602 - Stream Bank - Platte/Elkhorn Rivers	0.00	10,000.00	(10,000.00)	0.00 %
<b>Total Steam Bank Stabilization</b>	<b>0.00</b>	<b>15,000.00</b>	<b>(15,000.00)</b>	<b>0.00 %</b>
<b>Wildlife Habitat Programs</b>				
430701 - Wild Nebraska	0.00	1,000.00	(1,000.00)	0.00 %
<b>Total Wildlife Habitat Programs</b>	<b>0.00</b>	<b>1,000.00</b>	<b>(1,000.00)</b>	<b>0.00 %</b>
<b>Other</b>				
430801 - NRCS Flags	0.00	1,000.00	(1,000.00)	0.00 %
430802 - Stock For Resale - Trees	0.00	15,000.00	(15,000.00)	0.00 %
430803 - Lower Platte Weed Mgmt Area	0.00	60,000.00	(60,000.00)	0.00 %
430804 - O&M One-Call Services	11.63	150.00	(138.37)	7.75 %
430805 - IceJam Monitoring	0.00	500.00	(500.00)	0.00 %
<b>Total Other</b>	<b>11.63</b>	<b>76,650.00</b>	<b>(76,638.37)</b>	<b>0.02 %</b>
<b>Total Operation &amp; Maintenance</b>	<b>22,357.69</b>	<b>427,500.00</b>	<b>(405,142.31)</b>	<b>5.23 %</b>
<b>Personnel Expenses</b>				
<b>Director Expense</b>				
440101 - Director Meeting Expense	166.00	20,000.00	(19,834.00)	0.83 %
440102 - Director Mileage Expense	0.00	16,000.00	(16,000.00)	0.00 %
440104 - Computer Stipend	0.00	5,700.00	(5,700.00)	0.00 %
<b>Total Director Expense</b>	<b>166.00</b>	<b>41,700.00</b>	<b>(41,534.00)</b>	<b>0.40 %</b>
<b>Director Per Diem</b>				
440200 - Director Per Diem	0.00	30,000.00	(30,000.00)	0.00 %
<b>Total Director Per Diem</b>	<b>0.00</b>	<b>30,000.00</b>	<b>(30,000.00)</b>	<b>0.00 %</b>
<b>Employee Benefits</b>				
440301 - Dental Insurance	1,815.39	24,000.00	(22,184.61)	7.56 %
440302 - Health Insurance	31,715.21	385,000.00	(353,284.79)	8.24 %
440303 - Retirement Benefit - 414H	3,103.50	89,000.00	(85,896.50)	3.49 %
440304 - Retirement Benefit - 457 Plan	0.00	4,000.00	(4,000.00)	0.00 %
440305 - Tuition Reimbursement	0.00	3,000.00	(3,000.00)	0.00 %
440306 - Workmans Comp Benefit	1,937.33	35,000.00	(33,062.67)	5.54 %
440307 - Employee Benefits - Other	(30.52)	2,500.00	(2,530.52)	(1.22) %
440309 - Flexible Spending Fee	0.00	300.00	(300.00)	0.00 %
440311 - Unemployment Insurance Benefit	0.00	500.00	(500.00)	0.00 %
440312 - Accrued Compensated Absences	0.00	5,000.00	(5,000.00)	0.00 %
<b>Total Employee Benefits</b>	<b>38,540.91</b>	<b>548,300.00</b>	<b>(509,759.09)</b>	<b>7.03 %</b>
<b>Payroll Taxes</b>				
440401 - FICA - ER	2,952.39	83,000.00	(80,047.61)	3.56 %
440402 - Medicare - ER	690.49	19,500.00	(18,809.51)	3.54 %
<b>Total Payroll Taxes</b>	<b>3,642.88</b>	<b>102,500.00</b>	<b>(98,857.12)</b>	<b>3.55 %</b>
<b>Personnel Expense</b>				
440501 - Personnel Meeting Exp	1,943.47	35,000.00	(33,056.53)	5.55 %
440502 - Personnel Mileage Exp	35.70	3,500.00	(3,464.30)	1.02 %
440503 - Safety Committee	0.00	1,000.00	(1,000.00)	0.00 %

**Lower Platte North NRD**  
**Supplemental Schedule**  
 Statements of Activities - Actual vs. Budget

	Month Ending 07/31/2025 MTD Actual	Annual Budget June 30, 2026 FY2026	\$ Difference Annual Budget	Percentage Annual Budget
440504 - Personnel Uniform Exp	748.00	2,500.00	(1,752.00)	29.92 %
440505 - Personnel Exp-Other	0.00	1,200.00	(1,200.00)	0.00 %
<b>Total Personnel Expense</b>	<b>2,727.17</b>	<b>43,200.00</b>	<b>(40,472.83)</b>	<b>6.31 %</b>
<b>Salaries</b>				
440601 - Salaries - Administration	9,770.61	276,800.00	(267,029.39)	3.53 %
440602 - Salaries - Clerical	1,128.41	32,800.00	(31,671.59)	3.44 %
440603 - Employee Recognition Program	0.00	1,300.00	(1,300.00)	0.00 %
440604 - Salaries - I & E	4,265.16	122,600.00	(118,334.84)	3.48 %
440605 - Salaries - Op & Maint	8,588.56	237,600.00	(229,011.44)	3.61 %
440606 - NRCS Support	5,225.86	154,000.00	(148,774.14)	3.39 %
440607 - Salaries - Projects	3,896.64	109,800.00	(105,903.36)	3.55 %
440608 - Salaries - Water	16,614.48	411,500.00	(394,885.52)	4.04 %
440616 - Lake Wanahoo Park Op.	7,131.83	100,000.00	(92,868.17)	7.13 %
<b>Total Salaries</b>	<b>56,621.55</b>	<b>1,446,400.00</b>	<b>(1,389,778.45)</b>	<b>3.91 %</b>
<b>Total Personnel Expenses</b>	<b>101,698.51</b>	<b>2,212,100.00</b>	<b>(2,110,401.49)</b>	<b>4.60 %</b>
<b>Projects Expenses</b>				
<b>Inter-Governmental</b>				
450110 - Platte Center Bank Stab. Phase LI	0.00	1,000.00	(1,000.00)	0.00 %
450114 - Trails	0.00	15,000.00	(15,000.00)	0.00 %
450115 - Dike & Drainage Assistance	0.00	10,000.00	(10,000.00)	0.00 %
450119 - JWMA Dodge Co	5,327.00	23,000.00	(17,673.00)	23.16 %
450123 - Hazard Mitigation Update	5,030.00	19,000.00	(13,970.00)	26.47 %
<b>Total Inter-Governmental</b>	<b>10,357.00</b>	<b>68,000.00</b>	<b>(57,643.00)</b>	<b>15.23 %</b>
<b>Special Projects</b>				
450309 - SA No-Till Conf/Shell Creek	0.00	1,000.00	(1,000.00)	0.00 %
450407 - Special Projects-Saunders	0.00	500,000.00	(500,000.00)	0.00 %
<b>Total Special Projects</b>	<b>0.00</b>	<b>501,000.00</b>	<b>(501,000.00)</b>	<b>0.00 %</b>
<b>Wanahoo</b>				
450506 - Lake Level Mgmt Plan	0.00	5,000.00	(5,000.00)	0.00 %
450509 - Wanahoo - Other	0.00	5,000.00	(5,000.00)	0.00 %
<b>Total Wanahoo</b>	<b>0.00</b>	<b>10,000.00</b>	<b>(10,000.00)</b>	<b>0.00 %</b>
<b>Other Projects</b>				
450711 - Leshara	0.00	31,000.00	(31,000.00)	0.00 %
<b>Total Other Projects</b>	<b>0.00</b>	<b>31,000.00</b>	<b>(31,000.00)</b>	<b>0.00 %</b>
<b>Platte River Corridor Alliance</b>				
411101 - PRCA - Administration	0.00	6,843.00	(6,843.00)	0.00 %
411129 - USGS Monitoring at Leshara	0.00	8,000.00	(8,000.00)	0.00 %
<b>Total Platte River Corridor Alliance</b>	<b>0.00</b>	<b>14,843.00</b>	<b>(14,843.00)</b>	<b>0.00 %</b>
<b>Total Projects Expenses</b>	<b>10,357.00</b>	<b>624,843.00</b>	<b>(614,486.00)</b>	<b>1.66 %</b>
<b>Water Expenses</b>				
<b>Groundwater Management Plan</b>				
460101 - GWMP - Cost - Share	0.00	12,000.00	(12,000.00)	0.00 %
460102 - GWMP - Information & Education	449.02	1,500.00	(1,050.98)	29.93 %
460103 - GWMP - Nitrogen Classes	0.00	3,000.00	(3,000.00)	0.00 %
460104 - GWMP - Permits	0.00	100.00	(100.00)	0.00 %
460110 - Basin Wide Water Plan	0.00	10,000.00	(10,000.00)	0.00 %
460111 - Flow Meter Maintenance	0.00	28,000.00	(28,000.00)	0.00 %
<b>Total Groundwater Management Plan</b>	<b>449.02</b>	<b>54,600.00</b>	<b>(54,150.98)</b>	<b>0.82 %</b>
<b>Groundwater Programs</b>				

**Lower Platte North NRD**  
**Supplemental Schedule**  
Statements of Activities - Actual vs. Budget

	Month Ending 07/31/2025 MTD Actual	Annual Budget June 30, 2026 FY2026	\$ Difference Annual Budget	Percentage Annual Budget
460201 - Decommissioned Wells	1,178.54	20,000.00	(18,821.46)	5.89 %
460203 - GW Levels	0.00	500.00	(500.00)	0.00 %
460204 - GW Quality Program	1,359.80	15,000.00	(13,640.20)	9.07 %
460205 - Mead - NOP	0.00	100.00	(100.00)	0.00 %
460206 - Monitoring Wells	3,755.67	10,000.00	(6,244.33)	37.56 %
460209 - Groundwater Programs Other	0.00	28,000.00	(28,000.00)	0.00 %
460212 - GW Monitoring Equip SQS#2	0.00	250.00	(250.00)	0.00 %
460213 - GW Memberships and Subscriptions	0.00	18,000.00	(18,000.00)	0.00 %
<b>Total Groundwater Programs</b>	<b>6,294.01</b>	<b>91,850.00</b>	<b>(85,555.99)</b>	<b>6.85 %</b>
<b>Regulatory</b>				
460301 - Chemigation	11.75	1,000.00	(988.25)	1.18 %
460302 - Irrigation Runoff	0.00	750.00	(750.00)	0.00 %
<b>Total Regulatory</b>	<b>11.75</b>	<b>1,750.00</b>	<b>(1,738.25)</b>	<b>0.67 %</b>
<b>Surface Water Programs</b>				
460403 - Stream Flow	4,213.00	18,000.00	(13,787.00)	23.41 %
<b>Total Surface Water Programs</b>	<b>4,213.00</b>	<b>18,000.00</b>	<b>(13,787.00)</b>	<b>23.41 %</b>
<b>Special Projects</b>				
460503 - Special Projects - Other	0.00	25,000.00	(25,000.00)	0.00 %
460504 - ENWRA	2,500.00	30,000.00	(27,500.00)	8.33 %
460519 - Hydrological Study	7,000.00	152,810.00	(145,810.00)	4.58 %
460521 - Lower Platte Consortium	0.00	250.00	(250.00)	0.00 %
460522 - Groundwater Management Plan Rev	0.00	95,000.00	(95,000.00)	0.00 %
460600 - Source Water Protection/Wellhead Protection	0.00	120,000.00	(120,000.00)	0.00 %
<b>Total Special Projects</b>	<b>9,500.00</b>	<b>423,060.00</b>	<b>(413,560.00)</b>	<b>2.25 %</b>
<b>Land Treatment</b>				
450201 - Ne Buffer Strip	0.00	62,000.00	(62,000.00)	0.00 %
450204 - Shell Creek	0.00	20,000.00	(20,000.00)	0.00 %
450206 - Emergency Terrace Repair	0.00	5,000.00	(5,000.00)	0.00 %
450207 - Nswcp Supplement	0.00	25,000.00	(25,000.00)	0.00 %
450211 - Trees	0.00	3,000.00	(3,000.00)	0.00 %
450802 - Wahoo Creek Watershed Plan-319	0.00	83,000.00	(83,000.00)	0.00 %
450803 - Shell Creek Watershed Plan 319	109,656.63	557,864.00	(448,207.37)	19.66 %
<b>Total Land Treatment</b>	<b>109,656.63</b>	<b>755,864.00</b>	<b>(646,207.37)</b>	<b>14.51 %</b>
<b>Total Water Expenses</b>	<b>130,124.41</b>	<b>1,345,124.00</b>	<b>(1,214,999.59)</b>	<b>9.67 %</b>
<b>Total Expenses</b>	<b>320,377.87</b>	<b>5,198,240.00</b>	<b>(4,877,862.13)</b>	<b>6.16 %</b>
<b>Total Change in Net Position</b>	<b>27,185.90</b>	<b>7,983,008.00</b>	<b>(7,955,822.10)</b>	<b>0.34 %</b>

**Lower Platte North NRD**  
**Supplemental Schedule**  
 Statements of Activities - Actual vs. Budget  
 Rural Water District - Bruno

	Month Ending 07/31/2025 <small>MTD Actual</small>	Annual Budget June 30, 2026 <small>FY2026</small>	\$ Difference Annual Budget	Percentage Annual Budget
<b>Change in Net Position</b>				
<b>Rural Water Income</b>				
304240 - Water Sales	5,018.00	40,800.00	(35,782.00)	12.30 %
304261 - Other Revenue	4.55	2,000.00	(1,995.45)	0.23 %
<b>Total Rural Water Income</b>	<b>5,022.55</b>	<b>42,800.00</b>	<b>(37,777.45)</b>	<b>11.73 %</b>
<b>Rural Water District Expenses</b>				
570201 - Water Purchase	5,161.38	17,200.00	(12,038.62)	30.01 %
570204 - Testing	0.00	400.00	(400.00)	0.00 %
570206 - Repair	0.00	1,600.00	(1,600.00)	0.00 %
570207 - Other Expenses	0.00	600.00	(600.00)	0.00 %
570208 - Lpnrd Adm. Fee	250.90	2,320.00	(2,069.10)	10.81 %
570210 - Health/Life/Vision/LTD - ER	202.67	2,600.00	(2,397.33)	7.80 %
570211 - Dental - ER	21.72	300.00	(278.28)	7.24 %
570212 - 414H ER Contributions	71.90	840.00	(768.10)	8.56 %
570215 - ER Social Security Tax	55.12	1,160.00	(1,104.88)	4.75 %
570216 - ER Medicare Tax	12.89	260.00	(247.11)	4.96 %
570217 - Salaries	35.42	10,000.00	(9,964.58)	0.35 %
570219 - Fees And Licenses	17.13	400.00	(382.87)	4.28 %
570220 - Rural Water One-Call	1.79	50.00	(48.21)	3.58 %
570221 - Rural Water Hand Tools & Supplies	0.00	200.00	(200.00)	0.00 %
570222 - RW Dues And Memberships	0.00	220.00	(220.00)	0.00 %
570223 - Rural Water Gasoline	127.89	600.00	(472.11)	21.32 %
570224 - Rural Water Personnel Meeting	0.00	480.00	(480.00)	0.00 %
570229 - Rural Water Insurance Expense	0.00	400.00	(400.00)	0.00 %
570230 - Rural Water Equipment Rental	0.00	1,000.00	(1,000.00)	0.00 %
570231 - Rural Water Equipment Upkeep	0.00	1,000.00	(1,000.00)	0.00 %
570232 - Rural Water Compensated Absences	0.00	400.00	(400.00)	0.00 %
<b>Total Rural Water District Expenses</b>	<b>5,958.81</b>	<b>42,030.00</b>	<b>(36,071.19)</b>	<b>14.18 %</b>
<b>Total Change in Net Position</b>	<b>(936.26)</b>	<b>770.00</b>	<b>(1,706.26)</b>	<b>(121.59) %</b>

**Lower Platte North NRD**  
**Supplemental Schedule**  
 Statements of Activities - Actual vs. Budget  
 Rural Water District - Colon

	Month Ending 07/31/2025 <small>MTD Actual</small>	Annual Budget June 30, 2026 <small>FY2026</small>	\$ Difference Annual Budget	Percentage Annual Budget
<b>Change in Net Position</b>				
<b>Rural Water Income</b>				
304240 - Water Sales	4,628.75	61,200.00	(56,571.25)	7.56 %
304275 - Colon Hook Up Fees	0.00	6,000.00	(6,000.00)	0.00 %
304295 - Colon Sewer Fees	2,777.60	30,000.00	(27,222.40)	9.26 %
304261 - Other Revenue	66.32	3,000.00	(2,933.68)	2.21 %
<b>Total Rural Water Income</b>	<b>7,472.67</b>	<b>100,200.00</b>	<b>(92,727.33)</b>	<b>7.46 %</b>
<b>Investment Income</b>				
304350 - Colon RW Interest - NPAIT	35.02	400.00	(364.98)	8.76 %
<b>Total Investment Income</b>	<b>35.02</b>	<b>400.00</b>	<b>(364.98)</b>	<b>8.76 %</b>
<b>Rural Water District Expenses</b>				
570201 - Water Purchase	1,380.49	25,800.00	(24,419.51)	5.35 %
570204 - Testing	0.00	600.00	(600.00)	0.00 %
570206 - Repair	0.00	2,400.00	(2,400.00)	0.00 %
570207 - Other Expenses	80.30	900.00	(819.70)	8.92 %
570208 - Lpnrnd Adm. Fee	231.44	3,480.00	(3,248.56)	6.65 %
570210 - Health/Life/Vision/LTD - ER	304.00	3,900.00	(3,596.00)	7.79 %
570211 - Dental - ER	32.59	450.00	(417.41)	7.24 %
570212 - 414H ER Contributions	107.84	1,260.00	(1,152.16)	8.56 %
570215 - ER Social Security Tax	120.25	1,740.00	(1,619.75)	6.91 %
570216 - ER Medicare Tax	28.12	390.00	(361.88)	7.21 %
570217 - Salaries	(553.00)	15,000.00	(15,553.00)	(3.69) %
570219 - Fees And Licenses	25.68	600.00	(574.32)	4.28 %
570220 - Rural Water One-Call	5.36	75.00	(69.64)	7.15 %
570221 - Rural Water Hand Tools & Supplies	0.00	300.00	(300.00)	0.00 %
570222 - RW Dues And Memberships	0.00	330.00	(330.00)	0.00 %
570223 - Rural Water Gasoline	72.98	900.00	(827.02)	8.11 %
570224 - Rural Water Personnel Meeting	0.00	720.00	(720.00)	0.00 %
570229 - Rural Water Insurance Expense	0.00	600.00	(600.00)	0.00 %
570230 - Rural Water Equipment Rental	0.00	1,500.00	(1,500.00)	0.00 %
570231 - Rural Water Equipment Upkeep	0.00	1,500.00	(1,500.00)	0.00 %
570232 - Rural Water Compensated Absences	0.00	600.00	(600.00)	0.00 %
570305 - Colon - Annual Bond Payment	0.00	3,355.00	(3,355.00)	0.00 %
570308 - Colon Meter House Expense	108.52	1,800.00	(1,691.48)	6.03 %
570309 - Colon Sewer Collections	2,633.60	33,000.00	(30,366.40)	7.98 %
570330 - Colon RW Bad Debt Expense	0.00	1,000.00	(1,000.00)	0.00 %
<b>Total Rural Water District Expenses</b>	<b>4,578.17</b>	<b>102,200.00</b>	<b>(97,621.83)</b>	<b>4.48 %</b>
<b>Total Change in Net Position</b>	<b>2,929.52</b>	<b>(1,600.00)</b>	<b>4,529.52</b>	<b>(183.10) %</b>

**Lower Platte North NRD**

Supplemental Schedule - Actual vs. Budget - Capital Expenses and Debt Service Payments

	<u>Year To Date</u> <u>6/30/2026</u> <i>Actual</i>	<u>Year Ending</u> <u>6/30/2026</u> <i>Budget</i>	<u>\$ Difference</u> <u>Annual Budget</u>	<u>Percentage</u> <u>Annual Budget</u>
<b>Capital Improvements - Real Property</b>				
Wahoo Creek (Olsson/Land)	127,900.49	5,300,000.00	(5,172,099.51)	2.41%
WC Easements - \$13,144				
WC Additional Dams - \$102,441.78				
WC Design/Legal/Flood Reduction Real Estate Svc - \$12,314.71				
New Office	0.00	350,000.00	(350,000.00)	0.00%
Building Furnishings/Infrastructure	0.00	160,000.00	(160,000.00)	0.00%
Cottonwood 21A	2,208.93	425,000.00	(422,791.07)	0.52%
Wanhoo FEMA Repairs (Breakwater Repairs/Spilling Basin Rehab)	55,196.00	1,000,000.00	(944,804.00)	5.52%
Breakwater Repairs - \$0				
Spilling Basin Rehab - \$0				
Wanhoo Repairs - \$55,196				
Wanhoo Dam Utility Improvements	0.00	15,900.00	(15,900.00)	0.00%
Wanhoo Upgrades	28,072.60	60,000.00	(31,927.40)	46.79%
Czechland Boat Ramp Light	0.00	10,000.00	(10,000.00)	0.00%
Monitoring Wells	0.00	100,000.00	(100,000.00)	0.00%
New Office Utility Extension	0.00	35,000.00	(35,000.00)	0.00%
New Office Landscaping Project	0.00	123,000.00	(123,000.00)	0.00%
District Wide Flood Reduction Sinking Fund	0.00	0.00	0.00	0.00%
<b>Total Capital Improvements - Real Property</b>	<b>213,378.02</b>	<b>7,578,900.00</b>	<b>(7,365,521.98)</b>	<b>2.82%</b>
<b>Capital Outlay</b>				
Machinery & Equipment (Grass Drill, Turbo Saw/Disc Mulcher Fuel Barrel x2, Tree Cooler)	0.00	124,100.00	(124,100.00)	0.00%
Auto and Trucks (Replacement Vehicle)	0.00	38,000.00	(38,000.00)	0.00%
Water Data Base (Longitude 103)	0.00	30,000.00	(30,000.00)	0.00%
RW Billing Software & Reader	0.00	10,000.00	(10,000.00)	0.00%
Other Capital Outlay - Equipment	0.00	0.00	0.00	0.00%
<b>Total Capital Outlay</b>	<b>0.00</b>	<b>202,100.00</b>	<b>(202,100.00)</b>	<b>0.00%</b>
<b>Debt Service Payments</b>				
Colon RW Note	0.00	3,355.00	(3,355.00)	0.00%
<b>Total Debt Service Payments</b>	<b>0.00</b>	<b>3,355.00</b>	<b>(3,355.00)</b>	<b>0.00%</b>
<b>Grand Total All Expenses w/o Depreciation</b>	<b>544,292.87</b>	<b>13,126,825.00</b>	<b>(12,582,532.13)</b>	<b>4.15%</b>

**Week #1**


**Lower Platte North NRD Time Sheet**

Name Eric Gottschalk

Period Covered 7/26/25 to 8/1/25


*You must enter "pm" for times after 12.59 or the form will not calculate correctly!*

	Date	Start Time	Stop Time	Work Hours	Other Hours	Duties Performed	Miles	Meals	Other Exp.
Sat	7/26								
Sun	7/27								
Mon	7/28	7:30 am 1:30 pm	12:45 pm 5:00 pm	8.75		Leadership Team Meeting, Budget, Wahoo Creek, Personnel,			
Tues	7/29	8:00 am 1:00 pm	12:30 pm 5:30 pm	9.00		Time Sheets, Annual Budget, Committee Prep			
Wed	7/30	8:00 am	4:45 pm	8.75		Annual Budget, Wahoo Creek update - NRCS/Olsson, Personnel			
Thurs	7/31	7:15 am 2:15 pm	1:00 pm 4:30 pm	8.00		Projects Committee, Operations Committee, Water Committee, Exec. Committee Committee Follow-up			
Fri	8/1	8:00 am 1:15 pm	12:15 pm 3:30 pm	6.50		Annual Budget Review, Committee Follow-up,			
<b>Week #1 Totals</b>				41	0		0	\$0.00	\$0.00

Supervisor \_\_\_\_\_ Manager  Assistant Manager \_\_\_\_\_ Treasurer \_\_\_\_\_

Date \_\_\_\_\_ Date 8/1/25 Date \_\_\_\_\_ Date \_\_\_\_\_

I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT

  
Signature of person filing form

8/1/25  
Date

**Expenses**

Mileage x 0.7	\$ 0.00
Meals	\$0.00
Other Exp.	\$0.00
<b>Total</b>	<b>\$ 0.00</b>

**Week #2**

**Lower Platte North NRD Time Sheet**

Name Eric Gottschalk

Period Covered 8/2/25 to 8/8/25

*You must enter "pm" for times after 12:59 or the form will not calculate correctly!*

	Date	Start Time	Stop Time	Work Hours	Other Hours	Duties Performed	Miles	Meals	Other Exp.
Sat	8/2								
Sun	8/3								
Mon	8/4	8:00 am 1:30 pm	12:45 pm 5:15 pm	8.50		Fiscal Budget, Personnel, Budget Workshop Prep, Wanahoo receipts/envelopes			
Tues	8/5	8:00 am 1:30 pm	12:30 pm 9:00 pm	12.00		Budget Review, Wahoo Creek, Budget Workshop Prep & Meeting			
Wed	8/6				2.75	Out 2.75 A.L.			
Thurs	8/7	8:00 am 1:30 pm	12:45 pm 5:00 pm	8.25		Budget Workshop Follow-up District Management, Annual Budget Adjustments			
Fri	8/8	8:00 am 1:30 pm	12:30 pm 4:30 pm	7.50		Board Meeting Prep, Budget, District Management			
<b>Week #2 Totals</b>				36.25	2.75		0	\$0.00	\$0.00
<b>Totals Week #1</b>				41	0		0	\$0.00	\$0.00
<b>Two Week Totals</b>				77.25	2.75		0	\$0.00	\$0.00

**Annual Leave & Sick Leave**

	Previous Balance	Earned This Pay Period	Used This Pay Period	New Balance
Annual Leave	240.00	8.00	2.75	<del>245.25</del> 240
Sick Leave	780.00	4.00	0.00	784.00

**RESET FORM**

This will delete ALL data on form, including name, AL/SL values and Program Areas labels.

#	Program Areas	Hours
11	Administration	33.00
14	District Management	40.00
15	Personnel	4.25
31	I&E Administration	
41	O&M Administration	
51	Projects Administration	
61	Water Administration	
71	Rural Water Administration	
52	Conservation Program	
Holiday		
1	Annual Leave	2.75
2	Sick Leave	0.00
Other		

**Total: 80**

**Week #1**


**Lower Platte North NRD Time Sheet**

Name Eric Gottschalk

Period Covered 8/9/25 to 8/15/25


*You must enter "pm" for times after 12.59 or the form will not calculate correctly!*

	Date	Start Time	Stop Time	Work Hours	Other Hours	Duties Performed	Miles	Meals	Other Exp.
Sat	8/9	6:45 pm	7:45 pm	1.00					
Sun	8/10								
Mon	8/11	7:45 am 2:30 pm	12:30 pm 10:30 pm	12.75		Leadership Team Meeting, Board Meeting Prep, Annual Budget,			
Tues	8/12	7:45 am 1:30 pm	12:45 pm 5:00 pm	8.50		Staff Meeting, Wahoo Creek, District Management			
Wed	8/13				6.50	Out 6.5 A.L.			
Thurs	8/14	8:00 am 1:45 pm	12:45 pm 5:00 pm	8.00		District Management, Budget review, Personnel,			
Fri	8/15	8:00 am 1:00 pm	12:00 pm 4:30 pm	7.50		Wahoo Creek, Cottonwood Creek discussion - HDR, NRCS meeting District Management			
<b>Week #1 Totals</b>				<b>37.75</b>	<b>6.5</b>		<b>0</b>	<b>\$0.00</b>	<b>\$0.00</b>

Supervisor \_\_\_\_\_ Manager  Assistant Manager \_\_\_\_\_ Treasurer \_\_\_\_\_

Date \_\_\_\_\_ Date 8/26/25 Date \_\_\_\_\_ Date \_\_\_\_\_

I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT

  
Signature of person filing form

8/26/25  
Date

**Expenses**

Mileage x 0.7	\$ 0.00
Meals	\$0.00
Other Exp.	\$0.00
<b>Total</b>	<b>\$ 0.00</b>

**Week #2**

**Lower Platte North NRD Time Sheet**

Name Eric Gottschalk

Period Covered 8/16/25 to 8/22/25

*You must enter "pm" for times after 12:59 or the form will not calculate correctly!*

	Date	Start Time	Stop Time	Work Hours	Other Hours	Duties Performed	Miles	Meals	Other Exp.
Sat	8/16								
Sun	8/17								
Mon	8/18	7:30 am	1:00 pm	5.50		Leadership Team, District Management, Wahoo Creek, Prep for Co. Supervisors mtg			
Tues	8/19	7:45 am 1:45 pm	1:00 pm 5:15 pm	8.75		Meet with Saunders Co. Supervisors - Morse Bluff Levee, Meet with LRE - SQS, Insurance work/review, Visa Statements, District Mgt.			
Wed	8/20	8:15 am 1:00 pm 4:45 pm	11:30 am 2:00 pm 5:30 pm	5.00		Personnel, District Management, 2025 Valuations Spreadsheet,			
Thurs	8/21	7:45 am 1:15 pm	12:45 pm 4:45 pm	8.50		NRCS - Site Visit - Wahoo Creek, Office tour, FEMA discussion, District Management			
Fri	8/22	7:45 am 1:30 pm	1:00 pm 4:00 pm	7.75		Personnel planning, NRCS Discussions District management, e-mail follow-up			
<b>Week #2 Totals</b>				35.5	0		0	\$0.00	\$0.00
<b>Totals Week #1</b>				37.75	6.5		0	\$0.00	\$0.00
<b>Two Week Totals</b>				73.25	6.5		0	\$0.00	\$0.00

**Annual Leave & Sick Leave**

	Previous Balance	Earned This Pay Period	Used This Pay Period	New Balance
Annual Leave	240.00	8.00	6.50	<del>241.50</del> <b>240</b>
Sick Leave	784.00	4.00	0.00	788.00

**RESET FORM**

This will delete ALL data on form, including name, AL/SL values and Program Areas labels.

#	Program Areas	Hours
11	Administration	
14	District Management	
15	Personnel	
31	I&E Administration	
41	O&M Administration	
51	Projects Administration	
61	Water Administration	
71	Rural Water Administration	
52	Conservation Program	
Holiday		
1	Annual Leave	
2	Sick Leave	
Other		

**Total: 0**

**Lower Platte North Natural Resources District  
Accounts Receivable Aging Summary as of 7/31/25**

**Accounts Receivable acct 105000**

<b>Customer</b>	<b>Invoice/Purpose</b>	<b>Current</b>	<b>0-30 Days</b>	<b>31-60 Days</b>	<b>61 and Over</b>	<b>Totals</b>
Bruno/David City RW Customers	Multiple	5073.37	0.00	0.00	0.00	5,073.37
Colon RW Customers	Multiple	7680.30	0.00	0.00	0.00	7,680.30
DEE 319 Funds	Bill Bos Payroll	0.00	1,453.28	1,528.63	158.54	3,140.45
	Shell Creek Rain Sensor - Gehring - Lindhorst	62.00	0.00	0.00	100.00	162.00
	Shell Creek WS Plan - Sander - Seier - Johnson	0.00	0.00	0.00	6,603.41	6,603.41
	Decommissioned Well - Loseke - Benson - Mueller	1,072.92	1,072.92	259.53	0.00	2,405.37
Department of Natural Resources	Cost-Share Flow Meter - Kluck - McAfee - Stibal	0.00	0.00	9,600.00	0.00	9,600.00
	Cost-Share Flow Meter - Svatora - Faltys - Koliha - Midland Land - Skytown Prop - Pyc	4,200.00	6,600.00	0.00	0.00	10,800.00
	Cost-Share Cover Crop - Faltys Brothers	0.00	192.00	0.00	0.00	192.00
FEMA	428 Funds - Bobcat of Omaha/Titan Machinery/Total Trailers/Anderson Ford	0.00	0.00	0.00	378,721.94	378,721.94
	O&M - Ty's Outdoor Power & Platte Valley	0.00	0.00	0.00	2,303.98	2,303.98
	TelePole Prunner - Ty's Outdoor Power	0.00	0.00	0.00	659.69	659.69
	Elway Power Sports of Lincoln	0.00	0.00	0.00	17,334.28	17,334.28
	Platte Valley Equipment - 428 Funds - Mower	0.00	0.00	0.00	23,146.84	23,146.84
	UBT Visa - 428 Funds (captial outlay small items)	0.00	0.00	0.00	1,037.83	1,037.83
	428 Fema Funds - Anderson Ford Lincoln-Klute Truck Equip-Platte Valley Equip-Platte	0.00	0.00	0.00	269,181.29	269,181.29
	Water Stilling Basin Inspect - Houston Eng	0.00	0.00	0.00	5,240.09	5,240.09
	Wanahoo Repairs	41,397.00	0.00	40,049.30	0.00	81,446.30
	428 Fema Funds - Bert Gurney - Scheele Kayton Const - IES Electric	0.00	0.00	76,754.57	181,743.73	258,498.30
	Flood Funds - ME Collins - Houston Engineering - ME Collins	0.00	0.00	0.00	197,177.16	197,177.16
Hazard Mitigation Federal	Hazard Mitigation Update - Jeo	3,772.50	17,100.00	15,492.38	26,655.76	63,020.64
JEDI	Olsson - Wahoo Creek WS & 7 Dam Sites Phase II	10,040.07	0.00	0.00	54,850.25	64,890.32
	Olsson - Wahoo Creek WS - 3 Dam Sites	15,290.61	12,689.11	0.00	6,511.68	34,491.40
	Olsson - Wahoo Creek Real Estate Services	5,981.63	15,975.54	0.00	24,489.62	46,446.79
	Bromm Lindahl - Legal	5,283.08	6,329.49	0.00	3,457.75	15,070.32
	Wahoo Creek Construction - Thompson Construction	77,111.10	285,587.10	0.00	0.00	362,698.20
	Permanent Consturciton Easement - Cerv - ECG Corp - Ostransky	13,144.00	33,000.00	0.00	0.00	46,144.00
	WCWS Site 55 - Great Plains Appraisal	1,050.00	0.00	0.00	0.00	1,050.00
JWMAB	JWMAB Platte River Cameras - Dodge Co-Fremont-PMRNRD	3,395.25	0.00	0.00	7,992.00	11,387.25
Live Well Go Fish	Shed at Wanahoo - Astro Buildings - Jansa Earthworks	0.00	(3,380.65)	7,825.00	19,664.00	24,108.35
NDEE	Shell Creek Watershed - Forestry Suppliers - Rivalry - Sander	0.00	7,216.12	178.40	172.51	7,567.03
NEMA	Water Stilling Basin Inspect - Houston Eng	0.00	0.00	0.00	873.35	873.35
	Flood Funds - ME Collins - Houston Engineering - ME Collins	6,899.50	0.00	0.00	32,862.86	39,762.36
	Wanahoo Repairs	0.00	0.00	6,674.88	0.00	6,674.88
NET	Bill Bos Payroll	1,614.75	0.00	0.00	7,570.73	9,185.48
	Shell Creek Grade Stabilizing - Runge - Barjenbruch	0.00	0.00	0.00	30,916.49	30,916.49
	Shell Creek Grassed Waterway - Marking	0.00	0.00	0.00	5,568.75	5,568.75
	Shell Creek Watershed - Forestry Suppliers	0.00	0.00	0.00	1,735.80	1,735.80
	Shell Creek Final Bend Project	107,587.03	0.00	0.00	0.00	107,587.03
	Shell Creek - SCWIG Student Tour (UBT Visa) - Stipend Miller	0.00	0.00	260.00	222.86	482.86
NRCS Federal	Cottonwood 21A - HDR Engineering	2,208.93	9,876.01	0.00	13,834.88	25,919.82
	NWQI - Jacob Maslonka Payroll	0.00	12,630.00	0.00	0.00	12,630.00
NRD	NRCS Wage Reimbursements FY25 (Upper Big Blue, LPS, Lower Elkhorn)	0.00	104,101.42	0.00	0.00	104,101.42
Source Well Protection Grant	Transducer/PVC for Abie Municipal Well - In-Situ - Downey Drilling	0.00	0.00	1,055.00	3,636.22	4,691.22
		<b>312,864.04</b>	<b>510,442.34</b>	<b>159,677.69</b>	<b>1,324,424.29</b>	<b>2,307,408.36</b>

# **DRAFT LAKE WANAHOO 2024 REPAIR AND MITIGATION TECHNICAL MEMORANDUM**

**To:** Lower Platte North Natural Resources District  
**From:** Houston Engineering, Inc.  
**Subject:** Lake Wanahoo 2024 Repair and Mitigation Technical Memorandum  
**Date:** September 3rd, 2025

## **1 INTRODUCTION**

Between May 20 and May 21, 2024, a significant rainfall event impacted the Sand Creek and Duck Creek watersheds, which contribute to Lake Wanahoo, and surrounding watersheds in Saunders County, Nebraska and Eastern Nebraska. This event was characterized by multiple rounds of intense and sustained precipitation, leading to widespread flooding and elevated water levels across multiple basins. Lake Wanahoo had the highest observed lake stage since construction in 2010, exceeding the reservoir crest elevation produced during the damaging flood in March 2019. The lake was monitored during the flood, with subsequent damage inspections finding storm event related damage to the Mile 3 trail, breakwater in the reservoir pool area, and the downstream stilling basin and outlet channel. This report provides a forensic hydrologic assessment of the storm event, a hydraulic analysis of alternatives, and preliminary cost estimates for repairs to most of the trail system, wood bridge, multiple jetties and dock at Pork Chop Island, and proposed mitigation to the Lake Wanahoo Dam principal spillway joints, stilling basin, downstream channel, breakwater, and Mile 3 trail.

## **2 FORENSIC STORM ANALYSIS**

### **2.1 HYDROMETEOROLOGY**

A storm event occurring from May 20th to May 21st, 2024, produced significant rainfall over the Sand/Duck Creek watershed and surrounding adjacent watersheds. The rainfall was driven by a slow-moving, moisture-laden frontal system that stalled over eastern Nebraska. Enhanced atmospheric instability and high precipitable water values contributed to efficient rainfall production, with localized convective bands delivering intense downpours. Rainfall reports across the region indicated accumulations ranging from 4.5 inches to over 10 inches. The Sand/Duck Creek watershed, along with Cottonwood, Wahoo, Skull, and Bone Creek watersheds, experienced water levels unprecedented in recent memory.

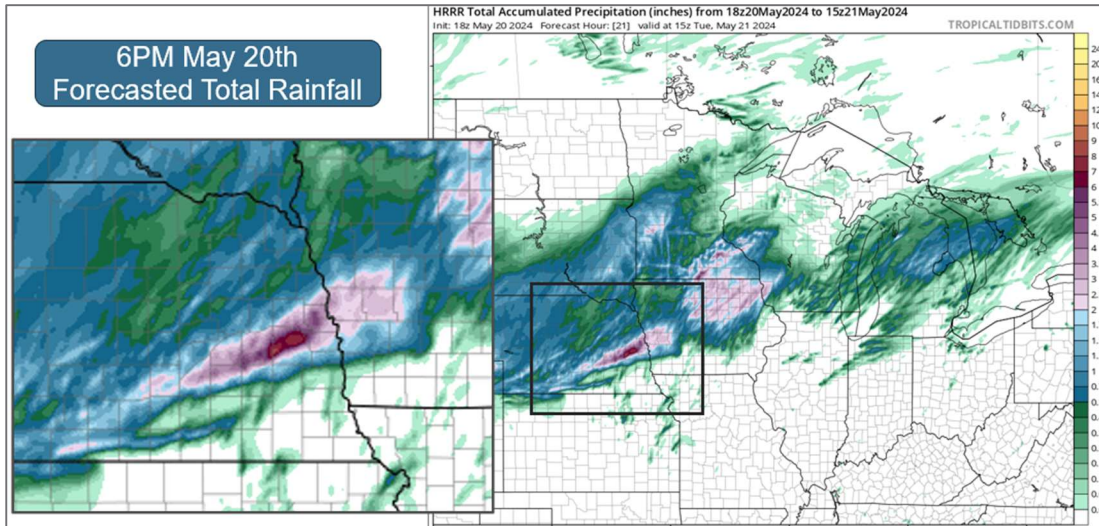


Figure 1: Forecasted Rainfall several hours in advance of the rain event indicated that conditions were suitable for localized significant rainfall totals

In order to recreate the storm event in hydrologic and hydraulic models used in this assessment, gage-corrected radar-rainfall estimated precipitation gridded datasets with 5-minute temporal resolution were generated for the Sand/Duck Creek watershed and the nearby region. Including the surrounding area ensures comprehensive data coverage and allows the integration of regional rain gauges into the analysis. The analysis was calibrated using nearby daily rainfall gages obtained from the National Centers for Environmental Information (NCEI). NEXRAD dual-pol reflectivity data and MRMS (Multi-Radar Multi-Sensor) precipitation data - used as a second reference to help bound uncertainties collected - for the full duration of the storm event were used to establish a scaled best fit relationship between the NEXRAD data and the rain gauge data. The rain gauge report values were reviewed for quality, and erroneous data points were filtered out. Total precipitation was calculated for each rain gauge. To sample the gridded precipitation data for comparison, a buffer of 1-mile was applied to the rain gauge location, and values within the cells that overlapped the buffered gauge station point were averaged to determine the accumulated gridded precipitation value. Buffers were used in this analysis to smooth out anomalies within the gridded precipitation data. The selected scaling coefficients used for the gage correction of the radar estimated precipitation was 0.927, based on the regression shown in Figure 2. Maps of the radar estimated precipitation data overlaid by rainfall gages and the corresponding plotted gage data are shown in Figure 3, with basin average temporal distribution of the rainfall shown in Figure 4.

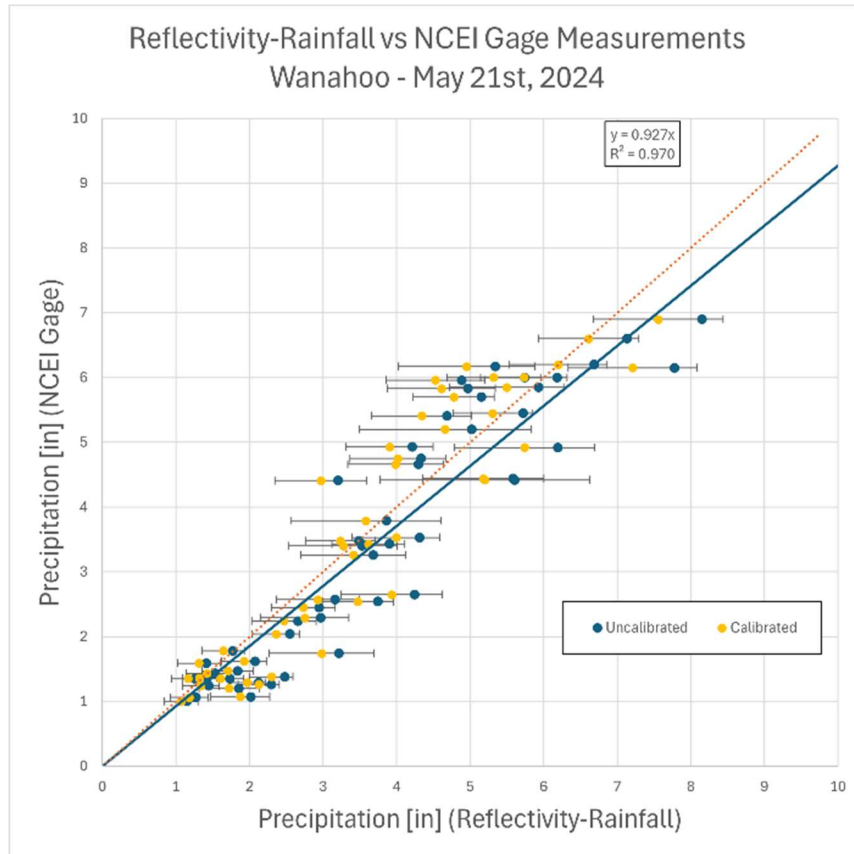


Figure 2: Gage Adjustment Correlation

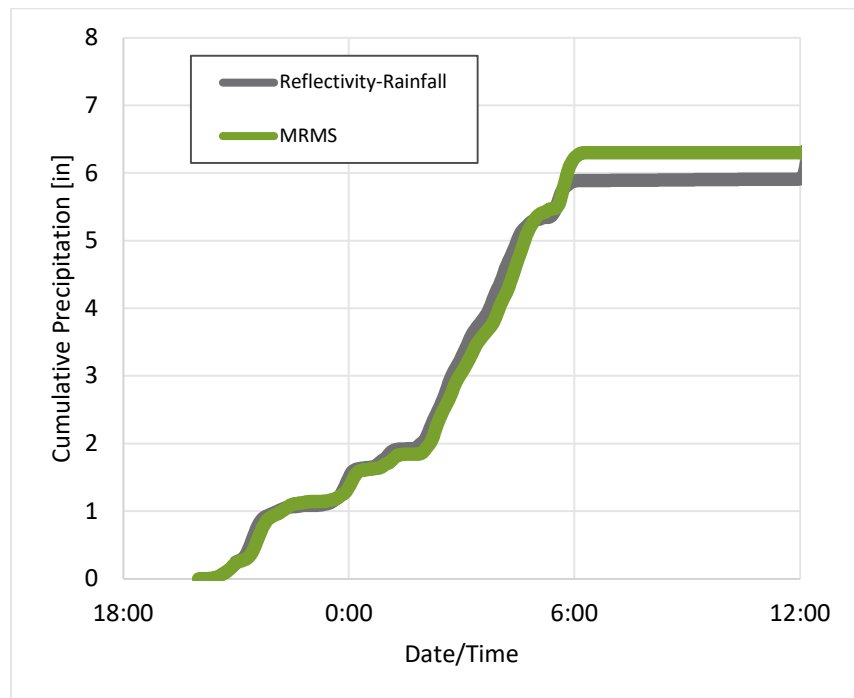


Figure 3: Sand/Duck Creek Watershed Precipitation

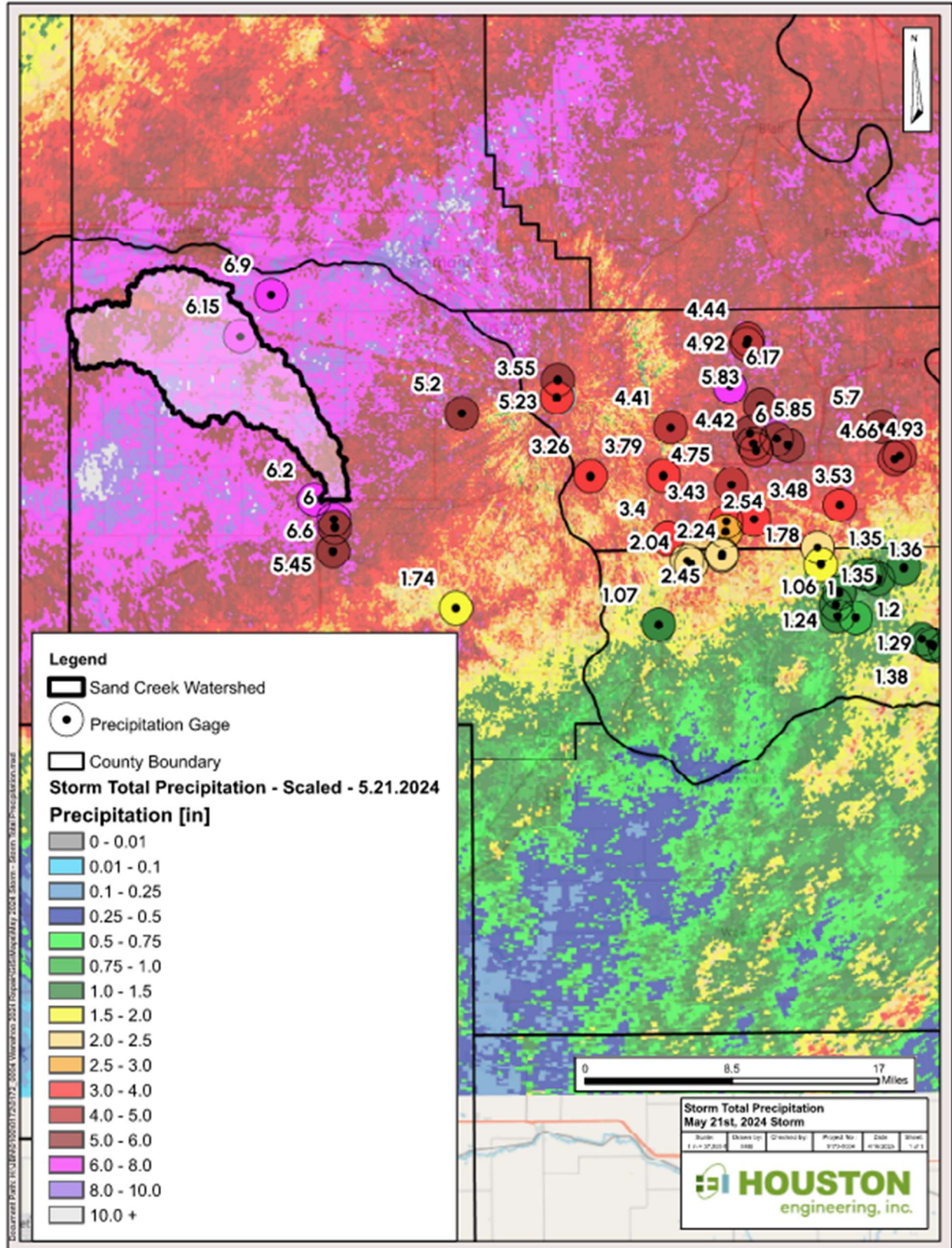


Figure 4. Gage-adjusted radar estimated storm total precipitation for May 20<sup>th</sup> – May 21<sup>st</sup>, 2024

Spatial analysis of Annual Exceedance Probability (AEP) characterized the rarity of rainfall intensities during the May 2024 event using NOAA Atlas 14 data. Results show approximately 2% of Sand/Duck Creek experienced 100- to 200-year event rainfall, 25% saw a 50- to 100-year event, and 73% had rainfall at or below the 50-year event threshold as shown in Figure 5.

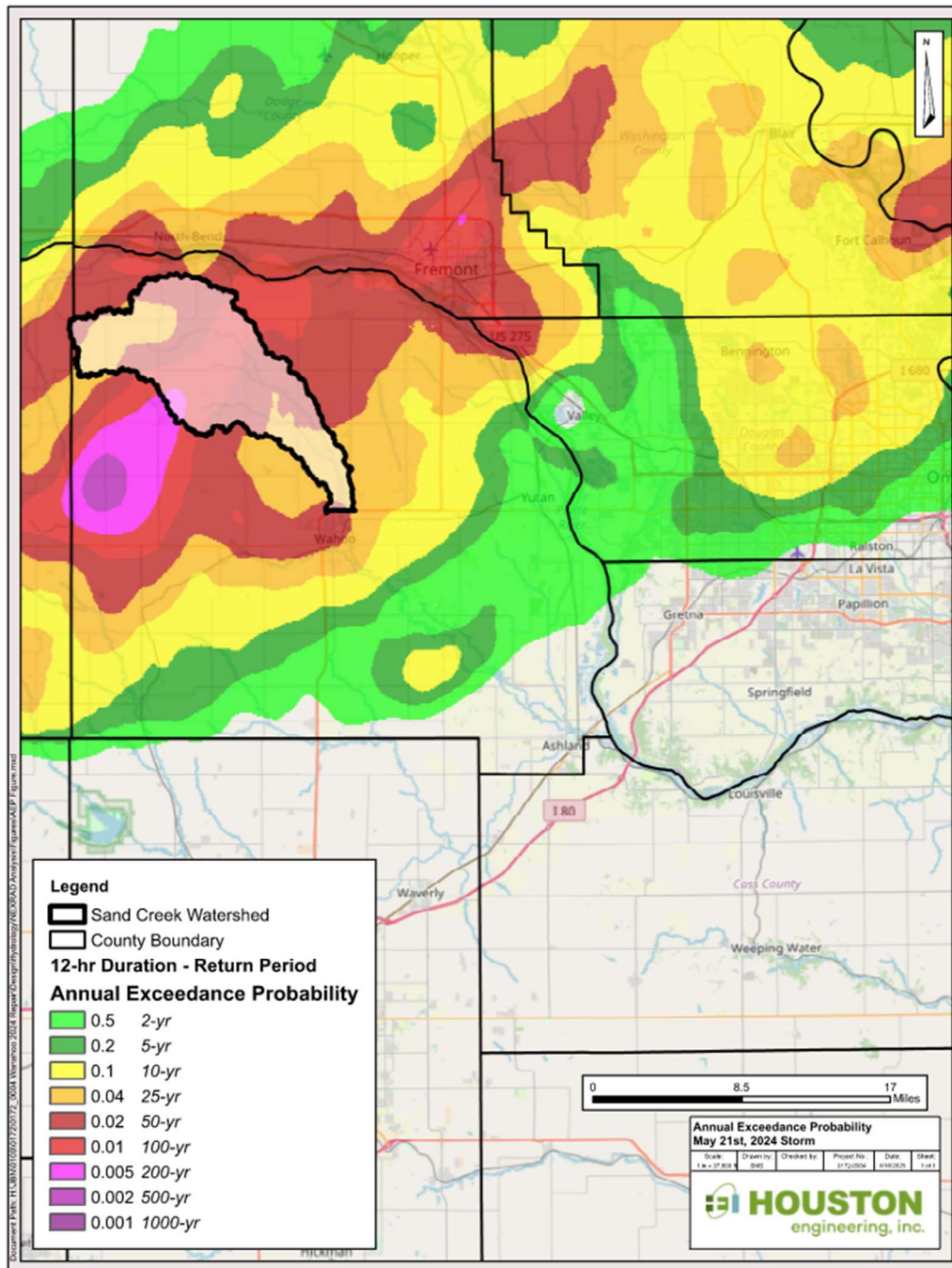


Figure 5. Spatial classification of 12-hr duration rainfall return period

## 2.2 HYDROLOGY AND HYDRAULICS

To evaluate the hydrologic response of the Sand/Duck Creek watershed during the May 20–21, 2024 rainfall event, a HEC-HMS model developed for the design of Lake Wanahoo was employed. This model was originally constructed using SCS Curve Number (CN) methodology, consistent with NRCS dam design standards, and was adapted for post-event analysis.

Lower Platte North NRD measured the lake stage throughout the event with a lake stage monitor, capturing the hydrograph’s rise, peak, and six hours of decline. Lake stage data was converted to flood storage, then inflow rates were calculated using elevation-storage relationships and a modified puls routing method, factoring in outflows determined from the principal spillway rating curve. The results of this analysis are shown in Figure 6.

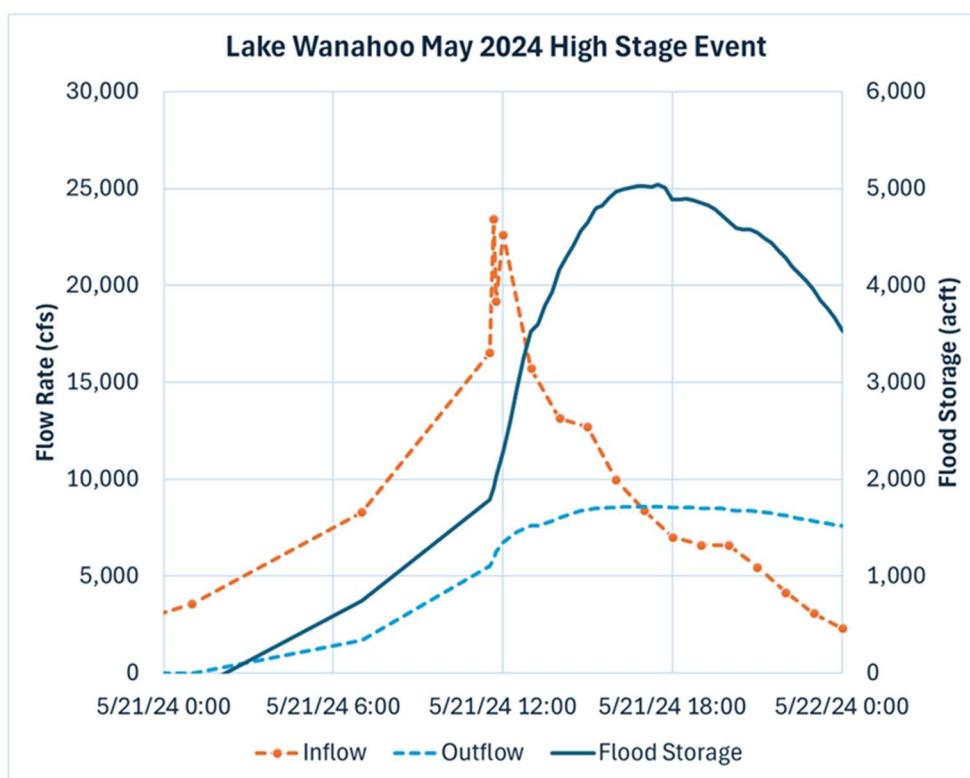


Figure 6: Lake Wanahoo observed flood storage and calculated inflow and outflow

The initial Curve Number (CN) values were modified to correspond with runoff volumes derived from Lake Wanahoo’s stage observations. This adjustment facilitated the back-calculation of runoff volumes using both precipitation datasets, thereby improving the accuracy of the model’s CN parameters. Calibration involved scaling the CN values 7% higher so that simulated runoff matched observed runoff levels, followed by validation with MRMS precipitation data to confirm the reliability of rainfall measurements. The calibrated model effectively replicated actual lake behavior, as shown in Figure 7. The calibrated hydrologic model was applied to determine lake stage frequencies using Atlas 14 precipitation depths within frequency storm

temporal distributions. Comparing these results to the May 2024 event shows the reservoir peaked at an elevation corresponding to a roughly 100-year recurrence interval.

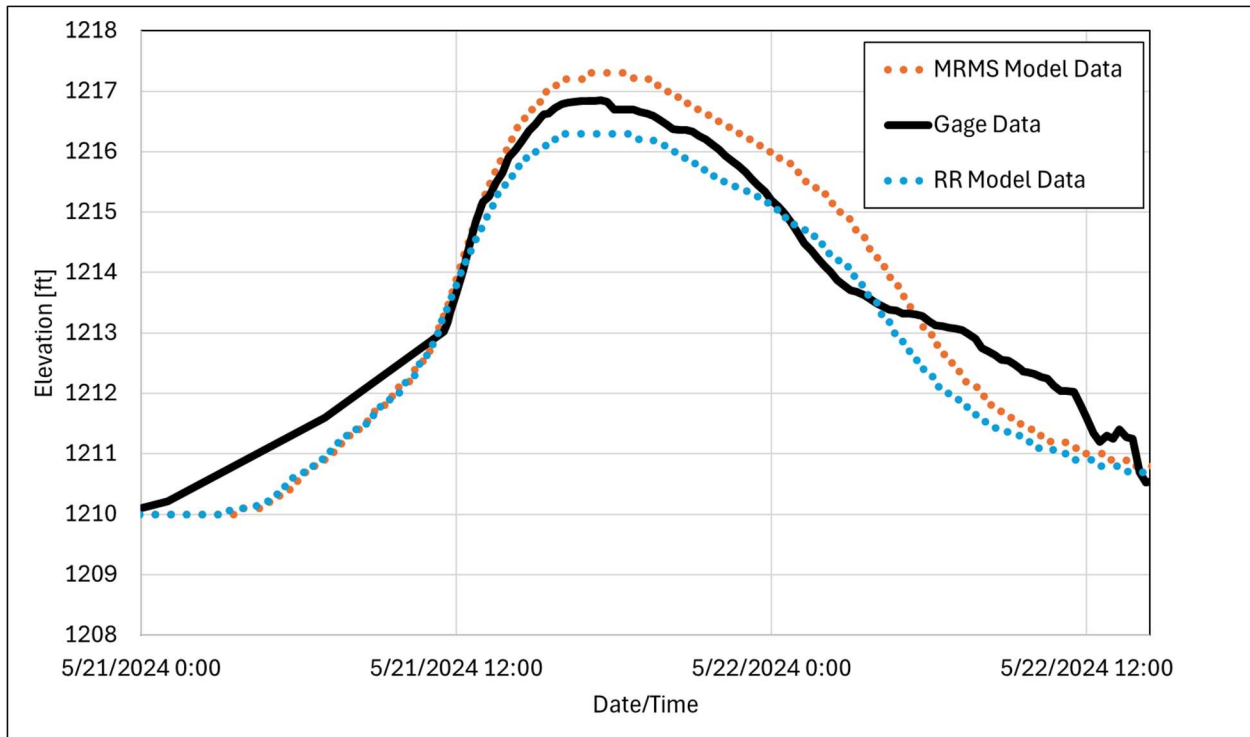


Figure 7: Lake Wanahoo observed stage and modeled stage

Table 1: Lake Wanahoo Routing Results

Design Event:	Precipitation (24-hr) [in]	Peak Inflow [cfs]	Max Water Surface Elevation [ft]
500-Year	9.1	33,615	1221.3
100-Year	6.9	19,448	1216.6
50-Year	6.1	14,564	1214.9
25-Year	5.3	10,574	1213.4
10-Year	4.3	6,542	1212.3

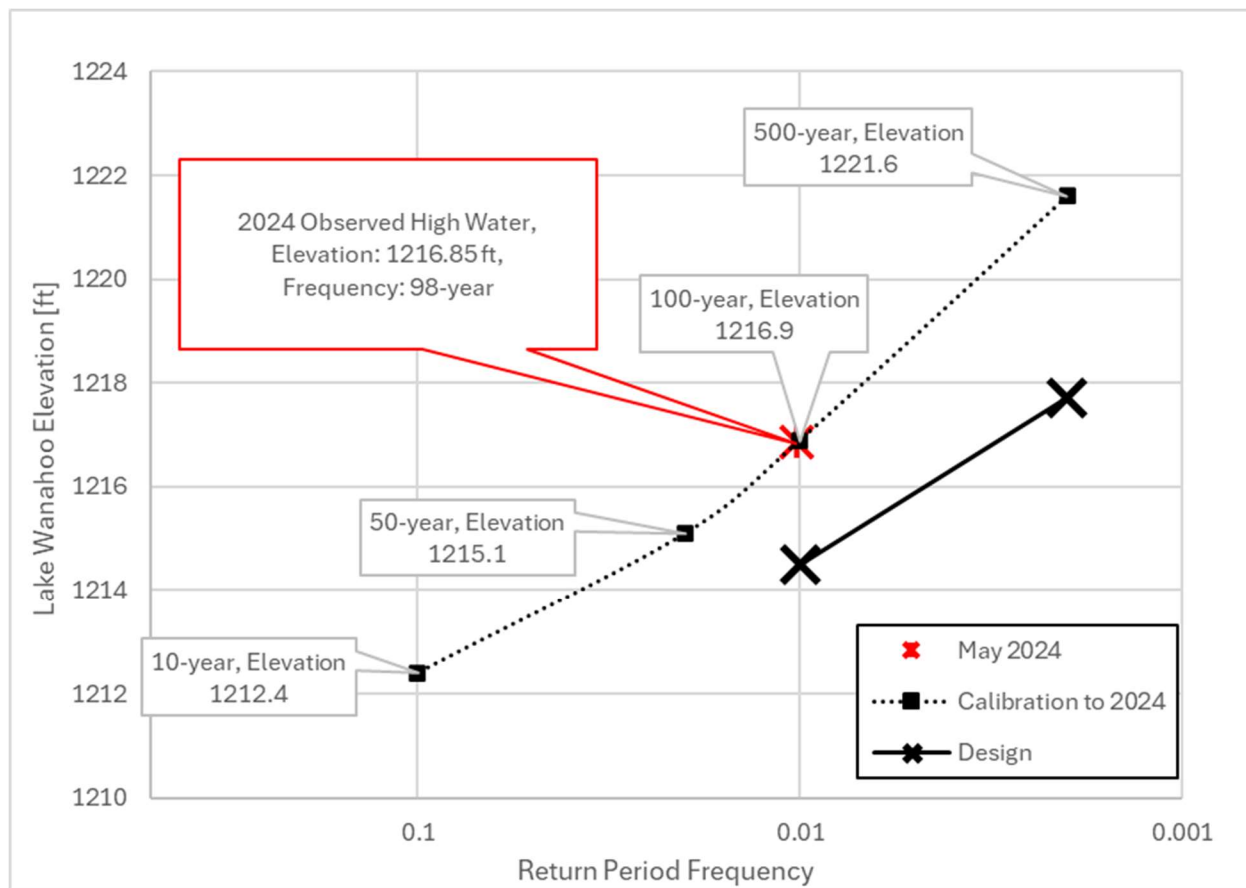


Figure 8: Lake Wanahoo May 2024 Calibrated Routing Results and Design Routing Results

### 3 BREAKWATER

#### 3.1 DESCRIPTION OF DAMAGE

During the May 2024 flood event, the breakwater experienced significant damage due to overtopping flows with depths and velocities sufficient to scour the gravel surfacing and underlying geotextile fabric. As inflows to the reservoir must first pass through the breakwater opening/bridge, and then when the opening capacity is exceeded, over the breakwater embankment before reaching the southern portion of the lake and the dam, the timing and rate of rise of water levels across the reservoir must be understood. Observations indicated that the northern portion of the reservoir rose more rapidly than the southern portion, resulting in overtopping depths which then cascaded down the south side of the breakwater until tailwater conditions developed to the south which eventually submerged the breakwater. Notably, the nature of the scour and deposition indicates that the damage occurred prior to the submergence of the breakwater, highlighting the need to understand the transient hydraulic conditions during the event. To evaluate how modifications to the breakwater elevation would influence overtopping depths and flow behavior, a two-dimensional unsteady-state hydraulic model was developed using HEC-RAS. This model captures the routing of inflows

across the breakwater and through both the northern and southern portions of the reservoir, enabling a detailed assessment of potential design alternatives.

### 3.2 ALTERNATIVES ANALYSIS

Table 2 provides a summary of the alternatives assessed, with the following figures conceptualizing the modifications needed to complete the repair or mitigation. A summary of the hydraulic results is presented alongside the cost summary at the end of the Alternative Costs section for ease of comparison.

Table 2: Breakwater Repair and Mitigation Alternatives

Alternative	Description
0a	Repair
0b	Repair w/ Concrete Trail
1a	Lower 400'
1b	Lower 800'
2a	Raise 1' EL 1215
2b	Raise 2' EL 1216
3a	New Channel 10'
3b	New Channel 50'
3c	New Channel 90'
4a	Widen Bridge +35'
4b	Widen Bridge +65'
2a & 3a	New Channel 10' & Raise 1'
0a & 3b	New Channel 50' & Concrete Trail

In addition to the alternatives shown in the table, mitigation of the breakwater by flattening the downstream slope was evaluated. This scenario was excluded from the hydraulic analysis because it was not expected to produce significant differences in hydraulic results compared to the repair alternatives. Assessment of the breakwater damages and the hydraulic analysis results suggested that flattening the downstream slope would not significantly reduce damage to the breakwater gravel surfacing and geotextiles, so this option was not pursued further in the analysis.

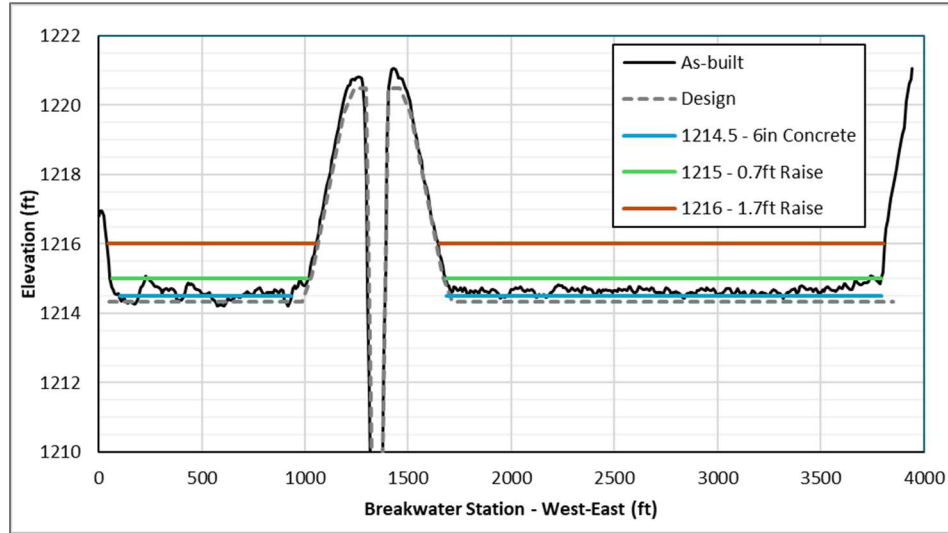


Figure 9: Pre-damage profile along the Breakwater with assessed raises

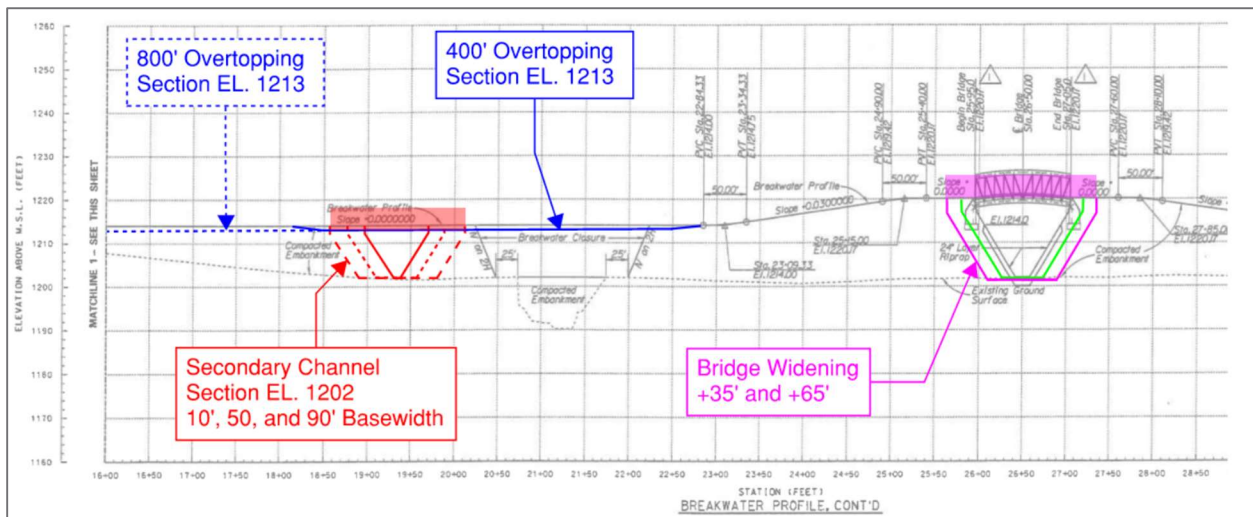


Figure 10: Breakwater as-built plans with assessed lowering and channel modifications

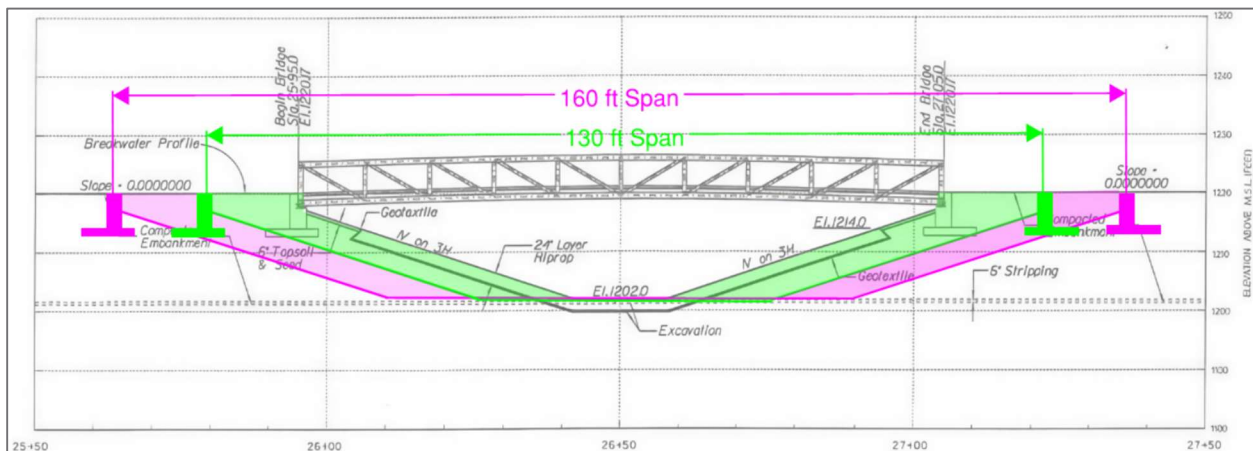


Figure 11: Breakwater as-built plans with channel modifications and bridge span requirements

25-Year: Breakwater Alternatives Summary							
Existing	Critical Depth [ft]			Overtopping Duration [hr]			
	0.9			8.1			
Alternatives	Critical Depth [ft]	Delta from Existing [ft]	% Difference	Overtopping Duration [hr]	Delta from Existing [hr]	% Difference	Rip Rap Required
1a Lower West Breakwater 1 ft for 400 ft	0.6	-0.27	-31%	6.6	-1.5	-19%	A/B
1b Lower West Breakwater 1 ft for 800 ft	0.4	-0.50	-58%	5.5	-2.6	-32%	A/B
2a Raise East and West Breakwater 1 ft	0.4	-0.50	-58%	4.8	-3.2	-40%	A
2b Raise East and West Breakwater 2 ft	0.0	No Overtopping	N/A	N/A	N/A	No Overtopping	A
3a New Channel: 10 ft base width	0.5	-0.39	-46%	5.3	-2.8	-35%	A
3b New Channel: 50 ft base width	0.0	-0.81	-95%	2.1	-6.0	-74%	A
3c New Channel: 90 ft base width	0.0	No Overtopping	N/A	N/A	N/A	No Overtopping	A
4a Widen Bridge: 50 ft base width	0.7	-0.14	-17%	6.8	-1.3	-15%	A
4b Widen Bridge: 80 ft base width	0.4	-0.44	-52%	4.8	-3.2	-40%	A
2a & 3a Raise East and West Breakwater 1 ft & New Channel 10 ft base width	0.0	No Overtopping	N/A	N/A	N/A	No Overtopping	A
2 & 3b Raise East and West Breakwater to 1214.5 ft & New Channel 50 ft Base Width	0.0	No Overtopping	N/A	N/A	N/A	No Overtopping	A

Figure 12: Changes to breakwater overtopping depth and duration for the 25-year event

50-Year: Breakwater Alternatives Summary							
Existing	Critical Depth [ft]			Overtopping Duration [hr]			
	1.2			2.00			
Alternatives	Critical Depth [ft]	Delta from Existing [ft]	% Difference	Overtopping Duration [hr]	Delta from Existing [hr]	% Difference	Rip Rap Required
1a Lower West Breakwater 1 ft for 400 ft	1.1	-0.10	-8%	1.83	-0.17	-8%	A/C
1b Lower West Breakwater 1 ft for 800 ft	1.0	-0.28	-23%	1.67	-0.33	-17%	A/C
2a Raise East and West Breakwater 1 ft	0.9	-0.29	-24%	2.75	0.75	37%	A
2b Raise East and West Breakwater 2 ft	0.4	-0.81	-65%	2.58	0.58	29%	A
3a New Channel: 10 ft base width	1.1	-0.10	-8%	1.75	-0.25	-13%	A
3b New Channel: 50 ft base width	1.0	-0.28	-23%	1.50	-0.50	-25%	A
3c New Channel: 90 ft base width	0.8	-0.48	-39%	1.17	-0.83	-42%	A
4a Widen Bridge: 50 ft base width	1.2	0.00	0%	1.83	-0.17	-8%	A
4b Widen Bridge: 80 ft base width	1.1	-0.13	-10%	1.67	-0.33	-17%	A
2a & 3a Raise East and West Breakwater 1 ft & New Channel 10 ft base width	0.7	-0.55	-44%	2.33	0.33	17%	A
2 & 3b Raise East and West Breakwater to 1214.5 ft & New Channel 50 ft Base Width	0.8	-0.46	-37%	1.58	-0.42	-21%	A

Figure 13: Changes to breakwater overtopping depth and duration for the 50-year event

100-Year: Breakwater Alternatives Summary							
Existing	Critical Depth [ft]			Overtopping Duration [hr]			
	1.5			1.5			
Alternatives	Critical Depth [ft]	Delta from Existing [ft]	% Difference	Overtopping Duration [hr]	Delta from Existing [hr]	% Difference	Rip Rap Required
1a Lower West Breakwater 1 ft for 400 ft	1.4	-0.11	-7%	1.4	-0.08	-6%	B/D
1b Lower West Breakwater 1 ft for 800 ft	1.2	-0.32	-21%	1.2	-0.25	-17%	A/C
2a Raise East and West Breakwater 1 ft	1.3	-0.22	-15%	1.6	0.08	6%	B
2b Raise East and West Breakwater 2 ft	1.0	-0.49	-32%	1.8	0.33	22%	A
3a New Channel: 10 ft base width	1.3	-0.21	-14%	1.1	-0.42	-28%	A
3b New Channel: 50 ft base width	1.0	-0.50	-33%	0.8	-0.67	-44%	A
3c New Channel: 90 ft base width	1.1	-0.44	-29%	0.8	-0.67	-44%	A
4a Widen Bridge: 50 ft base width	1.5	0.03	2%	1.4	-0.08	-6%	B
4b Widen Bridge: 80 ft base width	1.4	-0.11	-8%	1.2	-0.33	-22%	B
2a & 3a Raise East and West Breakwater 1 ft & New Channel 10 ft base width	1.0	-0.46	-31%	1.3	-0.25	-17%	A
2 & 3b Raise East and West Breakwater to 1214.5 ft & New Channel 50 ft Base Width	1.1	-0.43	-28%	1.0	-0.50	-33%	A

Figure 14: Changes to breakwater overtopping depth and duration for the 100-year event

### 3.3 ALTERNATIVE COSTS

A summary of the alternative cost estimates is presented in the following table, with detailed breakdowns of quantities and costs available in Appendix A.

Alternative	Description	Total Cost	LPNNRD Portion	Overtopping Depth Reduction		
				25-yr	50-yr	100-yr
0a	Repair	\$ 170,000	\$ 42,500	0%	0%	0%
0b	Repair w/ Concrete Trail	\$ 770,000	\$ 192,500	-30%	-20%	-10%
1a	Lower 400'	\$ 290,000	\$ 72,500	-31%	-8%	-7%
1b	Lower 800'	\$ 400,000	\$ 100,000	-58%	-23%	-21%
2a	Raise 1'	\$ 420,000	\$ 105,000	-58%	-24%	-15%
2b	Raise 2'	\$ 840,000	\$ 210,000	-100%	-65%	-32%
3a	New Channel 10'	\$ 510,000	\$ 127,500	-46%	-8%	-14%
3b	New Channel 50'	\$ 620,000	\$ 155,000	-95%	-23%	-33%
3c	New Channel 90'	\$ 730,000	\$ 182,500	-100%	-39%	-29%
4a	Widen Bridge +35'	\$ 660,000	\$ 165,000	-17%	0%	2%
4b	Widen Bridge +65'	\$ 760,000	\$ 190,000	-52%	-10%	-8%
2a & 3a	New Channel 10' & Raise 1'	\$ 640,000	\$ 160,000	-100%	-44%	-31%
0a & 3b	New Channel 50' & Concrete Trail	\$ 1,200,000	\$ 300,000	-100%	-37%	-28%

### 3.4 PREFERRED ALTERNATIVE

Any significant modification to this trail is likely to require USACE 408 approval since this is a federally funded project component. That consultation has begun. As a placeholder until USACE consultation can be conducted, the preferred alternative is 0b – Repair Breakwater as is and construct a hardened trail. The hardened (concrete) trail will improve safety on the trail and help to keep breakwater material in place during any overtopping events.

## 4 PRINCIPAL SPILLWAY JOINTS

A structural engineer from Houston Engineering conducted a detailed inspection of the principal spillway (PS) joints on March 4 and 12, 2025. The inspection was intended to assess the structural condition of the reinforced concrete box (RCB) joints and determine applicable repair and mitigation actions. This section outlines the findings and recommended alternatives.

### 4.1 STRUCTURE OVERVIEW

The principal spillway at Lake Wanahoo consists of a triple-barrel reinforced concrete box (RCB) culvert that serves as the primary outlet for the reservoir. Constructed in 2011, the structure measures 201 feet in length, with each barrel measuring 12 feet wide by 10 feet high. The upstream end of the spillway includes a labyrinth weir and wingwall transition designed to optimize hydraulic performance and manage approach flow conditions. At the downstream end, flow is discharged through a flip bucket with concrete sidewalls to dissipate energy and minimize erosion. The overall configuration is designed to safely convey flood events while providing structural durability and hydraulic efficiency.

Since the original construction of the principal spillway, maintenance has been performed on the joints of the reinforced concrete box (RCB) culvert. This maintenance primarily consisted of installing oakum rope at the bottom joint and extending approximately two feet up the sidewalls to help control seepage and joint

movement. Following the high flow event that occurred in 2024, a focused inspection was conducted to evaluate the current condition of the joints, determine whether the previous maintenance has remained effective, and identify any areas requiring additional repair. The inspection aimed to document joint conditions systematically and support planning for future maintenance or rehabilitation activities.

## 4.2 SUMMARY OF INSPECTION FINDINGS

The inspection focused on visual assessment of joint sealants, fillers, and evidence of structural or hydraulic distress throughout the three spillway barrels (Left, Middle, and Right). Key findings include:

- **Joint Sealant Failure:** Widespread loss or deterioration of caulk sealant across nearly all observed joints. This degradation was most prevalent along the bottom of the culverts and typically extended up to 24 inches along the sidewalls. In some isolated locations however, sealant failure was observed as high as 80 inches above the base.
- **Filler Degradation:** Oakum rope filler was frequently found to be in poor or moderate condition.
- **Joint Gaps:** Measured joint gaps ranged from 1" to 3.25", with typical values around 2–3 inches. Localized gouging was also observed, particularly at chamfer transitions and bottom elevations.
- **Minor Cracking:** Hairline to minor cracks were observed at several joint intersections, particularly at top elevations. While not structurally significant at this time, these cracks may provide pathways for water intrusion if left unsealed.
- **Signs of Moisture Migration:** Efflorescence was observed at various joints, primarily near the top and side elevations, indicating minor moisture seepage through failed sealant or filler. Iron staining, while not widespread, was notably present along the sidewalls of three joints within the right (west) barrel, suggesting localized and prolonged water movement in those specific areas.

A detailed summary of the inspection findings, including photo documentation and joint-by-joint observations, is provided in the Inspection Report included in Appendix B of this memorandum.

## 4.3 REPAIR/MITIGATION ALTERNATIVES

To address the observed deterioration of expansion joint components—including joint filler loss, failed caulking, and evidence of water migration—three primary repair alternatives were evaluated. Each alternative aims to restore the functionality of the joints, minimize seepage, and extend the service life of the spillway. All proposed solutions include removal of deteriorated joint filler and failed sealant prior to repair.

Table 3: Spillway joint repair alternatives

Repair Alternative	Description
PS1 - Oakum Rope with Polyurethane Sealant	Replace filler with oakum rope, apply polyurethane joint sealant
PS2 - Oakum Rope with Preformed Sealant	Replace filler with oakum rope, install preformed sealant strip or gasket
PS3 - Custom Mechanical Joint Repair	Install custom-fabricated mechanical joint system (rubber sleeve, stainless bands)
Additional Repairs – Water Intrusion Areas	Seal minor cracks, apply surface waterproofing treatments (concurrent with joint repair)

### **Alternative PS1 - Oakum Rope with Polyurethane Sealant**

**Description:** In this approach, degraded or missing joint filler is replaced with an oakum rope packing. The oakum, known for its swelling and conforming properties when exposed to moisture, is installed to fill the primary joint void. A polyurethane-based elastomeric joint sealant is then applied as a surface cap to provide a flexible, watertight barrier.

**Pros:**

- Adaptable to irregular or varying joint gaps
- Moderate cost
- Field-proven method compatible with existing construction
- Can accommodate moderate joint movement

**Cons:**

- Sealant requires periodic inspection and maintenance
- Less durable than mechanical alternatives in high-velocity or abrasive flow zones

### **Alternative PS2 - Oakum Rope with Preformed Sealant**

**Description:** Similar to Alternative PS1, unsuitable joint filler is replaced with oakum rope. Instead of a field-applied liquid sealant, a factory-manufactured preformed sealant (compression gasket or strip) is installed over the oakum to provide a watertight joint closure. This method offers improved durability where consistent joint dimensions allow.

**Pros:**

- Higher durability and reduced long-term maintenance
- Better resistance to abrasion

- More reliable seal in stable, uniform joint widths

**Cons:**

- Requires precise joint cleaning and consistent geometry for effective installation
- Less adaptable to irregular or gouged joint profiles

**Alternative PS3 - Custom Mechanical Joint Repair**

**Description:** This method involves removal of deteriorated joint materials and installation of a custom-fabricated mechanical joint repair system. These systems typically include a rubber sleeve and a stainless steel retaining bands.

**Pros:**

- Highest performance in terms of durability, leakage prevention, and structural reliability
- Appropriate for critical joints with significant deterioration or water intrusion
- Minimizes risk of future infiltration and freeze-thaw damage

**Cons:**

- Highest cost and complexity
- Requires specialized fabrication and installation
- Longer construction duration and potential access constraints

**Additional Repairs – Water Intrusion Areas**

Regardless of the joint repair alternative selected, it is recommended that adjacent areas showing signs of active water intrusion (e.g., iron staining, efflorescence, or seepage trails) be addressed concurrently. This may include sealing minor cracks or applying surface treatments (e.g., crystalline waterproofing) to mitigate future infiltration risks.

**4.4 ALTERNATIVES COSTS**

Table 4: Spillway joint repair alternatives

Repair Alternative	Estimated Cost (USD)	LPNNRD Portion
PS1 - Oakum Rope with Polyurethane Sealant	\$44,000	\$11,000
PS2 - Oakum Rope with Preformed Sealant	\$57,000	\$14,250
PS3 - Custom Mechanical Joint Repair	\$220,000	\$55,000
Additional Repairs – Water Intrusion Areas	\$11,000*	\$2,750

\*Estimated as 25% of the cost of PS1

## 4.5 RECOMMENDED ALTERNATIVE

Given the widespread sealant failure and moderate filler degradation, it is recommended that joint repairs be supplemented with mitigation actions in order to reduce future repetitive damages. Based on cost, performance, and adaptability to field conditions:

Mechanical joint repair systems offer the highest level of performance, the potential for longer maintenance intervals and the best reduction against future repetitive loss. However, from a performance perspective, they are less effective higher up on the spillway walls due to infrequent water levels, the lack or reduction of scouring sediment higher in the spillway and lower flow velocities across the joints. A hybrid repair/mitigation strategy is therefore proposed that offers an effective use of materials. The bottom and lower portion (half way up the spillway wall) of the spillway will be repaired with a mitigation alternative to incorporate a mechanical repair system. The remaining upper portion would be repaired using the Oakum rope joint filler.

## 5 PRINCIPAL SPILLWAY OUTLET

### 5.1 DESCRIPTION OF DAMAGE

Multiple inspections of the principal spillway stilling basin were conducted after the May 2024 flood event. The first inspections occurred immediately following the cessation of outflows from the lake. Both the initial and later inspections determined that the riprap in the stilling basin remained in place and continued to provide scour protection. The concrete apron was observed to contain rock and aggregate deposits, attributed to material scoured and transported by the recirculation of flows from the channel across the overbank areas and returning into the impact apron. Figure 15 shows the locations key components of the principal spillway outlet and Figure 16 shows the location of damage identified during these inspections.



Figure 15: Principal Spillway Outlet Components

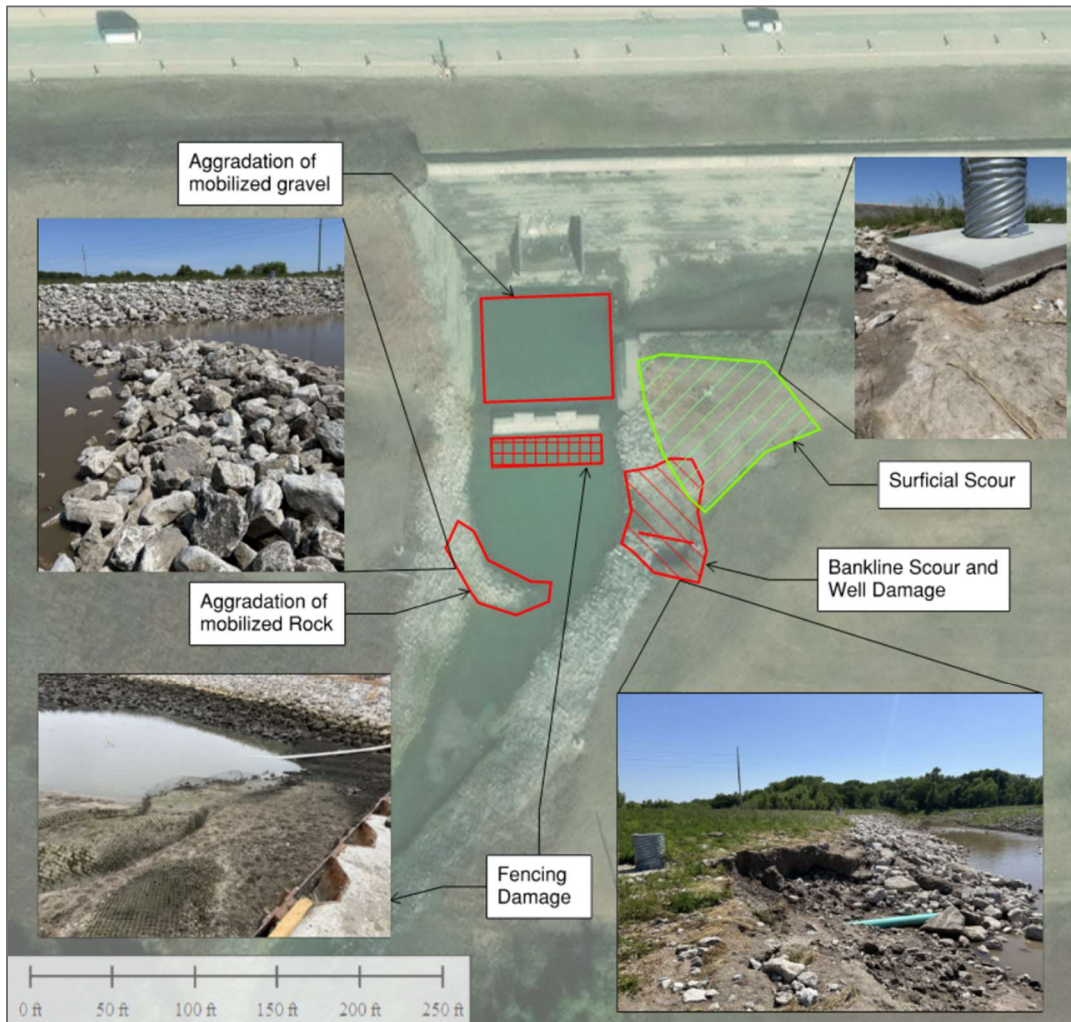


Figure 16: Damage to the Principal Spillway Outlet

## 5.2 ALTERNATIVES ANALYSIS

### 5.2.1 CFD MODELING OF EXISTING CONDITIONS

Computational Fluid Dynamics (CFD) modeling using Flow3D Hydro was applied to assess the principal spillway outlet and the downstream outlet channel. The flip bucket flow trajectory and flow bulking at the apron terminus' baffles demonstrates complex hydraulics that cannot be fully captured by 1D or 2D hydraulic models, requiring the use of a 3D model for more detailed hydraulic analysis. Renderings of the modeled hydraulic conditions for the May 2024 PS discharge and downstream tailwater are reflected in the following figures.

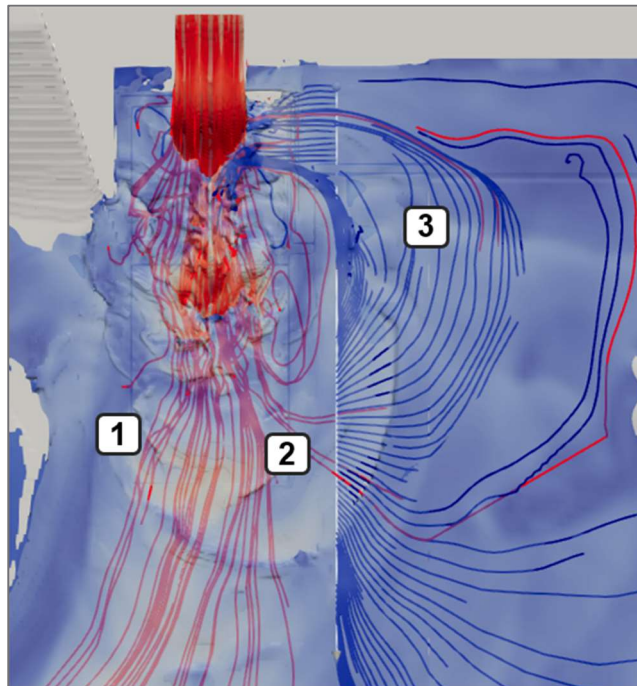


Figure 17: CFD rendering of PS outlet flow velocity and flow traces. At location 1 riprap shifted to the right side of the outlet of the stilling basin due to “rollers” downstream of the dragon’s teeth. At location 2, flow exiting the stilling basin with erosive velocities at the damaged bank line. At location 3 flow circulation back into the apron scours the downstream overbank.

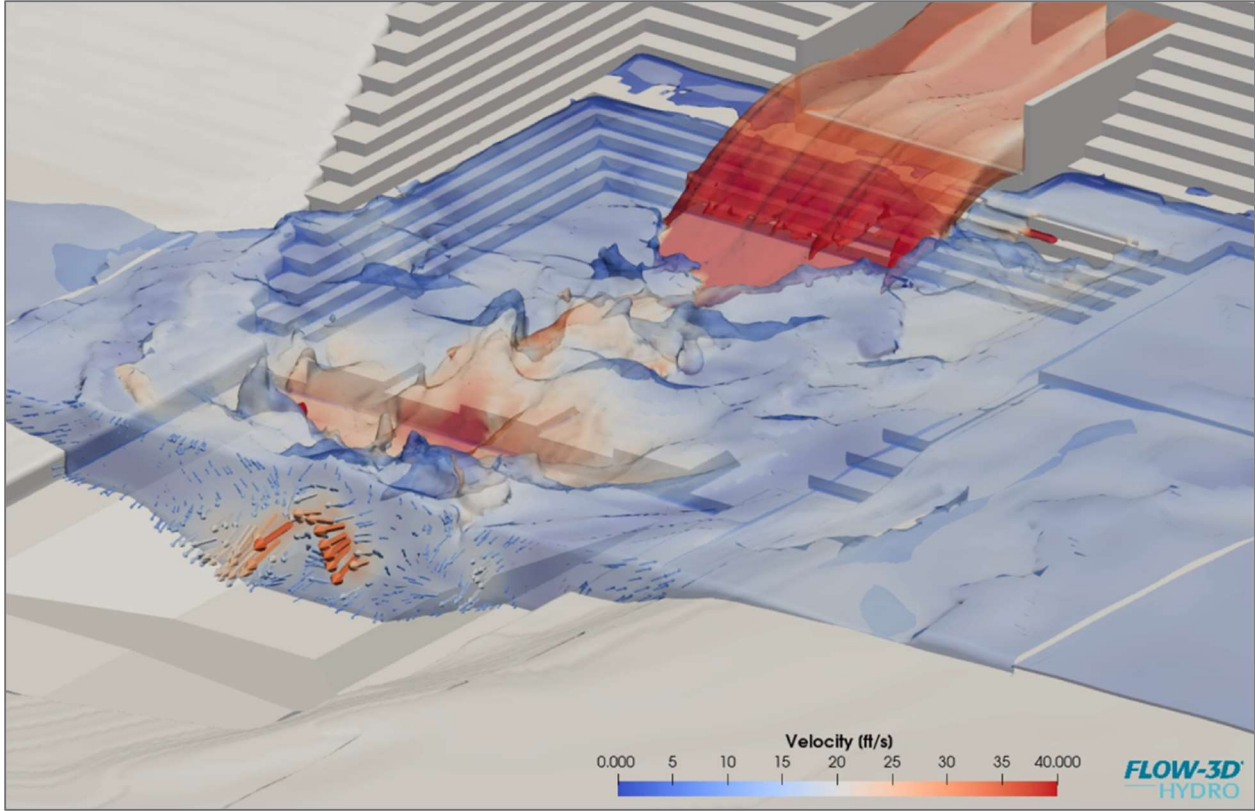


Figure 18: Transverse section view of CFD rendering of PS outlet flow velocity

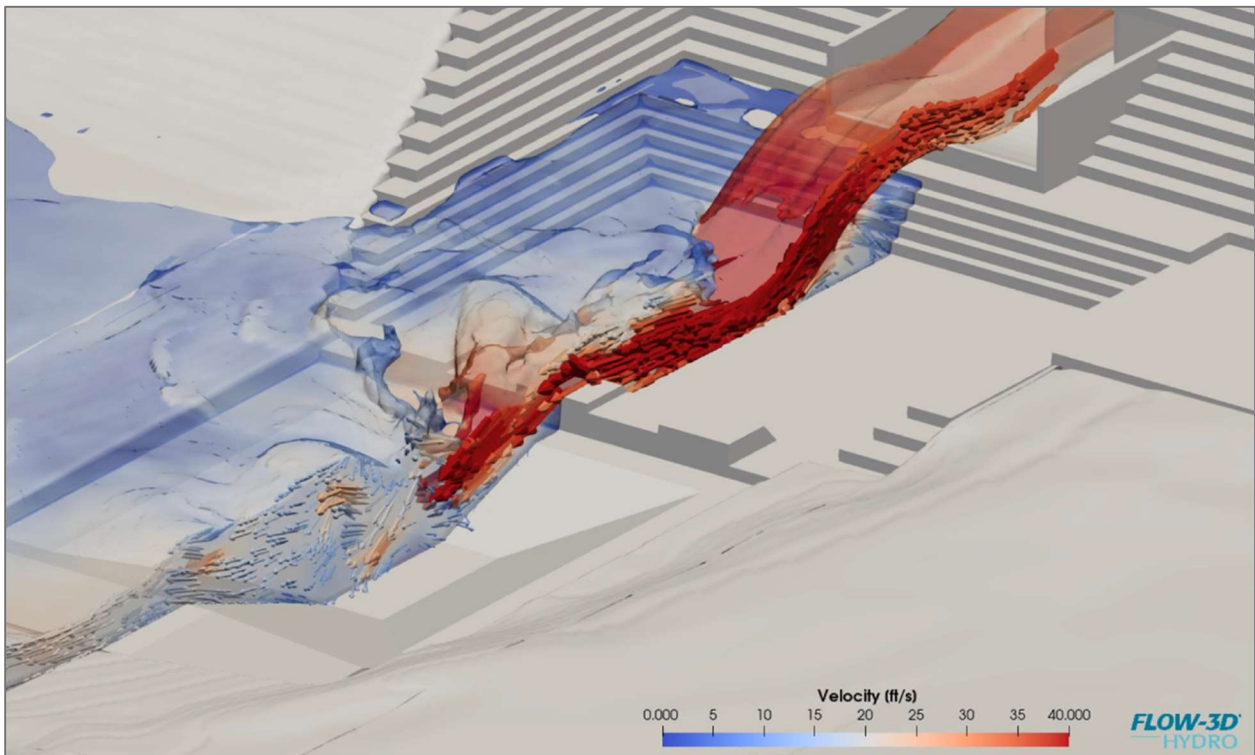


Figure 19: Longitudinal section view of CFD rendering of PS outlet flow velocity

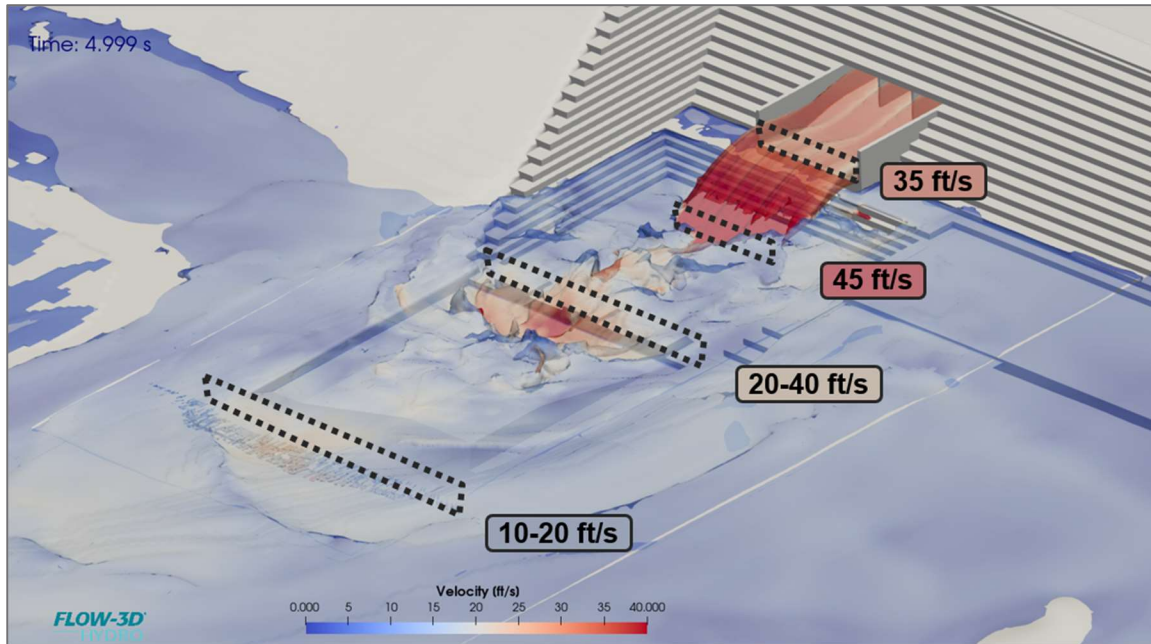


Figure 20: Longitudinal section view of CFD rendering of PS outlet flow velocity

### 5.2.2 CFD MODELING OF DOWNSTREAM MODIFICATION ALTERNATIVES

The CFD modeling terrain was adjusted to evaluate three downstream (DS) alternatives: widening the outlet channel, lowering the overbank, and constructing a berm on the left bank.

**Alternative DS1:** Widening the channel targets observed asymmetrical erosion and deposition by expanding the east side where damage occurred, allowing high-energy flows to move further downstream before affecting the bank. This scenario expands the channel's bottom width and sets back the left bank, with both the base and bank protected by riprap and an underdrain reverse filter foundation.

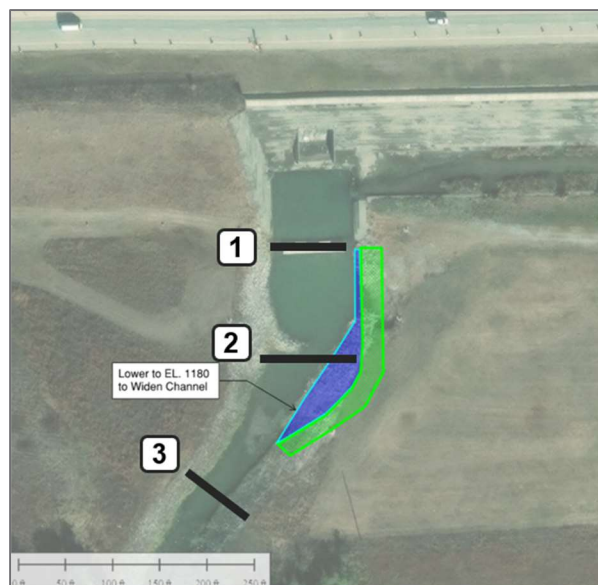


Figure 21: DS1 Concept

**Alternative DS2:** This scenario involves lowering the overbank area to address overbank scour resulting from recirculating flows. The modification is intended to increase the overbank capacity for recirculation, facilitating more efficient flow exit and reentry into the channel. In this case, the floodplain elevation is adjusted to match the elevation of the end sill of the stepped spillway, and the excavated area is covered with a turf reinforcement mat.

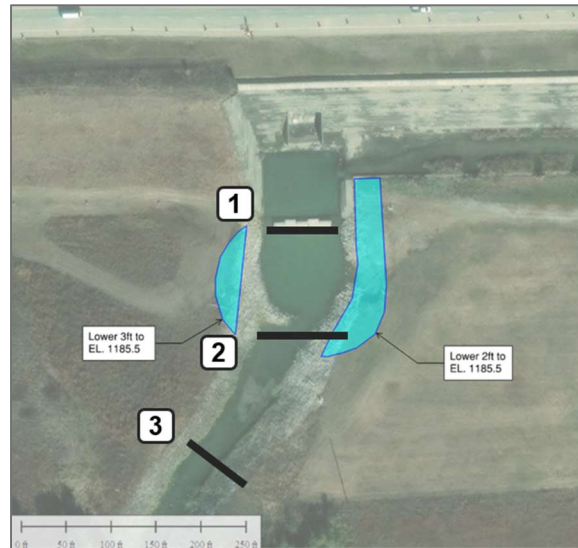


Figure 22: DS2 Concept

**Alternative DS3:** In this scenario, the overbank area is raised to address overbank scour caused by recirculating flows. Unlike Alternative DS2, this approach is designed to reduce the efficiency of flow exchange between the channel and the overbank. Here, the floodplain elevation is increased by 2-3 feet to partially confine 100-year flows within the channel. A berm is placed along the outlet channel and covered with a turf reinforcement mat.

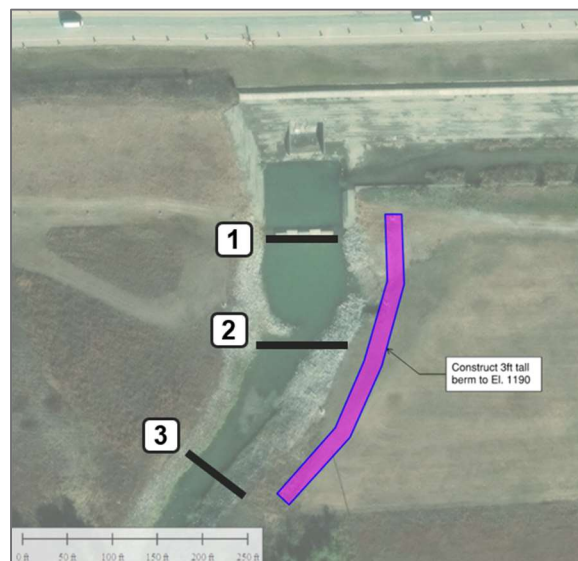


Figure 23: DS3 Concept

Flow velocities for the existing conditions and for the 3 alternatives are summarized in Table 5 at three cross sections shown on the alternative concept graphics. DS1 demonstrated a desirable reduction in velocity at the end of the riprap stilling basin. In contrast, DS2 exhibited increased velocity there, suggesting reduced energy dissipation and higher scour potential. DS3 showed generally lower velocities in both apron and riprap basins, indicating improved energy dissipation; however, elevated velocities at the outlet channel suggest further analysis is needed to address possible downstream impacts.

Table 5: CFD Modeled Velocities in the Principal Spillway Outlet

Downstream Modification	Section 1 Mean Velocity (ft/s)	Section 2 Mean Velocity (ft/s)	Section 3 Mean Velocity (ft/s)
DS0 - Existing	19.5	10.7	8.0
DS1 - Channel Widening	20.5	8.6	8.6
DS2 - Channel Benching	20	13.5	8.4
DS3 – Left Bank Berm	17	9.6	10.7

### 5.3 ALTERNATIVE COSTS

Table 6: Downstream Alternative 1 (DS1) – Channel Widening

Item No	Item	Unit	Quantity	Unit Price	Total	LPNRRD Portion
1	Mobilization	LS	1	\$ 28,300.00	\$ 28,300.00	\$ 7,075.00
2	EXCAVATION	CY	2279	\$ 18.00	\$ 41,022.00	\$ 10,255.50
3	REMOVE AND REPLACE RIPRAP	TN	1241	\$ 30.00	\$ 37,243.80	\$ 9,310.95
4	TYPE C RIPRAP	TN	1241	\$ 120.00	\$ 148,975.20	\$ 37,243.80
6	GEOTEXTILE FILTER FABRIC	SY	1839	\$ 2.25	\$ 4,138.20	\$ 1,034.55
7	CRUSHED ROCK BEDDING	TN	858	\$ 60.00	\$ 51,497.60	\$ 12,874.40
<b>Sub-Total</b>					<b>\$ 311,176.80</b>	<b>\$ 77,794.20</b>
<b>Contingency @ 30%</b>					<b>\$ 93,353.04</b>	<b>\$ 23,338.26</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 404,529.84</b>	<b>\$ 101,132.46</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 60,679.48</b>	<b>\$ 15,169.87</b>
<b>Total</b>					<b>\$ 465,209.32</b>	<b>\$ 116,302.33</b>

Table 7: Downstream Alternative 2 (DS2) – Channel Benching

Item No	Item	Unit	Quantity	Unit Price	Total	LPNRRD Portion
1	Mobilization	LS	1	\$ 11,300.00	\$ 11,300.00	\$ 2,825.00
2	EXCAVATION	CY	1755	\$ 18.00	\$ 31,590.00	\$ 7,897.50
3	REMOVE AND REPLACE RIPRAP	TN	450	\$ 30.00	\$ 13,500.00	\$ 3,375.00
4	TURF REINFORCEMENT MAT	SY	3388	\$ 20.00	\$ 67,760.00	\$ 16,940.00
<b>Sub-Total</b>					<b>\$ 124,150.00</b>	<b>\$ 31,037.50</b>
<b>Contingency @ 30%</b>					<b>\$ 37,245.00</b>	<b>\$ 9,311.25</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 161,395.00</b>	<b>\$ 40,348.75</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 24,209.25</b>	<b>\$ 6,052.31</b>
<b>Total</b>					<b>\$ 185,604.25</b>	<b>\$ 46,401.06</b>

Table 8: Downstream Alternative 3 (DS3) – Leftbank Berm

Item No	Item	Unit	Quantity	Unit Price	Total	LPNRRD Portion
1	Mobilization	LS	1	\$ 7,900.00	\$ 7,900.00	\$ 1,975.00
2	FILL	CY	1480	\$ 18.00	\$ 26,640.00	\$ 6,660.00
3	REMOVE AND REPLACE RIPRAP	TN	450	\$ 30.00	\$ 13,500.00	\$ 3,375.00
4	TURF REINFORCEMENT MAT	SY	1936	\$ 20.00	\$ 38,720.00	\$ 9,680.00
<b>Sub-Total</b>					\$ 86,760.00	\$ 21,690.00
<b>Contingency @ 30%</b>					\$ 26,028.00	\$ 6,507.00
<b>Opinion of Probable Construction Cost</b>					<b>\$ 112,788.00</b>	<b>\$ 28,197.00</b>
<b>Engineering, Planning and Permitting @ 15%</b>					\$ 16,918.20	\$ 4,229.55
<b>Total</b>					<b>\$ 129,706.20</b>	<b>\$ 32,426.55</b>

Table 9: Downstream Alternative 1 & 3 (DS1&3) – Channel Widening and Leftbank Berm

Item No	Item	Unit	Quantity	Unit Price	Total	LPNRRD Portion
1	Mobilization	LS	1	\$ 50,600.00	\$ 50,600.00	\$ 12,650.00
2	EXCAVATION	CY	2279	\$ 18.00	\$ 41,022.00	\$ 10,255.50
3	REMOVE AND REPLACE RIPRAP	TN	1691	\$ 30.00	\$ 50,743.80	\$ 12,685.95
4	FILL	CY	1480	\$ 18.00	\$ 26,640.00	\$ 6,660.00
5	TYPE C RIPRAP	TN	1241	\$ 120.00	\$ 148,975.20	\$ 37,243.80
6	TYPE "D" RIPRAP	TN	600	\$ 140.00	\$ 84,000.00	\$ 21,000.00
7	GEOTEXTILE FILTER FABRIC	SY	1839	\$ 2.25	\$ 4,138.20	\$ 1,034.55
8	CRUSHED ROCK BEDDING	TN	858	\$ 60.00	\$ 51,497.60	\$ 12,874.40
9	TURF REINFORCEMENT MAT	SY	1936	\$ 20.00	\$ 38,720.00	\$ 9,680.00
10	FENCING REPAIR	LS	1	\$ 60,000.00	\$ 60,000.00	\$ 15,000.00
<b>Sub-Total</b>					\$ 556,336.80	\$ 139,084.20
<b>Contingency @ 30%</b>					\$ 166,901.04	\$ 41,725.26
<b>Opinion of Probable Construction Cost</b>					<b>\$ 723,237.84</b>	<b>\$ 180,809.46</b>
<b>Engineering, Planning and Permitting @ 15%</b>					\$ 108,485.68	\$ 27,121.42
<b>Total</b>					<b>\$ 831,723.52</b>	<b>\$ 207,930.88</b>

## 5.4 RECOMMENDED ALTERNATIVE

Mitigation of overbank scour damage and asymmetrical scour in the downstream channel can be effectively achieved by implementing a combined approach utilizing both DS1 and DS3 alternatives. Further analysis of this recommendation should involve an assessment of downstream impacts, as well as an evaluation of the modifications' performance under both principal and auxiliary spillway flow conditions.

In addition to the planned grading, it is our recommendation that with further refined CFD modeling analysis, velocity values are assessed and the potential to add larger sized riprap (likely quartzite from South Dakota) to the stilling basin area (likely for some stretch adjacent to the apron baffles until velocities subside). Because this analysis was not completed yet, a placeholder for additional costs related to increasing the riprap size for a portion of the basin has been added to the cost summary table.

Also included in recommended improvements is to replace the chain link fencing with a heartier solution. While the chain link successfully helped to protect the underlying HDPE gabion baskets, the anchoring system for the chain link did not sufficiently protect the chain link against long-lasting turbulence and likely small to medium sized rock that was being carried with the discharge flows. It is recommended to replace

the chain link with a sturdier hog panel or even a welded small-diameter grid of steel reinforcement. A placeholder for additional costs for this improvement is included in the cost of the preferred alternative.

## 6 MILE 3 TRAIL

### 6.1 DESCRIPTION OF DAMAGE

The Mile 3 Trail was designed to provide access to the overflow weir that helps regulate flows to encourage a broad deposition area and create the wetland areas in Mile 3. The trail is shown in the Figure 24 and is approximately 3500 LF in total. When flows exceed the capacity of the overflow weir, the trail is then overtopped fairly uniformly due to its relatively flat grade. Despite rock that exists on the downstream side of the trail in some locations, the trail was not designed for significant (depth or duration) overtopping events. When overtopping occurs, scour occurs on the downstream side of the trail and is undermining the trail.

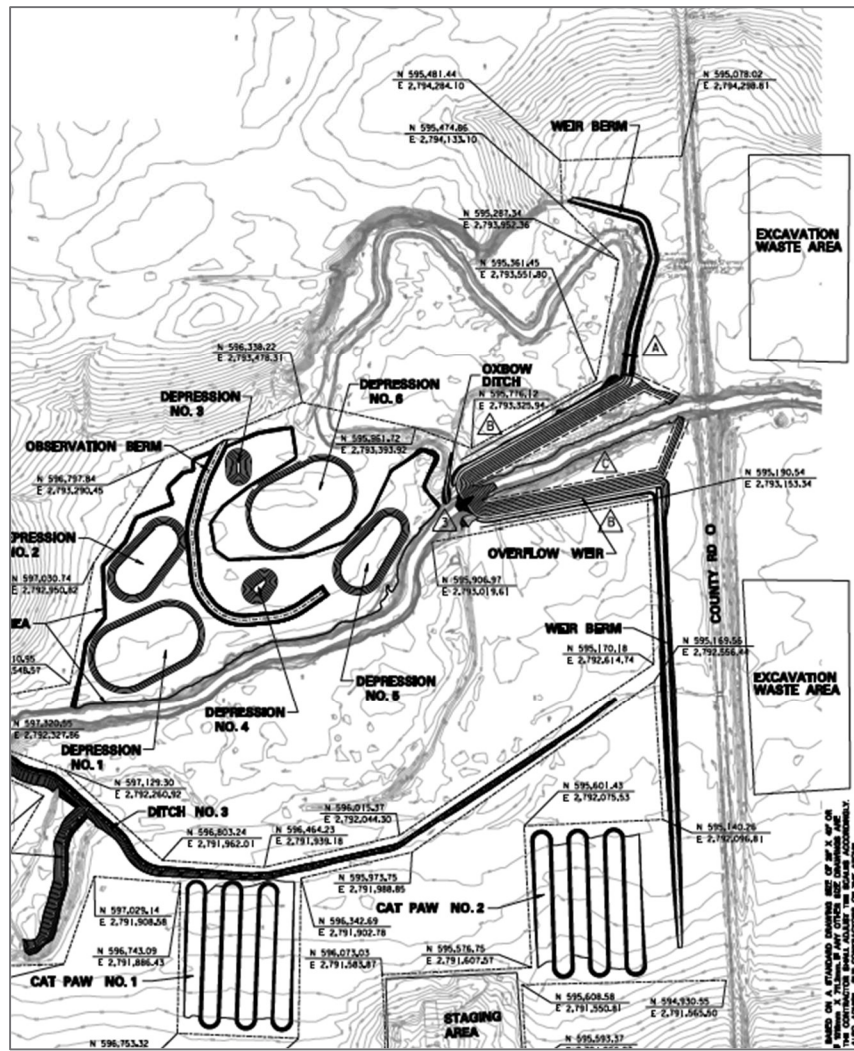


Figure 24: Mile 3 Trail

## 6.2 ALTERNATIVES ANALYSIS

An extensive alternatives analysis was not performed, but it was discussed to consider raising the trail and creating designed (frequent) overflow areas. Dredging the upstream side of the trail was also discussed. Any significant modification to this trail is likely to require USACE 408 approval since this is a federally funded project component. That consultation has begun.

## 6.3 ALTERNATIVES COSTS

Table 10: Mile 3 Alternative 1 (M1) – Raised Berm

Item No	Item	Unit	Quantity	Unit Price	Total	LPNRRD Portion
1	Dredging of Existing Materials	CY	10000	\$ 14.00	\$ 140,000.00	\$ 35,000.00
2	Fill Prep and Placement	CY	10000	\$ 8.00	\$ 80,000.00	\$ 20,000.00
3	Riprap Salvaging/Placement	TN	1000	\$ 20.00	\$ 20,000.00	\$ 5,000.00
4	New surfacing	SY	4000	\$ 30.00	\$ 120,000.00	\$ 30,000.00
5	Incidentals	LS	1	\$ 150,000.00	\$ 150,000.00	\$ 37,500.00
<b>Sub-Total</b>					<b>\$ 510,000.00</b>	<b>\$127,500.00</b>
<b>Contingency @ 30%</b>					<b>\$ 153,000.00</b>	<b>\$ 38,250.00</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 663,000.00</b>	<b>\$165,750.00</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 99,450.00</b>	<b>\$ 24,862.50</b>
<b>Total</b>					<b>\$ 762,450.00</b>	<b>\$190,612.50</b>

Table 11: Mile 3 Alternative 2 (M2) – Widened Trail, Preferred Alternative

Item No	Item	Unit	Quantity	Unit Price	Total	LPNRRD Portion
1	Riprap Salvaging/Placement	TN	1000	\$ 20.00	\$ 20,000.00	\$ 5,000.00
2	New surfacing	SY	4000	\$ 30.00	\$ 120,000.00	\$ 30,000.00
3	Incidentals	LS	1	\$ 50,000.00	\$ 50,000.00	\$ 12,500.00
<b>Sub-Total</b>					<b>\$ 190,000.00</b>	<b>\$ 47,500.00</b>
<b>Contingency @ 30%</b>					<b>\$ 57,000.00</b>	<b>\$ 14,250.00</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 247,000.00</b>	<b>\$ 61,750.00</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 37,050.00</b>	<b>\$ 9,262.50</b>
<b>Total</b>					<b>\$ 284,050.00</b>	<b>\$ 71,012.50</b>

## 6.4 PREFERRED ALTERNATIVE

The placeholder preferred alternative is to simply widen the surface of the trail and re-surface the trail. In doing so, the existing surfacing will be broken down and used as sub-surface material and a new surface will be constructed. Minor grading and rock placement will occur to prevent damage from overtopping in future events.

## 7 FEMA IDENTIFIED REPAIRS

### 7.1 FEMA IDENTIFIED REPAIRS

The following sites and extents of required repair work have been identified during the initial FEMA damage inspections.

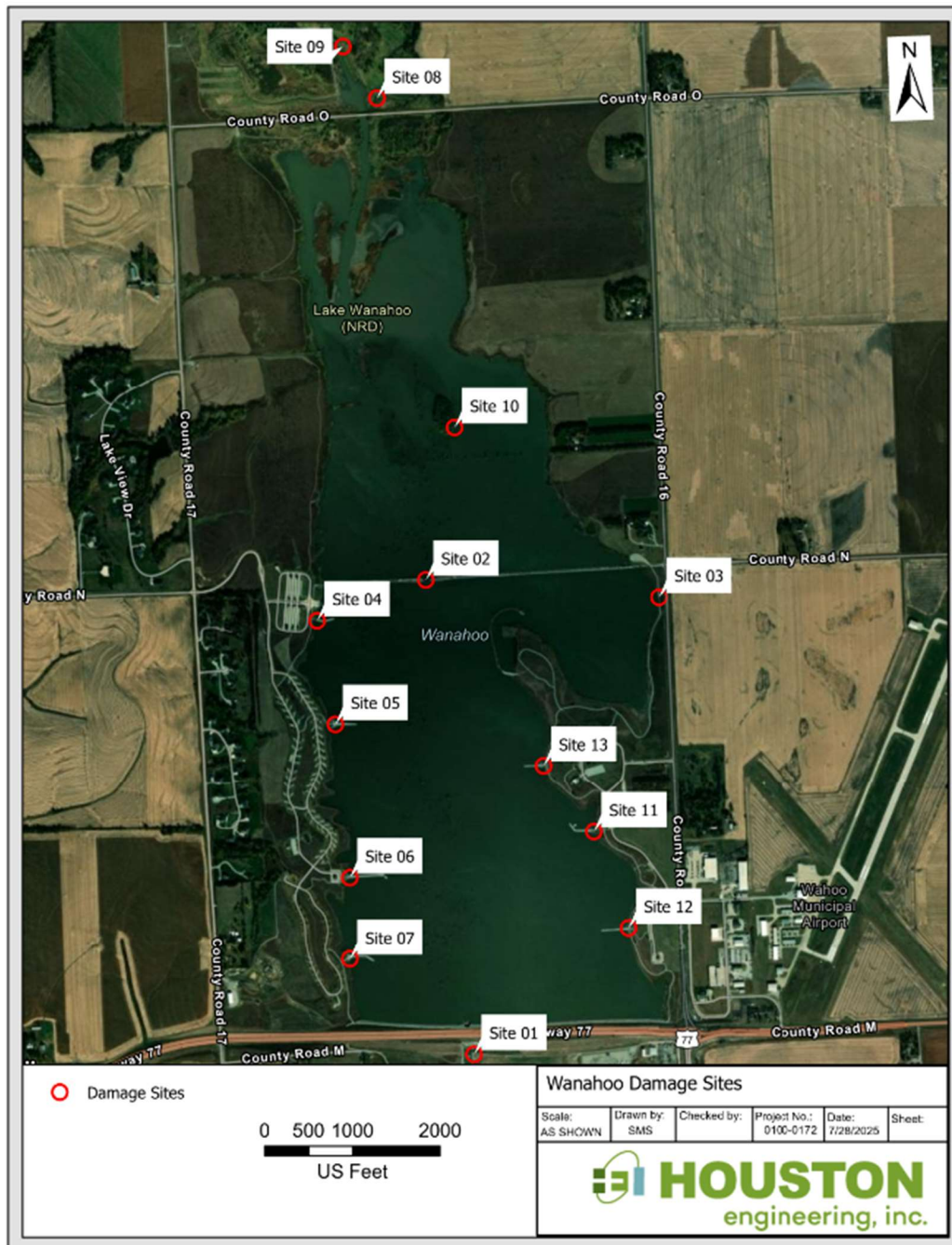


Figure 25: FEMA Damage Inspection

Table 12: FEMA Damage Inspection

Site Number	Location	Description	Latitude	Longitude	Dimensions
Site 01	South of Dam	Rip Rap	41.23424	-96.61165	90ft x 30ft x 2.5ft
		Embankment Fill			90ft x 30ft x 10ft
		Embankment Fill			260ft x 37ft x 2ft
		Unclassified Fill			82ft x 165ft x 2ft
		Caulking for Conduits			10' x 12' conduit x 120 LF
Site 02	Breakwater	Resurfacing Completed			
Site 03	East Side Trails	Wooden Bridge	41.24832	-96.60324	99ft x 6ft (x 40ft)
Site 04	Boat Ramp Jetty	Gravel	41.24801	-96.61745	196ft x 12ft x 1in
Site 05	RV Camping Area Jetty	Gravel	41.24476	-96.61686	260ft x 12ft x 1in
Site 06	West Side Fishing Jetty 1	Gravel	41.23992	-96.61651	415ft x 12ft x 1in
Site 07	West Side Fishing Jetty 2	Gravel	41.23737	-96.61664	256ft x 14ft x 1in
		Rip Rap			7ft x 12ft x 1ft
Site 08	Sand Creek Culvert	CMP Culvert	41.26429	-96.61412	4ft Diameter x 40 LF
		Unclassified Fill			125ft x 14ft x 1ft
Site 09	Sand Creek Barrier	Large Rock	41.26594	-96.61545	65ft x 35ft x 8ft
Site 10	Pork Chop Island	Docks	41.25386	-96.61144	8 x 36in x 48in
Site 11	East Fishing Jetty 1	Gravel	41.24106	-96.60632	45ft x 10ft x 1in
		Rip Rap			30ft x 12ft x 1ft
Site 12	East Fishing Jetty 2	Gravel	41.23801	-96.60504	306ft x 12ft x 1in
		Rip Rap			30ft x 12ft x 1ft
Site 13	East Fishing Jetty 3	Gravel	41.24321	-96.6083	215xft x 16ft x 1in

## 7.2 IDENTIFIED REPAIR COST

Table 13: FEMA Damage Inspection Repair Cost, without Site 2 and trail damage

Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 31,600.00	\$ 31,600.00	\$ 7,900.00
2	CRUSHED ROCK SURFACING	TN	56	\$ 60.00	\$ 3,360.00	\$ 840.00
3	TYPE B RIPRAP	TN	304	\$ 130.00	\$ 39,520.00	\$ 9,880.00
4	TYPE C RIPRAP	TN	618	\$ 130.00	\$ 80,340.00	\$ 20,085.00
5	EMBANKMENT FILL	CY	1713	\$ 18.00	\$ 30,826.80	\$ 7,706.70
6	UNCLASSIFIED FILL	CY	1067	\$ 12.00	\$ 12,804.00	\$ 3,201.00
7	WOODEN BRIDGE	SF	600	\$ 200.00	\$ 120,000.00	\$ 30,000.00
8	DOCKS	SF	96	\$ 160.00	\$ 15,360.00	\$ 3,840.00
9	CMP CULVERT	LF	40	\$ 325.00	\$ 13,000.00	\$ 3,250.00
				<b>Sub-Total</b>	<b>\$ 346,810.80</b>	<b>\$ 86,702.70</b>
				<b>Contingency @ 30%</b>	<b>\$ 104,043.24</b>	<b>\$ 26,010.81</b>
				<b>Opinion of Probable Construction Cost</b>	<b>\$ 450,854.04</b>	<b>\$ 112,713.51</b>
				<b>Engineering, Planning and Permitting @ 15%</b>	<b>\$ 67,628.11</b>	<b>\$ 16,907.03</b>
				<b>Total</b>	<b>\$ 518,482.15</b>	<b>\$ 129,620.54</b>

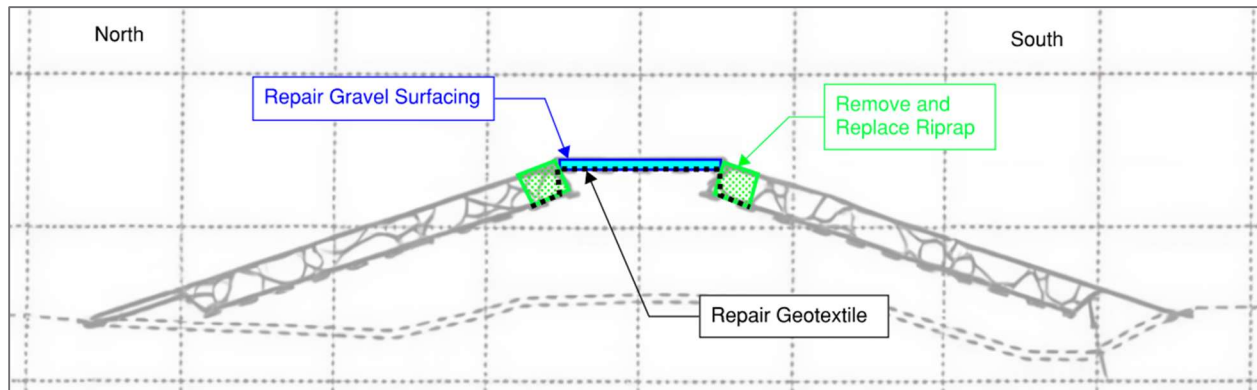
## 7.3 RECOMMENDED REPAIRS

The identified repairs from the FEMA damage inspection can be completed in advance of the obligation of funding for mitigation work. The following repairs may be completed at the NRD's discretion while additional coordination takes place for other repair and mitigation components.

- The trail across the dam and on the east shore requires some minor grading and gravel surfacing. This project was identified during the initial damage assessment with FEMA, but was not measured at the time. A quote from a local contractor for this work was received and is **\$470,358.30** and includes fixes to the breakwater and jetties as well. The trails portion of this work is **\$347,949.14**.
- The wooden trail bridge on the east shore was damaged and is now misaligned, creating a hazard for cyclists and pedestrians. This project was identified in the initial damage assessment (Site 03) and the repair cost was estimated at **\$118,800.00**. To clarify, this cost was not included in the original contractor's quote above.
- The fishing jetties repair work needed was identified in the initial damage assessment (Site 04-07, 10-13) and creates a public safety hazard. The initial cost estimate for this work totaled **\$22,564.14** and was included in the original quote referenced above.
- The breakwater repair project has already been completed, and the repair cost was **\$99,845.02** and this cost was also included in the original contractor's quote above.

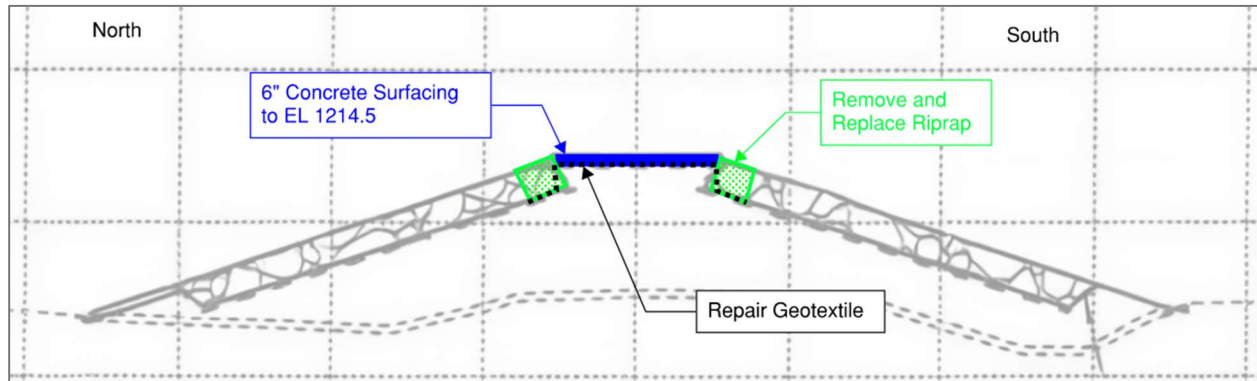
## APPENDIX A – BREAKWATER ALTERNATIVES

### Alternative 0a



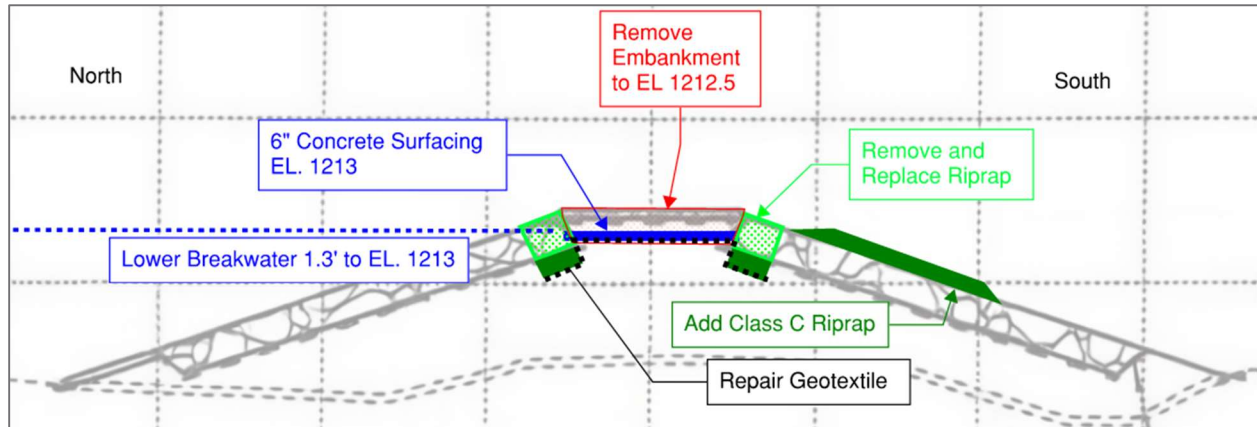
Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 10,200.00	\$ 10,200.00	\$ 2,550.00
2	REMOVE AND REPLACE RIPRAP	TN	1306	\$ 30.00	\$ 39,168.00	\$ 9,792.00
3	TYPE B RIPRAP	TN	131	\$ 120.00	\$ 15,667.20	\$ 3,916.80
4	GEOTEXTILE FILTER FABRIC	SY	7253	\$ 2.25	\$ 16,320.00	\$ 4,080.00
5	CRUSHED ROCK SURFACING	TN	508	\$ 60.00	\$ 30,464.00	\$ 7,616.00
<b>Sub-Total</b>					<b>\$ 111,819.20</b>	<b>\$27,954.80</b>
Contingency @ 30%					\$ 33,545.76	\$ 8,386.44
<b>Opinion of Probable Construction Cost</b>					<b>\$ 145,364.96</b>	<b>\$36,341.24</b>
Engineering, Planning and Permitting @ 15%					\$ 21,804.74	\$ 5,451.19
<b>Total</b>					<b>\$ 167,169.70</b>	<b>\$41,792.43</b>

### Alternative 0b



Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 46,300.00	\$ 46,300.00	\$ 11,575.00
2	REMOVE AND REPLACE RIPRAP	TN	1306	\$ 30.00	\$ 39,168.00	\$ 9,792.00
3	TYPE B RIPRAP	TN	131	\$ 120.00	\$ 15,667.20	\$ 3,916.80
4	GEOTEXTILE FILTER FABRIC	SY	7253	\$ 2.25	\$ 16,320.00	\$ 4,080.00
5	6" CONCRETE TRAIL	SF	39168	\$ 10.00	\$ 391,680.00	\$ 97,920.00
<b>Sub-Total</b>					<b>\$ 509,135.20</b>	<b>\$127,283.80</b>
Contingency @ 30%					\$ 152,740.56	\$ 38,185.14
<b>Opinion of Probable Construction Cost</b>					<b>\$ 661,875.76</b>	<b>\$165,468.94</b>
Engineering, Planning and Permitting @ 15%					\$ 99,281.36	\$ 24,820.34
<b>Total</b>					<b>\$ 761,157.12</b>	<b>\$190,289.28</b>

Alternative 1a

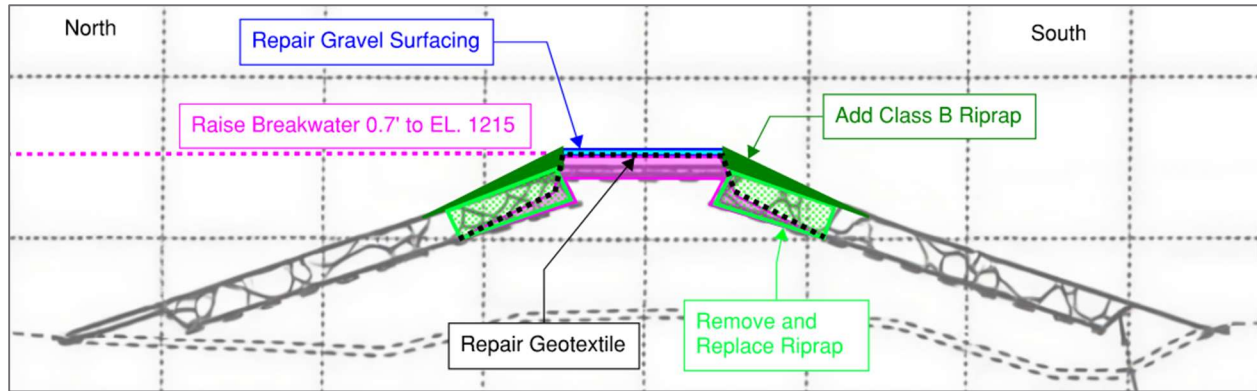


Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 17,200.00	\$ 17,200.00	\$ 4,300.00
2	EXCAVATION	CY	178	\$ 10.00	\$ 1,777.78	\$ 444.44
3	REMOVE AND REPLACE RIPRAP	TN	1306	\$ 30.00	\$ 39,168.00	\$ 9,792.00
4	TYPE B RIPRAP	TN	115	\$ 120.00	\$ 13,747.20	\$ 3,436.80
5	TYPE C RIPRAP	TN	216	\$ 120.00	\$ 25,920.00	\$ 6,480.00
6	GEOTEXTILE FILTER FABRIC	SY	7253	\$ 2.25	\$ 16,320.00	\$ 4,080.00
7	6" CONCRETE TRAIL	SF	4800	\$ 10.00	\$ 48,000.00	\$12,000.00
8	CRUSHED ROCK SURFACING	TN	446	\$ 60.00	\$ 26,730.67	\$ 6,682.67
<b>Sub-Total</b>					\$ 188,863.64	\$47,215.91
Contingency @ 30%					\$ 56,659.09	\$14,164.77
<b>Opinion of Probable Construction Cost</b>					<b>\$ 245,522.74</b>	<b>\$61,380.68</b>
Engineering, Planning and Permitting @ 15%					\$ 36,828.41	\$ 9,207.10
<b>Total</b>					<b>\$ 282,351.15</b>	<b>\$70,587.79</b>

Alternative 1b

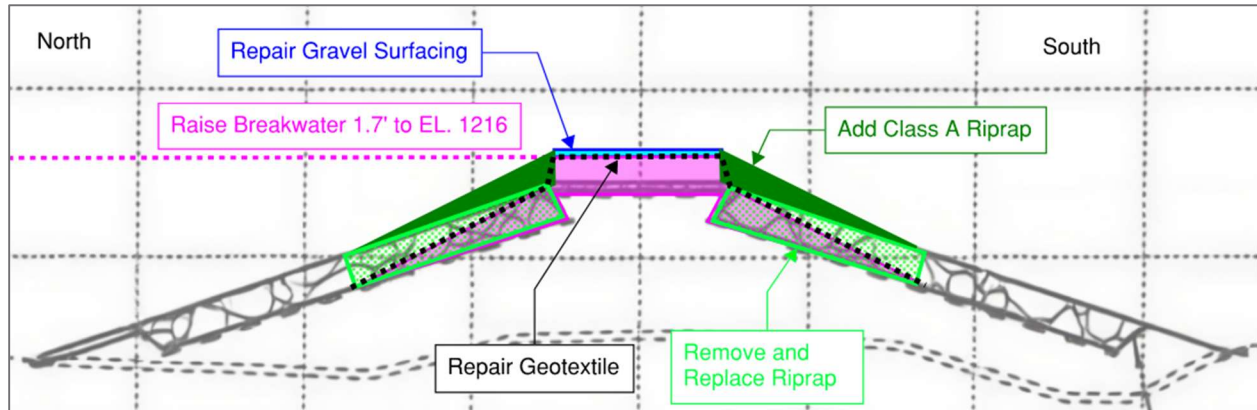
Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 24,200.00	\$ 24,200.00	\$ 6,050.00
2	EXCAVATION	CY	356	\$ 10.00	\$ 3,555.56	\$ 888.89
3	REMOVE AND REPLACE RIPRAP	TN	1306	\$ 30.00	\$ 39,168.00	\$ 9,792.00
4	TYPE B RIPRAP	TN	99	\$ 120.00	\$ 11,827.20	\$ 2,956.80
5	TYPE C RIPRAP	TN	432	\$ 120.00	\$ 51,840.00	\$12,960.00
6	GEOTEXTILE FILTER FABRIC	SY	7253	\$ 2.25	\$ 16,320.00	\$ 4,080.00
7	6" CONCRETE TRAIL	SF	9600	\$ 10.00	\$ 96,000.00	\$24,000.00
8	CRUSHED ROCK SURFACING	TN	383	\$ 60.00	\$ 22,997.33	\$ 5,749.33
<b>Sub-Total</b>					\$ 265,908.09	\$66,477.02
Contingency @ 30%					\$ 79,772.43	\$19,943.11
<b>Opinion of Probable Construction Cost</b>					<b>\$ 345,680.52</b>	<b>\$86,420.13</b>
Engineering, Planning and Permitting @ 15%					\$ 51,852.08	\$12,963.02
<b>Total</b>					<b>\$ 397,532.59</b>	<b>\$99,383.15</b>

Alternative 2a



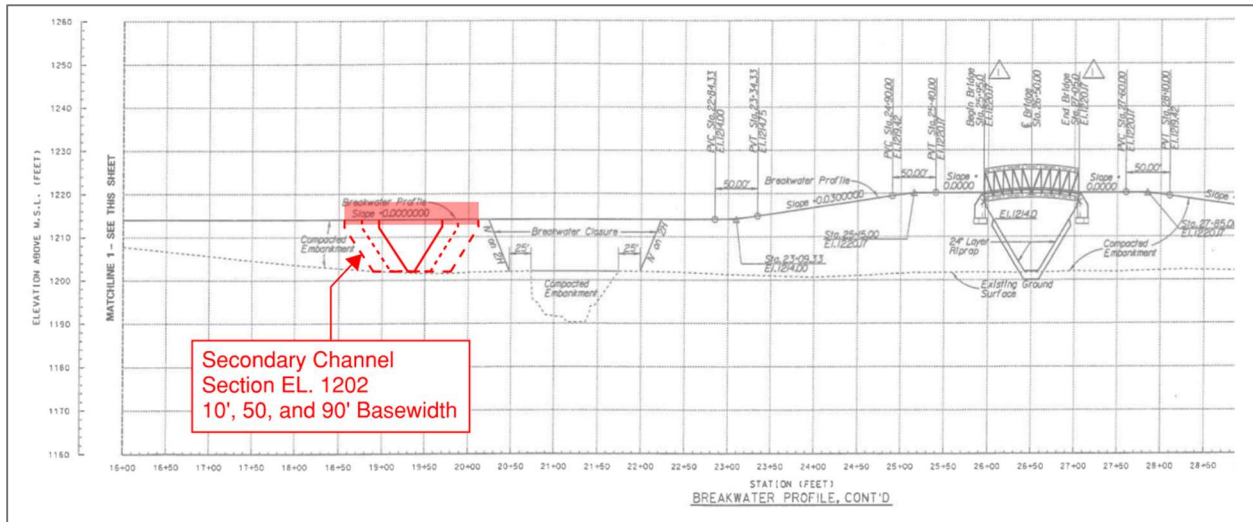
Item No	Item	Unit	Quantity	Unit Price	Total	LPNRRD Portion
1	Mobilization	LS	1	\$ 25,000.00	\$ 25,000.00	\$ 6,250.00
2	REMOVE AND REPLACE RIPRAP	TN	3746	\$ 30.00	\$ 112,392.00	\$ 28,098.00
3	EMBANKMENT	CY	2081	\$ 20.00	\$ 41,626.67	\$ 10,406.67
4	TYPE B RIPRAP	TN	375	\$ 120.00	\$ 44,956.80	\$ 11,239.20
5	GEOTEXTILE FILTER FABRIC	SY	9713	\$ 2.25	\$ 21,854.00	\$ 5,463.50
6	CRUSHED ROCK SURFACING	TN	486	\$ 60.00	\$ 29,138.67	\$ 7,284.67
<b>Sub-Total</b>					<b>\$ 274,968.13</b>	<b>\$ 68,742.03</b>
<b>Contingency @ 30%</b>					<b>\$ 82,490.44</b>	<b>\$ 20,622.61</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 357,458.57</b>	<b>\$ 89,364.64</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 53,618.79</b>	<b>\$ 13,404.70</b>
<b>Total</b>					<b>\$ 411,077.36</b>	<b>\$102,769.34</b>

Alternative 2b



Item No	Item	Unit	Quantity	Unit Price	Total	LPNRD Portion
1	Mobilization	LS	1	\$ 50,900.00	\$ 50,900.00	\$ 12,725.00
2	REMOVE AND REPLACE RIPRAP	TN	7834	\$ 30.00	\$ 235,008.00	\$ 58,752.00
3	EMBANKMENT	CY	5803	\$ 20.00	\$ 116,053.33	\$ 29,013.33
4	TYPE B RIPRAP	TN	783	\$ 120.00	\$ 94,003.20	\$ 23,500.80
5	GEOTEXTILE FILTER FABRIC	SY	14507	\$ 2.25	\$ 32,640.00	\$ 8,160.00
6	CRUSHED ROCK SURFACING	TN	508	\$ 60.00	\$ 30,464.00	\$ 7,616.00
<b>Sub-Total</b>					<b>\$ 559,068.53</b>	<b>\$139,767.13</b>
<b>Contingency @ 30%</b>					<b>\$ 167,720.56</b>	<b>\$ 41,930.14</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 726,789.09</b>	<b>\$181,697.27</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 109,018.36</b>	<b>\$ 27,254.59</b>
<b>Total</b>					<b>\$ 835,807.46</b>	<b>\$208,951.86</b>

Alternative 3a



Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 30,800.00	\$ 30,800.00	\$ 7,700.00
2	EXCAVATION	CY	1152	\$ 10.00	\$ 11,522.00	\$ 2,880.50
3	REMOVE AND REPLACE RIPRAP	TN	1275	\$ 30.00	\$ 38,256.00	\$ 9,564.00
4	TYPE B RIPRAP	TN	128	\$ 120.00	\$ 15,302.40	\$ 3,825.60
5	TYPE C RIPRAP	TN	317	\$ 120.00	\$ 38,016.00	\$ 9,504.00
6	GEOTEXTILE FILTER FABRIC	SY	7436	\$ 2.25	\$ 16,732.00	\$ 4,183.00
7	CRUSHED ROCK SURFACING	TN	496	\$ 60.00	\$ 29,754.67	\$ 7,438.67
8	BRIDGE ABUTMENT FOUNDATION	LS	2	\$ 22,000.00	\$ 44,000.00	\$ 11,000.00
9	STEEL TRUSS PEDESTRIAN BRIDGE	LF	76	\$ 1,500.00	\$ 114,000.00	\$ 28,500.00
<b>Sub-Total</b>					<b>\$ 338,383.07</b>	<b>\$ 84,595.77</b>
<b>Contingency @ 30%</b>					<b>\$ 101,514.92</b>	<b>\$ 25,378.73</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 439,897.99</b>	<b>\$ 109,974.50</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 65,984.70</b>	<b>\$ 16,496.17</b>
<b>Total</b>					<b>\$ 505,882.68</b>	<b>\$ 126,470.67</b>

Alternative 3b

Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 37,700.00	\$ 37,700.00	\$ 9,425.00
2	EXCAVATION	CY	2207	\$ 10.00	\$ 22,073.70	\$ 5,518.43
3	REMOVE AND REPLACE RIPRAP	TN	1259	\$ 30.00	\$ 37,776.00	\$ 9,444.00
4	TYPE B RIPRAP	TN	126	\$ 120.00	\$ 15,110.40	\$ 3,777.60
5	TYPE C RIPRAP	TN	317	\$ 120.00	\$ 38,016.00	\$ 9,504.00
6	GEOTEXTILE FILTER FABRIC	SY	7348	\$ 2.25	\$ 16,532.00	\$ 4,133.00
7	CRUSHED ROCK SURFACING	TN	490	\$ 60.00	\$ 29,381.33	\$ 7,345.33
8	BRIDGE ABUTMENT FOUNDATION	LS	2	\$ 22,000.00	\$ 44,000.00	\$ 11,000.00
9	STEEL TRUSS PEDESTRIAN BRIDGE	LF	116	\$ 1,500.00	\$ 174,000.00	\$ 43,500.00
<b>Sub-Total</b>					<b>\$ 414,589.43</b>	<b>\$ 103,647.36</b>
<b>Contingency @ 30%</b>					<b>\$ 124,376.83</b>	<b>\$ 31,094.21</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 538,966.26</b>	<b>\$ 134,741.57</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 80,844.94</b>	<b>\$ 20,211.23</b>
<b>Total</b>					<b>\$ 619,811.20</b>	<b>\$ 154,952.80</b>

Alternative 3c

Item No	Item	Unit	Quantity	Unit Price	Total	LPNRRD Portion
1	Mobilization	LS	1	\$ 44,100.00	\$ 44,100.00	\$ 11,025.00
2	EXCAVATION	CY	2737	\$ 10.00	\$ 27,370.70	\$ 6,842.68
3	REMOVE AND REPLACE RIPRAP	TN	1243	\$ 30.00	\$ 37,296.00	\$ 9,324.00
4	TYPE B RIPRAP	TN	124	\$ 120.00	\$ 14,918.40	\$ 3,729.60
5	TYPE C RIPRAP	TN	317	\$ 120.00	\$ 38,016.00	\$ 9,504.00
6	GEOTEXTILE FILTER FABRIC	SY	7259	\$ 2.25	\$ 16,332.00	\$ 4,083.00
7	CRUSHED ROCK SURFACING	TN	483	\$ 60.00	\$ 29,008.00	\$ 7,252.00
8	BRIDGE ABUTMENT FOUNDATION	LS	2	\$ 22,000.00	\$ 44,000.00	\$ 11,000.00
9	STEEL TRUSS PEDESTRIAN BRIDGE	LF	156	\$ 1,500.00	\$ 234,000.00	\$ 58,500.00
<b>Sub-Total</b>					<b>\$ 485,041.10</b>	<b>\$ 121,260.28</b>
<b>Contingency @ 30%</b>					<b>\$ 145,512.33</b>	<b>\$ 36,378.08</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 630,553.43</b>	<b>\$ 157,638.36</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 94,583.01</b>	<b>\$ 23,645.75</b>
<b>Total</b>					<b>\$ 725,136.44</b>	<b>\$ 181,284.11</b>

Alternative 4a



Item No	Item	Unit	Quantity	Unit Price	Total	LPNRRD Portion
1	Mobilization	LS	1	\$ 40,000.00	\$ 40,000.00	\$ 10,000.00
2	EXCAVATION	CY	1867	\$ 10.00	\$ 18,666.67	\$ 4,666.67
3	REMOVE AND REPLACE RIPRAP	TN	1622	\$ 30.00	\$ 48,672.00	\$ 12,168.00
4	REMOVE STEEL TRUSS PEDESTRIAN BRIDGE	LS	1	\$ 20,000.00	\$ 20,000.00	\$ 5,000.00
5	REMOVE BRIDGE ABUTMENT FOUNDATION	LS	2	\$ 5,000.00	\$ 10,000.00	\$ 2,500.00
6	TYPE B RIPRAP	TN	131	\$ 120.00	\$ 15,667.20	\$ 3,916.80
7	GEOTEXTILE FILTER FABRIC	SY	7605	\$ 2.25	\$ 17,112.00	\$ 4,278.00
8	CRUSHED ROCK SURFACING	TN	508	\$ 60.00	\$ 30,464.00	\$ 7,616.00
9	BRIDGE ABUTMENT FOUNDATION	LS	2	\$ 22,000.00	\$ 44,000.00	\$ 11,000.00
10	STEEL TRUSS PEDESTRIAN BRIDGE	LF	130	\$ 1,500.00	\$ 195,000.00	\$ 48,750.00
<b>Sub-Total</b>					<b>\$ 439,581.87</b>	<b>\$ 109,895.47</b>
<b>Contingency @ 30%</b>					<b>\$ 131,874.56</b>	<b>\$ 32,968.64</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 571,456.43</b>	<b>\$ 142,864.11</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 85,718.46</b>	<b>\$ 21,429.62</b>
<b>Total</b>					<b>\$ 657,174.89</b>	<b>\$ 164,293.72</b>

### Alternative 4b

Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 46,100.00	\$ 46,100.00	\$ 11,525.00
2	EXCAVATION	CY	3467	\$ 10.00	\$ 34,666.67	\$ 8,666.67
3	REMOVE AND REPLACE RIPRAP	TN	1622	\$ 30.00	\$ 48,672.00	\$ 12,168.00
4	REMOVE STEEL TRUSS PEDESTRIAN BRIDGE	LS	1	\$ 20,000.00	\$ 20,000.00	\$ 5,000.00
5	REMOVE BRIDGE ABUTMENT FOUNDATION	LS	2	\$ 5,000.00	\$ 10,000.00	\$ 2,500.00
6	TYPE B RIPRAP	TN	131	\$ 120.00	\$ 15,667.20	\$ 3,916.80
7	GEOTEXTILE FILTER FABRIC	SY	7605	\$ 2.25	\$ 17,112.00	\$ 4,278.00
8	CRUSHED ROCK SURFACING	TN	508	\$ 60.00	\$ 30,464.00	\$ 7,616.00
9	BRIDGE ABUTMENT FOUNDATION	LS	2	\$ 22,000.00	\$ 44,000.00	\$ 11,000.00
10	STEEL TRUSS PEDESTRIAN BRIDGE	LF	160	\$ 1,500.00	\$ 240,000.00	\$ 60,000.00
<b>Sub-Total</b>					<b>\$ 506,681.87</b>	<b>\$126,670.47</b>
<b>Contingency @ 30%</b>					<b>\$ 152,004.56</b>	<b>\$ 38,001.14</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 658,686.43</b>	<b>\$164,671.61</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 98,802.96</b>	<b>\$ 24,700.74</b>
<b>Total</b>					<b>\$ 757,489.39</b>	<b>\$189,372.35</b>

### Alternative 2a &3a

Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 38,800.00	\$ 38,800.00	\$ 9,700.00
2	EXCAVATION	CY	1152	\$ 10.00	\$ 11,522.00	\$ 2,880.50
3	REMOVE AND REPLACE RIPRAP	TN	1275	\$ 30.00	\$ 38,256.00	\$ 9,564.00
4	EMBANKMENT	CY	2125	\$ 20.00	\$ 42,506.67	\$ 10,626.67
5	TYPE B RIPRAP	TN	383	\$ 120.00	\$ 45,907.20	\$ 11,476.80
6	TYPE C RIPRAP	TN	317	\$ 120.00	\$ 38,016.00	\$ 9,504.00
7	GEOTEXTILE FILTER FABRIC	SY	10270	\$ 2.25	\$ 23,108.00	\$ 5,777.00
8	CRUSHED ROCK SURFACING	TN	496	\$ 60.00	\$ 29,754.67	\$ 7,438.67
9	BRIDGE ABUTMENT FOUNDATION	LS	2	\$ 22,000.00	\$ 44,000.00	\$ 11,000.00
10	STEEL TRUSS PEDESTRIAN BRIDGE	LF	76	\$ 1,500.00	\$ 114,000.00	\$ 28,500.00
<b>Sub-Total</b>					<b>\$ 425,870.53</b>	<b>\$106,467.63</b>
<b>Contingency @ 30%</b>					<b>\$ 127,761.16</b>	<b>\$ 31,940.29</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 553,631.69</b>	<b>\$138,407.92</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 83,044.75</b>	<b>\$ 20,761.19</b>
<b>Total</b>					<b>\$ 636,676.45</b>	<b>\$159,169.11</b>

### Alternative 0a &3b

Item No	Item	Unit	Quantity	Unit Price	Total	LPNNRD Portion
1	Mobilization	LS	1	\$ 72,600.00	\$ 72,600.00	\$ 18,150.00
2	EXCAVATION	CY	2207	\$ 10.00	\$ 22,073.70	\$ 5,518.43
3	REMOVE AND REPLACE RIPRAP	TN	1259	\$ 30.00	\$ 37,776.00	\$ 9,444.00
4	TYPE B RIPRAP	TN	126	\$ 120.00	\$ 15,110.40	\$ 3,777.60
5	TYPE C RIPRAP	TN	317	\$ 120.00	\$ 38,016.00	\$ 9,504.00
6	GEOTEXTILE FILTER FABRIC	SY	7348	\$ 2.25	\$ 16,532.00	\$ 4,133.00
7	6" CONCRETE TRAIL	SF	37776	\$ 10.00	\$ 377,760.00	\$ 94,440.00
8	BRIDGE ABUTMENT FOUNDATION	LS	2	\$ 22,000.00	\$ 44,000.00	\$ 11,000.00
9	STEEL TRUSS PEDESTRIAN BRIDGE	LF	116	\$ 1,500.00	\$ 174,000.00	\$ 43,500.00
<b>Sub-Total</b>					<b>\$ 797,868.10</b>	<b>\$199,467.03</b>
<b>Contingency @ 30%</b>					<b>\$ 239,360.43</b>	<b>\$ 59,840.11</b>
<b>Opinion of Probable Construction Cost</b>					<b>\$ 1,037,228.53</b>	<b>\$259,307.13</b>
<b>Engineering, Planning and Permitting @ 15%</b>					<b>\$ 155,584.28</b>	<b>\$ 38,896.07</b>
<b>Total</b>					<b>\$ 1,192,812.81</b>	<b>\$298,203.20</b>

## **APPENDIX B – PRINCIPAL SPILLWAY JOINT INSPECTION**

# Inspection Report

## Lake Wanahoo Principal Spillway Joints

### Houston Engineering, Inc.

<b>Site:</b>	Lake Wanahoo NRD Recreation Area		
<b>Public Sponsor(s):</b>	Lower Platte North NRD		
<b>Public Sponsor Representative:</b>	Erik Gottschalk		
<b>Houston Engineer Inspector:</b>	Ethan Miller, PE	Date of Inspection:	3/4/2025 & 3/12/2025
<b>Inspection Report Prepared By:</b>	Ethan Miller, PE	Date Report	
		Prepared:	3/20/2025

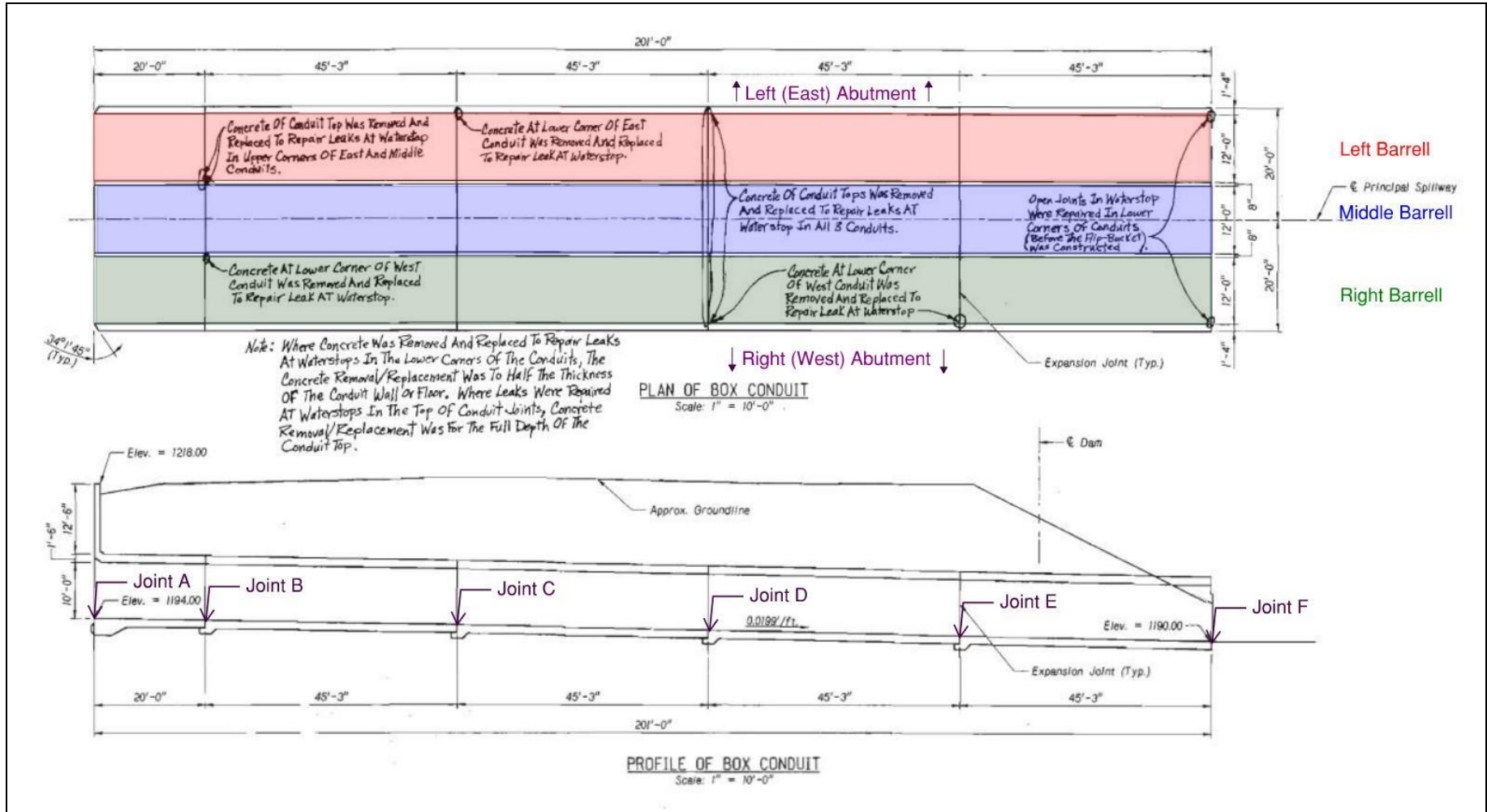
### Structure Identification

<b>Location:</b>	Lake Wanahoo Dam Principal Spillway		
<b>Structure Type:</b>	Box Culvert	<b>Barrel Length:</b>	201 ft
<b>Year Built:</b>	2011	<b>Barrel Width:</b>	12 ft
<b>Number of Barrells:</b>	3	<b>Barrel Height:</b>	10 ft
		<b>Inlet Section Treatment Type:</b>	Labyrinth Weir with wingwall transition
		<b>Outlet Section Treatment Type:</b>	Flip Bucket with sidewalls

### Site Information



# Inspection Schematic



## Inspection Photos

**Photo 1**



**Location:** Left Barrel – Joint A - Left Elevation

**Remarks:** Joint sealant (caulk) is missing from 0” to 80”. The underlying joint filler is in good condition.

**Joint Gap:** 1.25” (typ.)

**Photo 2**



**Location:** Left Barrel – Joint A - Top Elevation

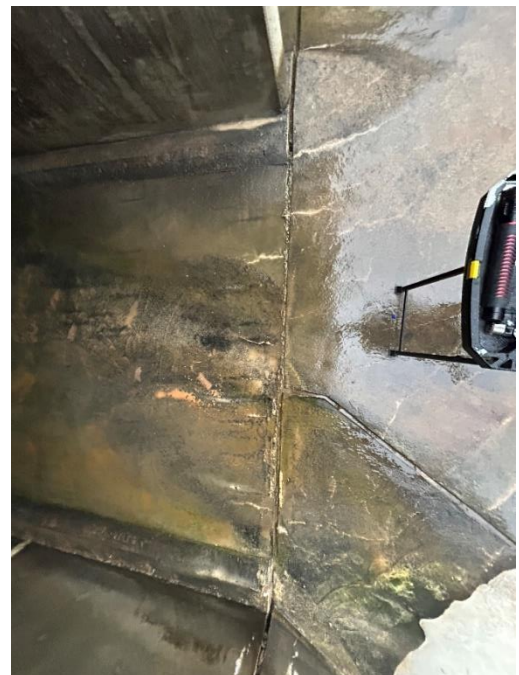
**Remarks:** Minor efflorescence present at “joint”.

**Photo 3**



**Location:** Left Barrel – Joint A - Right Elevation

**Photo 4**



**Location:** Left Barrel – Joint A - Bottom Elevation

**Remarks:** Joint filler in good condition.

**Joint Gap:** 1.5” (typ.)

Inspection Photos

Photo 5



**Location:** Left Barrel – Joint B - Left Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 2.5” (typ.)

Photo 6



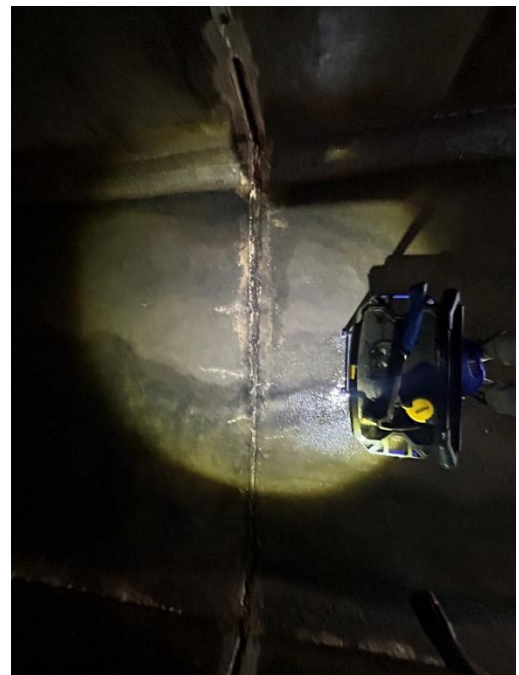
**Location:** Left Barrel – Joint B - Top Elevation  
**Remarks:** Minor crack with iron stain near midspan.

Photo 7



**Location:** Left Barrel – Joint B - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 3” (typ.)

Photo 8



**Location:** Left Barrel – Joint B - Bottom Elevation  
**Remarks:** Joint filler in good condition along base, poor at chamfers.  
**Joint Gap:** 1.5” left end transitions to 4” at right.



Inspection Photos

Photo 9



**Location:** Left Barrel – Joint C - Left Elevation

**Remarks:** Joint sealant and filler is missing from 0” to 38.5”. Sealant detached from 38.5” to 100.5”, with filler missing up to 56.5”.

**Joint Gap:** 2” at base transitions to 1.5” at 48”.

Photo 10



**Location:** Left Barrel – Joint C - Top Elevation

**Remarks:** Minor detachment of joint sealant.

Photo 11



**Location:** Left Barrel – Joint C - Right Elevation

**Remarks:** Joint sealant (caulk) is missing from 0” to 24”. Oakum rope filler in moderate to poor condition.

**Joint Gap:** 2.25” at base transitions to 3” at 24”.

Photo 12



**Location:** Left Barrel – Joint C - Bottom Elevation

**Remarks:** Joint filler in good condition along base, moderate at chamfers.

**Joint Gap:** 2.75” (typ.).



Inspection Photos

Photo 13



**Location:** Left Barrel – Joint D - Left Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 23”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 3.25” (typ.)

Photo 14



**Location:** Left Barrel – Joint D - Top Elevation  
**Remarks:** Minor cracking with iron stains.

Photo 15



**Location:** Left Barrel – Joint D - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24.5”.  
Oakum rope filler in moderate condition.  
**Joint Gap:** 2.75” (typ.)

Photo 16



**Location:** Left Barrel – Joint D - Bottom Elevation  
**Remarks:** Joint filler in moderate condition.  
**Joint Gap:** 2.25” (typ.) with 3.5” gouge.

Inspection Photos

Photo 17



**Location:** Left Barrel – Joint E - Left Elevation

**Remarks:** Joint sealant (caulk) is missing from 0” to 23”.  
Oakum rope filler in moderate condition.

**Joint Gap:** 2.25” (typ.)

Photo 18



**Location:** Left Barrel – Joint E - Top Elevation

**Remarks:** Minor cracking with efflorescence. Cracking extends downstream from joint 56”

Photo 19



**Location:** Left Barrel – Joint E - Right Elevation

**Remarks:** Joint sealant (caulk) and filler is missing from 0” to 23”. Void extends into adjacent RCB.

**Joint Gap:** 2” (typ.)

Photo 20



**Location:** Left Barrel – Joint E - Bottom Elevation

**Remarks:** Joint filler in moderate condition

**Joint Gap:** 2” (typ.)



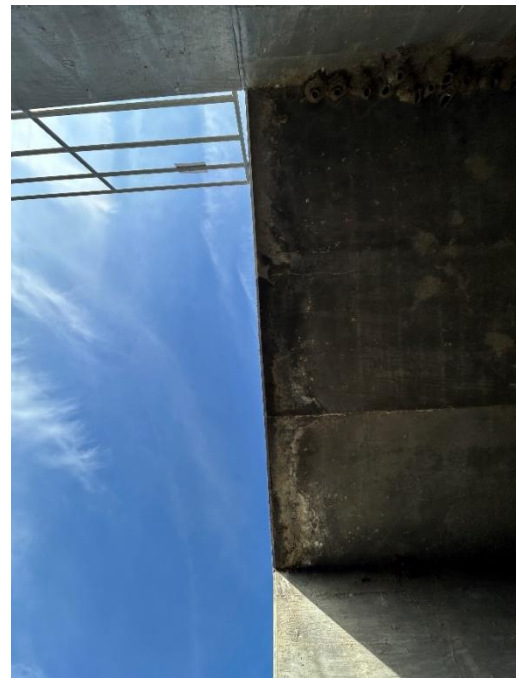
Inspection Photos

Photo 21



**Location:** Left Barrel – Joint F - Left Elevation  
**Remarks:** Joint filler in poor condition from 0” to 24.25”.  
Sealant missing or ineffective from 0” to 60.75”.  
**Joint Gap:** 1.75” (typ.)

Photo 22



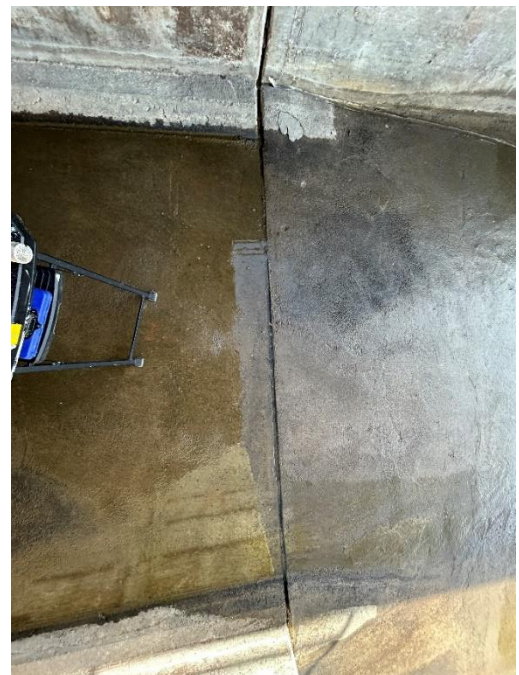
**Location:** Left Barrel – Joint F - Top Elevation

Photo 23



**Location:** Left Barrel – Joint F - Right Elevation

Photo 24



**Location:** Left Barrel – Joint F – Bottom Elevation  
**Remarks:** Joint filler in good condition.  
**Remarks:** 1” (typ.)

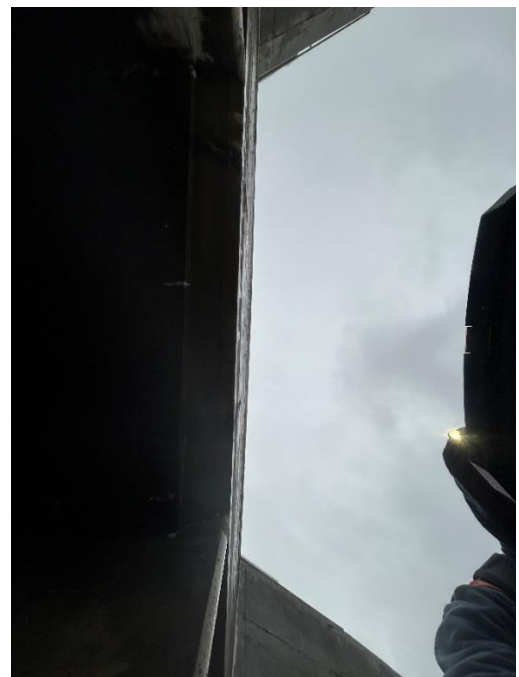
Inspection Photos

Photo 25



**Location:** Middle Barrel – Joint A - Left Elevation  
**Remarks:** Joint filler in good condition.  
**Joint Gap:** 1.5" (typ.)

Photo 26



**Location:** Middle Barrel – Joint A - Top Elevation

Photo 27



**Location:** Middle Barrel – Joint A - Right Elevation

Photo 28



**Location:** Middle Barrel – Joint A - Bottom Elevation  
**Joint Gap:** 1.5" (typ.)

Inspection Photos

Photo 29



**Location:** Middle Barrel – Joint B - Left Elevation  
**Remarks:** Joint sealant (caulk) and filler is missing from 0” to 66”. Void extends into adjacent RCB.  
**Joint Gap:** 3” (typ.)

Photo 30



**Location:** Middle Barrel – Joint B - Top Elevation

Photo 31



**Location:** Middle Barrel – Joint B - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 2.75” (typ.)

Photo 32



**Location:** Middle Barrel – Joint B - Bottom Elevation  
**Remarks:** Joint filler in moderate condition. Joint filler typically begins at depth of 1.5”, with peak at 3”.  
**Joint Gap:** 1.5” (typ.)



Inspection Photos

Photo 33



**Location:** Middle Barrel – Joint C - Left Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24.5”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 3” (typ.)

Photo 34



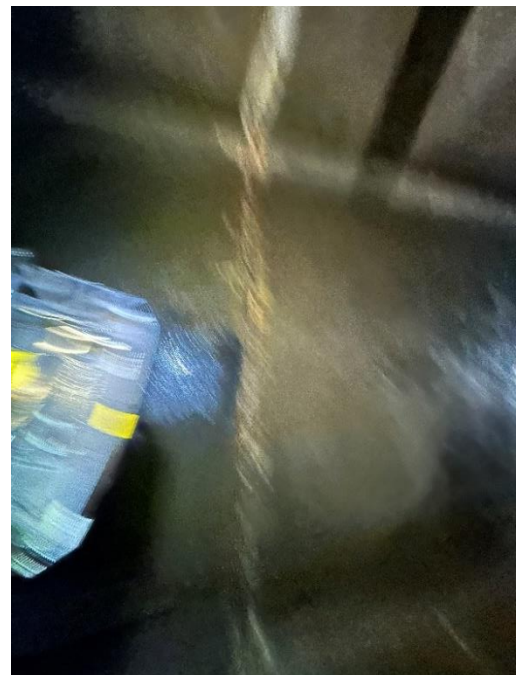
**Location:** Middle Barrel – Joint C - Top Elevation

Photo 35



**Location:** Middle Barrel – Joint C - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition. Joint sealant in poor condition from 24” to 42”.  
**Joint Gap:** 2.25” (typ.)

Photo 36



**Location:** Middle Barrel – Joint C - Bottom Elevation  
**Remarks:** Joint filler in moderate condition.  
**Remarks:** 2.25” (typ.)



Inspection Photos

Photo 37



**Location:** Middle Barrel – Joint D - Left Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 47”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 2.25” (typ.)

Photo 38



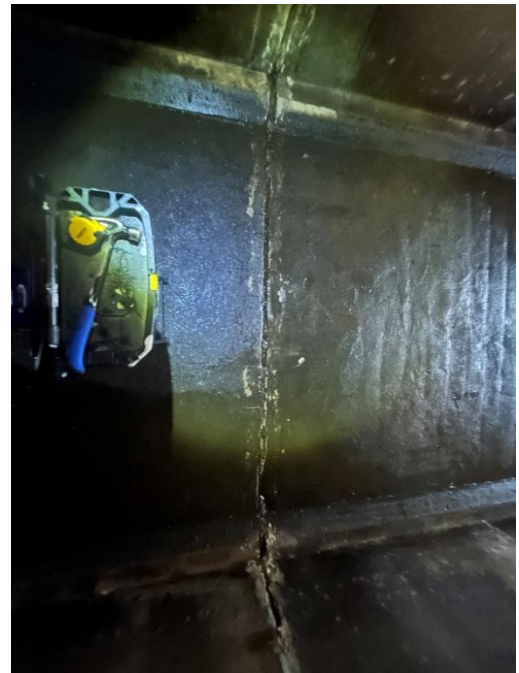
**Location:** Middle Barrel – Joint D - Top Elevation

Photo 39



**Location:** Middle Barrel – Joint D - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in moderate condition.  
**Joint Gap:** 1.75” (typ.)

Photo 40



**Location:** Middle Barrel – Joint D - Bottom Elevation  
**Remarks:** Joint filler in moderate condition.  
**Remarks:** 1.75” (typ.)



Inspection Photos

Photo 41



**Location:** Middle Barrel – Joint E - Left Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”. Oakum rope filler in poor condition. Joint sealant in poor condition from 42” to 48”.  
**Joint Gap:** 2.5” (typ.)

Photo 42



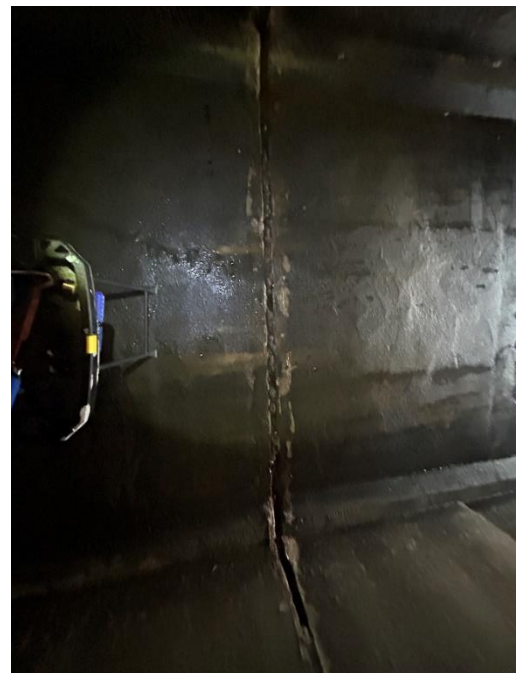
**Location:** Middle Barrel – Joint E - Top Elevation  
**Remarks:** Minor cracking with efflorescence.

Photo 43



**Location:** Middle Barrel – Joint E - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 28”. Oakum rope filler in poor condition.  
**Joint Gap:** 2.25” (typ.)

Photo 44



**Location:** Middle Barrel – Joint E - Bottom Elevation  
**Remarks:** Joint filler in good condition along base, moderate at chamfers.  
**Joint Gap:** 3” (typ.)

Inspection Photos

Photo 45



Location: Middle Barrel – Joint F - Left Elevation

Photo 46



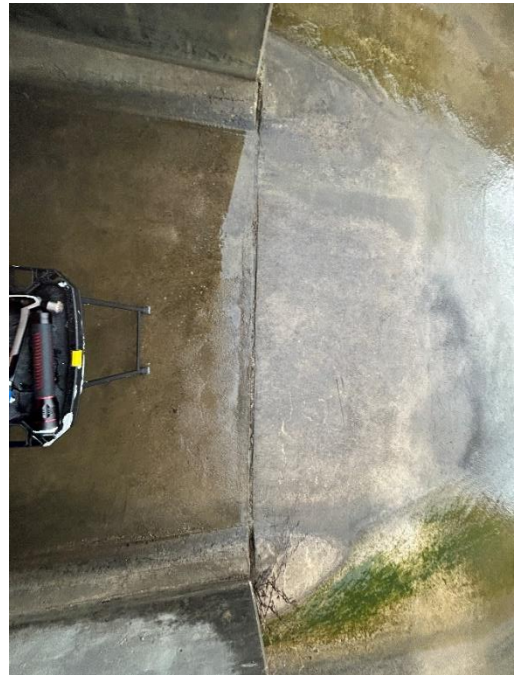
Location: Middle Barrel – Joint F - Top Elevation

Photo 47



Location: Middle Barrel – Joint F - Right Elevation

Photo 48



Location: Middle Barrel – Joint F - Bottom Elevation

Remarks: Joint filler in good condition.

Remarks: 1" (typ.)

Inspection Photos

Photo 49



Location: Right Barrel – Joint A - Left Elevation

Photo 50



Location: Right Barrel – Joint A - Top Elevation

Photo 51

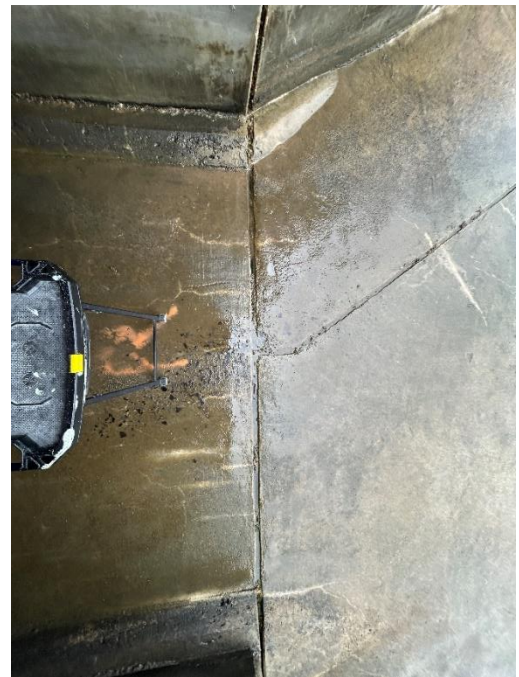


Location: Right Barrel – Joint A - Right Elevation

Remarks: Joint sealant (caulk) is missing from 0” to 26” and 80” to 119”. Oakum rope filler in moderate condition from 0” tp 26”.

Joint Gap: 2” (typ.)

Photo 52



Location: Right Barrel – Joint A - Bottom Elevation

Remarks: Joint filler in good condition.

Remarks: 1.625” (typ.).

Inspection Photos

Photo 53



**Location:** Right Barrel – Joint B - Left Elevation

**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition.

**Joint Gap:** 2.25” (typ.) with 3” wide by 4” tall gouge at base.

Photo 54



**Location:** Right Barrel – Joint B - Top Elevation

**Remarks:** Minor cracking with efflorescence.

Photo 55

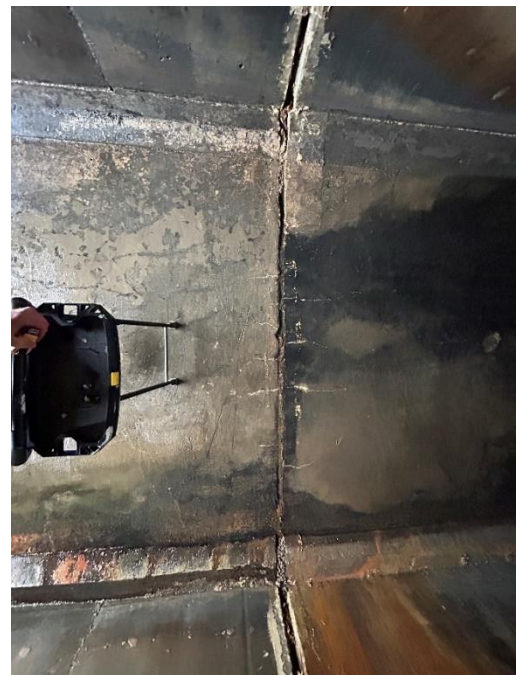


**Location:** Right Barrel – Joint B - Right Elevation

**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition. Iron Stain present  
downstream of joint.

**Joint Gap:** 3” (typ.)

Photo 56



**Location:** Right Barrel – Joint B - Bottom Elevation

**Remarks:** Joint filler in moderate condition.

**Remarks:** 1.5” (typ.) with 3” gouge at midspan.



Inspection Photos

Photo 57



**Location:** Right Barrel – Joint C - Left Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 3” (typ.)

Photo 58



**Location:** Right Barrel – Joint C - Top Elevation

Photo 59



**Location:** Right Barrel – Joint C - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition. Iron stain originates at joint  
a height of 48”.  
**Joint Gap:** 3” (typ.)

Photo 60



**Location:** Right Barrel – Joint C - Bottom Elevation  
**Remarks:** Joint filler in good condition.  
**Joint Gap:** 2” (typ.).

Inspection Photos

Photo 61



**Location:** Right Barrel – Joint D - Left Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 2” (typ.)

Photo 62



**Location:** Right Barrel – Joint D - Top Elevation  
**Remarks:** Minor cracking with iron stains.

Photo 63



**Location:** Right Barrel – Joint D - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition. Iron stain originates at joint  
a height of 98”.  
**Joint Gap:** 2” (typ.)

Photo 64



**Location:** Right Barrel – Joint D - Bottom Elevation  
**Remarks:** Joint filler in good condition along base, poor at  
chamfers.  
**Joint Gap:** 2” (typ.).

Inspection Photos

Photo 65



**Location:** Right Barrel – Joint E - Left Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 2.5” (typ.)

Photo 66



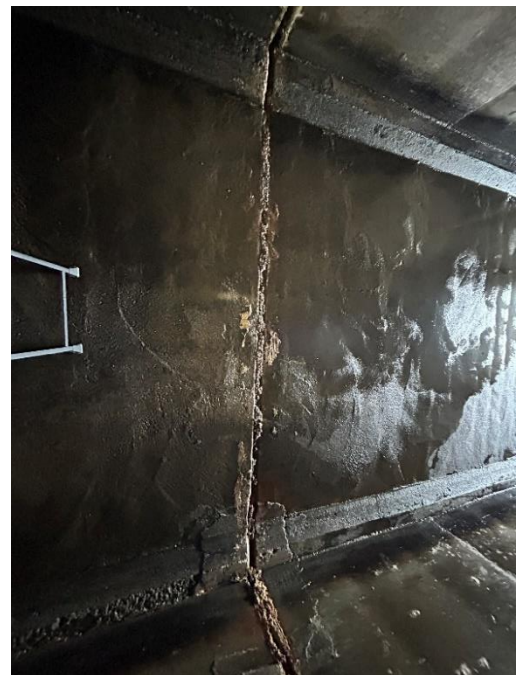
**Location:** Right Barrel – Joint E - Top Elevation  
**Remarks:** Minor cracking efflorescence.

Photo 67



**Location:** Right Barrel – Joint E - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24” and in poor condition from 24” to 28”. Oakum rope filler in poor condition from 0” to 24”.  
**Joint Gap:** 2.25” (typ.)

Photo 68



**Location:** Right Barrel – Joint E - Bottom Elevation  
**Remarks:** Joint filler in good condition along base, poor at chamfers.  
**Joint Gap:** 2” (typ.)

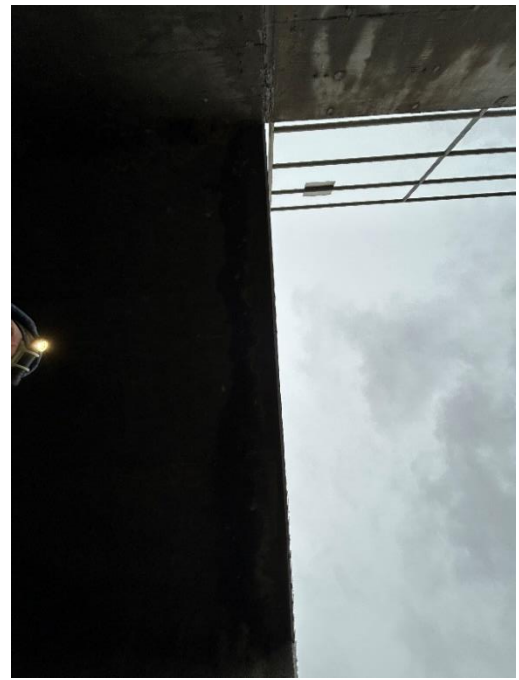
Inspection Photos

Photo 69



**Location:** Right Barrel – Joint F - Left Elevation  
**Remarks:** Longitudinal spalling projects upstream 12” at the chamfer to wall transition.

Photo 70



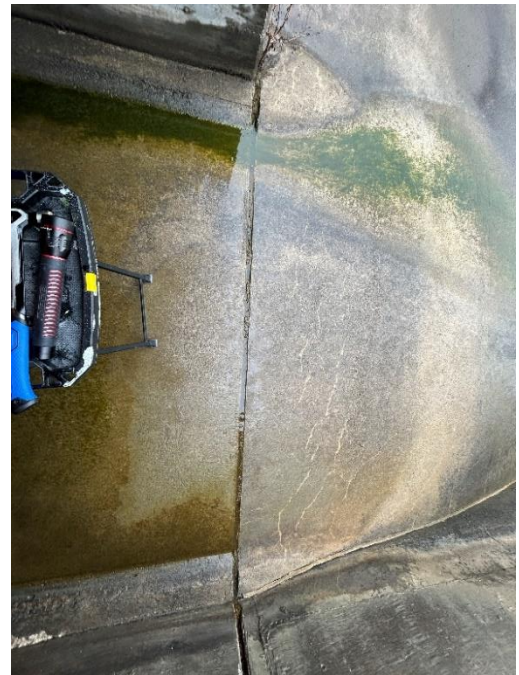
**Location:** Right Barrel – Joint F - Top Elevation

Photo 71



**Location:** Right Barrel – Joint F - Right Elevation  
**Remarks:** Joint sealant (caulk) is missing from 0” to 24”.  
Oakum rope filler in poor condition.  
**Joint Gap:** 2” (typ.)

Photo 72



**Location:** Right Barrel – Joint F - Bottom Elevation  
**Remarks:** Joint filler in good to moderate condition.  
**Joint Gap:** 1.5” (typ.).

## APPENDIX C – SELECT DAMAGE PHOTOS

Mile 3



Mile 3



Mile 3



Stilling Basin Fencing





# Preventative Maintenance Quotation

1010475 Lower Platte North NRD

Date: 5/8/2025  
 Equipment: Generac GMN# SD060  
GSN# 3016666564  
 Location: 1616 County Rd 17  
Wahoo, NE 68066  
 Attention: Ryan Chapman 402.432.0372

Service Plan: Silver

### 3 Year Agreement

	Year 1	Year 2	Year 3
Major:	\$ 1,100.18	\$ 1,144.19	\$ 1,189.95
Minor:	\$ 550.00	\$ 572.00	\$ 594.88
Quarterly:			
Quarterly:			
Load Bank:	\$ 1,102.50	\$ 1,102.50	\$ 1,102.50

*can do load for 1 hr*

Total (No Load Bank): \$ **5,151.20**  
 Total (Load Bank Incl.): \$ **8,458.70**

\*\*Initial by Selection

### 1 Year Agreement

	Year 1
Major:	\$ 1,237.55
Minor:	\$ 630.57
Quarterly:	
Quarterly:	
Load Bank:	\$ 1,102.50

Total (No Load Bank): \$ **1,868.12**  
 Total (Load Bank Incl.): \$ **2,970.62**

\*\*Initial by Selection

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Comments:\*\* Pricing includes annual fuel analysis and annual fuel treatment\*\*\*

Each service visit will be billed according to the type of visit completed and invoiced after the work has been performed per HM Cragg checklist guidelines. The field service report will be sent following the invoice. We appreciate your business and look forward to assisting you in all of your power generator servicing needs. **Contract proposals expire after 30 days.**



## Preventative Maintenance Quotation

1010475 Lower Platte North NRD

Date: 7/29/2025  
 Equipment: Generac GMN# SD060  
GSN# 3016666564  
 Location: 1616 County Rd 17  
Wahoo, NE 68066  
 Attention: Ryan Chapman 402.432.0372

Service Plan: Bronze

### 3 Year Agreement

	Year 1	Year 2	Year 3
Major:	\$ 1,100.18	\$ 1,144.19	\$ 1,189.95
Minor:	_____	_____	_____
Quarterly:	_____	_____	_____
Quarterly:	_____	_____	_____
Load Bank:	\$ 772.50	\$ 772.50	\$ 772.50

Total (No Load Bank): \$ 3,434.32 \_\_\_\_\_  
 Total (Load Bank Incl.): \$ 5,751.82 \_\_\_\_\_

\*\*Initial by Selection

### 1 Year Agreement

	Year 1
Major:	\$ 1,237.55
Minor:	_____
Quarterly:	_____
Quarterly:	_____
Load Bank:	\$ 772.50

Total (No Load Bank): \$ 1,237.55 \_\_\_\_\_  
 Total (Load Bank Incl.): \$ 2,010.05 \_\_\_\_\_

\*\*Initial by Selection

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Comments: \*\* Pricing includes annual fuel analysis and annual fuel treatment\*\*\* \*\*Pricing includes 1 hr load bank\*\*

Each service visit will be billed according to the type of visit completed and invoiced after the work has been performed per HM Cragg checklist guidelines. The field service report will be sent following the invoice. We appreciate your business and look forward to assisting you in all of your power generator servicing needs. **Contract proposals expire after 30 days.**

## HM CRAGG'S *PowerON* Planned Maintenance Program

Ensure peace-of-mind with a worry-free *PowerON* plan that includes:

- Multi-point inspections of all equipment, scheduled regularly 1, 2, 4 or 12 times per year included in our *PowerON* Bronze, Silver, Gold or Platinum service levels
- Once-per-year oil, oil filter and fuel filter changes
- Coolant testing and treatment
- EPA-approved disposal of used oil and filters
- Repair recommendations quoted
- Access to 24/7 emergency service
- Technical assistance and support when you need it
- And more depending on your *PowerON* plan level...



Pick the *PowerON* plan that meets your needs and budget...



<i>What services are included:</i>	<i>PowerON Bronze</i>	<i>PowerON Silver</i>	<i>PowerON Gold</i>	<i>PowerON Platinum</i>
<i>Number of times each service performed yearly:</i>				
Total system pre-run checks	1x	2x	4x	12x
Multi-point running inspection	1x	2x	4x	12x
Battery inspection	1x	2x	4x	12x
Coolant level inspection	1x	2x	4x	12x
Enclosure and louver inspection	1x	2x	4x	12x
Engine systems inspection	1x	2x	4x	12x
Exhaust system inspection	1x	2x	4x	12x
Fuel level check	1x	2x	4x	12x
Oil level check	1x	2x	4x	12x
Transfer switch inspection and programming check	1x	2x	4x	12x
Wiring, terminal, and lug inspection	1x	2x	4x	12x
Electronic field service inspection reports	1x	2x	4x	12x
Charging system check	1x	2x	4x	4x
Cooling system test and inspection	1x	2x	4x	4x
Fuel system inspection	1x	2x	4x	4x
Safety shutdowns check	1x	2x	2x	2x
Infrared temperature readings on lugs	1x	2x	2x	2x
Phase rotation compatibility check	1x	2x	2x	2x
System load transfer test	1x	2x	2x	2x
Oil change	1x	1x	1x	1x
Oil filter change	1x	1x	1x	1x
Fuel filter change	1x	1x	1x	1x

**5,927.00** USD

Accept

Decline

Options ▾



### QUOTE

**To** RYAN CHAPMAN, NRD

**Quote number** QU-0069

**Issue date** Mar 5, 2025

**From** Limbach Electric, LLC  
640 E. 8th St.  
North Bend, Nebraska 68649  
United States

## ELECTRICAL PROJECTS, LAKE WANAHOO STORAGE BUILDING AND CZECHLAND LAKE DOCK LIGHTING

Description	Quantity	Unit Price	Amount
CZECHLAND LAKE DOCK LIGHTING. SET PRESSURE TREATED POLE IN GROUND BY DOCK. TRENCH IN AND BACKFILL 10/2 UF UNDERGROUND WIRE 525 FEET TO LAKE SIGN AND TIE INTO POWER. INSTALL LED LONG LIFE AREA LIGHT ON POLE.	1.00	5,927.00	<b>5,927.00</b>

Includes Tax 0.00

H2 EQUIPMENT LLC  
5450 E 23rd St  
Columbus, NE 68601 US  
4026600017



# Estimate

**ADDRESS**

lower platte NRD  
lower platte NRD

**ESTIMATE #** 3929

**DATE** 08/29/2025

ACTIVITY	QTY	RATE	AMOUNT
<b>Attachment</b> Loftness Bad Ax 60in (disc) max 50 gpm	1	30,500.00	30,500.00T
<b>Attachment</b> Loftness Battle Ax 61in (drum) Fixed motor	1	30,500.00	30,500.00T
<b>Attachment</b> Loftness Battle Ax 71in (drum) Variable Displacement Piston Motor	1	35,500.00	35,500.00T
<b>Attachment</b> Virnig V70 60in mulcher (disc) max 50gpm 1 in stock at this price	1	27,500.00	27,500.00T

Thank you for your business!

SUBTOTAL 124,000.00  
TAX (5.5%) 6,820.00  
TOTAL **\$130,820.00**

Accepted By

Accepted Date

REMIT TO: 5450 E 23rd St. Columbus, NE 68601  
All payments due on day of receipt. As a small business we depend on a timely payment.  
THANK YOU FOR YOUR BUSINESS!!!



Outlook

---

## Tree saw & disc mulcher

---

**From** Jason Morgan <jason@benesservice.com>

**Date** Thu 9/4/2025 1:35 PM

**To** Bob Heimann <bheimann@lpnrd.org>

Baumalight WLDSM530-T530 \$7250

CID 60" High Flow Disc Mulcher \$28,500

--

Jason Morgan

Salesman

Benes Service

1443 32nd Rd

David City, NE 68632

(308)227-1826 cell



Quotation Number: **AM1380496**  
 Quote Sent Date: **Aug 28, 2025**  
 Expiration Date: **Sep 27, 2025**  
 Prepared By: **Alan Makovicka**  
 Phone: 402-607-9782  
 Email: alanmakovicka@bobcat-omaha.com

**Customer**  
**Lower Platte North NRD**  
 511 COMMERCIAL PARK RD  
 WAHOO, NE, 68066-9750  
 Phone: +1 402 443 4675

**Contact**

**Dealer**  
**Bobcat of Omaha, Omaha, NE**  
 8701 SOUTH 145TH STREET  
 OMAHA, NE, 68138-3618

Item Name	Item Number	Quantity	Price Each	Total
<b>Disc Mulcher - 60", Piston</b>	7518474	1	23,000.00	23,000.00
<b>Tier 4 Forestry Applications Kit, M Series</b>	7257723	1	9,069.84	9,069.84
<b>Engine Compartment Seal Kit, 700 Series</b>	7309976	1	1,200.50	1,200.50
<b>Total for Disc Mulcher - 60", Piston</b>				<b>33,270.34</b>
Quote Subtotal				33,270.34
Dealer PDI				125.00
Tariff Surcharge				513.12
Destination Charges				686.00
Dealer Assembly Charges				1,815.00
Sales Total before Taxes				36,409.46
Taxes				0.00
<b>Quote Total - USD</b>				<b>36,409.46</b>

Notes: Pricing per Sourcewell Contract # 040319-CEC

<b>Customer Acceptance:</b>	
Quotation Number: AM1380496	Purchase Order: _____
<b>Authorized Signature:</b>	
Print: _____	Sign: _____
Date: _____	Email: _____ Tax Exempt: Y <input type="checkbox"/> / N <input type="checkbox"/>



Quotation Number: **AM1380515**  
 Quote Sent Date: **Aug 28, 2025**  
 Expiration Date: **Sep 27, 2025**  
 Prepared By: **Alan Makovicka**  
 Phone: 402-607-9782  
 Email: alanmakovicka@bobcat-omaha.com

Customer  
**Lower Platte North NRD**  
 511 COMMERCIAL PARK RD  
 WAHOO, NE, 68066-9750  
 Phone: +1 402 443 4675

Contact

Dealer  
**Bobcat of Omaha, Omaha, NE**  
 8701 SOUTH 145TH STREET  
 OMAHA, NE, 68138-3618

Item Name	Item Number	Quantity	Price Each	Total
<b>Drum Mulcher - 2-Speed, 61"</b>	M7057	1	29,045.60	29,045.60
<b>Engine Compartment Seal Kit, 700 Series</b>	7309976	1	1,200.50	1,200.50
<b>Tier 4 Forestry Applications Kit, M Series</b>	7257723	1	9,069.84	9,069.84
Total for Drum Mulcher - 2-Speed, 61"				39,315.94
Quote Subtotal				39,315.94
Dealer PDI				125.00
Tariff Surcharge				609.85
Destination Charges				716.00
Dealer Assembly Charges				1,815.00
Sales Total before Taxes				42,581.79
Taxes				0.00
<b>Quote Total - USD</b>				<b>42,581.79</b>

Notes: Pricing per Sourcewell Contract # 040319-CEC

<b>Customer Acceptance:</b>	
Quotation Number: <b>AM1380515</b>	Purchase Order: _____
<b>Authorized Signature:</b>	
Print: _____	Sign: _____
Date: _____	Email: _____ Tax Exempt: Y <input type="checkbox"/> / N <input type="checkbox"/>

## MULCHING DISC TOP SIDE

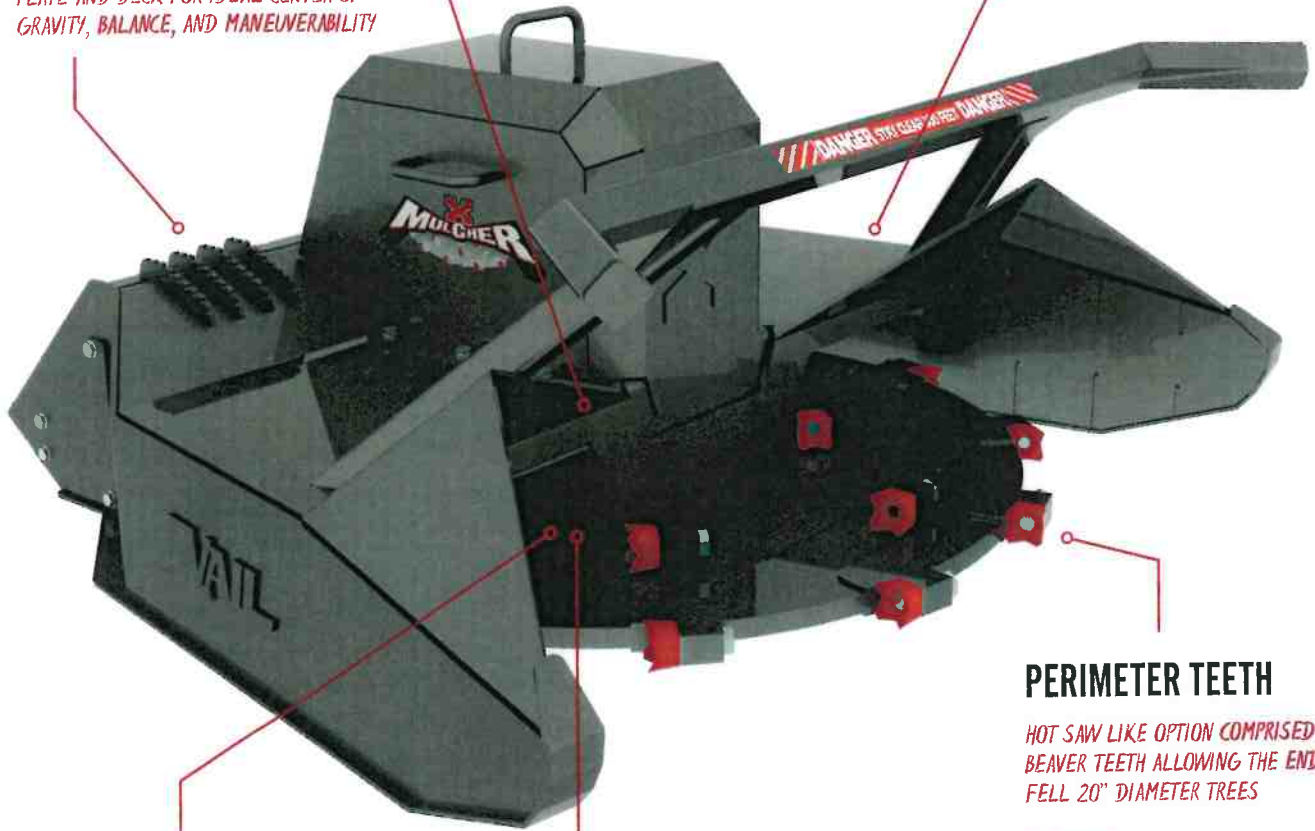
THE INTAKE AND DISCHARGE METHOD IS THE FASTEST MULCHING OPTION ON THE MARKET FOR MATERIAL 7" AND BELOW IN DIAMETER

## SEVERE-DUTY DECK

DOUBLE LAYERED WITH INTERNAL RIBBING - 1/2" THICK DECK THICKNESS IN HIGH WEAR AREAS

T1 PLATE USED ON ALL WEAR SURFACES (EXTERIOR GRADE 50)

ADVANCED DESIGN OF MOUNTING PLATE AND DECK FOR IDEAL CENTER OF GRAVITY, BALANCE, AND MANEUVERABILITY



VAIL SEVERE-DUTY DISC (1.25" THICK 1300 LB.) IS COMPRISED ENTIRELY OF T1 STEEL BRINGING UNMATCHED POWER AND INERTIA

QUICK STOP DISC FEATURE: INCREASED SAFETY WITH BUILT-IN BRAKE SYSTEM ALLOWING THE DISC TO COME TO A STOP IN 10-15 SECONDS

## PERIMETER TEETH

HOT SAW LIKE OPTION COMPRISED OF 12 BEAVER TEETH ALLOWING THE END-USER TO FELL 20" DIAMETER TREES

NO-SHANK TEETH: SINGLE STYLE TOOTH DESIGN ALLOWS FOR LOWER PARTS AND MAINTENANCE COSTS





LEARN



*Explore*  
**MORE**  
*with* **LPNNRD**



LOWER PLATTE NORTH  
Natural Resources District



# Demographics for Digital Audience Targeted Ads

Campaign 1

## Gender



Male

50%



Female

50%

## Parenting



Has Kids

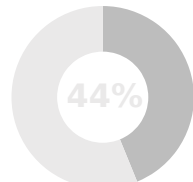
29%



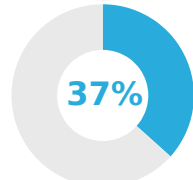
No Kids

71%

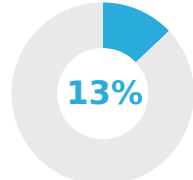
## Household Annual Income



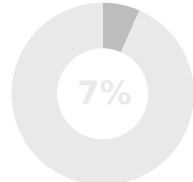
Under \$50K



\$50K-100K



\$100K-150K



\$150K-Above

## Education



59%

High School

24%

College

6%

Grad School

## Homeownership



Homeowners  
&  
Non-Homeowners

## Target Audience

Est. Total Population

**57,256**

Est. Eligible  
Population

**11,132**

Est. Reach &  
Frequency for Display  
& Video

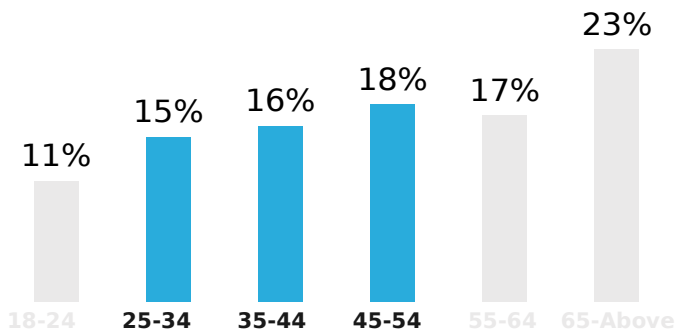
Est. Reach

**73.62%**

Est. Frequency

**50.84x**

## Age



18-24

25-34

35-44

45-54

55-64

65-Above

# Interests for Digital Audience Targeted Ads

## Campaign 1

### **GumGum Events**

Back to School

### **News**

Local News, Weather

### **Business & Industrial**

Aquaculture, Food Production, Forestry, Livestock

### **Hobbies & Leisure**

Equestrian, Fishing, Hiking & Camping, Hunting & Shooting

### **Jobs & Education**

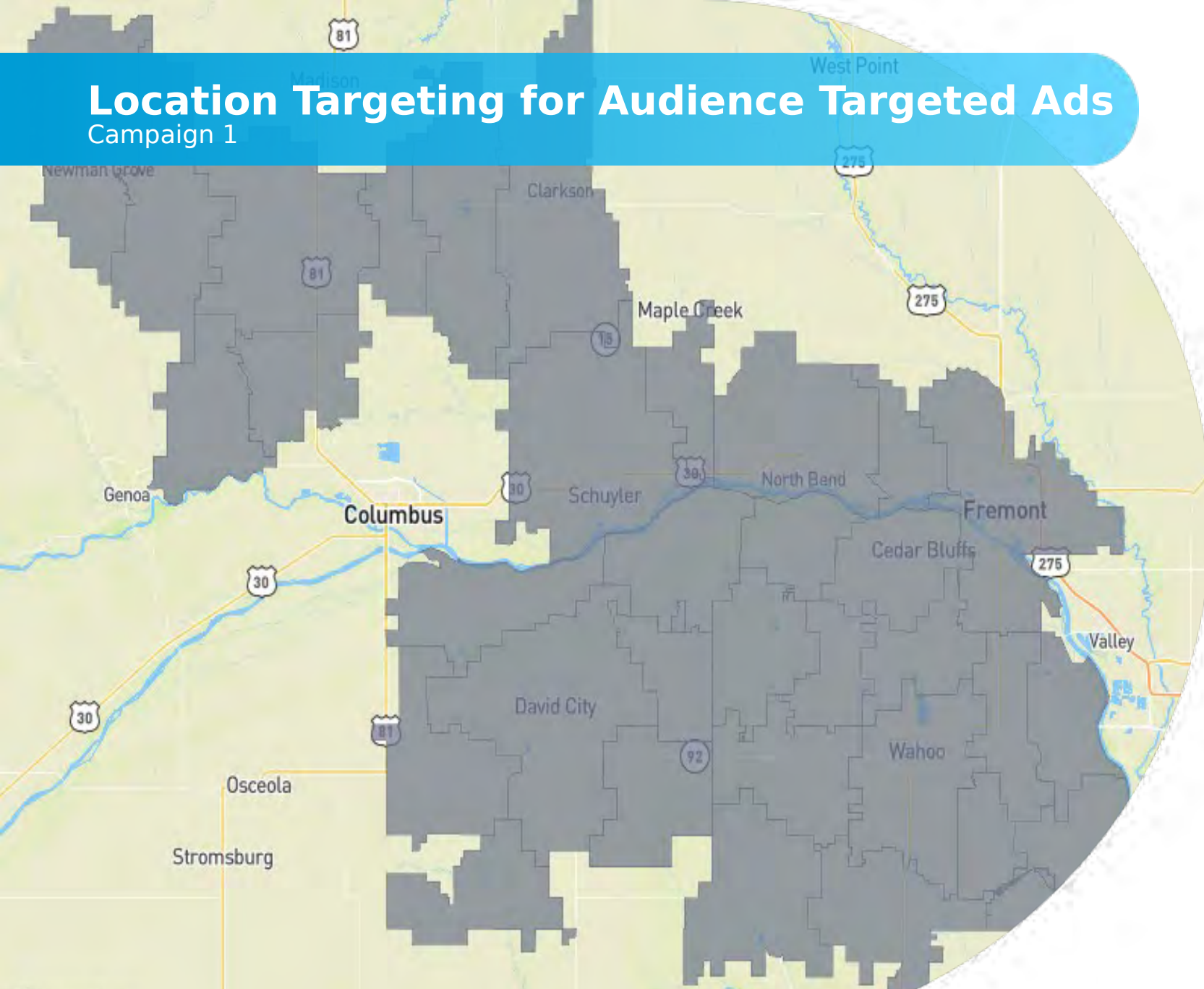
Homeschooling, Primary & Secondary Schooling (K-12)

### **Travel**

Adventure Travel, Ecotourism

# Location Targeting for Audience Targeted Ads

Campaign 1



## Geography Type : Zip Code

Total Population of Selected Locations

**57,256**

Avg. Income Value

**\$ 69,085**


## Locations for Display or Video Ads

68001, 68003, 68014, 68015, 68017, 68018, 68025, 68026, 68033, 68036, 68040, 68041, 68042, 68050, 68065, 68066, 68070, 68073, 68602, 68621, 68624, 68626, 68629, 68631, 68632, 68642, 68643, 68644,

**+ 9 zip codes**

*Note :The complete list of Zip codes can be found in the appendix section ( Last Slide )*

# Agreement 1 of 1: LOWER PLATTE NORTH NR

Selected Products	Rate	Est. Cost (\$)	Est. Delivery	Date Range
 Display Campaign 1	\$ <b>12.00</b> CPM	\$ <b>5,000.00</b>	<b>416,667</b> Imp.	09/08/2025 - 06/30/2026
<b>Page 1 of 1</b>		\$ <b>5,000.00</b>		
<b>Grand Total</b>		\$ <b>5,000.00</b>		
<b>Proposal Date</b>	<b>Duration</b>	<b>Client Name</b>	<b>Client Signature:</b>	<b>Date:</b>
06/09/2025	296 Days	<b>LOWER PLATTE NORTH NRD</b>	<input type="text"/>	<input type="text"/>

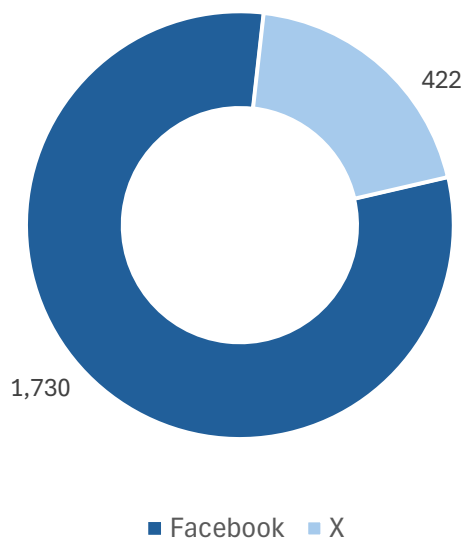
## **Complete list of zip codes for Display**

68001 , 68003 , 68014 , 68015 , 68017 , 68018 , 68025 , 68026 , 68033 , 68036 , 68040 , 68041 , 68042 , 68050 , 68065 , 68066 , 68070 , 68073 , 68602 , 68621 , 68624 , 68626 , 68629 , 68631 , 68632 , 68642 , 68643 , 68644 , 68647 , 68648 , 68649 , 68653 , 68658 , 68659 , 68661 , 68669 , 68758



# LOWER PLATTE NORTH Natural Resources District

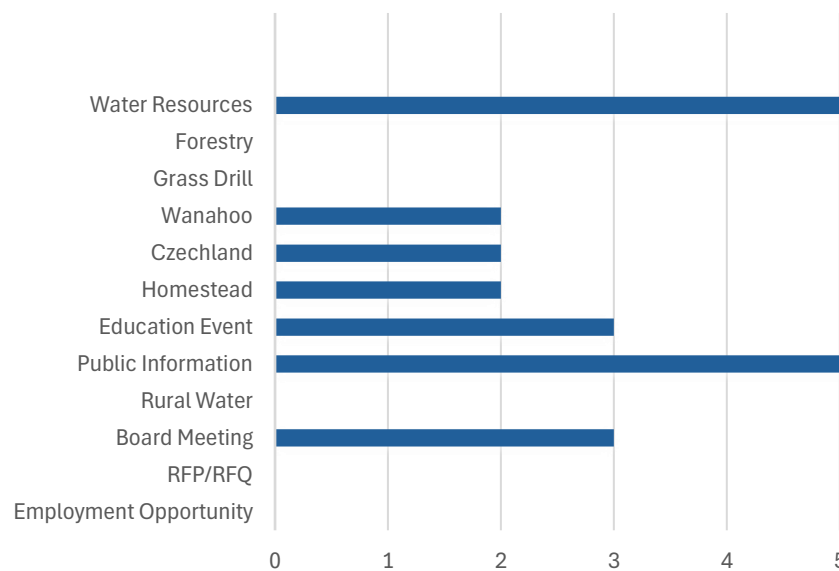
### Social Media Followers



### August 1-26 Content



### August 1-26 Post Categories



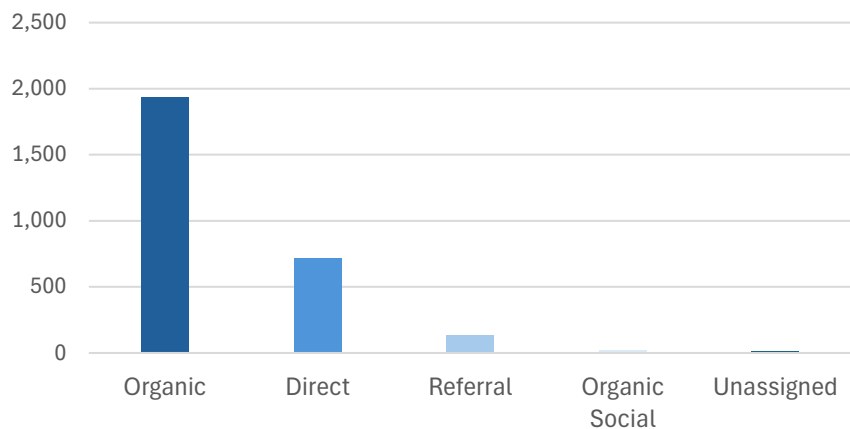
Facebook engagement ↓ 65%

X engagement ↓ 22%



# LOWER PLATTE NORTH Natural Resources District

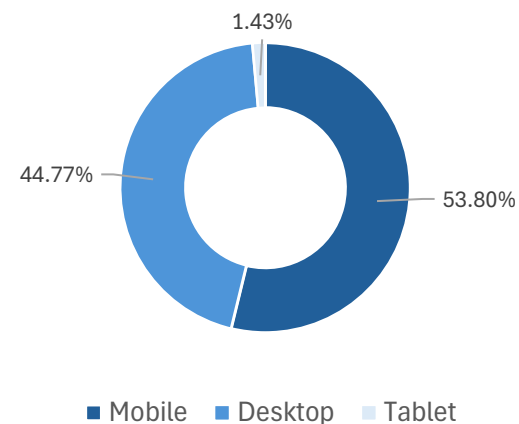
### Traffic Channels



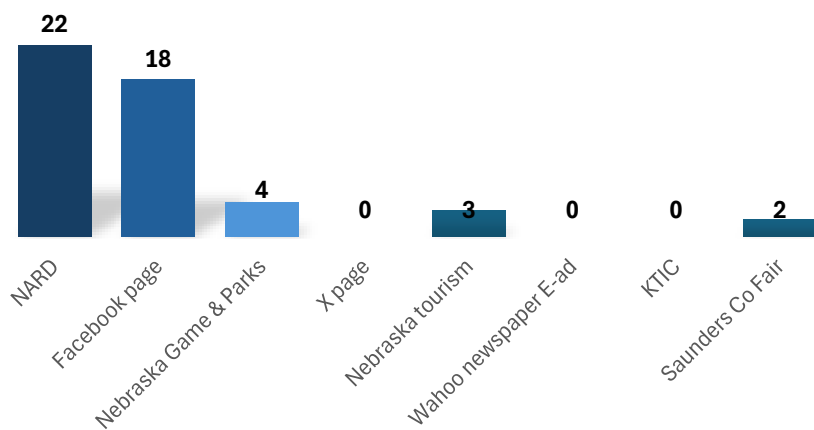
Users

↓  
26%

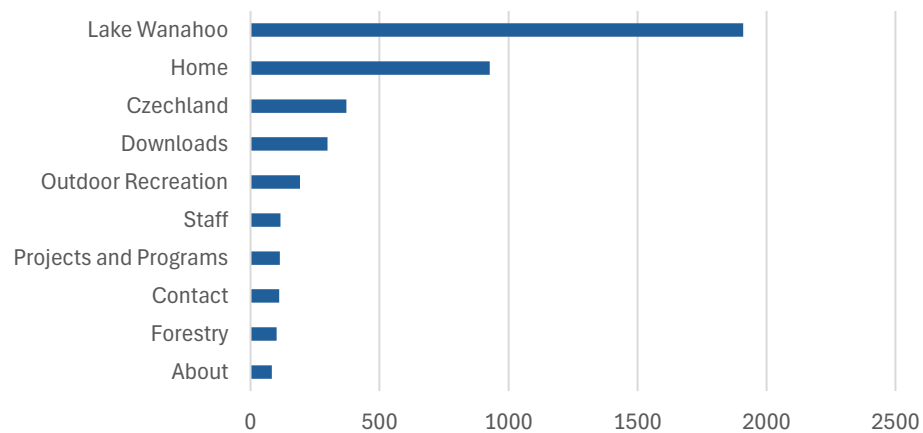
### Devices



### Traffic By Type



### Website Top 10 Pages by Users





**HEALTHY WATER,  
HEALTHY FUTURE.**



LOWER PLATTE NORTH  
Natural Resources District

*This newsletter is intended to keep you, our area's producers, knowledgeable about the latest developments, trends, and initiatives concerning water quality and quantity within the district. As the Lower Platte North Natural Resources District remains steadfast in its commitment to protecting Nebraska's groundwater for future generations, this newsletter will provide you with straightforward, informative updates, relevant data, and valuable insights into the vital work being done to manage this critical resource.*

## **Groundwater Management Plan Available for Review**

How does the Lower Platte North Natural Resources District ensure sustainable groundwater for generations to come? The answer lies in a carefully crafted document called the Groundwater Management Plan (GWMP). Over the last year, the LPNNRD has been updating the Groundwater Management Plan with current and previous information. This plan will serve as a guideline for how the district will manage groundwater for future generations.

**This is where we need your help!**

LPNNRD is asking for public review and comments of the most recent draft copy of the plan by August 25. A final public hearing will be held after all comments are addressed. If you would prefer a print copy of the draft, please contact the LPNNRD office at 402-443-4675. All comments about the plan can be sent to Daryl Andersen, LPNNRD Water Resources Manager, by email at [dandersen@lpnnrd.org](mailto:dandersen@lpnnrd.org)

[Read the GWMP](#)

---

## Wellhead Protection Program Meetings

With approximately 85% of Nebraskans relying on groundwater as their source of drinking water, it is essential to protect this natural resource from contamination. By participating in the Wellhead Protection Program, communities can help safeguard their drinking water supplies now and for the future. LPNNRD has partnered with local officials to discuss the Wellhead Protection Plan in Newman Grove and Platte Center.

**August 12 at 7:00 pm in Newman Grove**

**September 15 at 7:00 p.m. in Platte Center**

Residents are highly encouraged to attend their area public hearing to discuss the Wellhead Protection Plan. This is a great opportunity to understand this voluntary initiative aimed at safeguarding public drinking water from contamination.

---

**Producers are Invited to take Advantage of Text  
Message Alerts**

**What is it?** The Lower Platte North Natural Resources District is launching a new means of communication for producers – SMS texting. After signing up, producers will receive important LPNNRD functions such as public information meetings, public hearings, upcoming events, water use report information, chemigation information, well sampling information and other information relevant to important LPNNRD activities. You will not receive spam materials from the Lower Platte North Natural Resources District as part of this program.

**How often?** The frequency of these messages will vary depending on the area of the producer, specifically relating to groundwater quality and groundwater quantity areas. By opting in, you acknowledge that you may receive multiple messages per month, depending on your interactions with us. *Message and data rates may apply. Please contact your carrier with any questions regarding this.*

**How can I sign up?** Text LPNWATER to (844) 614-3120 to opt-in. A follow up message will be sent to confirm your subscription. Or visit [lpnnrd.org/downloads](http://lpnnrd.org/downloads), under the Other Water-Related Forms section you will find an opt-in form near the bottom titled "Producer/Landowner Text Message Opt-In." Additionally, the [Privacy Policy and Terms and Conditions](#) can be found in this location.

How did I get this? The Lower Platte North NRD Water Resources Department is working to ensure landowners and producers across our district are able to receive current news and updates as much as possible! We are testing a new email marketing system to assist in our communications. Stay subscribed for more updates coming soon!



**Lower Platte North Natural Resources District**

1616 County Road 17  
Wahoo, NE 68066  
402-443-4675  
[lpnnrd@lpnnrd.org](mailto:lpnnrd@lpnnrd.org)

[Privacy](#)  
[Imprint](#)  
[Unsubscribe](#)

1801 N 1st Street, Suite 3 \\\ Lincoln, NE 68528 \\\ 402.937.0984

Prepared For: Lower Platte North NRD	Contact: Lacey Sabatka	Date: Aug 26, 2025
--------------------------------------	------------------------	--------------------

**Project Understanding:**

Three Pillars Media will be creating a 30 sec and cut down 15 second commercial for the Lower Platte North NRD. This will include 8 hours of filming, photography, and voiceover recording.

To accomplish this project, we'll begin with **pre-production**. In this category we will:

- Organize shoot locations and times

Once pre-production is complete, we'll move on to **production**. In this category we will:

- One crew member filming for eight hours

Once production is complete, we move to **post-production**. In this category we will:

- Edit photos and footage

**Deliverables** are the final products you will receive. For this project you will receive:

- 30 second commercial + 15 second cut down commercial + Minimum of 100 edited photos

Description	Rate/Time
Pre-production -	\$310
Production -	\$2,000
Post-production -	\$1,885
Music - Royalty free music	\$200
Travel - Mileage	\$105
<b>TOTAL - does not include applicable sales tax</b>	<b>\$4,500</b>

The above good faith estimate is made based on the assumptions of the crew and the documentation provided. The agreement below acknowledges you understand the project and the costs involved and will send final payment within 30 days of this specific project completion. Sales tax additional where applicable. We make every effort to protect your data during and after a project is completed. However, we do not guarantee that any project files or data will be stored, archived, or available beyond the project's conclusion. We recommend you retain a backup of all materials provided for your records. Three Pillars Media retains the right to use final media for its own promotional purposes, including but not limited to website, social media, and marketing materials.

Client	Three Pillars Media
Date	Date



# Lower Platte North Natural Resources District Project Proposal

Prepared by Creative Olsen, LLC



# Hey, there!

Thank you for considering us for this partnership ☒

It's time to **tell your story.**

We're Nebraska's premier media production agency. Our mission is to help you cut through the noise, engage your audience, **and** deliver business results by capturing & telling your brand story at its best.

**Have a look through this proposal, sign the agreement, and we can get rolling!**



Copyright © Creative Olsen, LLC. All rights reserved



## Who **We Are**

**We're a small, yet versatile media agency.**

We're based in Omaha, Nebraska — but frequently travel outside of the state to take on projects wherever they take us!

## Passionate **Storytellers**

Since 2018, our team has been helping the region's top brands engage their audience & drive business results through creative strategy, video, & photography.

Through years of experience, we've refined our process to make your experience with us **seamless.**



**01  
Creative Strategy**

Our work has a purpose. We work together to understand your goals & create a strategy built to deliver results.

**02  
Videography**

Your brand's story drives the strength of your business. We take pride in helping you capture & tell your story the right way.

**03  
Photography**

We help you capture beautiful imagery to spark that emotional connection between your brand and the audience.



# Serving the Best

From large corporations to small businesses, we serve those who **strive to never settle.**



Creative Olsen did an amazing job of taking our ideas for reaching our agriculture audience and putting it into fruition.

We couldn't be happier!

**BRIDGETT PETZOLDT**  
Black Hills Energy



When it comes to taking your business to the next level, Creative Olsen is head and shoulders above the competition.

**RHONDA SPARKS**  
Sparks Barn



Copyright © Creative Olsen, LLC. All rights reserved

## Your Project

**Our team has prepared the following estimate for Lower Platte North Natural Resources District, based on the projected needs for this project.**

The following estimate provides a list of project deliverables with the associated costs. This proposed partnership will allow Lower Platte North Natural Resources District to efficiently execute their project by partnering with an experienced, talented, and well-equipped creative team.

**We make the investment cost simple.** Just review the following investment table, click any add-on options you need, and head to the next page to sign our terms.

Our team will then be in touch to get things started!

## Project Details

### Overview

Capture and edit one 30-second video and 15-second version, for the Lower Platte North Natural Resources District. This video will highlight the department's mission of protecting and managing Nebraska's water resources for future generations. The video will be used to educate the public and producers, increase awareness of key programs such as well decommissioning and nitrogen management, and drive engagement across multiple platforms, including the LPNNRD website, social media, and television.

### The video should include the following elements:

- Voiceover recording provided by LPNNRD staff
- B-Roll footage of a variety of field activities and scenes outlined in the shot list
- Cinematic drone footage of the districts landscape

LPNNRD will provide a script, all talent, access to necessary on-site locations, and will

collaborate on creative direction.

[Previous Water Resources Video](#)

[Previous Video Produced by LPNNRD](#)

## **Deliverables**

30 Second Edited Video Deliverable

15 Second Edited Video Deliverable

## **Timeline**

The final production must be completed no later than May 2026

Upon signing, session(s) can be scheduled using [Creative Olsen's Booking Calendar](#)

Our standard editing turnaround time for the first draft of video(s) is 3-5 weeks once production is complete, all assets are gathered, and all client selections & approvals are provided if applicable

If requested, our standard turnaround time to deliver raw assets is 1-2 weeks once production is complete

## **Location**

Final location to be determined

## **Brand Videography Examples of Work**

We're well-versed in capturing **captivating video** to spark that emotional connection between your brand & the audience.

Below is a video reel showcasing some of our work!

For more examples, check out our website: [Creative Olsen Website](#) ☒

# Project **Investment**

We have prepared the following project investment proposal for Lower Platte North Natural Resources District.

## Project Investment

### Pre-Production Investment

Strategy, Management, & Planning

**\$375**

Includes Time for Strategy, Management, & Planning to Develop Shot Lists, Schedules, & Outlines As Needed Throughout the Project

Includes Time for Up to 1 Meeting Via Zoom

### Production Investment

Session - 1 Person Crew

**\$2,000**

Includes Session with 1 Person Production Crew for 1 Production Day (Up to 8 Hours)

Includes Set Up & Travel Time from Agency's Office in Omaha, Nebraska

Please Note: If Client Requests the Session(s) Go Over the Time Included Above, Any Additional Hours Will Be Invoiced at \$275 Per Hour

## Edit Suite Investment

**30 Second Edited Video Deliverable** **\$1,250**

Includes 1 Day (Up to 8 Hours) in the Edit Suite to Process, Sequence Together, & Edit Video Deliverable(s)

Includes Professional Color-Grading, Music Licenses, & Basic Text Animation as Needed

Video(s) Will Be Delivered Via Agency's Online Collaboration Platform for Review & Download

Includes Up to 3 Rounds of Revisions

Please Note: This Does Not Include Time for the Creation of Custom Graphics or Advanced Animation

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**15 Second Edited Video Deliverable** **\$675**

Includes 1 Half Day (Up to 4 Hours) in the Edit Suite to Process, Sequence Together, & Edit Video Deliverable(s)

Includes Professional Color-Grading, Music Licenses, & Basic Text Animation as Needed

Video(s) Will Be Delivered Via Agency's Online Collaboration Platform for Review & Download

Includes Up to 3 Rounds of Revisions

Please Note: This Does Not Include Time for the Creation of Custom Graphics or Advanced Animation

## Travel Investment

**Mileage @ IRS Rate (\$0.70/Mile)**

Includes Mileage @ the IRS Rate from Agency's Office in Omaha, Nebraska to the Session Location & Back

Mileage Will Be Calculated and Invoiced Once Locations and Schedules are Finalized and Booked

Estimated Miles: TBD

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**Project Total** \$4,300

**Please Note:**

This proposal includes the services outlined and general equipment for execution. This estimate does **not** include additional location fees, studio fees, talent fees, voice over fees, additional equipment rental fees if needed or requested, or travel expenses of any kind that are outside of what's already outlined in this proposal. Client will be responsible for any additional costs.

We're holding space for this project for **30 days** from the date of issue of this proposal. After that, the investment, availability, or scope may need to be revisited before moving forward.

**Ready to get started?**

**Head on over to the next page to sign!**



Copyright © Creative Olsen, LLC. All rights reserved

# Sign Agreement

If you have picked your investment option(s) and are ready to proceed, just read our terms and conditions below and then sign the digital signature block at the bottom of this page!

## TERMS & CONDITIONS

This Project Agreement (the “Agreement”) is entered into as of 18th August 2025, by and between Creative Olsen (“Agency”), and Lower Platte North Natural Resources District (“Client”). Agency and Client are collectively referred to as the “Parties.” In consideration of the mutual promises and covenants herein, the Parties agree as follows:

### 1 | Definitions

As used herein and throughout this Agreement:

#### **1.1 Proposal.**

Means the document titled “Project Proposal,” “Estimate,” or similarly labeled file prepared by Agency and provided to Client for review and approval. The Proposal includes the Scope of Work, project timelines, Deliverables, investment breakdown, and any applicable terms specific to the engagement. The Proposal is hereby incorporated into this Agreement by reference. In the event of any conflict between the Proposal and the body of this Agreement, the terms of this Agreement shall govern unless the Proposal expressly states otherwise.

## **1.2 Agreement.**

Means the entire content of this Basic Terms and Conditions document, the Proposal document(s), together with any other Supplements designated below, together with any exhibits, schedules, or attachments hereto.

## **1.3 Services.**

Means all services to be provided by Agency to Client under this Agreement, as described in this Agreement and any attached Scope of Work or proposal. Services may include photography, videography, editing, and related creative tasks to meet Client's marketing and content needs.

## **1.4 Deliverables.**

Means the work product and tangible or digital materials that Agency is required to deliver to Client as a result of performing the Services. The Deliverables (such as photographs, videos, or other content) are described in the agreed Scope of Work and will be delivered in the format(s) specified.

## **1.5 Final Deliverables.**

Means the final versions of the Deliverables that have been accepted by the Client. Final Deliverables are the completed work product that Agency will provide to Client upon completion of each task or project milestone, as applicable, under this Agreement.

## **1.6 Creative Olsen Tools.**

Means all pre-existing or newly developed tools, equipment, software, technology, know-

how, processes, templates, and methodologies used by Agency in the course of providing the Services. Creative Olsen Tools include, without limitation, camera equipment, lighting, editing software, source code, presets, fonts, and other design or development tools that are not specifically created for or delivered as part of the Final Deliverables.

### **1.7 Client Content.**

Means all materials, assets, information, logos, graphics, trademarks, text, video, photography, or other content provided by Client to Agency for use in performing the Services or integrating into the Deliverables. Client Content may include branding guidelines, previously created media, or any other content Client supplies.

### **1.8 Third Party Materials.**

Means any third-party owned materials or content that are incorporated into the Deliverables or used in the provision of Services. Third-Party Materials may include stock photographs, stock video footage, music or sound effects, illustrations, fonts, or software licensed from third parties.

### **1.9 Trademarks.**

Means all trademarks, service marks, trade names, business names, logos, symbols, or slogans that are provided by Client or created by Agency in the course of the Services, and which are intended to identify or be used in connection with Client's goods or services. This includes Client's existing brand names and any new logo or design developed as a Deliverable intended to function as a trademark for Client.

### **1.10 Project Term.**

Means the period of the engagement under this Agreement, subject to the term and

termination provisions herein.

### **1.11 Scope of Work.**

Means a detailed description of the Services, Deliverables, timeline, and other project specifics for this project engagement, as agreed by the Parties. The Scope of Work is outlined in the “Project Details & Investment” section of the Proposal, which is incorporated into this Agreement by reference. In the event of any conflict between the Scope of Work and this Agreement, the terms of this Agreement shall prevail unless the Scope of Work explicitly overrides specific provisions in writing.

### **1.12 Scope Add-On.**

Means any written modification, addition, or extension to the original Scope of Work under this Agreement that expands or alters the Services, Deliverables, timelines, personnel, or associated fees. A Scope Add-On must be documented in writing (such as via email or proposal platform), clearly describe the additional work or costs, and be mutually approved by both Parties prior to execution. All Scope Add-Ons are treated as formal amendments or Change Orders under this Agreement and are subject to the same terms and payment obligations unless otherwise specified.

*Any other capitalized terms used in this Agreement have the meanings given to them in the context of their use or as defined elsewhere in this Agreement.*

## **2 | Term of Agreement**

### **2.1 Term Length.**

This Agreement commences on 18th August 2025 (the “Effective Date”) and shall remain in

effect until the earlier of:

- (a) the completion of all Services and delivery of Final Deliverables under this Agreement,
- (b) nine (9) months from the Effective Date, or
- (c) termination in accordance with Section 2.2 below.

This Agreement is intended solely for a single, defined project engagement. The Parties acknowledge that this is not a retainer agreement and does not provide for ongoing or recurring Services unless explicitly stated in the Scope of Work.

## **2.2 Termination & Abandonment.**

Either Party may terminate this Agreement prior to project completion by providing written notice, subject to the following:

- If Client terminates the project after work has commenced, all payments made are non-refundable, and any unpaid balance for Services already rendered (including applicable milestone or production-stage payments) shall become immediately due.
- If Agency terminates the Agreement due to breach or non-responsiveness by Client, all outstanding fees shall also become due as described above.

If Client fails to respond to Agency communications, requests for materials, or approvals for a continuous period of thirty (30) calendar days—despite at least two (2) documented follow-up attempts—Agency may deem the project abandoned. In such case:

- This Agreement will be considered terminated by default.
- All unpaid balances will become due immediately.
- Any further work will require a new agreement and may be subject to a reactivation fee starting at 20% of the original project cost (or \$500.00, whichever is greater).

This section is intended to preserve Agency's ability to maintain efficient workflows and project timelines, and to protect against indefinite delays or unresponsiveness.

## **3 | Scope of Services**

### **3.1 Services Provided.**

Agency agrees to provide the Services to Client as outlined in the "Project Details & Investment" section of the Proposal, which is incorporated into this Agreement and

constitutes the Scope of Work for this one-time engagement.

Services may include photography, videography, editing, and other creative production tasks as defined in the Scope of Work. Each project is customized to the needs and deliverables outlined in the Proposal and may involve pre-production planning, on-location production, and post-production editing to produce final assets (such as videos and/or images).

The Scope of Work defines the total production effort, creative direction, and editing time included in this Agreement. Services do not include additional creative elements (e.g., motion graphics, animation, voiceover, scripting, advanced image retouching) unless specifically stated in the Proposal.

Agency will perform the Services using reasonable professional efforts consistent with industry standards, and in accordance with the timelines and deliverables set forth in the Scope of Work. Any Services not explicitly included are considered out-of-scope and subject to additional fees if requested by Client (see Section 3.4 – Scope Add-Ons).

### **3.2 *Client Meetings.***

All Client meetings under this Agreement shall be conducted virtually via Zoom or by phone. In-person meetings are not included as part of Agency's standard workflow in order to maintain efficiency and ensure consistent documentation. The number of meetings included in this project are limited to those explicitly outlined in the Scope of Work.

If Client requests additional meetings beyond those specified, Agency may, at its sole discretion, agree to accommodate the request as a Scope Add-On. Additional meetings may be subject to scheduling availability and will incur additional fees, billed at Agency's standard hourly rate or as a flat fee, depending on the nature of the request.

All meetings must be scheduled in advance and confirmed in writing. Agency is not obligated to accept unscheduled or recurring meetings outside the original project scope.

### **3.3 *No Implied Services.***

Client acknowledges that the Services and Deliverables under this Agreement are strictly limited to those expressly outlined in the Scope of Work included in the Proposal. This Agreement covers only the project-specific work described and does not include ongoing services, maintenance, or future content updates unless explicitly stated.

Any work not clearly described in the Scope of Work—including additional production days, additional deliverables, additional editing, or additional rounds of revisions beyond what is specified—is considered out of scope and will not be performed by Agency without prior written approval and agreement on additional fees.

Agency is under no obligation to perform any services or deliverables not specifically listed. All out-of-scope requests must be approved in writing by both Parties and will be treated as Scope Add-Ons or formal Change Orders under this Agreement.

### **3.4 Scope Add-Ons (Additional Services Beyond Scope).**

If Client requests additional services, deliverables, revisions, or production time beyond the agreed Scope of Work—or seeks to make changes that impact the timeline, complexity, or overall volume of Services—the following process will apply:

#### **Scope Modifications**

Any proposed additions or changes to the Scope of Work will be documented in writing as a “Scope Add-On.” Each Scope Add-On must clearly define the expanded services, updated timeline (if applicable), and any additional fees associated with the request.

#### **Approval Required**

All Scope Add-Ons must be reviewed and approved in writing by both Parties prior to commencement of any additional work. Agency is not obligated to provide any services outside the original Scope of Work without a mutually approved Scope Add-On. Agency also reserves the right to decline requests that fall outside its current capacity or availability.

#### **Additional Fees**

Out-of-scope work will be quoted and billed separately from the original project fee. Additional services may be billed at Agency’s hourly rate or a flat rate, depending on the nature of the request. Additional editing time beyond what is scoped may be billed at \$150/hour with a one-hour minimum.

#### **Responsibility for Clear Scope Usage**

Client is responsible for reviewing the Scope of Work carefully and ensuring any desired content, deliverables, or revisions are communicated within that framework. Delays, missed content, or requests made outside the approved scope may require a Scope Add-On and adjusted delivery timeline.

#### **Change Orders**

For legal purposes, all approved Scope Add-Ons shall be considered formal Change Orders under this Agreement and are subject to the same terms and payment conditions.

### **3.5 *Response Times.***

Agency operates during normal business hours: Monday through Friday, 9:00 AM – 5:00 PM (Central Time). Agency observes holidays and may have limited availability during these times. Agency strives to respond to all messages within one business day; however, response times may vary depending on current workload, the nature of the inquiry, and team availability. If Agency has team members out of the office, responses may take longer. While Agency cannot guarantee immediate response times, Agency will always do their best to reply as quickly as possible. For time-sensitive matters, Agency recommends Client to plan ahead to allow for adequate communication and scheduling.

### **3.6 *Editing Process Access Restrictions.***

To preserve the integrity of Agency's creative process, maintain editing efficiency, and honor the hybrid structure of Agency's editing team (including remote editors), Client shall not attend, participate in, or observe the editing process in real-time, whether in person or virtually.

Agency retains full creative control and discretion over the editing workflow, including but not limited to pacing, sequencing, visual direction, and editorial decisions. Client feedback is welcomed and encouraged through the designated review and revision process as outlined in Sections 4.5 and 4.6.

This policy is designed to ensure smooth collaboration, prevent workflow disruptions, and support consistent quality across all Deliverables.

### **3.7 *Crew Breaks for Extended Sessions.***

For any session lasting longer than four (4) hours, Client agrees to provide a minimum 30-minute lunch or meal break for Agency's crew. This break shall not be considered part of the shoot time and must occur at a mutually agreed point during the session. If no suitable break is provided, Agency reserves the right to pause production for the required break.

## 4 | Timelines, Approvals, & Revisions

### 4.1 *Scheduling Sessions.*

Agency operates on a first-come, first-served basis for production sessions. To schedule a session, Client should use Agency's designated online scheduling tool, which displays real-time availability. All production sessions should be booked through this system or confirmed directly via email and are subject to Agency's availability.

To increase the likelihood of securing preferred dates, Client is strongly encouraged to book production sessions at least four (4) weeks in advance. Scheduling requests are not guaranteed until confirmed through the booking tool and/or acknowledged by Agency.

Any rescheduling requests must be submitted in writing and are subject to Agency's availability. Agency will make reasonable efforts to accommodate rescheduling, but availability cannot be guaranteed. Delays in scheduling or rescheduling sessions may impact deliverables and turnaround timelines, for which Agency is not responsible.

### 4.2 *Cooperation & Session Changes.*

Agency and Client agree to cooperate and communicate during the planning phase to ensure the best possible results. All session details, including timing, location, and logistics, must be confirmed in advance. Any changes to session details—including, but not limited to, start time, location, or duration—must be submitted in writing to [frontdesk@creativeolsen.com](mailto:frontdesk@creativeolsen.com) and are subject to Agency's availability. A session change is not confirmed until written acknowledgment is received from Agency.

Agency is not responsible for missed sessions, delays, or conflicts caused by uncommunicated changes. Likewise, Agency is not responsible for missed content (images and/or video) resulting from:

- (a) Client's failure to communicate essential details,
- (b) Client making changes to a pre-discussed itinerary less than seven (7) days before the session, or
- (c) delays that cause the session to run off schedule.

### 4.3 **Hazardous Conditions & Rescheduling.**

Agency prioritizes the safety of its team and clients. In the event of hazardous conditions, including but not limited to severe weather (e.g., snowstorms, severe thunderstorms, hurricanes, flooding, extreme temperatures), natural disasters, or other circumstances that may create unsafe travel or working conditions, Agency reserves the right to reschedule any planned session. Agency will make reasonable efforts to provide advance notice of rescheduling whenever possible. In such cases, the session will be rescheduled to the earliest mutually available date without penalty to either party. If rescheduling is not possible due to ongoing hazardous conditions, Agency and Client will discuss alternative solutions in good faith. Agency shall not be held liable for any delays, losses, or additional costs incurred by the Client due to session rescheduling resulting from hazardous conditions.

*If a session cannot be rescheduled and is instead canceled, the terms of Section 4.4 (Weather-Related Cancellations & Kill Fee) shall apply.*

### 4.4 **Weather-Related Cancellations & Kill Fee**

If a scheduled production session must be cancelled due to factors outside of the Client's and Agency's control – such as inclement weather, safety concerns, or force majeure events (as defined in Section 15) – the following terms shall apply:

#### **Kill Fee – Pre-Travel Cancellations**

If cancellation occurs *prior* to the Agency commencing any session-related travel, equipment loading, or crew mobilization, the Client agrees to pay a Kill Fee equal to 50% of the production session rate for each affected session. This Kill Fee covers the cost of production resource holds, production preparation, and third-party expenses incurred by the Agency. For clarity, the Kill Fee is charged in place of, not in addition to, the standard session rate for the canceled production session.

#### **Full Session Fee – Post-Travel Cancellations**

If cancellation occurs *after* Agency has begun any session-related travel, loading of equipment, or crew mobilization, the session is considered in progress and the Client agrees to pay the full session rate, even if production cannot proceed due to weather or other uncontrollable circumstances. This reflects the session commitment of resources and lost production opportunity.

#### **Exceptions – Client-Initiated Cancellations**

This provision does not apply to cancellations, postponements, or scope reductions initiated solely by the Client for internal reasons (e.g., budget changes, shift in strategy, decision to forgo production, etc.). In such cases, the originally agreed-upon project fee remains due in

full, unless otherwise agreed upon in writing.

### **Rescheduling & Additional Costs**

If a production session is rescheduled due to weather or similar uncontrollable circumstances, and all parties are available within a reasonable time frame, no Kill Fee will apply, and the project will proceed as planned. However, if rescheduling is not possible or the session is ultimately foregone, the applicable Kill Fee or Full Session Fee (as outlined above) will apply. Rescheduling that causes additional direct costs (such as crew change fees, lost bookings, or rental penalties) will be billed to the Client. Agency will make reasonable efforts to minimize these costs and provide documentation upon request.

### **Payment Application**

In the event a Kill Fee or additional Full Session Fee(s) applies, the total project fee will be adjusted accordingly. Any advance payments made (such as the standard project deposit) will be credited toward the revised project total. Any remaining balance will be invoiced based on the updated amount due. The deposit remains non-refundable and will be applied to the final invoice as appropriate.

*This clause supplements, and does not limit, the Client's obligations under Section 5.3 (Non-Refundable Payments).*

## **4.5 Turnaround Times.**

Agency will strive to meet all agreed deadlines and provide Deliverables and revision updates in a timely manner. Standard turnaround time for edited images and first video drafts is 3–5 weeks from the later of the following:

- (1) Completion of production,
- (2) Receipt of all necessary assets and materials from Client, or
- (3) Client's final selections or approvals, if applicable.

Turnaround times may vary based on workload, complexity, and Client responsiveness. Each round of revisions may take 1–2 weeks depending on the scope and quantity of changes requested. Agency is not responsible for delays caused by:

- Late feedback or approvals from Client
- Third-party delays or unforeseen circumstances

Rush delivery may be available upon request and subject to Agency's capacity. Rush projects are billed at a premium fee and must be approved in writing by Client before work begins.

## 4.6 **Client Review and Approval.**

Client agrees to review all Deliverables promptly upon delivery. Unless otherwise specified in the Scope of Work, Client shall submit any revision requests or written approval within fourteen (14) calendar days of receiving the initial Deliverables.

If Client fails to respond within this 14-day review window—despite at least one documented follow-up from Agency—the Deliverables shall be considered approved by default, and Agency may proceed with final invoicing. No further revisions will be made unless agreed to through a Scope Add-On (see Section 3.4).

All feedback and revision requests must be submitted in writing and/or via Agency's designated review platform. Feedback should be clear, specific, and consolidated where possible. Agency is not responsible for delays in project completion resulting from late or unclear feedback, delayed approvals, or missing materials from Client.

## 4.7 **Revisions.**

Client is entitled to the number of revision rounds per Deliverable as specified in the Scope of Work. All revision requests must be submitted in writing within fourteen (14) calendar days of receiving the initial Deliverables, in accordance with Section 4.6.

### **Scope of Revisions**

Revisions are intended to allow for refinements that align with the original creative direction and the agreed-upon Scope of Work. Revisions may include, but are not limited to:

- Adjustments to text, timing, or visual sequencing
- Minor retouching or color grading refinements
- Cropping, pacing, or soundtrack timing tweaks in video
- Minor layout or design corrections

### **Out-of-Scope Changes**

Revisions that fall outside the original concept, significantly alter the creative direction, or require substantial rework may be deemed out of scope. Examples of out-of-scope changes include:

- Requests for additional versions, formats, or orientations not included in the Scope
- Significant restructuring of approved video edits or sequences
- Advanced image retouching (e.g., removal of eyeglass glare, skin retouching, wardrobe fixes, etc.)
- Edits that require reshoots or supplemental production

Any such requests will be subject to additional fees and must be approved through the

Scope Add-On process outlined in Section 3.4. Additional editing is billed at \$150.00/hour with a one-hour minimum unless otherwise agreed in writing.

### **Revision Timelines**

Each round of revisions may take 1–2 weeks to complete, depending on the volume and complexity of changes and Agency’s production capacity. Rush revisions may be available upon request and are subject to availability and additional fees.

### **Finalization of Deliverables**

Once the included revision rounds are completed—or the revision window has expired without Client response—Deliverables will be considered final. Any further changes shall be treated as out-of-scope and require a Scope Add-On.

## **4.8 Approval and Acceptance.**

A Deliverable will be considered approved when either:

- (1) Client provides written approval, or
- (2) Client fails to provide revision requests or feedback within the fourteen (14) day review period outlined in Section 4.6, despite at least one documented follow-up from Agency.

Once a Deliverable is approved—either explicitly or by default—it shall be considered final and will be prepared for final delivery. Any revision requests submitted after approval will be considered out of scope and may be subject to additional fees, in accordance with Section 3.4 (Scope Add-Ons).

Approved Deliverables may not be altered or reused by Client outside the intended scope without Agency’s written consent. Final Deliverables will not be released in full until the final payment has been received, as outlined in Section 5.6 (No Release Before Payment).

## **4.9 Session Splitting Restrictions.**

Client may not divide or “split” a single production session into multiple shorter sessions across different days (for example, dividing a full-day session into two half-day sessions), unless such an arrangement is expressly approved in writing by Agency in advance. Each scheduled session is to be treated as a complete unit of work, as defined in the Scope of Work and confirmed through the booking process.

Any request to split or restructure sessions across multiple days will be considered a Scope

Add-On and may incur additional fees, subject to Agency's availability and approval. Agency reserves the right to decline such requests based on resource limitations, logistical challenges, or scheduling conflicts.

#### **4.10 *Image Retouching Limitations.***

If applicable based upon the project Scope of Work, images that are edited by Agency will bear the same style, tone, and quality as those presented in Agency's portfolio at the time of booking. The objective of editing under this Agreement is to create beautiful, professional, and realistic images that reflect Agency's standard style.

Client acknowledges that advanced or cosmetic edits—including but not limited to the removal of eyeglass glare, braces, heavily wrinkled clothing, or visible sunburn—are not included as part of the standard editing process. Such requests are considered out-of-scope and require a separate Scope Add-On.

Advanced editing services must be requested in writing and, if accepted by Agency, will be billed at a rate of \$150.00 per hour with a one-hour minimum, unless otherwise agreed in writing. These rates are subject to change without notice and will be quoted based on the nature and extent of the retouching requested.

Client is responsible for reviewing Deliverables promptly and communicating any advanced editing requests within the revision window outlined in Section 4.6. Failure to request such edits during the applicable review period may require a Scope Add-On and extended turnaround time.

#### **4.11 *Session Disruption Due to Illness or Emergency.***

In the rare event that Agency personnel become unexpectedly ill, injured, or otherwise incapacitated and are unable to perform Services on a scheduled production day tied to a time-sensitive or non-repeatable event (such as a live performance, one-time event, or similar occurrence), Agency shall promptly notify Client as soon as reasonably possible.

Agency will make good faith efforts to secure a qualified replacement or subcontractor from within its network, but cannot guarantee availability. If a suitable replacement cannot be secured in time, and the session cannot be rescheduled or recreated, Agency's liability shall be strictly limited to a refund of the portion of project fees directly associated with the missed session.

Client acknowledges that the nature of live event capture includes risks beyond Agency's control, and agrees that Agency shall not be held liable for consequential damages, loss of footage, or event-specific marketing delays resulting from such an occurrence.

Client is encouraged to maintain a contingency plan or consider hybrid documentation options where feasible (e.g., secondary capture solutions or alternate vendors) for high-stakes or one-time-only events.

For clarity, this section is separate from and in addition to Force Majeure terms outlined in Section 15.

## 5 | Payment Terms

### 5.1 ***Project Fee and Payment Schedule.***

In consideration for the Services provided under this Agreement, Client agrees to pay Agency the total project fee as outlined in the "Project Details & Investment" section of the Proposal. This fee includes all Services and Deliverables described in the Scope of Work and is subject to the following payment schedule:

#### **Standard Payment Schedule:**

- **50% Down Payment Upon Signing** – Due upon signing of this Agreement. This payment is non-refundable under any circumstances, including project cancellation by Client.
- **For Projects with Both Production and Post-Production:**
  - **25% Payment Upon Production Completion** – Invoiced upon completion of production, including any additional costs incurred during production, if applicable.
  - **25% Final Payment Upon Project Completion** – Invoiced upon completion of the project, defined as the point at which all Deliverables have been provided and any Client-requested revisions (submitted within the designated review period) have been implemented.
- **For Projects that Include Only Production or Only Post-Production:**
  - **50% Final Payment Upon Project Completion** – Invoiced upon completion of the applicable service phase. If the project includes only production, the final 50% will be due upon production completion. If the project includes only post-production, the final 50% will be due upon delivery of all Deliverables and implementation of any approved revisions requested within the designated review window.

#### **Planned Travel Expenses (if applicable):**

In accordance with Section 6.1, 100% of planned travel expenses will be invoiced upon signing

and must be paid in full along with the down payment. Travel expenses are non-refundable once booked, unless refundable by the provider.

Client agrees to pay all invoices within thirty (30) calendar days of receipt. No Final Deliverables will be released until the project has been paid in full. All payments made are non-refundable regardless of project cancellation, delay, or early termination by Client.

## **5.2 Payment Methods.**

All payments must be made in U.S. Dollars (USD). Agency offers ACH payment, Check payment, and Credit Card payment methods to Client. If Client chooses Credit Card as their payment method, a 3% convenience fee of the invoice amount will be charged to Client for any and all invoices paid by Credit Card.

## **5.3 Non-Refundable Payments.**

All payments made under this Agreement are non-refundable, including the initial down payment, milestone payments, and any approved additional costs or travel expenses. This policy applies regardless of project cancellation, delay, or early termination initiated by Client.

Client acknowledges that by entering into this Agreement, Agency is reserving specific time, personnel, and resources for the duration of the project and may decline other work as a result. Accordingly, Client remains responsible for payment in full of the agreed-upon project fee, even if the project is delayed, reduced in scope, or canceled by Client after work has commenced.

No portion of payments already made shall be refundable unless:

- (a) required by applicable law, or
- (b) in the event of a material breach by Agency that causes Client to terminate the Agreement, in which case any refund shall be limited to unearned fees for work not performed as of the termination date.

This section shall survive the termination of this Agreement for any reason.

## **5.4 Late Payments.**

All invoices issued under this Agreement are due and payable upon receipt or by the due date specified on the invoice, in accordance with the payment schedule outlined in Section 5.1. If any payment is not received within thirty (30) calendar days of the invoice date, it shall be deemed past due.

Past due amounts will incur a late fee of 1.5% per month, or the highest rate permitted by applicable law, whichever is lower. Late fees will be calculated from the original invoice due date until payment is received in full.

Agency reserves the right to take the following actions if any payment remains outstanding beyond the stated due date:

- Pause or suspend all Services under this Agreement,
- Withhold all Deliverables and usage rights until the account is brought current,
- Delay any ongoing or scheduled work until payment is received.

Client shall be responsible for all costs incurred by Agency in collecting overdue amounts, including reasonable attorneys' fees, court costs, and collection agency fees. Payments received shall be applied first to accrued late fees and then to the outstanding principal balance.

## **5.5 Payment Conditions and Suspension.**

If any invoice payment is not received by the specified due date, Agency reserves the right to suspend all Services under this Agreement until all outstanding amounts—including any applicable late fees (see Section 5.4)—have been paid in full.

Such suspension of Services due to non-payment shall not be considered a breach by Agency. During any suspension period:

- Agency is not responsible for missed deadlines, delays in Deliverables, or rescheduling conflicts.
- Any timelines outlined in the Scope of Work shall be considered paused and may be adjusted upon resumption of Services.

If non-payment persists beyond thirty (30) days despite Agency's documented follow-up attempts, Agency may also consider the project abandoned in accordance with Section 2.2, and Client shall remain responsible for the entire remaining project balance, regardless of whether Services are completed.

Agency shall not be liable for any damages, delays, or loss of use resulting from a payment-

related suspension initiated under this section.

## **5.6 No Release Before Payment.**

Client acknowledges that Agency is under no obligation to deliver any Final Deliverables or provide continued access to completed work until all payments due under this Agreement (as outlined in Section 5.1) have been received in full.

This includes Agency's right to:

- Withhold delivery of final files,
- Revoke access to review platforms or shared folders,
- And pause any further work or communication related to the project.

All licenses or usage rights granted to Client for Deliverables (as described in Section 8) are expressly conditioned upon full payment of all outstanding amounts, including any applicable late fees or additional costs.

Until final payment is made:

- Agency retains all rights, title, and interest in and to the Deliverables,
- Client may not use, publish, distribute, or modify any Deliverables provided,
- And any unauthorized use of unpaid content shall be considered a material breach of this Agreement.

## **5.7 Taxes.**

Agency's fees do not include any applicable sales or use taxes. While Agency does not currently charge tax on Services, Client acknowledges that if any taxes are determined to be applicable in the future, they shall be Client's responsibility unless exempt by law.

## **5.8 Proposal Validity.**

All pricing, deliverables, and terms outlined in the Proposal are valid for thirty (30) calendar days from the date of issuance. If this Agreement is not signed by Client within that period,

Agency reserves the right to update or revise the Proposal before execution. Once signed, the pricing and terms are binding for the duration of the Agreement, subject to any approved Scope Add-Ons.

## 6 | Additional Costs & Expenses

### 6.1 ***Additional Costs and Expenses.***

The project fees outlined in Section 5 covers only the Services and Deliverables explicitly included in the Scope of Work. It does not include any third-party or out-of-pocket expenses that may be required to support the creative direction, logistics, or production needs of the project.

To ensure transparency and alignment, Client's written approval is required in advance for any of the following:

- Any individual expense exceeding \$100.00,
- Any group of related expenses totaling more than \$100.00,
- All travel, additional crew, specialized equipment rentals, props, licensed media (e.g., stock footage, music), or other costs not already included in the base Scope of Work.

Once approved, these expenses will be either:

- Invoiced separately upon purchase, or
- Included as line items in the next scheduled invoice.

Agency will not proceed with any billable third-party purchases or financial commitments without prior written approval from Client. However, any delays in securing such approvals may impact project timelines, for which Agency is not responsible.

The subsections that follow outline the most common categories of additional costs that may arise under this Agreement, including travel-related expenses, equipment rentals, props and styling, and licensed media.

#### **Stock Assets & Licensing**

If stock video footage or other third-party media assets are requested by Client—or deemed necessary by Agency to support the creative direction of the Deliverables—Agency will source and implement preview (watermarked) versions for Client review.

Stock asset license fees start at \$150.00 per clip, track, or item, which includes the cost of the license for standard usage. If any selected asset exceeds this base rate, Agency will notify Client and seek written approval prior to purchase.

All licensed stock assets are billed in addition to regular project costs and will be invoiced separately or as a line item in the next invoice. Licensing terms will be consistent with the asset provider's usage rights and reviewed by Agency to ensure suitability for the intended use.

### **Equipment Rentals**

While Agency maintains equipment suitable for most production needs, certain projects may require specialized rentals to support the creative direction, technical requirements, or complexity of the shoot. This may include, but is not limited to, lenses, lighting, sound gear, camera rigs, or other production-specific equipment.

One common example is interview capture:

Unless otherwise specified in the Scope of Work, all interview sessions include a standard two-camera setup. If Client requests additional camera angles, stylized multi-cam setups, or other enhanced configurations, additional equipment may be required. These upgrades will be treated as out-of-scope and handled through the Scope Add-On process.

In any scenario where equipment rentals are needed:

- Agency will consult internally (e.g., with our Creative Director) to determine the necessary gear and identify associated rental costs.
- Agency will provide a Scope Add-On proposal with the breakdown of the rental costs for Client approval in advance.
- Approved rentals will be invoiced separately or included as line items in the next scheduled invoice.

All rentals are subject to availability. Agency is not responsible for delays or limitations caused by third-party rental providers or supply chain constraints.

### **Props & Styling Support**

Unless otherwise agreed in writing, Agency is not responsible for sourcing, purchasing, or providing props, set pieces, wardrobe, or other styling elements required for production. It is solely Client's responsibility to supply all props and production materials needed to support their creative vision.

If Agency agrees in writing to assist with prop sourcing, shopping, or preparation:

- Services will be billed at \$150.00 per hour, with a 2-hour minimum
- Client will also reimburse all costs associated with purchased props, materials, or supplies
- All prop-related hours and purchases must be pre-approved in writing before procurement

Agency is under no obligation to provide styling services or manage props unless explicitly approved through the Scope Add-On process.

Any physical props purchased by Agency on Client's behalf shall become the property of Client once payment is received in full.

### **Additional Crew Requirements**

The Scope of Work included in this Agreement defines the number of Agency personnel (e.g., camera operators, assistants, production crew) allocated for each production session. Services are limited to the crew count included in the Scope of Work.

If additional crew is required—either due to the complexity, scale, or creative direction of the project, or by specific request from Client—such additions will be treated as an out-of-scope cost and subject to the Scope Add-On process. In such cases:

- Agency will provide a written recommendation outlining the proposed crew role(s), the rationale for the addition, and associated costs
- No additional crew will be secured without Client's written approval
- Once approved, crew costs will be invoiced separately or added to the next scheduled invoice as a line item

Crew rates vary depending on role, duration, production needs, and any required equipment. All approved crew will be sourced, scheduled, and managed by Agency in alignment with the overall production plan.

### **Voiceover & Talent Fees**

If the project requires any third-party creative talent (e.g., voiceover artists, actors, models) not already included in the Scope of Work, Agency may assist in coordinating talent options and securing Client's written approval before booking. Client is responsible for all approved talent-related fees, including usage rights, union fees, buyouts, or other licensing costs. These fees may also include Agency's management fees for talent coordination and handling. Depending on the arrangement, costs may be billed directly by the provider or invoiced by Agency.

### **Travel & Related Expenses**

If the Services require travel outside of Agency's local area (defined as beyond 30 miles from Agency's office in Elkhorn, NE), Client agrees to cover travel-related expenses, including:

- Mileage at the current IRS rate
- Lodging, airfare, and ground transportation as needed
- Per diem of \$85.00 per person per day
- Crew travel time of 3 hours or more may incur additional fees

All travel must be pre-approved in writing by Client before booking. Once approved, Agency will coordinate arrangements and invoice for the full estimated travel costs, which are due within five (5) business days of invoicing.

### **Location Scouting**

Unless otherwise included in the Scope of Work, Location Scouting is not part of Agency's standard services. If Client requests location scouting—such as researching, visiting, photographing, or evaluating potential shoot locations—Agency may agree to provide these

services as a Scope Add-On, subject to availability.

Location Scouting services start at \$250.00 per session. Final pricing will be determined based on the total time required for the scouting session, including travel time, and will be outlined in a Scope Add-On proposal for Client's review and written approval. Travel-related expenses incurred in connection with scouting—such as mileage, lodging, or meals—will be billed separately in accordance with the travel terms outlined in this Agreement.

No location scouting services will be provided without prior written approval from Client. Once approved, the associated fees and expenses will be invoiced separately or included as a line item in the next scheduled invoice.

### **Rush Delivery Fees**

If Client requests expedited delivery of any Deliverables—defined as delivery in less than three (3) weeks from the later of:

- (1) completion of production,
- (2) receipt of all necessary materials and assets from Client, or
- (3) Client's final selections or approvals—Agency may, at its sole discretion, agree to accommodate such a request, subject to availability and workload.

Rush delivery is considered out-of-scope and subject to the following conditions:

- A rush fee starting at \$500.00 or 20% of the total editing cost, whichever is greater, will apply.
- The rush fee must be approved in writing by Client before any accelerated work begins.
- Fees will be invoiced separately or included as a line item on the next scheduled invoice.

Agency is under no obligation to accept or prioritize rush delivery requests. All turnaround timelines remain dependent on Agency's current capacity, the complexity of the project, and Client's timely communication, approvals, and delivery of required materials.

Rush delivery timelines are estimates and not guaranteed unless otherwise agreed to in writing.

### **Other Out-of-Pocket Costs**

Additional project-related expenses—such as permit fees, props, parking, location rentals, courier services, or similar items—may arise based on production needs.

Client must provide written approval in advance for any individual item exceeding \$100.00, or for any related group of expenses totaling more than \$100.00. Once approved:

- These costs will be billed separately or included as line items on the next invoice
- All such expenses are in addition to the base project fees
- They are subject to the standard payment terms outlined in this Agreement

Agency is not obligated to front the cost of any materials, rentals, or services that have not been pre-approved in writing by Client.

## **6.2 Content Portal Extension.**

As part of this Agreement, Agency will provide Client with access to an online content portal where Final Deliverables may be reviewed, downloaded, and managed during the active project period.

Unless otherwise stated in the Scope of Work, the content portal will remain accessible for one (1) month following the initial delivery of Final Deliverables. After this period, access may be discontinued, and all content may be permanently removed from Agency's servers unless extended access is arranged in advance.

If Client wishes to maintain access beyond the standard storage period, the following terms apply:

- Extended portal access is available at a rate of \$400.00 per month
- The extension must be requested and approved in writing before the end of the original storage window
- Extension fees will be billed monthly and are subject to the same payment terms as all other Scope Add-Ons
- Either Party may cancel the extension at any time with written notice
- Once the portal is deactivated, Agency bears no responsibility for recovering or archiving content

Client is solely responsible for downloading and backing up all Final Deliverables during the standard access window or any approved extension period. Agency is not liable for loss of access or content after the expiration of the storage window.

## **6.3 Approval and Billing of Expenses.**

Agency shall obtain Client's written approval in advance for any individual expense exceeding \$100.00, or any related group of expenses not already included in the Scope of Work. This includes, but is not limited to: travel, crew, equipment rentals, props, licensed media, and other production-related costs.

Once approved, such expenses will be invoiced separately or included as a line item in the next scheduled invoice, depending on the timing and nature of the expense.

Travel-related expenses will be invoiced upon approval and are due within five (5) business days of the invoice date, as specified in Section 6.1. All other approved expenses are subject to the standard payment terms outlined in Section 5 of this Agreement, unless otherwise agreed in writing.

Client acknowledges that once approved:

- These costs are non-refundable, even if the project is canceled or rescheduled,
- And are subject to the same late payment penalties and collection terms outlined in Section 5.4.

Agency shall not be held responsible for delays, missed production windows, or scheduling issues resulting from a failure to approve or pay for necessary third-party expenses in a timely manner.

## **6.4 Ownership of Purchased Items.**

Any third-party materials or licensed assets purchased by Agency and reimbursed by Client—such as stock footage, music, fonts, or voiceover licenses—shall be considered the property of Client or licensed to Client, subject to the terms of the applicable third-party license. For example, if Client pays for a stock footage clip, Client receives the rights to use that asset within the Deliverables as permitted under the license.

Agency will not use Client-funded assets for any other client's project. Conversely, any assets, tools, or licenses obtained by Agency as part of its general production process (and not billed to Client) shall remain the sole property of Agency and may be reused at Agency's discretion, provided they are not customized specifically for Client's Deliverables.

## **7 | Client Responsibilities**

### **7.1 Provision of Materials and Information.**

Client shall provide to Agency, in a timely manner, all Client Content, brand assets (e.g. logos, brand guidelines, fonts), product information, and any other materials or information reasonably required by Agency to perform the Services. Client is responsible for securing all permissions, licenses, or releases for any materials (including likenesses or personal data) that Client supplies. The Client Content should be in a usable format as specified by Agency (for example, high-resolution image files, text in editable documents, etc.).

## **7.2 *Single Point of Contact.***

Client will designate a primary representative or point of contact who is authorized to make decisions and provide approvals on behalf of Client. This person will coordinate feedback and requests to Agency to streamline communication. Agency may rely on all decisions and approvals made by the designated representative as being authorized by Client. If the primary contact changes, Client will promptly inform Agency and designate a replacement.

## **7.3 *Timely Feedback and Approvals.***

Client agrees to provide all requested materials, feedback, and approvals in a timely manner, in alignment with the review and delivery timelines outlined in Section 4. This includes:

- Responding promptly to Deliverables
- Submitting clear revision requests through Agency's designated collaboration tools
- Providing final approvals when requested

Delays in Client responsiveness may impact scheduling and turnaround timelines. While Agency will make reasonable efforts to accommodate such delays, extended or repeated delays may result in schedule adjustments, paused services, or acceptance of Deliverables by default, as outlined in Section 4.6

In cases of extended non-responsiveness, Agency may invoke the suspension terms outlined in Section 5.5 or deem the Deliverables accepted by default, as described in Section 4.6.

## **7.4 *Collaborative Cooperation***

Client agrees to actively cooperate with Agency in the planning and execution of all production-related Services, including (but not limited to) media production sessions, pre-production planning, and virtual meetings.

This cooperation includes:

- Booking production sessions through Agency's designated scheduling tool,
- Ensuring availability of key personnel or decision-makers during scheduled sessions,
- Providing timely access to locations, equipment, and any necessary on-site resources,

- Supplying all required brand assets, approvals, and materials by the requested deadlines.

Client is responsible for coordinating all session prerequisites in advance, including:

- Venue access and crowd control (if applicable),
- Availability of products, props, wardrobe, or talent, and
- Securing any third-party permissions or approvals needed to proceed.

If the Scope of Work requires Client to complete tasks (e.g., preparing shot lists, selecting footage or images, or confirming script approvals), Client agrees to make reasonable efforts to complete those tasks by the timelines specified by Agency to support an efficient production workflow.

Failure to provide timely cooperation or meet preparation deadlines may result in:

- Scheduling delays or rescheduling fees,
- Missed Deliverables,
- Or suspension of Services in accordance with Sections 2.2 and 5.5 of this Agreement.

## **7.5 Accuracy of Information.**

Client is responsible for final proofing of all Deliverables. While Agency will endeavor to avoid errors, Client shall review all text, images, and other content for accuracy. Agency is not liable for errors (such as typographical errors or misinformation) in Deliverables that were approved by Client.

## **7.6 Rights in Client Content.**

Client represents and warrants that it owns all intellectual property rights in the Client Content necessary for Agency to use it in the project, or that Client has obtained appropriate third-party permissions for such use. Client further warrants that use of Client Content by Agency and inclusion of such content in the Deliverables will not infringe or violate any copyright, trademark, trade secret, privacy right, or other rights of any third party. (See Indemnification in Section 12 regarding breaches of this warranty.)

## 7.7 **Safe Working Environment.**

Client shall ensure that any location under its control where Agency is scheduled to perform Services—including but not limited to location scouts, photoshoots, & video production sessions—is safe, secure, and reasonably free of hazardous conditions. Client agrees to:

- Disclose in advance any known or potential risks at a shoot location, including but not limited to heavy machinery, active construction zones, environmental hazards, or restricted access areas.
- Take appropriate measures to mitigate risks and ensure that Agency's team can work safely and efficiently.
- Ensure that all on-site personnel, guests, participants, and third-party vendors refrain from any behavior that could endanger the safety of Agency's team or equipment, including but not limited to harassment, violence, unsafe handling of equipment, or reckless conduct.

If Agency determines, in its sole discretion, that a working condition is unsafe or materially interferes with its ability to perform Services, Agency may:

- Request immediate corrective action from Client,
- Delay or reschedule the session (subject to availability),
- Or suspend Services until the issue is resolved (see Section 4.3 – Hazardous Conditions).

Failure by Client to uphold these safety responsibilities may:

- Relieve Agency of related obligations (e.g., missed Deliverables or deadlines),
- Result in additional fees for rescheduling or crew/equipment downtime,
- And, in cases of serious or repeated non-cooperation, constitute a material breach of this Agreement.

Agency will make reasonable efforts to notify and collaborate with Client on resolving any safety concerns but reserves the right to enforce the terms of this Agreement if safety-related issues materially impact project delivery.

## 8 | Intellectual Property Rights & Ownership

### 8.1 **Client Content.**

All content, materials, and assets provided by Client to Agency—whether before or during the course of this project—including (but not limited to) logos, brand guidelines, images, trademarks, taglines, fonts, audio, copy, scripts, or any other pre-existing intellectual

property (“Client Content”) shall remain the sole and exclusive property of Client or its licensors.

By providing Client Content, Client grants Agency a limited, non-exclusive, royalty-free, revocable license to use, edit, reproduce, display, and adapt such materials solely as necessary to perform the Services and create the Deliverables outlined in this Agreement. This license applies only for the duration of this engagement and for the purposes of completing the project.

Agency may use Client’s name, logo, and brand identifiers within the Deliverables as appropriate (e.g., branded video content), and may reference completed work for Client in Agency’s portfolio, website, case studies, or promotional materials in accordance with Section 11 (Portfolio Use), unless Client submits a written request for non-disclosure that is acknowledged and accepted by Agency.

Client represents and warrants that:

- It owns or has obtained all necessary rights, permissions, and licenses to grant the rights described in this section, and
- Use of Client Content by Agency as permitted hereunder will not infringe or violate the rights of any third party.

Client is solely responsible for the accuracy, legality, and intellectual property clearance of all Client Content supplied for use in the project. In the event of a breach of these warranties, Client agrees to indemnify Agency as outlined in Section 12 (Indemnification).

## **8.2 *Third-Party Materials.***

Any third-party content, media, or software incorporated into the Deliverables—including but not limited to stock footage, music tracks, sound effects, imagery, fonts, or software libraries (“Third-Party Materials”)—shall remain the sole property of their respective rights holders.

Agency will inform Client of any Third-Party Materials deemed necessary to fulfill the project. Client shall be responsible for the cost of licensing such materials in accordance with Section 6 of this Agreement. Depending on the arrangement:

- Agency may assist Client in acquiring the appropriate licenses directly in Client’s name, or
- With Client’s prior written approval, Agency may license the materials on Client’s behalf and invoice Client for the licensing costs as a reimbursable expense.

All licenses for Third-Party Materials will be secured in a manner that supports the intended use of the Deliverables and must comply with the applicable usage terms (e.g., distribution channels, duration, platforms). Agency makes no warranties regarding the scope or

limitations of third-party license terms provided by external vendors.

If Client elects to provide pre-licensed Third-Party Materials (e.g., existing stock assets, pre-cleared music), Client represents and warrants that:

- It holds or has secured the necessary rights and permissions for Agency to use the materials as intended, and
- Such usage will not infringe upon or violate any third-party intellectual property rights.

Client agrees to indemnify and hold harmless Agency from any and all claims, losses, or liabilities arising from the unauthorized or improper use of Third-Party Materials supplied or directed by Client, as further described in Section 12 (Indemnification).

### **8.3 Agency Tools and Pre-Existing IP.**

Agency has developed or acquired certain proprietary tools, software, methodologies, templates, and technical assets (defined as “Creative Olsen Tools” in Section 1) that it uses in its business generally. Unless expressly stated otherwise, Agency retains all right, title, and interest in and to the Creative Olsen Tools and any of Agency’s pre-existing intellectual property. To the extent Agency incorporates any Creative Olsen Tools or pre-existing materials of Agency into the Deliverables, Agency grants Client a limited, non-exclusive, non-transferable, royalty-free license to use those elements only as part of the Deliverables and only for the Deliverables’ intended purpose. This license allows Client to use the Deliverables without infringing Agency’s rights, but it does not convey ownership of Agency’s underlying tools, source files, or proprietary methodologies.

For example, if Agency uses its own color grading preset or editing software to produce a video Deliverable, the video can be used freely by Client (after final delivery and payment) but Client is not entitled to the preset or software itself. Similarly, if Agency writes custom code or scripts to facilitate creation of a Deliverable, unless such code is part of the Deliverable’s functionality as agreed, Agency retains ownership of that code as an Agency Tool.

### **8.4 Ownership of Final Deliverables.**

Upon receipt of full payment of all amounts due under this Agreement, Agency grants Client a non-exclusive, non-transferable, worldwide license to use the Final Deliverables solely for the intended purpose(s) as outlined in the approved Scope of Work and Proposal.

Client may not:

- Resell, sublicense, modify, or redistribute the Final Deliverables (in whole or in part),
- Or use the Deliverables for purposes beyond the original agreed scope (e.g., licensing to third parties or altering for resale) without Agency's prior written consent and, if applicable, execution of a separate licensing agreement and payment of additional fees.

Ownership and usage rights remain with Agency until all project payments have been received in full. If Client becomes past due, Agency reserves the right to:

- Revoke access to Deliverables,
- Remove hosted or published content from public view,
- And suspend all usage rights until the outstanding balance is paid, in accordance with Section 5.6.

This license does not extend to the following:

- Client Content, which remains Client's property (see Section 8.1),
- Third-Party Materials, which are governed by their respective license terms (see Section 8.2),
- Agency Tools, including proprietary templates, workflows, and production methods (see Section 8.3),
- Raw Files or Preliminary Works, unless explicitly included in writing as part of the Deliverables (see Section 8.5).

Unauthorized use of any Deliverables prior to final payment, or use beyond the scope of the licensed purpose, constitutes a material breach of this Agreement and may result in:

- Revocation of all granted rights,
- Suspension or removal of published content,
- Financial penalties,
- And legal action, including injunctive relief and recovery of damages.

### **8.5 Preliminary Works and Raw Files.**

All drafts, concepts, sketches, rough edits, working files, raw footage, unedited photographs, layered design files (such as PSD, AI, PRPROJ, or other native project files), and any non-final creative content produced by Agency in the development of the Deliverables are considered "Preliminary Works." As outlined in this Agreement, Preliminary Works remain the sole property of Agency and are not included as part of the Final Deliverables unless otherwise agreed in writing.

Client shall not use, reproduce, or distribute any Preliminary Works or working files that may

be shared incidentally, except solely for the purpose of providing feedback to Agency. Any such materials shared remain subject to this ownership provision.

### **Raw Files and Original Source Assets**

Unless otherwise specified in the Scope of Work, raw footage, raw images, original design files, and other working files are not included in the Final Deliverables. These materials remain the sole property of Agency.

If Client wishes to obtain access to any Preliminary Works, raw files, or original source assets, such materials may be made available at Agency's discretion as a Scope Add-On, subject to additional licensing terms and applicable transfer or usage fees.

Unless and until such terms are agreed upon in writing, Client's rights are limited to the Final Deliverables as delivered (e.g., edited videos, finalized images, or exported formats intended for use).

## **8.6 Data Loss & Storage Limitation.**

Agency is not responsible for loss of footage, project files, or Deliverables due to theft, fire, flood, natural disasters, equipment failure, or other unforeseen circumstances prior to delivery, provided that Agency has made commercially reasonable efforts to safeguard such materials. Agency is not obligated to store raw footage, source files, or project materials beyond the period necessary to complete post-production. Clients are encouraged to maintain their own backups of any shared files and assets.

## **8.7 Content Portal & Storage.**

Agency will provide Client with access to an online content portal (or similar file delivery system) for reviewing, downloading, and managing Final Deliverables associated with this project. The content portal will be available 24/7 during the active project period, up until final delivery and payment.

Following completion of the project and delivery of Final Deliverables, the content portal will remain accessible for a grace period of one (1) month. After that period, access may be removed and the hosted files permanently deleted unless otherwise agreed in writing.

Agency shall have no obligation to store, archive, or maintain any Deliverables, raw footage, source files, or other project materials beyond this one-month window. Client is solely responsible for downloading and backing up all Final Deliverables during the active project or within the designated post-project access period. Once Deliverables have been provided, Agency disclaims any responsibility for long-term storage, backup, or file recovery.

If Client wishes to maintain extended access to the content portal after the standard access period, optional extended hosting may be available under the following terms:

- Billed at a rate of \$400.00 per month;
- Must be requested in writing and approved by Agency before the end of the grace period;
- Invoiced monthly and subject to standard payment terms;
- May be canceled by either Party with written notice.

Agency reserves the right to discontinue content portal access if the extension is not requested or paid for in a timely manner.

### **8.8 Portfolio Use & Public Display.**

Notwithstanding the confidentiality obligations outlined in this Agreement, Agency retains the right to showcase work produced under this Agreement in its portfolio, website, case studies, award submissions, social media, and marketing materials for promotional purposes. This right does not extend to Client's unpublished campaigns, confidential business strategies, or internal operational documents that are not intended for public release, which remain subject to confidentiality.

If Client requires a delay in public portfolio use (e.g., for a product launch or marketing campaign), Client must request such limitations in writing before project completion, and Agency may agree to reasonable postponements of portfolio publication.

### **8.9 Reservation of Rights.**

All rights not expressly granted to Client in this Agreement are reserved by Agency. If Client wishes to use any Final Deliverables in ways not originally contemplated in the Scope of Work—such as creating derivative works, repurposing content, or expanding usage to new media—Client must obtain Agency's written approval. Additional licensing fees may apply depending on the nature and scope of the extended use.

## **9.1 Confidential Information.**

During the course of this Agreement, either Party (“Disclosing Party”) may disclose or make available to the other Party (“Receiving Party”) certain confidential or proprietary information. “Confidential Information” means any non-public information, in any form, whether disclosed orally, visually, or in writing, that is designated as confidential or that a reasonable person would understand to be confidential under the circumstances of its disclosure.

Confidential Information includes, without limitation: business plans, strategies, marketing materials, financial data, pricing, client or customer lists, trade secrets, designs, technical processes, know-how, proprietary workflows, formulas, inventions, source code, and any related documentation or data. Examples include, but are not limited to, Agency’s preliminary works, methodologies, and internal tools, as well as Client’s marketing plans, product strategies, and proprietary assets.

The Receiving Party agrees to use the Confidential Information solely for purposes of fulfilling its obligations under this Agreement and to take reasonable precautions to prevent its unauthorized disclosure or use.

## **9.2 Exclusions from Confidential Information.**

The obligations in this Section shall not apply to information that the Receiving Party can demonstrate through written records:

- (a) was already known to the Receiving Party prior to disclosure by the Disclosing Party;
- (b) becomes publicly available through no fault or breach of this Agreement by the Receiving Party;
- (c) is independently developed by the Receiving Party without use of or reference to the Disclosing Party’s Confidential Information; or
- (d) is lawfully received from a third party who had the right to disclose it without restriction.

## **9.3 Use and Non-Disclosure.**

The Receiving Party agrees to treat all Confidential Information of the Disclosing Party as strictly confidential and to use it solely for the purpose of performing its obligations under this Agreement. The Receiving Party shall not use the Confidential Information for its own

benefit or for the benefit of any third party outside the scope of this engagement.

The Receiving Party shall not disclose, share, or disseminate any Confidential Information to any third party without the prior written consent of the Disclosing Party, except to employees, contractors, or agents of the Receiving Party who have a legitimate need to access such information to fulfill this Agreement and who are bound by confidentiality obligations at least as protective as those set forth herein.

#### **9.4 Standard of Care.**

The Receiving Party agrees to protect the confidentiality of the Disclosing Party's Confidential Information using the same degree of care it uses to protect its own confidential information, but in no event less than a reasonable standard of care. The Receiving Party shall promptly notify the Disclosing Party upon becoming aware of any unauthorized use, access, or disclosure of Confidential Information and shall take all reasonable steps to prevent any further unauthorized use or disclosure. The Parties agree to cooperate in good faith to mitigate any resulting harm.

#### **9.5 Compelled Disclosure.**

If the Receiving Party is required by law, regulation, subpoena, or court order to disclose any of the Disclosing Party's Confidential Information, the Receiving Party shall, to the extent legally permitted, provide prompt written notice to the Disclosing Party in order to allow it the opportunity to seek a protective order or other appropriate remedy.

If disclosure is ultimately required, the Receiving Party shall disclose only the portion of Confidential Information that is legally compelled and shall use commercially reasonable efforts to ensure that such information is treated confidentially by the recipient of the disclosure.

#### **9.6 Return or Destruction.**

Upon expiration or termination of this Agreement, or earlier upon written request by the

Disclosing Party, the Receiving Party shall promptly return or securely destroy all tangible materials containing the Disclosing Party's Confidential Information and delete any electronic copies, files, or backups to the extent reasonably practicable.

Notwithstanding the foregoing, the Receiving Party may retain one archival copy of the Confidential Information solely for legal, regulatory, or record keeping purposes, provided that such copy remains subject to the confidentiality obligations set forth in this Agreement.

### **9.7 *Duration of Confidentiality.***

The obligations set forth in this Section 9 shall commence on the Effective Date of this Agreement and shall remain in effect for a period of two (2) years following the expiration or termination of this Agreement. However, with respect to any Confidential Information that qualifies as a trade secret under applicable law, such obligations shall continue for as long as the information remains a trade secret.

### **9.8 *Confidentiality of this Agreement.***

The terms of this Agreement—including, but not limited to, fees, scope of work, deliverables, timelines, and payment structure—are considered Confidential Information of both Parties.

Neither Party shall disclose the specific terms of this engagement to any third party without the prior written consent of the other Party, except:

- (a) as required by law, regulation, or legal process (in accordance with Section 9.5 – Compelled Disclosure); or
- (b) to that Party's legal, financial, or professional advisors, provided such advisors are bound by confidentiality obligations that are no less protective than those set forth in this Agreement.

Notwithstanding the foregoing, Agency may reference the existence of this Agreement and the general nature of the engagement for promotional purposes, including:

- Describing the project type and creative services provided,
- Showcasing non-confidential Deliverables,
- and provided such usage does not disclose confidential or sensitive information.

### **10.1 Independent Contractor Relationship.**

Agency is an independent contractor and shall perform the Services under this Agreement as such. Nothing in this Agreement shall be construed to create a partnership, joint venture, employment, or agency relationship between Client and Agency (or any of Agency's employees, contractors, or representatives).

Client shall not have the right to control the manner or means by which Agency performs the Services. Agency is solely responsible for the direction and supervision of its personnel and for all taxes, insurance, and benefits related to its business operations and personnel. Neither Party shall have authority to bind the other or incur obligations on the other's behalf without prior written consent.

### **10.2 No Authority to Bind.**

Neither Party shall have the authority to bind or obligate the other Party in any manner without prior written consent. Agency shall not represent to any third party that it has authority to act on behalf of Client or to make commitments on Client's behalf. Likewise, Client shall not be deemed the employer of any Agency personnel and shall not direct or control the manner or means by which Agency performs the Services, except as specifically outlined in this Agreement or the Scope of Work.

### **10.3 Taxes and Benefits.**

Agency shall be solely responsible for all federal, state, and local taxes, contributions, and filings related to its business operations, including but not limited to income taxes, payroll taxes, Social Security, unemployment insurance, and any obligations for its employees or subcontractors. Agency and its personnel are not eligible to participate in any benefit plans, insurance, or employment-related programs offered by Client.

Client shall not withhold or make deductions for taxes, insurance, or other withholdings on behalf of Agency, and nothing in this Agreement shall be construed to create an employer-

employee relationship between Client and Agency or its personnel.

#### **10.4 Agency's Personnel.**

Agency may engage its own employees, contractors, or qualified subcontractors to assist in performing the Services under this Agreement (e.g., assistant photographers, second shooters, editors, or production crew). Agency shall remain fully responsible for the quality, timeliness, and performance of all Services provided, including any Services performed by its personnel or subcontractors.

Agency shall ensure that all subcontractors or personnel are bound by confidentiality obligations and assignment of rights provisions consistent with this Agreement, and that all Deliverables created by such personnel are owned by Agency and properly transferred to Client as set forth in Section 8. Agency shall be solely responsible for compensating its personnel, and nothing in this Agreement shall create any contractual relationship between Client and any employee, contractor, or subcontractor of Agency.

#### **10.5 No Exclusivity.**

The Parties expressly acknowledge that this Agreement does not create an exclusive relationship between the Parties. Client is free to engage others to perform services of the same or similar nature to those provided by Agency, and Agency shall be entitled to offer and provide media services to others, solicit other clients, and otherwise advertise the services offered by Agency.

## **11 | Promotional Rights & Portfolio Use**

#### **11.1 Right to Showcase Work.**

Client grants Agency the right to use the Final Deliverables, along with Client's name and logo, in Agency's portfolio, website, social media, presentations, case studies, award

submissions, and other marketing or promotional materials, solely for the purpose of showcasing Agency's work and capabilities.

Agency retains an irrevocable, perpetual right to reproduce, publish, and display any and all Deliverables in its portfolio, case studies, promotional materials, websites, social media, design periodicals, and professional exhibits, for purposes of recognition, creative excellence, and professional advancement.

This right is granted with the understanding that Agency shall not disclose or include any of Client's Confidential Information (as defined in Section 9) in such promotional use. Agency may include imagery or video from the Deliverables, as well as a factual description of the Services provided and the general nature of the engagement.

### **11.2 Promotional Releases.**

Agency may describe its work for Client in press releases, case studies, articles, award submissions, and similar promotional materials, and may list Client as one of Agency's clients, provided that any such use is accurate and does not include or reveal Confidential Information (as defined in Section 9).

Any promotional use beyond general project facts—such as quoting Client directly, sharing performance metrics or strategic outcomes, or disclosing internal processes—shall require Client's prior written consent. Agency agrees not to publish or reference any non-public marketing strategy, business data, or other sensitive information without express written approval from Client.

### **11.3 Exclusions at Client's Request.**

If any Deliverables are subject to a confidentiality or embargo period (for example, in connection with a product launch or unreleased campaign), Client shall notify Agency in writing of the applicable restrictions. Agency will consider such requests in good faith and may agree to a reasonable embargo period at its discretion. Agency agrees to delay or refrain from using those Deliverables in its portfolio or promotional materials until the embargo period expires, provided such terms have been mutually agreed in writing.

Additionally, Client may make a written request at any time to exclude specific Deliverables or information from public use—due to internal policy, sensitivity, or other reasonable concerns. Agency will consider such requests in good faith and may accommodate them at its discretion. In no event will Agency publish or publicly display any Deliverables or

information that Client has expressly requested be withheld and Agency has agreed in writing to withhold.

#### **11.4 Attribution.**

Attribution is not required but is always appreciated where appropriate. For example, if a video, photo, or other creative work produced by Agency is published on Client's website, social media, or marketing channels, a credit such as "Created by Creative Olsen" is welcomed.

Unless attribution is specifically required in the Scope of Work, Client is under no obligation to include a credit. Conversely, Agency agrees not to misrepresent any Deliverables as having been created for another client or project, and any public use or portfolio display by Agency will accurately reflect Client's name and involvement.

This Section 11 survives termination of the Agreement, meaning Agency can continue to reference and display the work created during the engagement even after the Agreement term ends, provided the above conditions are met.

## **12 | Indemnification**

#### **12.1 Client Indemnification of Agency.**

To the fullest extent permitted by law, Client shall indemnify, defend, and hold harmless Agency and its affiliates, officers, employees, contractors, and agents (collectively, the "Agency Indemnitees") from and against any and all third-party claims, liabilities, losses, damages, judgments, costs, and expenses (including reasonable attorneys' fees and court costs) arising out of or relating to:

##### **Client Content and Instructions**

Any allegation that Client Content—or any materials, assets, or instructions provided by Client—violate or infringe a third party's intellectual property, publicity, privacy, or other rights, or otherwise cause harm. This includes claims arising from Agency's use of such materials in the course of performing the Services in accordance with this Agreement.

##### **Client's Use of Deliverables**

Any use, modification, distribution, or implementation of the Deliverables by Client (or by any third party acting under Client's direction or control) in a manner not authorized by this Agreement, or that violates applicable laws or third-party rights.

### **Client Breach**

Any breach by Client of its representations, warranties, or obligations under this Agreement, including but not limited to non-payment of approved third-party costs, failure to comply with confidentiality obligations, or the creation of unsafe or hazardous working conditions under Client's control.

### **Client's Business Operations**

Any claim or legal action arising out of Client's products, services, business operations, or marketing activities in which the Deliverables are used, provided such claim does not result from Agency's willful misconduct or gross negligence.

## **12.2 Agency Indemnification of Client (Limited).**

Agency shall indemnify, defend, and hold harmless Client from and against any third-party claims, liabilities, losses, damages, judgments, costs, and expenses (including reasonable attorneys' fees and court costs) to the extent such claims directly arise from:

- a) Agency's willful misconduct or gross negligence in the performance of the Services;
- b) Agency's breach of its confidentiality obligations under Section 9; or
- c) A claim that the Final Deliverables, as originally created and delivered by Agency (excluding Client Content and any third-party assets specified or provided by Client), infringe a third party's valid copyright or trademark.

This indemnification obligation is conditioned upon:

- Client promptly notifying Agency in writing of the claim;
- The claim not arising from modifications made by Client or from use of the Deliverables in combination with other content or materials not provided by Agency.

If any such infringement claim arises, Agency may, at its option and expense:

- (i) procure for Client the right to continue using the Deliverable;
- (ii) modify or replace the Deliverable to make it non-infringing; or
- (iii) if neither alternative is commercially reasonable, request return of the infringing Deliverable and refund the portion of fees paid for that specific Deliverable.

In such a case, the refund shall constitute Client's sole and exclusive remedy.

### **12.3 Indemnification Procedures.**

A Party seeking indemnification (the “Indemnified Party”) must promptly notify the other Party (the “Indemnifying Party”) in writing of any claim, demand, or legal proceeding for which indemnity is sought. Delay in providing such notice shall not relieve the Indemnifying Party of its obligations except to the extent that delay materially prejudices the Indemnifying Party’s ability to defend the claim.

The Indemnifying Party shall have the right to assume and control the defense and settlement of the claim using counsel of its choice, provided that such counsel is reasonably acceptable to the Indemnified Party. The Indemnified Party agrees to cooperate, at the Indemnifying Party’s expense, by providing access to relevant information, records, and assistance as reasonably necessary for the defense.

The Indemnifying Party may not settle any claim in a manner that (a) admits fault or liability on the part of the Indemnified Party, or (b) imposes any material obligation on the Indemnified Party (other than monetary amounts for which indemnification is provided), without the Indemnified Party’s prior written consent, which shall not be unreasonably withheld. The Indemnified Party may participate in the defense with its own counsel at its own cost and expense.

The indemnification obligations under this Agreement shall survive the termination or expiration of this Agreement and apply to claims arising from acts or omissions that occurred during the term of this Agreement, or from the use of Deliverables created under it, regardless of when the claim is asserted.

## **13 | AI Ethics & Liability**

### **13.1 Use of AI in Creative Services.**

Agency may utilize artificial intelligence (AI) tools to enhance creative output, including but not limited to image refinement, voice synthesis, video editing, content enhancement, and background noise reduction. AI-enhanced content is intended solely for ethical and commercial purposes, and Agency takes reasonable measures to ensure accuracy and authenticity in all Deliverables.

### **13.2 Prohibited Uses & Ethical Standards.**

Client acknowledges that AI-generated or AI-enhanced content shall not be used to:

- Misrepresent an individual's identity, likeness, voice, or actions in a misleading or deceptive manner.
- Fabricate events, manipulate facts, or create misleading content that could result in reputational, legal, or financial harm to any individual or entity.
- Violate intellectual property rights by replicating copyrighted materials or trademarks without appropriate licensing.

Agency reserves the right to decline any request that involves AI modifications which, in its sole discretion, could be deemed deceptive, unethical, or legally questionable.

### **13.3 Liability for AI-Modified Content.**

Client assumes full responsibility for the use, distribution, and public display of any AI-generated or AI-enhanced content included in the Deliverables. Agency shall not be liable for any claims, legal disputes, damages, or consequences arising from:

- The misuse or misrepresentation of AI-generated content by Client or third parties.
- The unauthorized alteration or redistribution of AI-enhanced Deliverables.
- Any actions taken against Client due to ethical, reputational, or legal concerns related to AI content.

Client agrees to indemnify and hold harmless Agency from any claims, liabilities, or legal actions resulting from the misuse of AI-generated or AI-enhanced content.

## **14 | Limitation of Liability**

To the fullest extent permitted by applicable law, and except as otherwise expressly provided in this Agreement:

### **14.1 No Special Damages.**

Neither Party shall be liable to the other for any indirect, incidental, consequential, special, exemplary, or punitive damages of any kind—including, without limitation, lost profits, lost revenue, loss of data, loss of business opportunity, or business interruption—arising out of or related to this Agreement or the Services, whether based in contract, tort (including negligence), strict liability, or any other legal theory, even if advised of the possibility of such damages.

## 14.2 **Cap on Liability.**

To the fullest extent permitted by law, Agency's total cumulative liability to Client for any and all claims, losses, liabilities, or damages arising out of or related to this Agreement or the Services provided hereunder—whether in contract, tort (including negligence), strict liability, or any other legal theory—shall not exceed the total amount of fees actually paid by Client to Agency under this Agreement.

This limitation applies regardless of:

- The nature or basis of the claim;
- The number of Deliverables, production phases, or milestones involved; or
- The duration of the Parties' relationship.

If the Services or project are ongoing at the time the claim arises, Agency's maximum liability shall be limited to the total amount of fees paid by Client as of the date of the event giving rise to the claim.

This limitation of liability shall apply even if the remedies provided in this Agreement fail of their essential purpose.

Notwithstanding the foregoing, this limitation shall not apply to:

- Client's obligation to pay all fees and approved expenses due under this Agreement, or
- Either Party's right to recover attorney fees, court costs, or collection expenses as expressly provided in Section 19.6.

## 14.3 **Basis of the Bargain.**

Client acknowledges that the limitations of liability, exclusions of damages, and disclaimers of warranties set forth in this Agreement are fundamental elements of the basis on which Agency has agreed to provide the Services. These limitations and disclaimers have been

taken into account in establishing the pricing and other terms offered to Client, and both Parties agree that they form an essential part of the mutual understanding and consideration underlying this Agreement.

The Parties further agree that these provisions shall survive and continue to apply even if any remedy provided in this Agreement is found to have failed of its essential purpose.

#### **14.4 Exceptions.**

The limitations of liability set forth in Section 14.2 shall not apply to the following:

- (a) Damages or losses arising from a Party's gross negligence or willful misconduct;
- (b) Liability for personal injury or tangible property damage caused by Agency while physically performing Services on Client's premises (if applicable), to the extent such damage is finally determined to result from Agency's negligence;
- (c) A breach of Section 9 (Confidentiality) or Section 12 (Indemnification); or
- (d) Client's payment obligations under this Agreement.

Notwithstanding the above, any liability arising from items (a) through (c) shall be limited to direct damages only and shall not exceed an amount equal to two (2) times the total fees actually paid by Client to Agency under this Agreement prior to the date the claim arises, unless such limitation is prohibited by applicable law.

In jurisdictions where certain exclusions or limitations of liability are not permitted by law, the Parties agree that liability shall be limited to the maximum extent permitted. Each Party acknowledges that it has had the opportunity to obtain appropriate insurance or other protections for liabilities beyond those contemplated under this Agreement.

## **15 | Force Majeure**

### **15.1 Force Majeure Events.**

Neither Party shall be liable for any delay or failure to perform its obligations under this Agreement (excluding payment obligations) if such delay or failure is caused by circumstances beyond that Party's reasonable control.

Such circumstances may include, but are not limited to: natural disasters (e.g., fire, flood,

earthquake, or severe weather), acts of God, public health emergencies (e.g., widespread pandemics or government-declared epidemics), acts of government or regulatory authorities (e.g., war, terrorism, military actions, or quarantine restrictions), widespread utility or infrastructure failures, or other large-scale disruptions beyond the affected Party's reasonable control.

For clarity, the illness, injury, or unavailability of individual Agency personnel shall not be considered a Force Majeure Event. Such situations are governed separately under Section 4.11 (Session Disruption Due to Illness or Emergency).

### **15.2 Notification Requirements.**

A Party affected by a Force Majeure Event shall provide prompt written notice to the other Party as soon as reasonably practicable after becoming aware of the event. The notice must include a description of the Force Majeure Event, its anticipated impact on the Party's ability to perform its obligations, and the steps the Party is taking to mitigate or overcome the effects. The affected Party shall use commercially reasonable efforts to minimize disruption and resume performance as soon as feasible.

### **15.3 Timeline Extensions.**

Any deadline, milestone, or delivery timeline (excluding payment obligations) affected by a Force Majeure Event shall be extended on a day-for-day basis for the duration of the delay, unless otherwise agreed in writing by both Parties. Once the scope and impact of the delay are reasonably understood, Agency will propose a revised production or delivery schedule in good faith. Both Parties agree to cooperate to adjust timelines as necessary to accommodate the unforeseen circumstances.

### **15.4 Termination Due to Extended Force Majeure.**

If a Force Majeure Event continues to prevent either Party from performing a material portion of its obligations under this Agreement for more than sixty (60) consecutive days, either Party may terminate this Agreement by providing written notice to the other. Such

termination shall be without further liability, except as set forth below:

- If Agency terminates due to the ongoing Force Majeure Event, Agency will refund any prepaid project fees for Services not yet performed (e.g., for future quarters that have not begun).
- due to the Force Majeure Event, Client shall remain responsible for payment of all Services rendered through the effective termination date, including any approved expenses and reasonable fees for in-progress work performed prior to termination.

This Section shall not relieve either Party from obligations that expressly survive termination under this Agreement.

## 16 | On-Site Safety & Hazardous Conditions

### 16.1 ***Safe Working Environment.***

If any portion of the Services requires Agency to work at Client's premises or any site under Client's control (including event venues, offices, or third-party locations arranged by Client), Client agrees to provide and maintain a safe, secure, and professionally appropriate working environment. This includes ensuring:

- Clear and safe access to the workspace or location;
- Identification and resolution of any known or reasonably foreseeable hazards (environmental, structural, or logistical) that could pose risks to Agency personnel, subcontractors, or equipment.

Client shall take reasonable steps to inform Agency of any risks or limitations at the site in advance, and will cooperate with Agency in implementing safety protocols or adjustments necessary for performance of the Services.

### 16.2 ***Right to Withdraw from Unsafe Conditions.***

If, in Agency's professional judgment, any on-site location presents an unsafe, hazardous, or unreasonably risky condition for Agency personnel, subcontractors, or equipment, Agency reserves the right to suspend or immediately withdraw from performing Services at that location. Agency will promptly notify Client of the issue and the basis for its safety concerns.

Services may be paused until the condition is adequately resolved. If the unsafe condition is due to factors outside of Client's control (such as extreme weather or venue-related issues), the delay may be treated as a Force Majeure Event under Section 15. However, if the hazardous condition arises from Client's negligence, failure to maintain a safe environment, or lack of preparedness, Agency may treat the situation as a material breach by Client.

Agency shall not be liable for any delays or missed deliverables resulting from a justified suspension of Services under this section.

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### **16.3 Effect on Timeline and Deliverables.**

Any suspension or delay in Services due to unsafe conditions—whether deemed a Force Majeure Event or resulting from Client's failure to maintain a safe environment—may affect project timelines, milestones, or delivery of Deliverables. Agency shall not be held liable for any delays or missed deadlines resulting from such conditions.

If a timeline adjustment becomes necessary, Agency will notify Client and propose a revised schedule in good faith, taking into account the duration and impact of the delay. Client acknowledges that changes to production timing or availability may affect subsequent phases of work or Deliverables under this Agreement.

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### **16.4 Client Liability for Unsafe Conditions.**

To the fullest extent permitted by law, Client shall indemnify, defend, and hold harmless Agency and its personnel, subcontractors, and agents from any claims, losses, damages, injuries, or liabilities (including reasonable attorneys' fees) arising from unsafe, hazardous, or unfit conditions at Client's premises or any location under Client's control, to the extent such conditions result from Client's negligence, failure to act, or failure to maintain a reasonably safe working environment.

This includes, but is not limited to, personal injury, illness, property damage, or equipment loss suffered by Agency or its representatives while performing Services on-site. This obligation applies regardless of whether Agency has suspended or withdrawn Services under Section 15.

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## **16.5 Insurance Obligations.**

Client represents and warrants that it maintains adequate general liability insurance to cover incidents or claims that could arise in connection with Agency's on-site Services at locations under Client's control.

Agency shall maintain, at its sole cost and expense, Commercial General Liability Insurance (including personal injury and contractual liability) providing coverage for bodily injury and property damage, endorsed to include products and completed operations, with a minimum combined single limit of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate, for the duration of this Agreement.

Each Party is responsible for maintaining its own insurance and bears liability for any claims arising within their respective areas of control.

## **17 | Non-Solicitation**

### **17.1 Non-Solicitation of Personnel.**

Client agrees that, during the term of this Agreement and for a period of twelve (12) months following the expiration or termination of this Agreement, Client shall not, directly or indirectly, solicit for employment, hire, contract, or engage any employee, freelancer, or subcontractor of Agency who was involved in providing Services under this Agreement, without the prior written consent of Agency.

This restriction applies to direct hiring by Client, as well as indirect hiring through affiliates, subsidiaries, recruiters, or third-party agencies acting on Client's behalf. If Client breaches this provision, Client agrees to compensate Agency with a fee equal to fifty percent (50%) of the hired individual's expected annual compensation or fifty thousand dollars (\$50,000), whichever is greater. This amount shall be due within thirty (30) days of written notice from Agency. If unpaid, Agency reserves the right to pursue legal action to recover damages.

This fee reflects the costs of recruitment, training, lost productivity, and other business disruptions caused by such solicitation or hiring. This provision shall survive the termination or expiration of this Agreement.

## 18 | Termination

### 18.1 **Termination for Cause and Breach.**

This Agreement may be terminated prior to project completion only under the following conditions:

#### **Termination for Cause (Breach)**

Either Party may terminate this Agreement if the other Party materially breaches any of its obligations under this Agreement and fails to cure such breach within fourteen (14) calendar days after receiving written notice specifying the nature of the breach in reasonable detail.

If the breaching Party does not cure the breach within the designated cure period, the non-breaching Party may terminate the Agreement by providing written notice of termination, effective immediately or as of a future date specified in the notice.

If the nature of the breach reasonably requires a shorter or longer cure period, the Parties may mutually agree in writing to modify the timeline, or the non-breaching Party may reasonably extend or shorten the cure period based on the urgency of the circumstances.

Termination for breach shall not waive any other rights or remedies available under this Agreement, including the right to collect any outstanding payments for Services rendered or expenses incurred prior to the effective date of termination.

#### **Breach by Client (Non-Payment or Non-Cooperation)**

Without limiting the general termination rights set forth in Section 18.1, Client shall be considered in material breach of this Agreement if:

- Client fails to pay any undisputed amount within thirty (30) calendar days after receiving written notice of delinquency; or
- Client repeatedly fails to provide timely feedback, approvals, materials, or other necessary cooperation such that Agency is materially hindered in its ability to perform the Services outlined in the Scope of Work.

In either case, Agency may terminate the Agreement by providing written notice to Client. Upon such termination:

- All unpaid fees and approved expenses for Services performed to date shall become immediately due and payable;
- Agency shall have the right to suspend or withhold access to all Deliverables and content platforms;
- Client's license to use any previously delivered work is expressly conditioned on full payment of all amounts due under this Agreement, in accordance with Section 8.4;
- Agency shall not be liable for any delays, missed deadlines, or damages resulting from the termination.

This provision is in addition to, and not in limitation of, Agency's other rights and remedies under this Agreement or applicable law.

### **Breach by Agency**

If Client terminates this Agreement due to Agency's material breach—including failure to deliver Services in accordance with the Scope of Work—and such breach is not cured within the timeframe outlined in Section 18.1, Client's payment obligations shall be limited to:

- The portion of the project that was properly performed and delivered through the effective date of termination; and
- Any approved expenses incurred by Agency prior to termination.

If Client has paid in advance for Services or Deliverables not yet rendered, Agency shall issue a pro-rata refund for the unused portion of those fees. Client shall retain the right to use all Final Deliverables that were both:

- Delivered prior to or as part of the termination process, and
- subject to the license terms outlined in Section 8 (Intellectual Property Rights & Ownership).

Following the termination date:

- Agency shall have no further obligation to perform any additional Services or complete outstanding Deliverables; and
- Any in-progress or partial work may be provided to Client "as-is," without warranty or further editing, at Client's written request and at Agency's discretion.

This section does not limit Client's right to pursue other remedies permitted under this Agreement or applicable law.

## **18.2 Termination for Convenience by Client (Early Exit).**

This Agreement represents a commitment to a one-time project engagement, during which Agency allocates dedicated time, personnel, and production capacity to fulfill the Scope of Work. Accordingly, Client may not terminate this Agreement for convenience or cancel Services prior to project completion except with Agency's express written consent.

If Client requests early termination for reasons other than Agency's uncured material breach, the following terms shall apply:

### **Agency Discretion**

Agency is under no obligation to approve an early exit but may, at its sole discretion, agree to such termination. Any approval must be in writing and may include additional conditions, such as a transition plan, defined Deliverables cutoff, or payment terms for in-progress work.

## **Payment Liability**

Unless otherwise agreed in writing by Agency, Client shall remain fully liable for the total contract value agreed upon in this Project Agreement, regardless of early termination.

This includes, without limitation:

- All fees for completed Services,
- All fees for any in-progress or scheduled work,
- All approved third-party or out-of-pocket expenses, and
- All fees for unused production time or Deliverables that were reserved or allocated in reliance on this Agreement.

In the event of early termination for convenience, the entire remaining project balance shall become immediately due and payable in full upon notice of termination, whether or not the Services have been fully rendered.

Any waiver or adjustment of this obligation must be expressly approved in writing by Agency. In the absence of such written approval, the full contract value remains enforceable and owed by Client.

## **Negotiated Adjustments**

Any waiver or reduction of unpaid project fees must be explicitly documented in writing by Agency. In the absence of such documentation, the full unpaid project balance remains enforceable and due.

## **Final Deliverables and Usage Rights**

Upon full payment of all amounts due—including completed phases, in-progress work, and reimbursable expenses—Agency will deliver any completed or partially completed Deliverables as of the effective termination date. Client's right to use such materials shall be governed by the terms outlined in Section 8 (Intellectual Property Rights & Ownership).

### ***18.3 Termination by Agency (for Convenience).***

Agency may terminate this Agreement for convenience (i.e., without cause) by providing Client with at least thirty (30) days' prior written notice. In such event, the following terms shall apply:

#### **Refund of Unused Fees**

If Client has pre-paid for Services that were scheduled to be delivered after the effective date of termination, Agency shall issue a pro-rata refund for the unused portion of those fees. This refund shall not apply to any work already performed, scheduled, or allocated prior to termination.

#### **Delivery of Work**

Agency will deliver all Final Deliverables completed through the effective termination date, provided that Client is current on all outstanding payments due under this Agreement. No

additional Deliverables will be produced beyond the termination date unless separately agreed in writing.

### **Transition Support**

Upon request, Agency will provide reasonable assistance in transitioning any in-progress work to Client or another vendor. Such support shall be billed at Agency's then-current hourly rate or under a separately agreed flat fee, depending on the scope of assistance.

Client remains fully responsible for payment of:

- All Services rendered through the termination date,
- Any approved third-party expenses incurred,
- And any transition support fees, if applicable.

If Agency terminates this Agreement due to Client's material breach or non-payment (as outlined in Section 18.1 or 18.2), the consequences set forth in those sections shall govern and this Section 18.3 shall not apply.

## **18.4 Effects of Termination.**

Upon expiration or termination of this Agreement for any reason, the following terms shall apply:

### **Cessation of Services**

Agency shall immediately cease all Services as of the effective termination date. Agency will deliver to Client any Final Deliverables or in-progress work that has been fully paid for, or that will be paid for as part of a mutually agreed-upon termination settlement. Any incomplete or unpaid work, including drafts, raw files, or unreleased materials, shall remain the sole property of Agency unless otherwise agreed in writing.

### **Final Payment Obligations**

Client shall immediately pay all outstanding fees for:

- Services rendered through the termination date,
- Any approved third-party or reimbursable expenses, and
- Any remaining unpaid project balance, if applicable, in accordance with Section 18.1, 18.2, or 18.3.

No Final Deliverables will be released until all payment obligations have been satisfied.

### **Confidential Information**

Each Party shall return or destroy the other Party's Confidential Information in accordance with Section 9 (Confidentiality), subject to any archival copy rights permitted therein for legal or regulatory purposes.

## **Licensing & Usage Rights**

Client retains the right to use any Final Deliverables that have been delivered and fully paid for, subject to the license terms outlined in Section 8 (Intellectual Property Rights & Ownership). Client's license to use any content shall be automatically suspended if Client is in breach or past due on payment, and may be revoked if payment is not made in accordance with the terms of this Agreement.

## **Survival of Terms**

Any provisions that by their nature or express terms are intended to survive termination shall remain in full force and effect. This includes, but is not limited to, provisions relating to:

- Payment obligations,
- Confidentiality,
- Intellectual property,
- Indemnification,
- Limitations of liability,
- Dispute resolution, and
- Portfolio use rights.

## **Non-Exclusivity of Remedies**

Termination of this Agreement shall not limit either Party's right to seek any other remedies available under law or in equity. However, the financial and usage terms related to early termination set forth in this Agreement shall serve as the Parties' agreed-upon basis for compensation and a reasonable pre-estimate of damages.

# **19 | General Provisions**

## **19.1 Notices.**

All notices, requests, consents, demands, or other communications required or permitted under this Agreement shall be in writing and shall be delivered to the respective Parties at the contact information set forth below (or to such other address/contact as a Party may designate by written notice to the other). Notices shall be delivered by one of the following methods:

- (a) personal delivery;
- (b) certified or registered mail (postage prepaid, return receipt requested);
- (c) a nationally recognized courier service (with all fees prepaid); or
- (d) email (with confirmed receipt or acknowledgment by the receiving Party, as outlined below).

Notices will be deemed given:

(i) if by personal delivery, on the date of actual delivery to the recipient;  
(ii) if by certified mail, three (3) business days after the date of mailing;  
(iii) if by courier, on the second business day after deposit with the courier for overnight delivery; or  
(iv) if by email, on the date the recipient acknowledges receipt in writing (including by reply email or other written confirmation). If no acknowledgment is received within two (2) business days, the sender shall follow up once by email or another method. If there is still no response, the notice shall be deemed delivered five (5) business days after the original email was sent, provided the sender has retained evidence of delivery (such as a sent confirmation or lack of bounce-back).

**Agency Contact for Notices:**

Creative Olsen  
3403 N. 191st Ave  
Elkhorn, NE 68022

Email: [frontdesk@creativeolsen.com](mailto:frontdesk@creativeolsen.com)

**Client Contact for Notices:**

The main point of contact designated by Client during onboarding or otherwise communicated to Agency in writing. Client is responsible for keeping their designated contact and email address current and up to date.

Either Party may update its notice contact information by giving notice to the other Party in accordance with this Section.

**19.2 Assignment.**

Neither Party may assign or transfer this Agreement, in whole or in part, to any third party without the prior written consent of the other Party, which consent shall not be unreasonably withheld. Any attempt to assign this Agreement without such consent shall be null and void.

Notwithstanding the foregoing, either Party may assign this Agreement without consent to:

- (a) an affiliate or subsidiary as part of an internal corporate reorganization, or
- (b) a successor entity in the event of a merger, acquisition, or sale of substantially all of the Party's assets or business to which this Agreement relates,

Provided that the assignee agrees in writing to be bound by all the terms of this Agreement, and the assigning Party provides prompt written notice of the assignment to the other Party.

In the event of an assignment pursuant to a merger, acquisition, or sale, the assigning Party shall provide the non-assigning Party with reasonable documentation confirming the assignee's agreement to assume all responsibilities under this Agreement and to ensure

continuity of service at a standard consistent with that originally agreed upon.

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective permitted successors and assigns.

### **19.3 No Waiver.**

No failure or delay by either Party in exercising any right, remedy, power, or privilege under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any such right preclude any other or further exercise of the same or any other right. A waiver of any term, condition, or breach of this Agreement shall be effective only if in writing and signed by the Party granting the waiver, and shall not be deemed a waiver of any subsequent breach or of any other term or condition.

### **19.4 Severability.**

If any provision of this Agreement is held to be invalid, illegal, or unenforceable by a court of competent jurisdiction, such provision shall be deemed modified to the minimum extent necessary to make it enforceable while preserving, to the greatest extent possible, the original intent of the Parties. If such modification is not possible, the unenforceable provision shall be deemed severed from this Agreement, and the remaining provisions shall remain in full force and effect. The Parties agree to negotiate in good faith to replace any such invalid or unenforceable provision with a valid and enforceable provision that most closely reflects the Parties' original intent.

### **19.5 Governing Law and Dispute Resolution.**

This Agreement shall be governed by and construed in accordance with the laws of the State of Nebraska, without regard to its conflict of law principles.

In the event of a dispute arising from this Agreement, the Parties agree to first attempt to resolve the matter in good faith through informal discussions. Either Party may provide written notice to the other describing the nature of the dispute, upon which senior

representatives from each Party shall confer (via phone, video conference, or in person) to attempt to resolve the dispute within thirty (30) days from the date of notice.

If informal discussions fail to resolve the dispute within this period, the Parties agree to submit the dispute to mediation before initiating litigation. Mediation shall take place in the State of Nebraska, with each Party bearing its own mediation costs unless otherwise mutually agreed in writing.

If mediation does not resolve the dispute, all remaining disputes shall be resolved exclusively in the state or federal courts located in Douglas County, Nebraska. Each Party hereby consents to the exclusive personal jurisdiction and venue of such courts and waives any objections based on venue, jurisdiction, or forum non conveniens.

### **19.6 Remedies, Attorneys' Fees, and Collection Costs.**

Except as otherwise expressly provided in this Agreement, the rights and remedies of the Parties under this Agreement are cumulative and in addition to any other rights or remedies available at law or in equity.

In any litigation, arbitration, mediation, or other dispute resolution proceeding arising out of or related to this Agreement, the prevailing Party shall be entitled to recover from the non-prevailing Party all reasonable attorney fees, court costs, mediation fees, and other out-of-pocket legal expenses incurred in enforcing its rights under this Agreement, in addition to any other relief to which it may be entitled.

Client agrees that any outstanding invoices remaining unpaid for more than thirty (30) days past the due date shall accrue interest at the rate of one and one-half percent (1.5%) per month (or the highest rate allowed by Nebraska law, if lower). In the event Agency must pursue legal action or collection efforts for unpaid fees, Client shall be responsible for all associated collection costs, attorney fees, and related expenses incurred by Agency.

### **19.7 Headings and Construction.**

The section headings and titles in this Agreement are for reference and convenience only and shall not affect the meaning or interpretation of any provision. As used in this Agreement, the terms "including" and "include" shall be deemed to mean "including, without limitation." This Agreement shall be construed as if drafted jointly by the Parties, and no presumption or burden of proof shall arise favoring or disfavoring either Party by virtue of the authorship of any provision.

## **19.8 Entire Agreement and Amendments.**

This Agreement, including all exhibits, schedules, attachments, and any documents expressly incorporated by reference (such as the Scope of Work or Proposal), constitutes the complete and exclusive understanding between the Parties with respect to the subject matter hereof. It supersedes all prior or contemporaneous discussions, negotiations, representations, agreements, or understandings—whether oral or written—between the Parties regarding the Services. Each Party acknowledges that it has not relied upon any promise, representation, or warranty not expressly set forth in this Agreement in entering into this Agreement.

### **Amendments**

No amendment, modification, or waiver of any provision of this Agreement shall be effective unless it is documented in writing and accepted by the Client in a manner reasonably designated by Agency. This includes changes to the Scope of Work, Services, Project Details & Investment, or other terms of engagement. For example, if an updated proposal or Scope Add-On is issued by Agency through an approved platform (such as BetterProposals), Client's signature or formal acceptance of that document shall constitute valid agreement to the amendment, even if not countersigned by Agency. Amendments may also be confirmed by written email exchange, provided that mutual assent is clear. All material changes not covered in the original Scope of Work must follow the Scope Add-On process outlined in Section 3.4.

## **19.9 Counterparts and Electronic Signatures.**

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute the same instrument. Delivery of an executed counterpart by PDF, facsimile, or via secure electronic platforms such as BetterProposals shall be deemed valid and binding. The Parties agree that electronic signatures and electronic acceptance provided through BetterProposals (or another mutually accepted platform) shall have the same legal force and effect as a handwritten signature and shall serve to authenticate this Agreement.

# Let's get rolling!

Type your name below to accept & sign our agreement.  
Our team will then reach out to get things started!



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**V**ILLAGE OF ABIE  
ABIE, NEBRASKA 68001

---

August 1, 2025

Good Morning Sean,

This is in response to your recent e-mail concerning the Abie Village Board seeking the development of a Rural Water District.

The reason for this request is a serious concern due to our aging infrastructure. Any assistance in this matter would be greatly appreciated.

If you have any questions please do not hesitate to call me at: 402-720-5416. We do not have a city office so this is my contact number. My e-mail address is: [cwkrivanek@yahoo.com](mailto:cwkrivanek@yahoo.com)

Thank you.

Sincerely,

Carroll Krivanek  
Village of Abie Board

# Ecklund

89.53 ac

2024 Corn



## Harvest Summary

Avg. Yield (bu/ac)

**251.6**

↑ 1% compared to farm avg.

Moisture (%)

**16.3%**

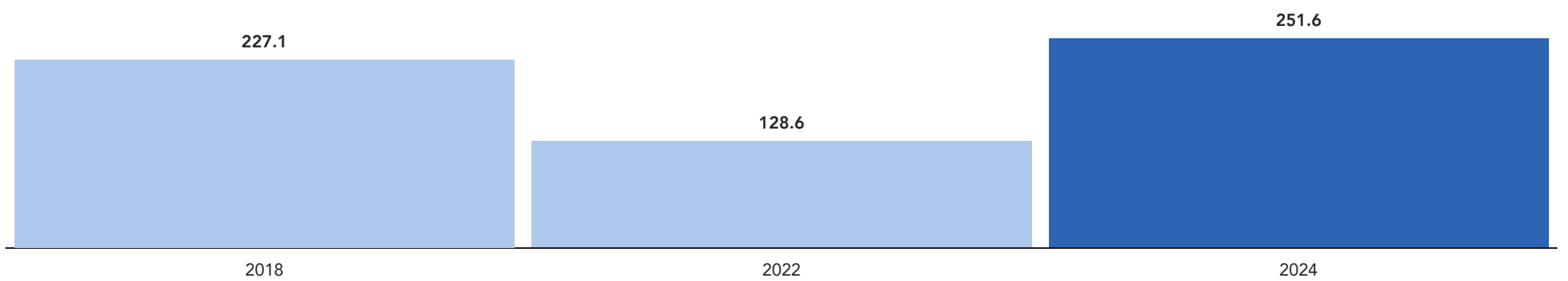
↑ 2% compared to farm avg.

Avg. Yield (bu/ac)

252

P1413AM (AM, LL, RR2)

Historical Trends (bu/ac)



*This information is supplied to you by Nebraska's geological survey:*

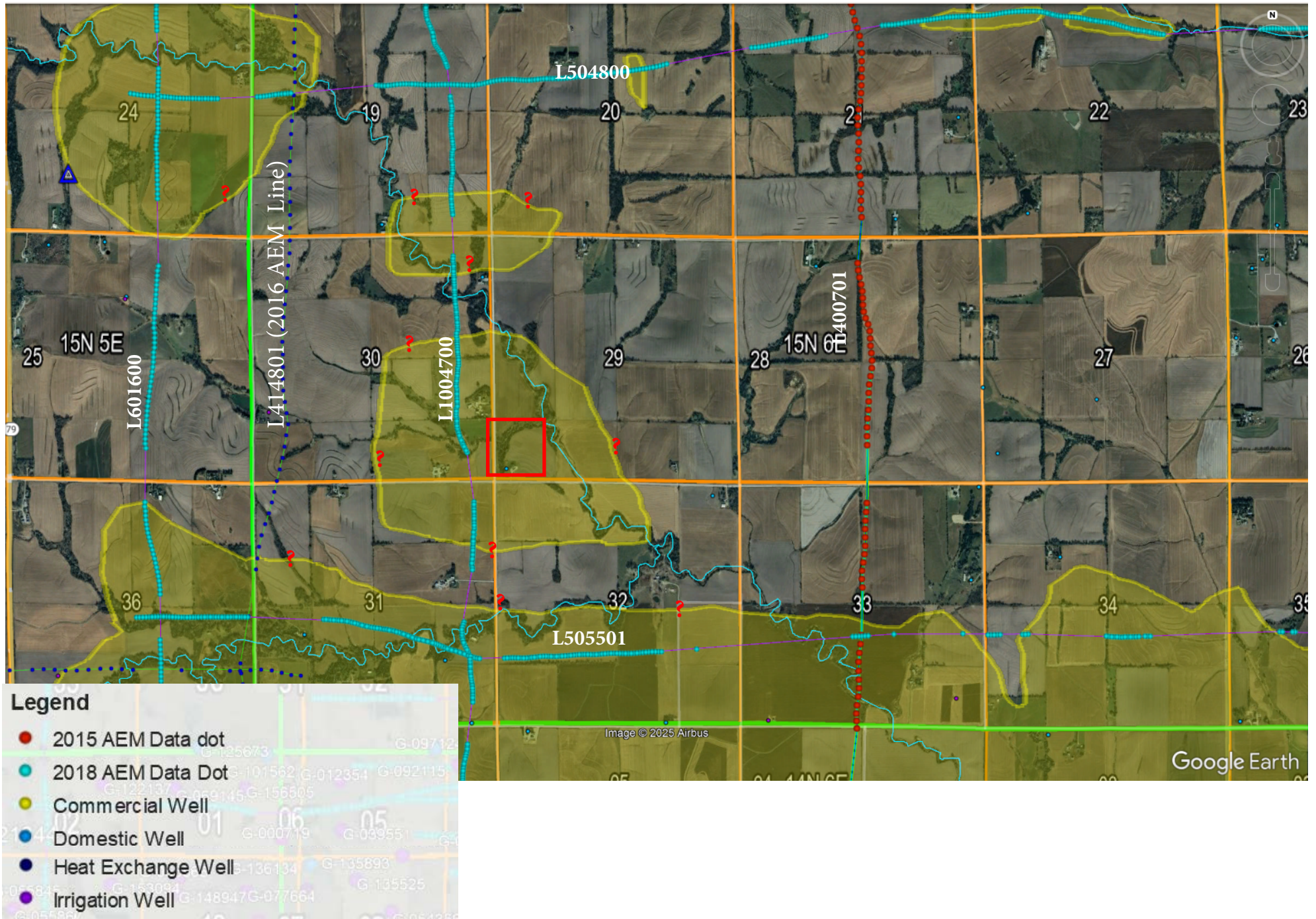
# **Conservation and Survey Division**

School of Natural Resources

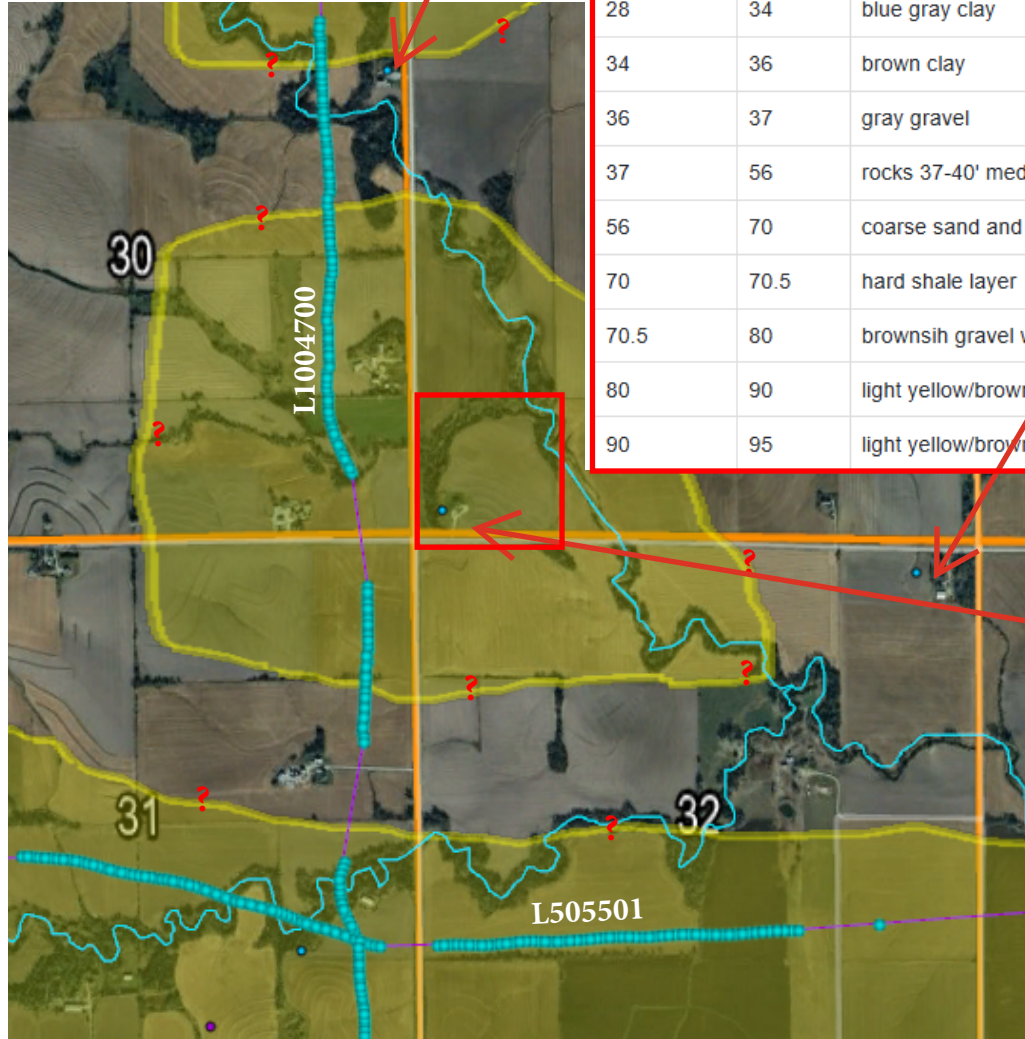


Hardin Hall  
3310 Holdrege Street  
University of Nebraska–Lincoln  
Lincoln, Nebraska 68583  
<http://snr.unl.edu/csd/>

Google Earth Map with AEM survey lines, registered wells and roughly estimated aquifer material areas from AEM survey interpretations (yellow)



Map zoom in with nearby registered well logs



Geo Logs [Print Friendly Geo Logs](#)

FromDepth	ToDepth	Description
0	2	top soil
2	17	brown clay
17	19	dark brown clay
19	25	light gray/brown clay med. hardness
25	28	coarse sand - gravel
28	34	blue gray clay
34	36	brown clay
36	37	gray gravel
37	56	rocks 37-40' med. hard med. dark gray clay
56	70	coarse sand and gravel reddish gray, few gray clay layers prese
70	70.5	hard shale layer
70.5	80	brownsih gravel with rocks present <b>1190-1200'</b>
80	90	light yellow/brown shale
90	95	light yellow/brown with reddish steaks

Geo Logs [Print Friendly Geo Logs](#)

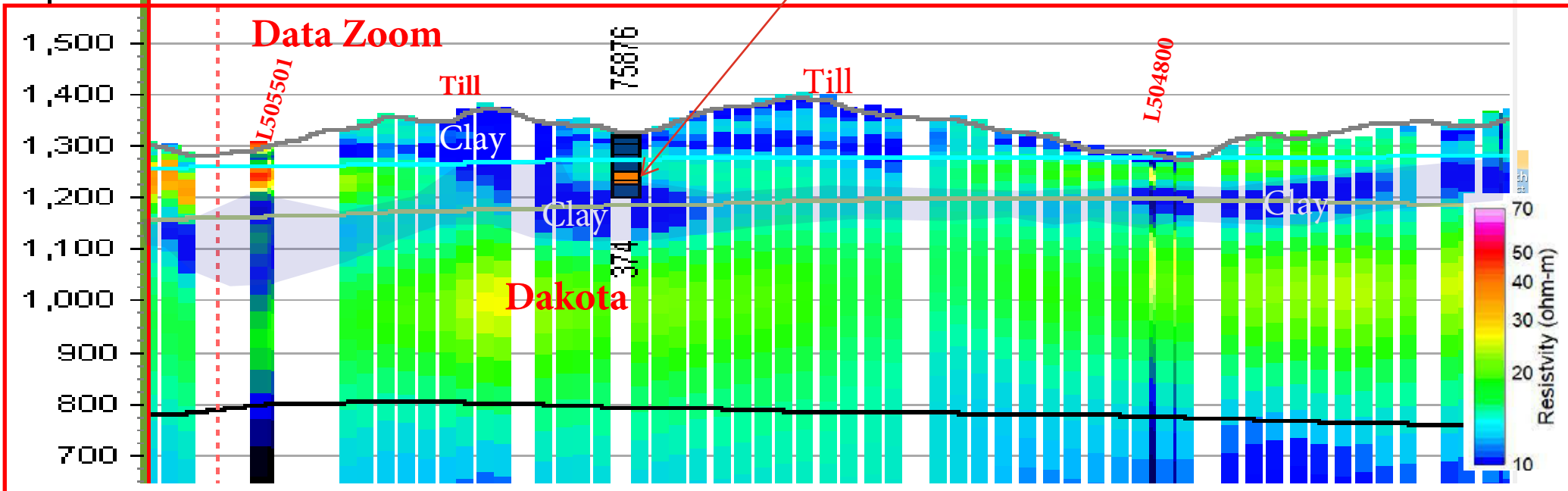
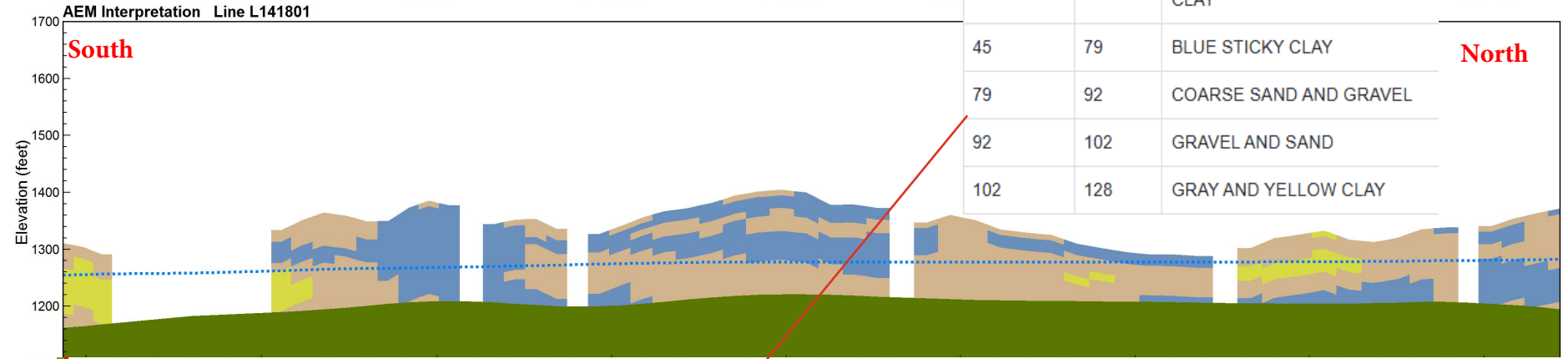
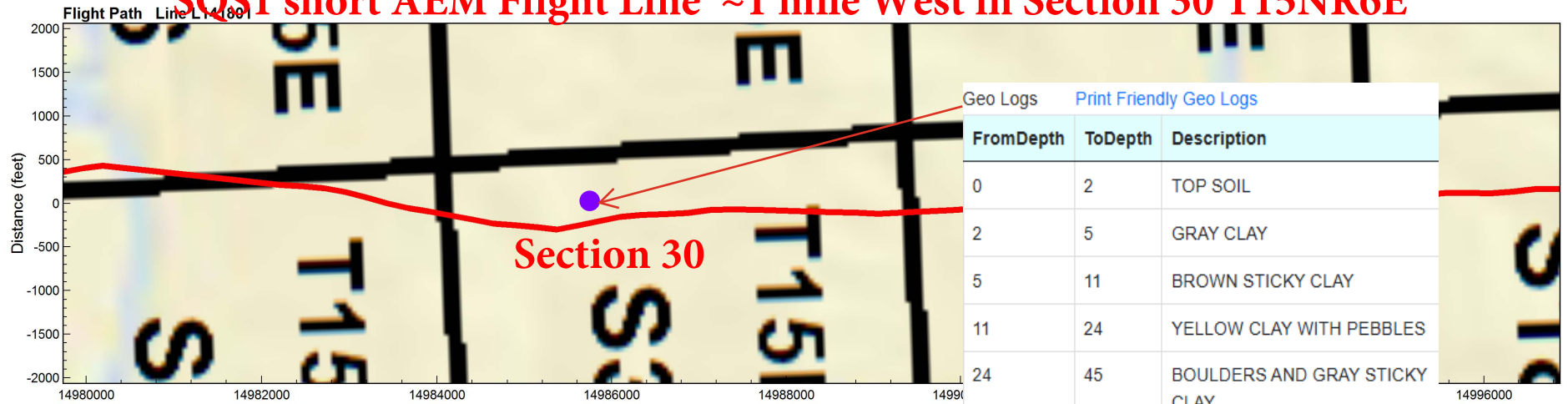
FromDepth	ToDepth	Description
0	22	brown clay
22	36	sand
36	50	brown clay
50	60	gray clay
60	77	sandy clay
77	86	gravel <b>1184-1193</b>
86	102	gray clay
102	115	fine sand to clay
115	122	gray sandy clay
122	126	sand
126	130	gray clay
130	132	sand
132	137	clay
137	148	gravely clay

Geo Logs [Print Friendly Geo Logs](#)

FromDepth	ToDepth	Description	Color	Density	Composition
0	2		Brown	Dense/Stiff	Top Soil
2	25		Brown	Dense/Stiff	Clay
25	28	rocky	Gray	Loose	Gravel
28	45		Brown	Dense/Stiff	Clay
45	51	gray slightly hard	Brown	Hard	Clay
51	60		Gray	Dense/Stiff	Clay
60	100	rusty with rocks	Red	Loose	Gravel

1190 to 1230 FT Elevation

# SQS1 short AEM Flight Line ~1 mile West in Section 30 T15NR6E

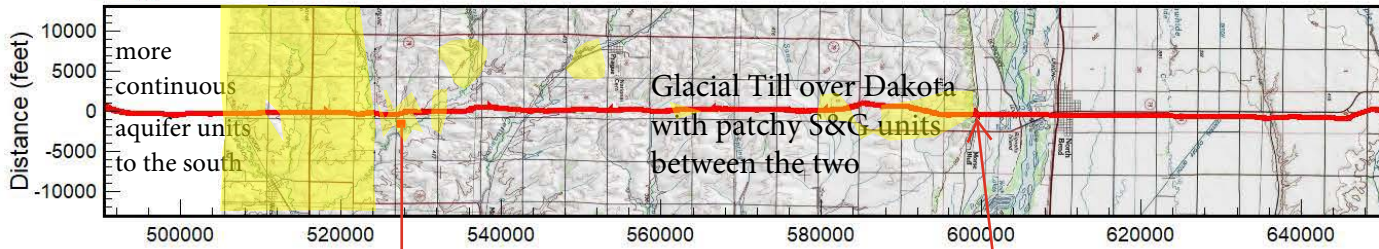


# Nearest AEM Flight Line ~800 feet West of Section 29 T15NR6E

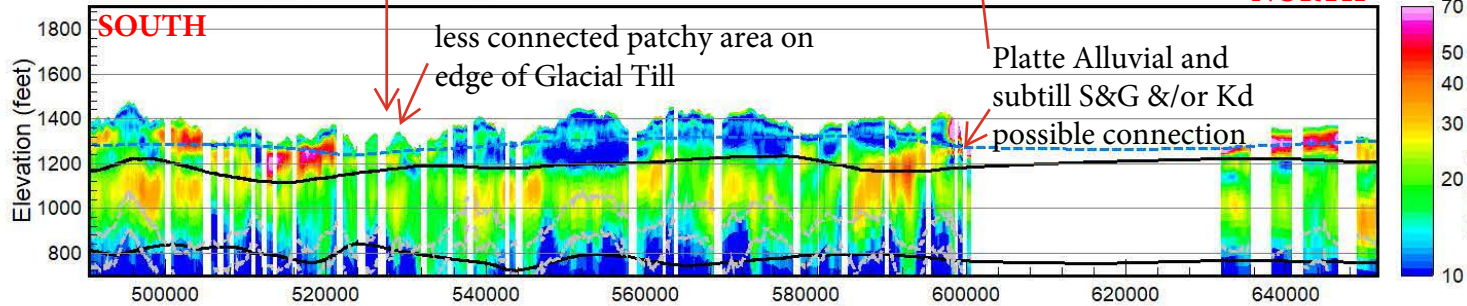
Appendix 1: 2D Profiles – 2018 LPNNRD Inverted AEM Resistivity and Interpretation



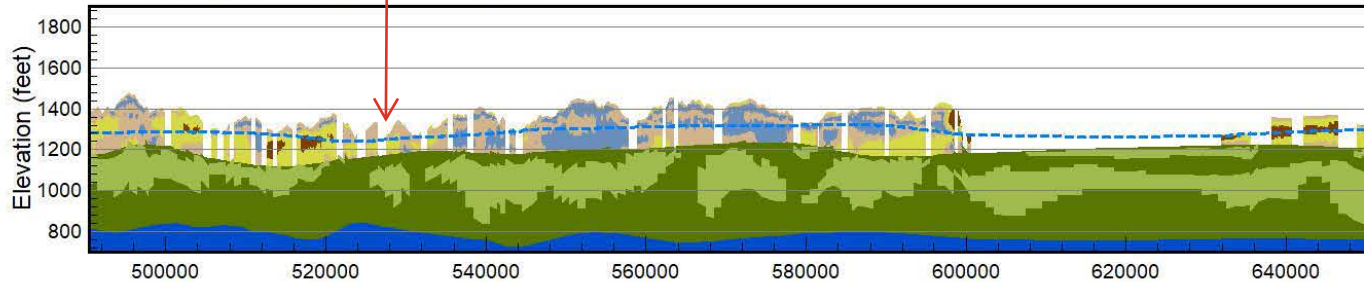
**Flight Line Position Line L1004700**



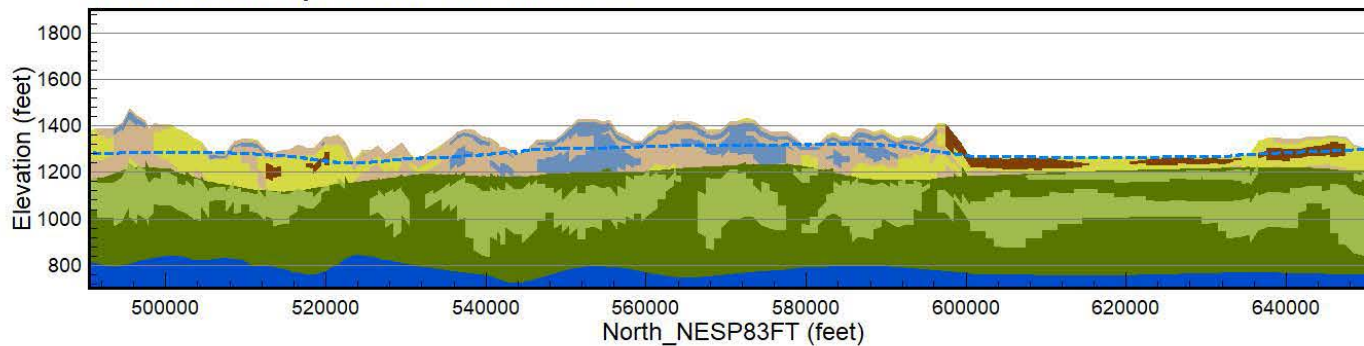
**AEM Inversion Line L1004700**



**AEM Interpretation Line L1004700**



**AEM Voxel Interpretation Line L1004700**



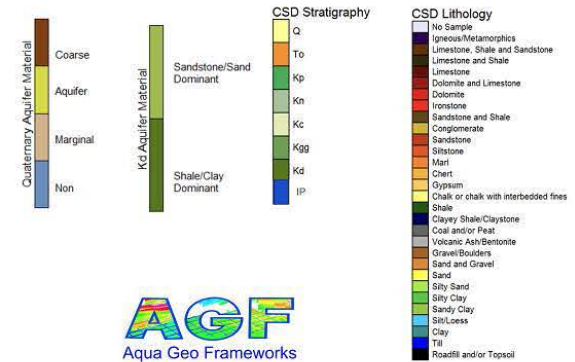
Results of the final inversion of Airborne Electromagnetic (AEM) data collected along flight lines within the Lower Platte North Natural Resources District (LPNNRD) June 22-July 14, 2018. The red line on the Flight Path Map (US Geological Survey 100K Topo) indicates the location of the data collection.

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 area 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.

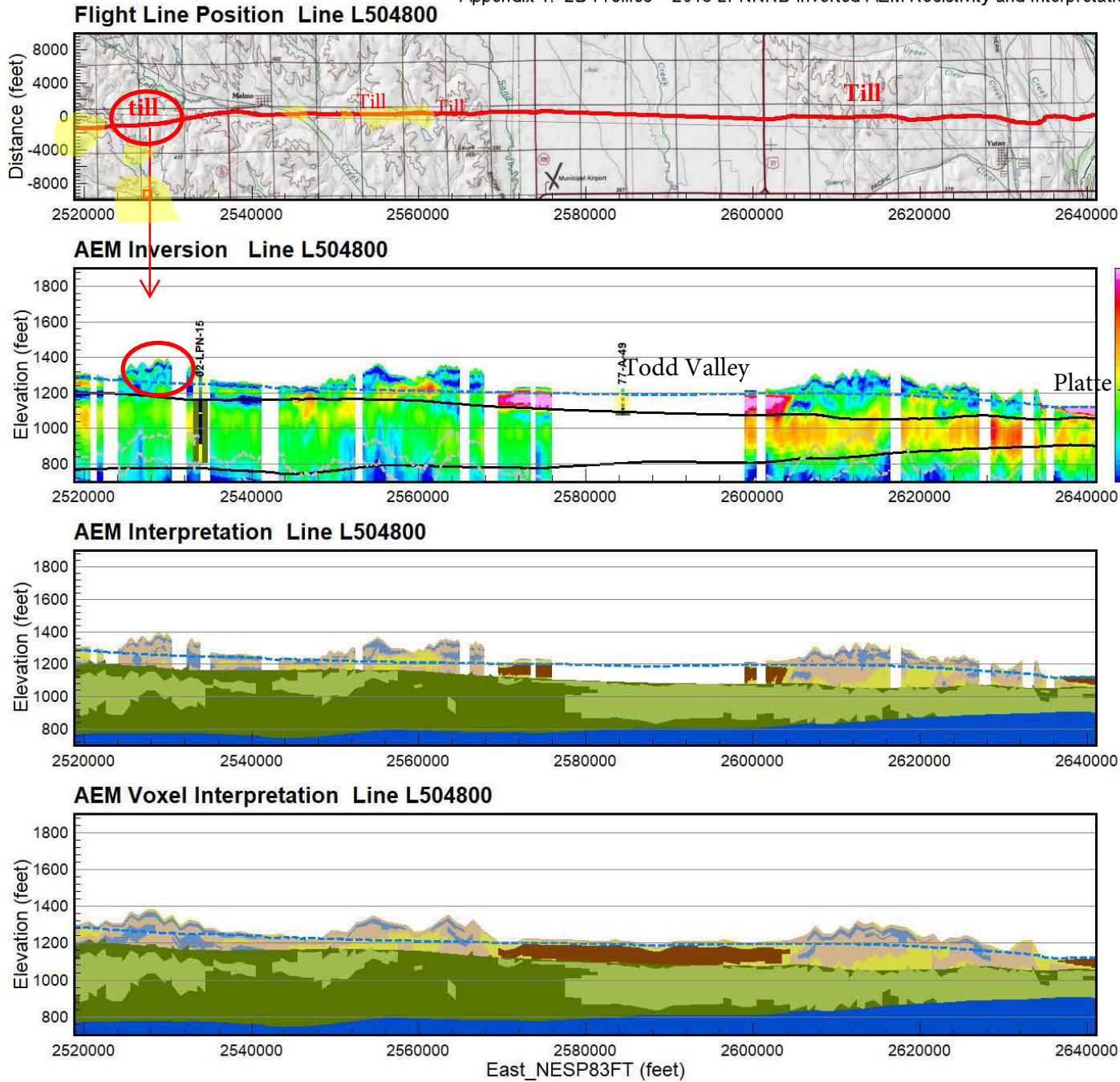
The AEM Voxel Interpolation Profile indicates a 1,000-foot cell size interpolation of the Quaternary materials classified into the four groups indicated by the legend. In addition to the interpreted 1,000-foot cell size interpolation, sand/sandstone-dominant sections of the Cretaceous Dakota Group are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

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



**Section 29 is south of this west to east flight line**

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



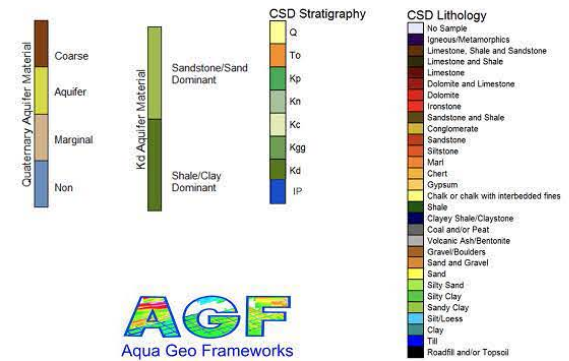
Results of the final inversion of Airborne Electromagnetic (AEM) data collected along flight lines within the Lower Platte North Natural Resources District (LPNNRD) June 22-July 14, 2018. The red line on the Flight Path Map (US Geological Survey 100K Topo) indicates the location of the data collection.

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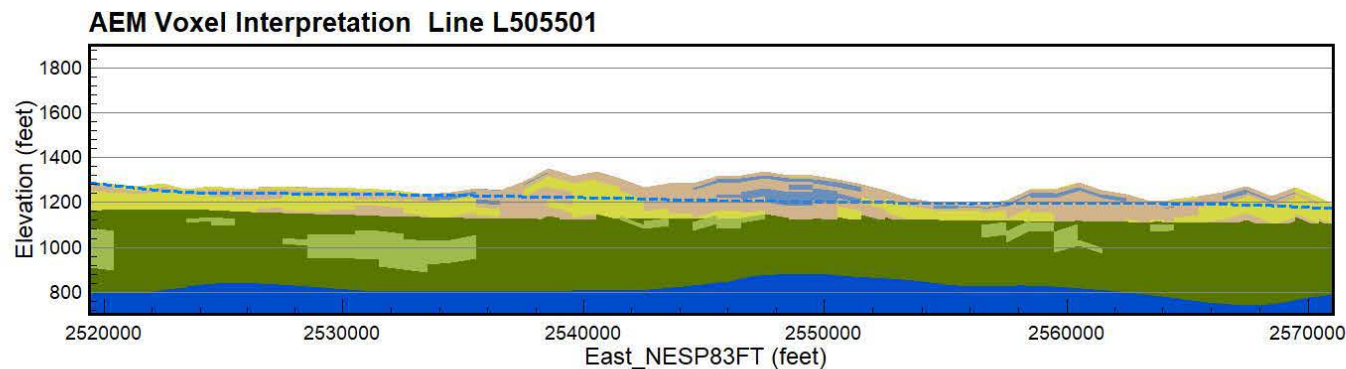
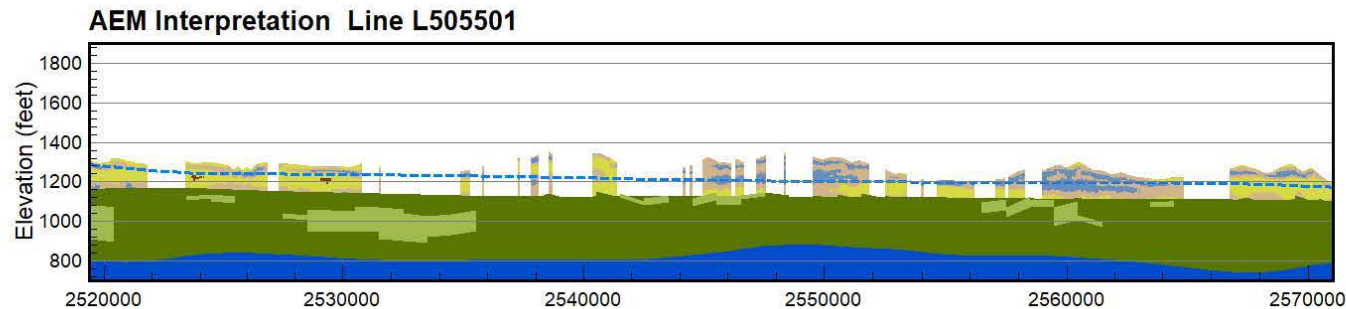
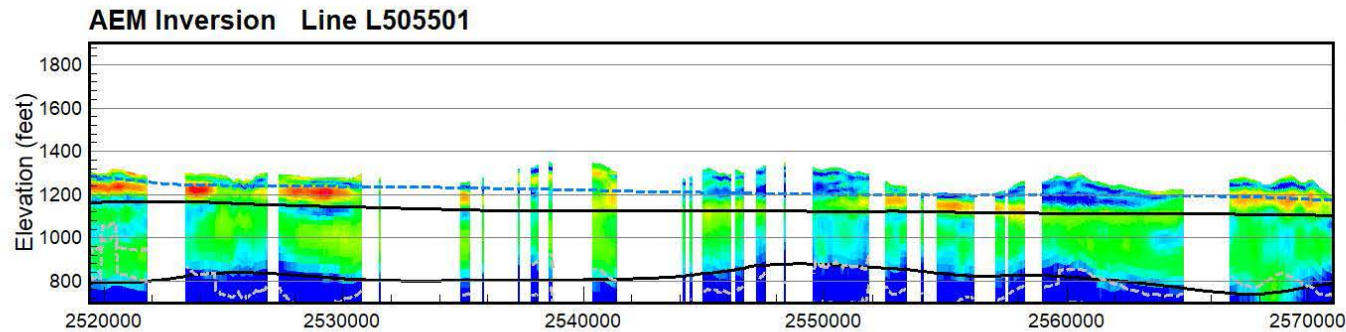
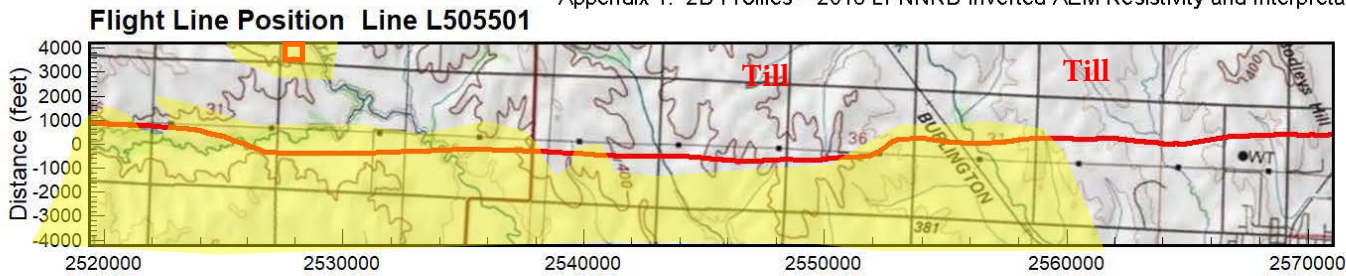
The AEM Voxel Interpolation Profile indicates a 1,000-foot cell size interpolation of the Quaternary materials classified into the four groups indicated by the legend. In addition to the interpreted 1,000-foot cell size interpolation, sand/sandstone-dominant sections of the Cretaceous Dakota Group are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

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



## Section 29 is north of this west to east flight line

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



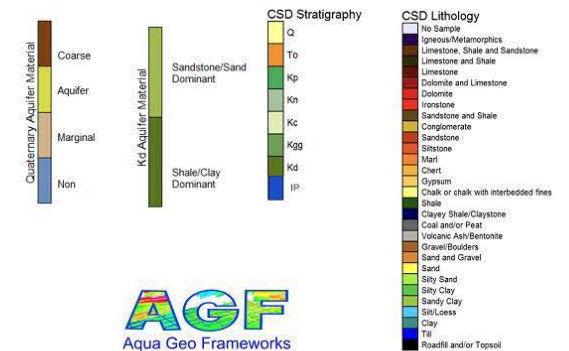
Results of the final inversion of Airborne Electromagnetic (AEM) data collected along flight lines within the Lower Platte North Natural Resources District (LPNNRD) June 22-July 14, 2018. The red line on the Flight Path Map (US Geological Survey 100K Topo) indicates the location of the data collection.

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



## **Section P Irrigation Development in the Restricted Development Areas (RDA)**

Rule 1 The District will allow expansion of new acres but does not allow for any more consumptive use in the RDA. Any development of new irrigated acres in the RDA shall be offset with an equal number of irrigated acres retired within the same aquifer subarea and shall be considered a transfer. The RDA areas within Lower Platte North NRD are on file in the District office and shown on Exhibit A.

Rule 2 LPNNRD shall require a water quality test from any well pumping from the Dakota Aquifer, due to its high variability in water quality.

Rule 3 If a transfer is approved, the new irrigation well shall not irrigate more than 160 acres in total.

Rule 4 The district shall send notices to adjacent landowners notifying them about the proposed well and allow them to testify at a Water Committee or Board meeting to present their case for or against the proposed well. This shall be required before the permit for the proposed well can be approved by the NRD. Adjacent landowners are those whose land touches the tract that is requesting the variance. If the adjacent land is part of a city, village or SID then a single notice will be sent to the political subdivision.

Rule 5 The Board may grant a variance to Rule 1 if the relevant parcel of ground is within 1 mile of a Normal Development Area or Limited Development Area. Such variance for new irrigation shall follow all rules as set forth in the applicable development area.

Rule 6 The well owner, landowner and tenant will allow the LPNNRD to measure the groundwater energy levels within the new well and add it to the LPNNRD GWEL network.

Rule 7 The well owner will install small diameter piping, placed in the gravel pack of the high capacity well, so LPNNRD can measure drawdown when the pump is operating and to measure the recovery rate.

Rule 8 Three test holes will be required to show the geology at and near the proposed well site. One test hole will be drilled at the proposed well site with the second and third test hole drilled approximately 300 feet from the proposed well site and spaced from each other. If a registered well with a well log exists within 1,000 feet of the proposed well site then this well log maybe used to replace one of the required test holes.

Rule 9 Any permit issued for development in the restricted development area is a "conditional permit". Conditional permits may be treated differently than other well permits within LPNNRD. With good cause these permits may have pumping restrictions placed on them, or withdrawn by the NRD.

Rule 10 A pump test may be performed for a minimum of 24 hours, or until the flow stabilizes or slows down. This pump test will be conducted during peak irrigation season.

Rule 11 A continuation of Stay Management Area Rules as defined in Section M, Rule 4, 6, 8, 10, and 12, shall apply.

# Groundwater Management Plan

*Approval Date: 10/13/2025*

*Prepared for:*



*Prepared by:*



### **Board of Directors - 2025**

<b>Name</b>	<b>Sub-District</b>
Lon Olson	1
Anthony Hanson	1
John Goldsberry	2
Bill Saeger	2
Dave Saalfeld	3
Andrew Tonnies	3
Chris Yosten	4
Matt Bailey	4
Mark Seier	5
David Lawrence	5
Joe Birkel	6
Robert Hilger	6
Ryan Sabatka, Chairman	7
Ryan Engel	7
Jerry Johnson	8
Roger Harder	8
Duane Johnson	9
Robert Meduna Jr	9
Thomas McKnight	At-Large

*This third update of the Lower Platte North Natural Resources Groundwater Management Plan (GWMP) has been prepared per Nebraska Revised Statute 46-709. The GWMP was created based upon the best available scientific information.*

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## LIST OF ABBREVIATIONS AND ACRONYMS

ACT	Nebraska Groundwater Management Act
AF	Acre Feet
AEM	Airborne Electromagnetic
Assessment	LPNNRD Hydrogeologic Assessment (2023)
Coalition	Lower Platte River Basin Coalition
CSD	Conservation and Survey Division
District	Lower Platte North NRD
DCP	Drought Contingency Plan
DEM	Digital Elevation Model
DWEE	Nebraska Department of Water, Energy, and Environment
ENWRA	Eastern Nebraska Water Resources Assessment
EQIP	Environmental Quality Incentive Program
GIS	Geographic Information System
GWMA	Groundwater Management Area
GWMP	Groundwater Management Plan
HCA	Hydrologically Connected Areas
IMP	Integrated Management Plan
LENRD	Lower Elkhorn Natural Resources District
LPMT	Lower Platte Missouri Tributary Groundwater Model
LPNNRD	Lower Platte North Natural Resources District
LPSNRD	Lower Platte South Natural Resources District
LPRCA	Lower Platte River Corridor Alliance
LWS	Lincoln Water System
Mg/L	Milligrams per Liter
MUD	Metropolitan Utilities District
NARD	Nebraska Association of Resources Districts
NASS	National Agricultural Statistics Service
NDEE	Nebraska Department of Environment and Energy

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NeDNR	Nebraska Department of Natural Resources
NeDWEE	Nebraska Department of Water, Energy, and Environment
NHCAs	Non Hydrologically Connected Areas
NPDES	National Pollutant Discharge Elimination System
NRC	Natural Resources Commission
NRD	Natural Resources District
LWS	Lincoln Water System
PMRNRD	Papio-Missouri River Natural Resources District
PPM	Parts Per Million
PPB	Parts per Billion
RWS	Rural Water System
SQS	Special Quantity Subareas
UNL	University of Nebraska-Lincoln
USGS	United States Geological Survey
WHP	Wellhead Protection

# 1 INTRODUCTION

## 1.1 LPNNRD BACKGROUND

The Lower Platte North Natural Resources District (LPNNRD or District) spans 1,587 square miles, or just over 1 million acres, over seven counties in eastern Nebraska and is shown in Figure 1. The total estimated population is nearly 66,000 (NARD, 2024). The primary watersheds used to delineate the LPNNRD includes Shell Creek, starting at the northwest boundary past Newman Grove and to the southeast to the Lower Platte River at Fremont, and the Wahoo Creek watershed to the southeast near Ashland. The LPNNRD economy is predominantly focused on agricultural and industrial activities.

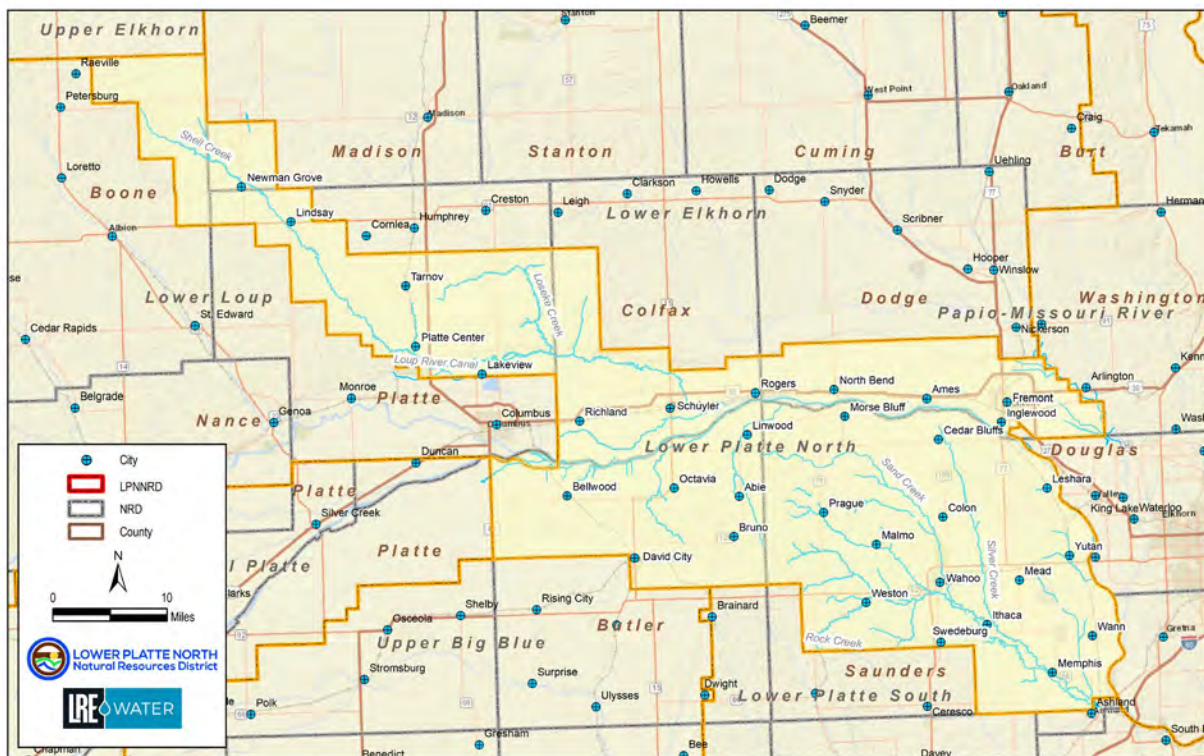


Figure 1: LPNNRD Location

## 1.2 LEGAL AUTHORITY AND OBLIGATIONS

Groundwater is widely recognized as one of the state's most valuable natural resources, and the management is a key responsibility granted to the Nebraska Natural Resources Districts (NRDs), which were established in 1972. The declaration, intent, and purpose of NRDs groundwater management responsibilities were established by the Nebraska Groundwater Management and Protection Act (Act) as outlined in Nebraska Revised Statute Chapter 46, Article 7, passed in 1975.

In 1984, the Nebraska Legislature mandated that NRDs prepare a Groundwater Management Plan (GWMP) by January 1986. The original LPNNRD GWMP was prepared in 1985 and with the adoption of the 1985 plan, the LPNNRD embarked upon a new era of groundwater resource management marked by an intensive program of data collection designed to characterize the resource and establish the relationship with other water resources. In addition, the District developed education and demonstration programs designed to increase awareness of groundwater supplies, use, and protection.

Legislative Bill 51 (LB51) was passed in 1991 and amended the Act by providing clarification, therefore the GWMP was updated in 1995, as an amendment to the 1985 version and the amendment meets the intent of LB51 and fulfills the District's need for continued understanding of the supply and quality of its groundwater resource, and sets forth a plan of protection for the future. The Board of Directors recognizes, along with the Nebraska legislature, that groundwater is a valuable resource and planned management is essential and in the public interest.

This version of the GWMP is intended to meet requirements of Section 46-709 of the Act (NeDNR, 2021), which states, The plan shall include, but not be limited to, the identification to the extent possible of the following:

- 1) Groundwater supply information within the District including transmissivity, saturated thickness maps, and other groundwater reservoir information, if available;
- 2) Local recharge characteristics and rates from any sources, if available;
- 3) Average annual precipitation and the variations within the District;
- 4) Crop water needs within the District;
- 5) Current groundwater data-collection programs;
- 6) Past, present, and potential groundwater use within the District;
- 7) Groundwater quality concerns within the District;
- 8) Proposed water conservation and supply augmentation programs for the District;
- 9) The availability of supplemental water supplies, including the opportunity for groundwater recharge;
- 10) The opportunity to integrate and coordinate the use of water from different sources of supply;
- 11) Groundwater management objectives, including a proposed groundwater reservoir life goal for the District. For management plans adopted or revised after July 19, 1996, the groundwater management objectives may include any proposed integrated management objectives for hydrologically connected groundwater and surface water supplies but a management plan does not have to be revised prior to the adoption or implementation of an integrated management plan pursuant to section 46-718 or 46-719;
- 12) Existing subirrigation uses within the District;
- 13) The relative economic value of different uses of groundwater proposed or existing within the District; and

14) The geographic and stratigraphic boundaries of any proposed management area.

This version was prepared by the staff, the Board of Directors, with technical and planning assistance provided by LRE Water.

### **1.3 AGENCY ROLES AND FUNCTIONS**

The LPNNRD is governed by a locally elected Board consisting of 19 Directors. The LPNNRD is divided into sub-districts (Figure 2), with two Directors per sub-district and one at-large member. Based upon state statute, each NRD shares a common set of responsibilities, listed below, but each also establishes its own additional priorities based upon need.

- Erosion prevention and control
- Soil conservation
- Flood prevention and control
- Prevention of damages from flood water and sediment
- Water supply for any beneficial uses
- Development, management, utilization and conservation of groundwater and surface water
- Pollution control
- Solid waste disposal and sanitary discharge
- Drainage improvement and channel rectification
- Development and management of recreational and park facilities
- Forestry and range management
- Outdoor recreation
- Education

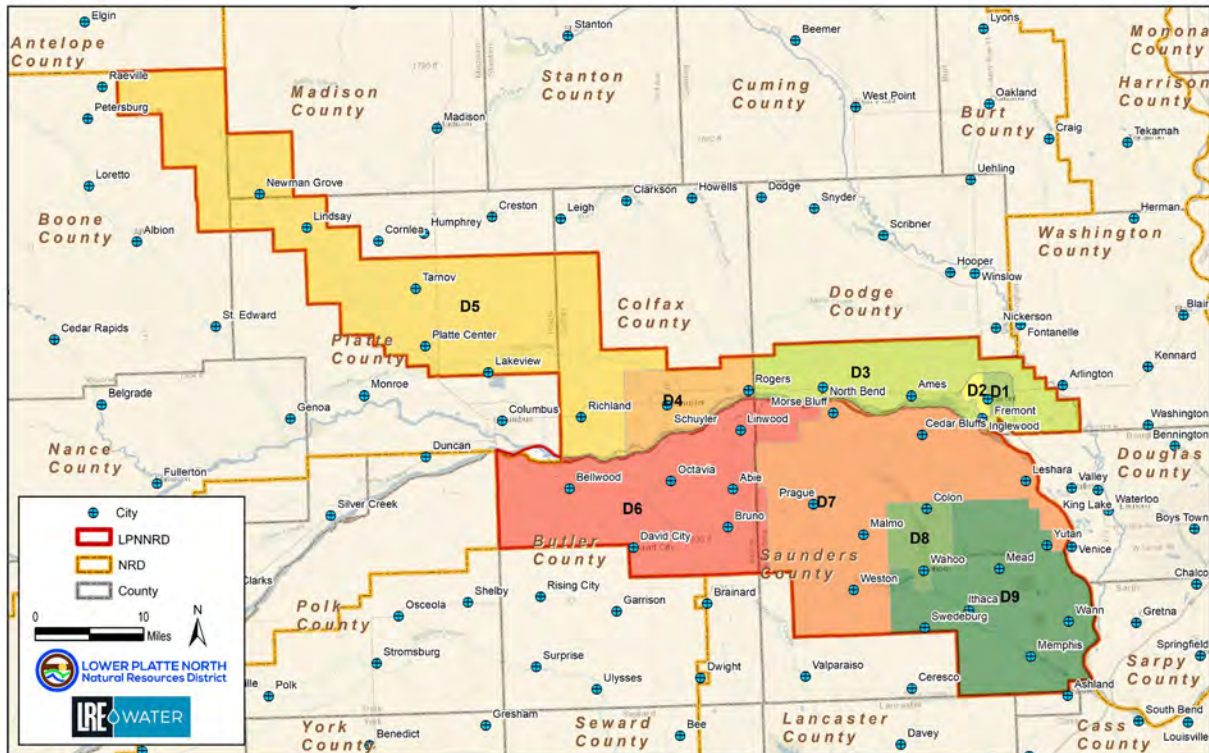


Figure 2: Board of Director Sub-districts (2025)

The LPNNRD is responsible for a variety of programs and projects and has identified five primary services with a focus on the following:

- Water Management
  - Groundwater management phase areas, monitoring programs, chemigation, nitrogen certification, nitrate management, wellhead protection (WHP) program, non-point source pollution management, and well decommissioning.
  - Groundwater restricted and limited control areas, well permits and registration, variances, irrigated acre certification, water use management, and conservation.
- Rural Water Systems (RWS)
  - Management of the Bruno-David City RWS and Colon-Wahoo RWS.
- Forestry and Wildlife
  - Implementing a tree planting program
- Watershed and Flood Damage Reduction
  - Management of seven watershed-wide flood reduction projects that include nearly 60 flood reduction structures, including three high-hazard dams.
- Conservation Programs
  - Cost-share for soil and water conservation, small dams, cost-share for priority watersheds, rock and jetty program, and weed management.
- Education
  - Includes newsletters, environmental education program, events, grants and scholarships, and workshops

## 1.4 JOINT-PLANNING EFFORTS

### Lower Platte River Basin Coalition

In 2017, seven NRDs came together with NeDNR to form the Lower Platte River Basin (Basin) Coalition (Coalition). This Coalition is operating under the guidance of the Basin Water Management Plan, published in October 2017. The Basin is one of Nebraska's most valuable resources, playing a crucial role in the state's agricultural, social, industrial, and municipal development and sustainability (Coalition, 2017).

The Coalition includes the LPNNRD, along with the NeDNR and six other NRDS, including Upper Loup, Lower Loup, Lower Platte South, Papio-Missouri River, Lower Elkhorn, and Upper Elkhorn. These NRDs collaborate with the Nebraska Association of Resource Districts (NARD) to maintain a sustainable balance between water supplies and uses in the Basin (Figure 3). Key groundwater elements of the Basin Water Management Plan have been integrated in this GWMP update.

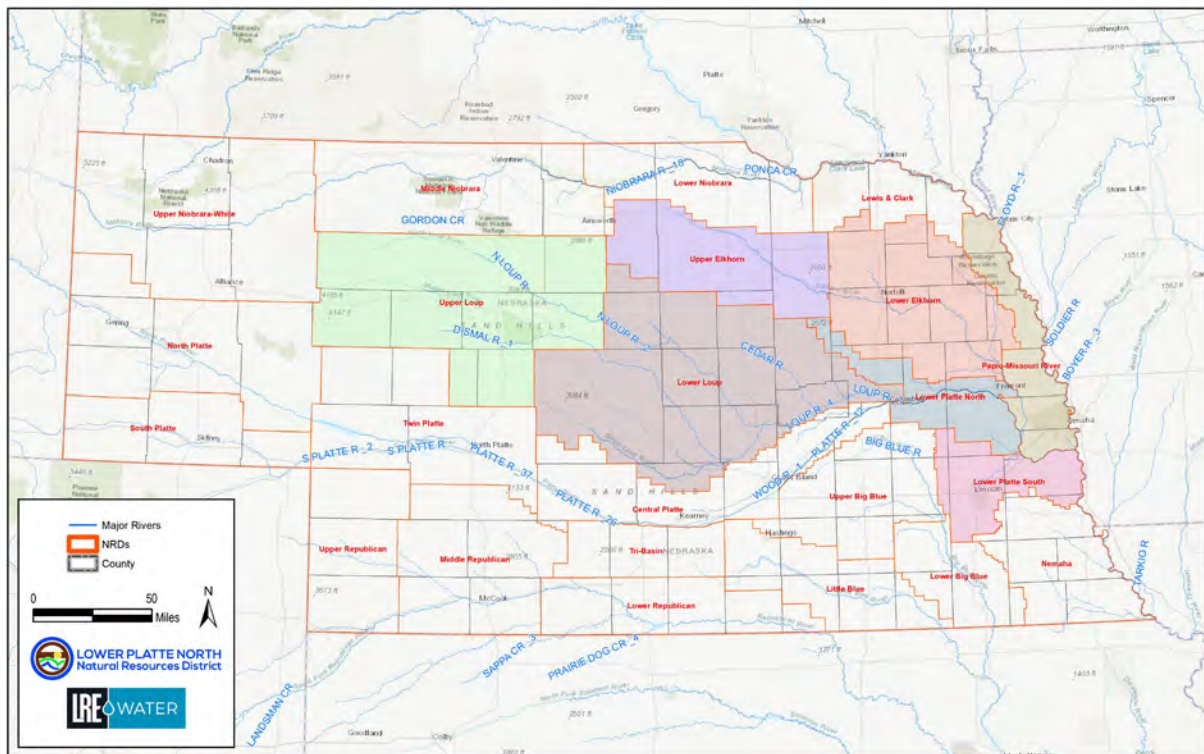


Figure 3: Lower Platte River Basin Coalition NRDs

### Lower Platte River Drought Contingency Plan

The Lower Platte River Basin, including its tributaries and aquifers, serves approximately 80 percent of Nebraska's population, thousands of businesses, and industries, includes more than two million irrigated acres, and provides streamflow for threatened and endangered species. The drought-driven risks are diverse and a potential drought in the region would pose serious risk to public health, the economy, and fish/wildlife. Projects and programs designed to increase water supply and decrease water demands would benefit a variety of interests, including irrigation, power, environmental, and recreational

activities (Consortium, 2019). As a result, the LPNNRD, LPSNRD, PMRNRD, Metropolitan Utilities District (MUD), Lincoln Water System (LWS), and NeDNR established the Lower Platte River Drought Contingency Plan in 2019.

### Integrated Management Plan

The LPNNRD's first voluntary Integrated Management Plan (IMP) was adopted by the District on June 11, 2018, and by the NeDNR on June 13, 2018, with an effective date of July 15, 2018. The IMP was developed in accordance with the Nebraska Ground Water Management and Protection Act (Act). The Act assigns the NeDNR and the District responsibilities and authority for management of groundwater, surface water, and their hydrologically connected areas in accordance with the Act, N.R.S. Chapter 46, Article 7. The voluntary IMP provides the framework for joint management of groundwater and surface water, recognizing that the two water sources are hydrologically connected. This framework enables the District and the NeDNR to coordinate management actions and monitoring of groundwater and surface water, to better protect water resources for future generations (LPN, 2018a). The IMP recognized five goals:

- 1) Develop and maintain a District-wide water supply inventory
- 2) Develop and maintain a District-wide water demand inventory
- 3) Develop and implement water use policies and practices with the purpose of achieving and sustaining a balance between water uses and supplies
- 4) Communicate to the public that Nebraska has a great supply of water, and a need to continue to manage it well
- 5) Coordinate with the Lower Platte River Basin NRDs, and appropriate groups and agencies, to develop a water management plan for the Coalition that maintains a balance between current and future water supplies and demands

### LPNNRD Drought Contingency Plan

The LPNNRD was developing a district-wide Drought Management Plan in 2025. The Drought Management Plan will help to reduce district-wide impacts during drought events and aid the LPNNRD 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. The GWMP will be a key resource integrated into the Drought Plan.

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.

## **1.5 CURRENT RULES AND REGULATIONS**

The Groundwater Management Area Rules and Regulations were first implemented on January 1, 1997, and last amended on June 15, 2018. Under Neb. Rev. Statutes 46-701 to 46-754 of the Act. The LPNNRD

has designated the entirety of the District as a Phase I Management Area for groundwater quality and quantity.

### 1.5.1 Groundwater Quality Management Areas

Groundwater quality management areas can have one of four designated phases (i.e., Phase I through Phase IV) based on nitrate contamination concentrations. If concentrations increase in an area enough to meet specified trigger levels, that area is moved to a higher Phase area with increased corresponding management regulations. Areas are triggered by 50 percent of the wells exceeding the trigger for a minimum of two sampling events, a minimum of ten registered wells must be sampled, and the area must be a minimum 9-square miles. The exception is for WHP Areas which can be smaller and may require a larger percentage of wells to be sampled. Based on the June 15, 2018, amended Rules and Regulations, the phases and corresponding groundwater nitrate concentration trigger levels are as follows:

1. **Phase I:** 0 to 8.01 parts per million (ppm)
2. **Phase II:** > 8.01 to 10.01 ppm
3. **Phase III:** > 10.01 to 15 ppm
4. **Phase IV:** > 15 ppm

For all other contaminants, a Phase 2 is triggered at 81% of the MCL, Phase 3 = >100% of the MCL. Currently, the LPNNRD has two Quality Groundwater Management Areas shown in Figure 4 triggered by nitrate concentrations. One is near the Village of Bellwood and is currently in a Phase II level of management. The second is near the cities of Richland/Schuyler area, where Phase III and Phase IV levels of management are in place. Additional nitrogen management, reporting, and educational requirements are required for operators within these areas. In 2024, a Phase IV area was added for exceedance of the Maximum Contaminant Level (MCL) of nitrates and uranium west of Schuyler.

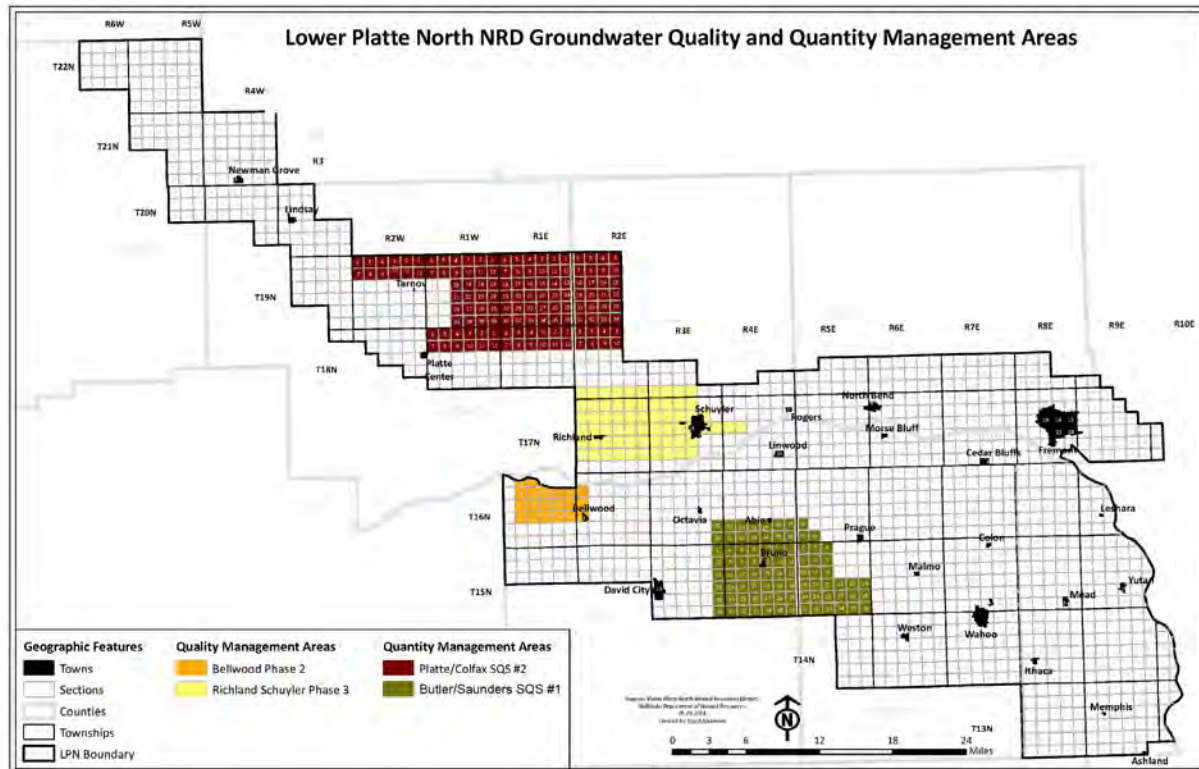


Figure 4: Quality and Special Quantity Sub-areas

### 1.5.2 Special Quantity Sub-Areas

Starting on January 1, 1997, the LPNNRD established two Special Quantity Sub-Areas (SQS) as a result of excessive seasonal declines in water levels that caused well interference. Due to the declines occurring during the summer, they did not qualify under the criteria for Groundwater Quantity Management Areas described below. These are referred to as Butler/Saunders SQS #1 and Platte/Colfax SQS #2. There are no new wells and expansion of irrigated acres are limited to the original allocation in these areas, and several other restrictions apply. The SQS areas are shown on Figure 4 above along with the Quality Management Areas.

### 1.5.3 Groundwater Quantity Management Areas

The Rules and Regulations also allow for the development of Groundwater Quantity Management Areas based on the percentage of water level decline for an unconfined aquifer and the percentage of hydraulic head decline for a confined aquifer. Assessment of the percentage drop is calculated using spring readings of the District’s spring/fall static observation wells over a 3-year period. Over 50 percent of the wells must reach or exceed a predetermined water level percent trigger. A general summary of the quantity triggers is shown below. Currently, the LPNNRD does not have a designated Groundwater Quantity Management Area.

Table 1: Confined and Unconfined Aquifer Triggers

AQUIFER TYPE	TRIGGER %	LEVEL CONTROL
Unconfined	10	I
	15	II
Confined	7	IA
	10	IIA

#### 1.5.4 Groundwater Development Areas

In March 2018, the LPNNRD established Groundwater Limited Development Areas (Figure 5), where restrictions are in place on the development of high-capacity wells and the expansion of irrigated acres. These areas were delineated by the results of NeDNR's Lower Platte Missouri Tributaries Groundwater Model (LPMT)'s Hydrologically Connected Areas (HCAs). These areas have been determined to have a physical hydrologic connection between groundwater and surface water, and the goal is to ensure no further impact to surface water flow occurs as a result of excessive groundwater pumping. These areas are shown in Figure 5, along with the Special Quantity Subareas, which are unrelated to the HCAs.

- **Outside Groundwater Control Area (white):** Up to 75 new acre-feet (AF) per year are allowed through a variance process due annually on August 15.
- **Inside Groundwater Control Area (blue):** Up to 200 new AF per year with a variance deadline of September 15.
- **Restricted Development Area (red):** Was established through a separate study, and there are no new irrigated acres or water uses allowed, but consideration is given to areas within 1 mile of the red area.

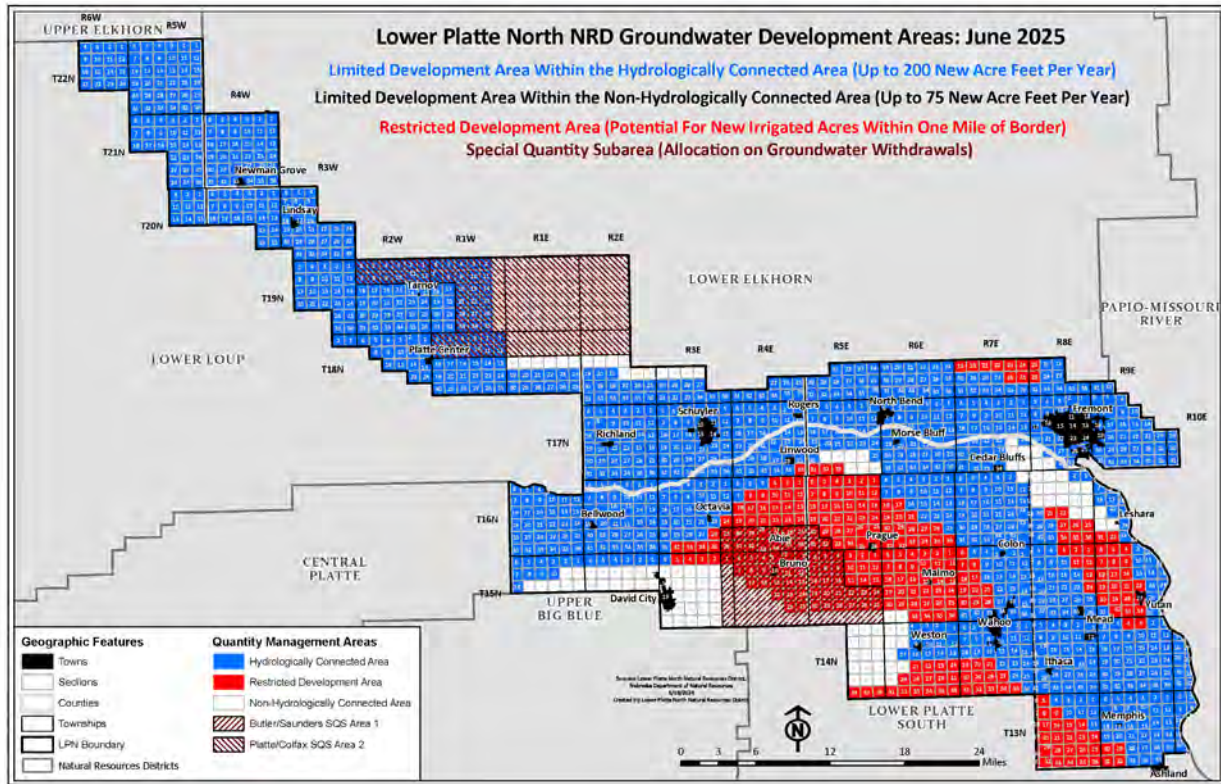


Figure 5: Groundwater Limited Development Areas

## 2 DESCRIPTION OF THE NRD

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### 2.1 GROUNDWATER REGIONS AND PRINCIPAL AQUIFER

The 1995 GWMP subdivides the District into four distinct regions based on hydrogeologic and physiographic characteristics. The regions are described in the LPNNRD Hydrogeologic Evaluation and Subarea Delineation Study (Olsson, 2009) and are shown in Figure 6.

- **Platte River** This area is characterized by fluvial sand and gravel deposits of varying thickness, which are overlain by alluvial silt and clay, and younger loess deposits. Coarser and thicker sands and gravels appear to be present in paleovalley deposits, which sometimes extend into the Uplands Region described below.
- **Shell Creek:** Located in the northwest portion of the District, this region extends from the Platte River to the Sandhills and dissects glacial terrain similar to that of the Uplands Region. The upper reaches include the Ogallala Group.
- **Todd Valley:** This region was formed by the ancestral Platte River, which carved a fluvial valley. This region consists of fluvial sand and gravel deposits capped by loess and overlies the Cretaceous-age Dakota Group bedrock formations. The fluvial deposits typically grade from fine to a progressively coarser-grained sands and gravels with depth. The Todd Valley aquifer is connected to the Platte River alluvial sand and gravel aquifer.
- **Uplands:** This region is characterized by dissected clay-rich glacial till and younger loess deposits with interbedded, discontinuous sand and gravel outwash deposits. In places, the glacial deposits overlie deeper paleovalleys that contain thicker and coarser sands and gravels or are in contact with the underlying Dakota Group. The sandstone units of the Dakota Formation contain brackish to saline water.

Principal Aquifer is the major groundwater reservoir in the District. It refers to the saturated unconsolidated sand and gravel aquifers, including the Ogallala Group, where present.

The following sections provide more insight into the hydrogeologic data and recent assessments, and background of the LPNNRD.

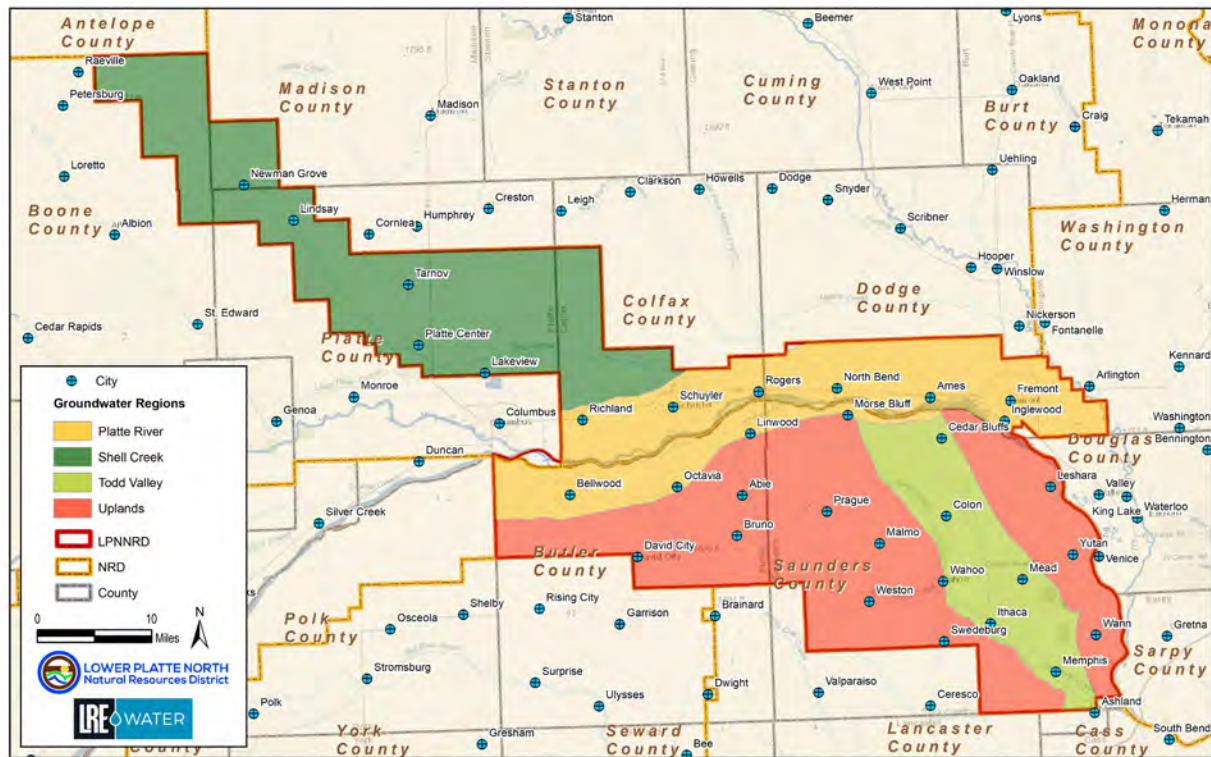


Figure 6: Groundwater Regions of the LPNNRD

## 2.2 HYDROGEOLOGIC DATASETS

Since 2006, the Eastern Nebraska Water Resources Assessment's (ENWRA) work has resulted in vast geologic datasets and creation of hydrogeologic frameworks for six NRDs in eastern Nebraska, including the LPNNRD. The major datasets include airborne electromagnetic (AEM) data, and geologic logs from the NeDNR and University of Nebraska-Lincoln, Conservation Survey Division (UNL-CSD) well and test holes database. These data sets and detailed desktop hydrogeologic assessments completed recently for the District are available to aid in well siting and similar groundwater management actions.

### 2.2.1 Airborne Electromagnetic Survey

AEM is an airborne geophysical survey method that can provide characterization of electrical properties of earth materials from 3 to 10 feet to depths over 1,000 feet. These surveys provide geophysical data quickly and efficiently and when analyzed, can help define aquifer and non-aquifer materials. The AEM surveys have been crucial in the LPNNRD's efforts to help address water quality and quantity challenges.

The LPNNRD's AEM survey datasets and reports from 2009, 2012, 2015, 2016 and 2018 are available on EWRA's projects website (<https://enwra.org/projects>). The AEM flight line locations within the District and adjacent NRDs are shown in Figure 7.

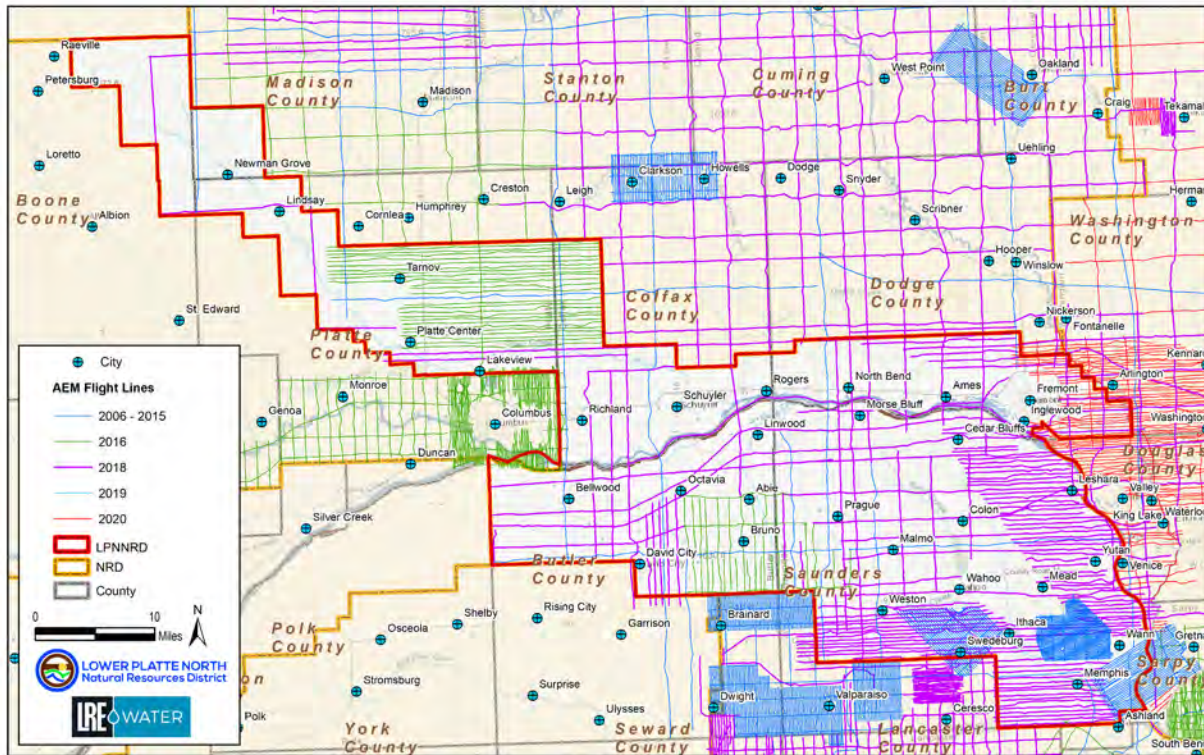


Figure 7: AEM Flights within and near the LPNNRD

### 2.2.2 3D AEM Framework and Hydrogeologic Assessment

In 2022, the LPNNRD utilized the AEM datasets to create a 3D AEM Framework (LRE Water, 2022), in addition to constructing detailed hydrogeologic cross sections from geologic logs. The framework was created using Leapfrog, a 3D geological modeling software program. The program delineated the hydrostratigraphy and hydraulic conductivity zones from the processed AEM data. The framework offers several benefits:

- Provides hydrogeologic information to assist staff in reviewing well permits.
- Enhances understanding of aquifer characteristics, such as recharge areas and water-bearing layers.
- Facilitates vulnerability assessments and identifies areas needing best management practices.
- Better defines hydrologically connected surface and groundwater.
- Improves collaboration with neighboring NRDs and NeDNR.
- Creates a MODFLOW grid, including layers, cells, and hydraulic conductivity zones for numerical groundwater flow modeling.

An example of a Leapfrog Works model output is shown in Figure 8 where higher resistivities are shown as brighter colors and are representative of sand and gravel. The darker colors represent low resistivity and represent clay, till, and losses. The bedrock surface is shown as a black line.

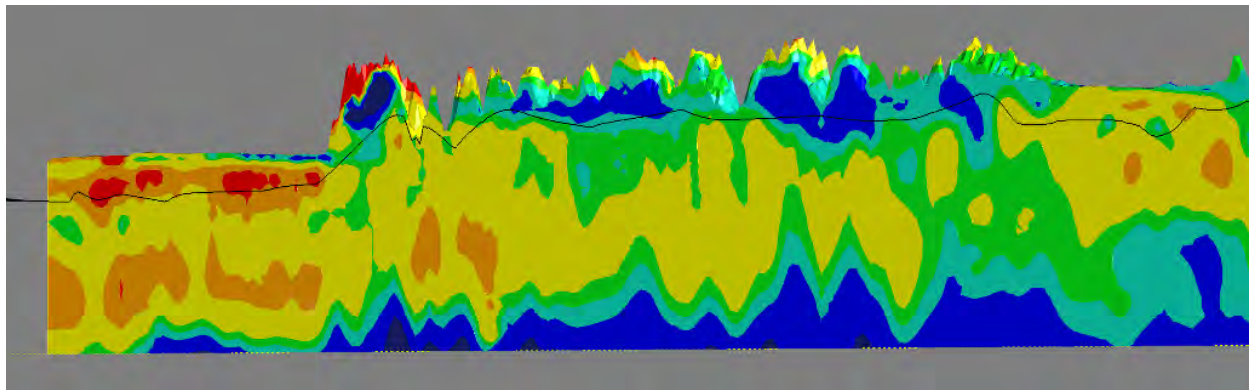


Figure 8: 3D Leapfrog output in cross section

In 2023, a Hydrogeologic Assessment (Assessment) was completed for the LPNNRD utilizing all available NeDNR well logs UNL-CSD test holes (LRE Water, 2023). In total, 22,500 well logs and 290 test holes were incorporated into the Assessment, which included a 5-mile buffer around the LPNNRD boundary. There was a total of 11,893 wells within the LPNNRD with geologic logs as seen in Figure 79. The Assessment also utilized existing geologic information from the 2022 3D AEM Framework.

In addition to a bedrock surface, the geospatial and hydrogeologic analyses completed on the geologic log data were used to develop 28 hydrogeologic cross sections, and to generate the other hydrogeologic raster surfaces, many of which were utilized to create the maps illustrated below within this plan.

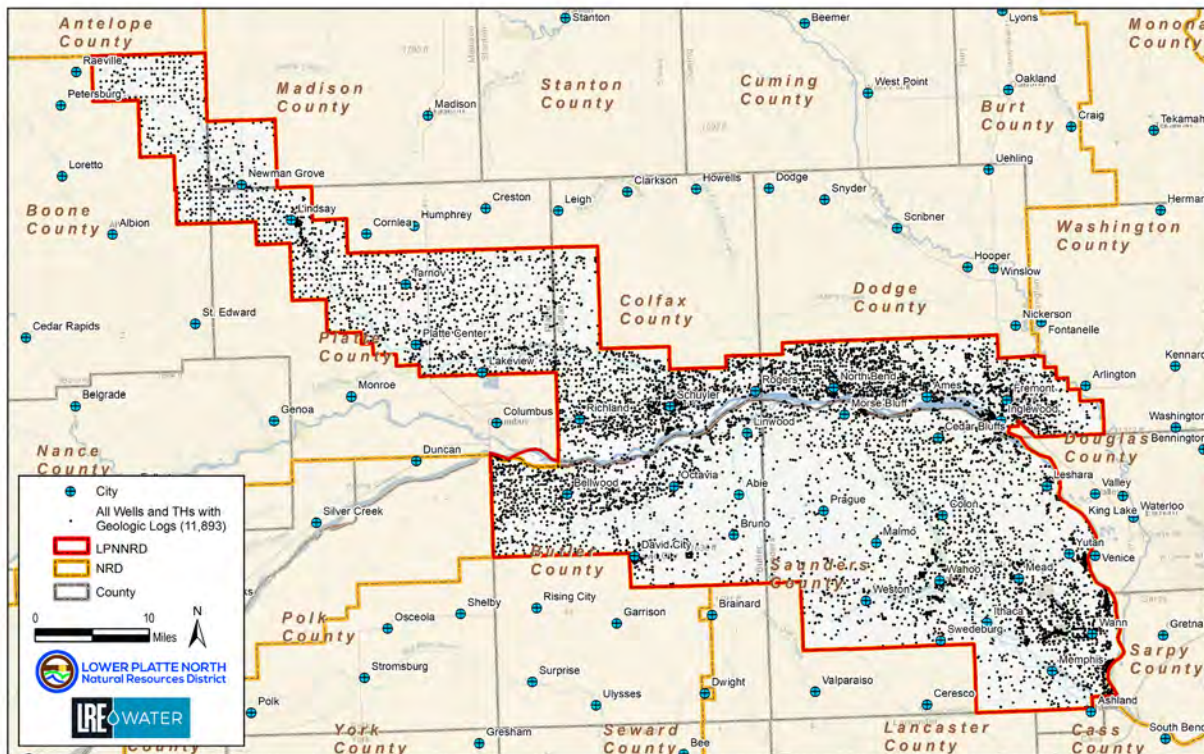


Figure 9: Well and Test Holes with Geologic Logs (LRE Water, 2023)

## 2.3 TOPOGRAPHY

The northwest arm of the District is dominated by upland dissected plains topography and includes portions of Boone and Madison counties, and about two-thirds of Platte County. To the southeast, the central portion of the LPNND includes approximately 125 miles of the Platte River Valley, extending from the cities of Columbus to the west and Ashland to the east. Through the east-central portion of Saunders County, from the cities of North Bend to Ashland, is a broad fertile area 5 to 8 miles wide, referred to as the Todd Valley. West and southwest Saunders County and eastern Butler County, known locally as the 'hill area', is comprised of bluffs along the north edge and rolling hills, ridges, and steep valley slopes south of the Platte River Valley. A map of the topography, derived from a Digital Elevation Model (LRE Water, 2023), is shown in Figure 10.

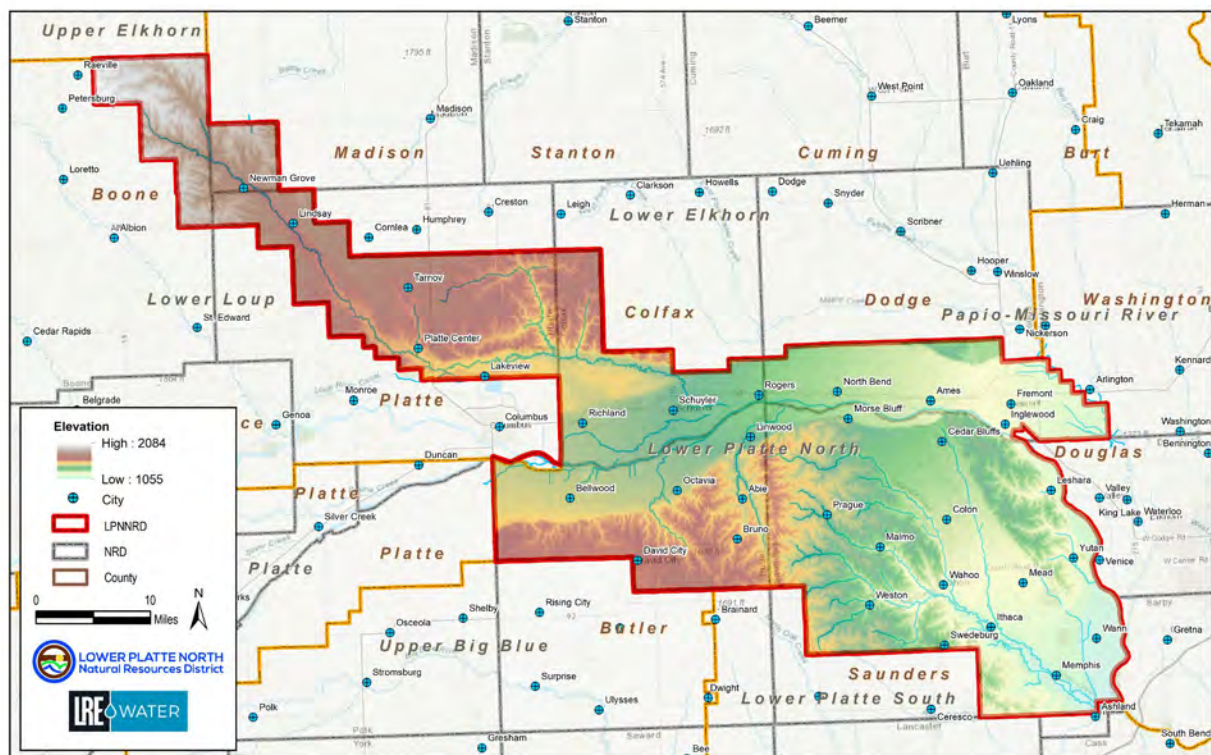


Figure 10: Topography of the LPNND

## 2.4 SOILS

Soils in the uplands of Butler and Saunders counties consist primarily of clays and silty clays to silty clay loams somewhat similar to the Sharpsburg and Sharpsburg-Pawnee association. Primary soils in the upland areas are eroded to a point where they no longer exist, and landowners are now farming in the "B" horizon. This has implications for surface and groundwater quality. The permeability of these soils is less than 1.0 inch per hour on slopes that range from gentle to 20 percent. Recharge rates are quite low and recharge is principally limited to perched aquifers. These soils are loess type soils with some intermixed glacial till areas. The drainage pattern and flood plain configuration of Wahoo Creek is primarily composed of Kennebec soils of silty clay loam ranging from moderate to poorly drained (HWS, 1995).

The western portion of the Platte River corridor is comprised of Acadia-Platte alluvial fine sands underlain by sands and gravels. The eastern portion of the corridor is practically the same, however, depth to water in the eastern area is greater. This primary water line, where groundwater is most significantly present within the Platte River corridor, is bounded on the north by poorly drained Gibbon-Luton silty and clayey soils. Areas to the south and a few areas along the western end of the Platte River corridor contain silty soils that are well drained and of loess origin (HWS, 1995).

The northwest corner of the District is composed of moderately to well drained silty type soils with permeabilities ranging from 1 to 2 inches per hour above the areas adjacent to Shell Creek. Areas in northeast Platte County have permeability ranges of 1.5 to 5 inches per hour (HWS, 1995).

The general pattern of soil distribution shows that soils of loess origin are found on the uplands with alluvial soils predominant on the bottom lands, as seen in Figure 11. Permeabilities range from practically zero to greater than 10 inches per hour (near Columbus and southeast of Bellwood). The pattern shows that, generally, soils south of the Platte River are less permeable than those of the north side. Soil textures range from fine sands to silty clays.

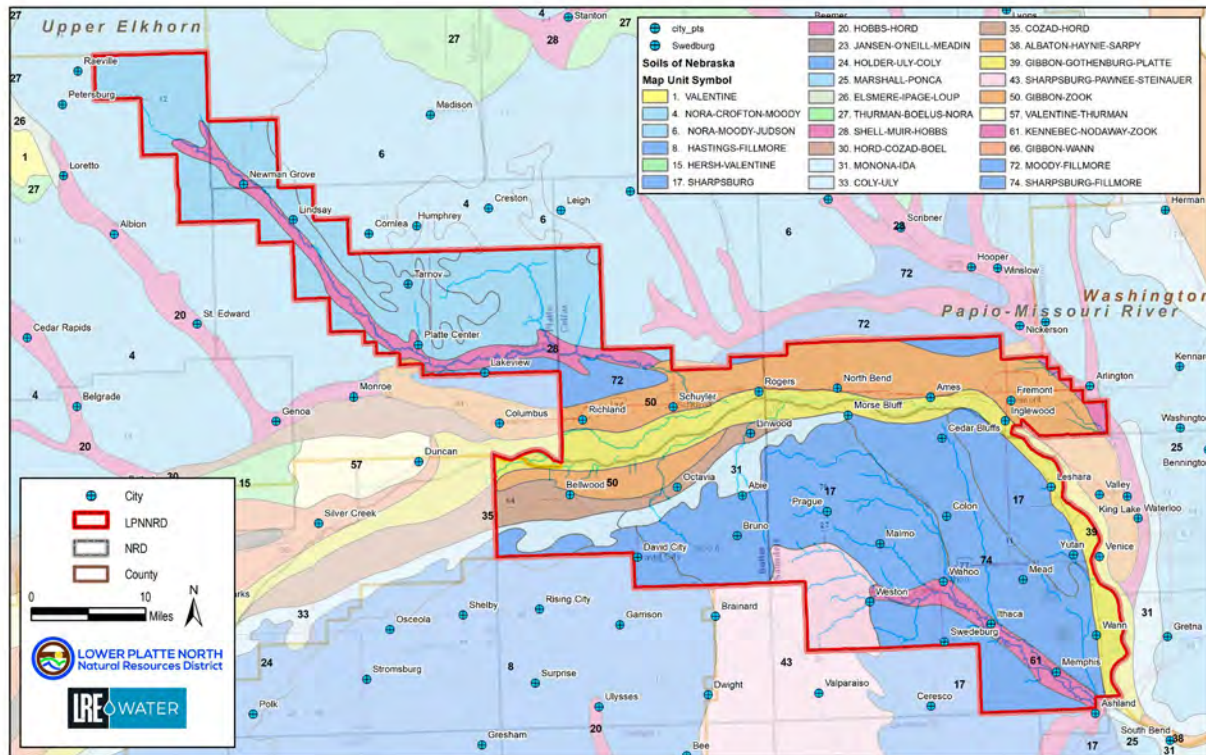


Figure 11: Soil Types

## 2.5 GEOLOGY AND HYDROLOGICAL CHARACTERISTICS

The geology of the District generally consists of Quaternary-age unconsolidated loess, glacial till and outwash, and older buried fluvial deposits overlying bedrock. The five primary bedrock formations are shown in Figure 12. A description of the major unconsolidated and bedrock formations and their potential to transmit water to wells, as described in the previous plan, are listed in Table 2.

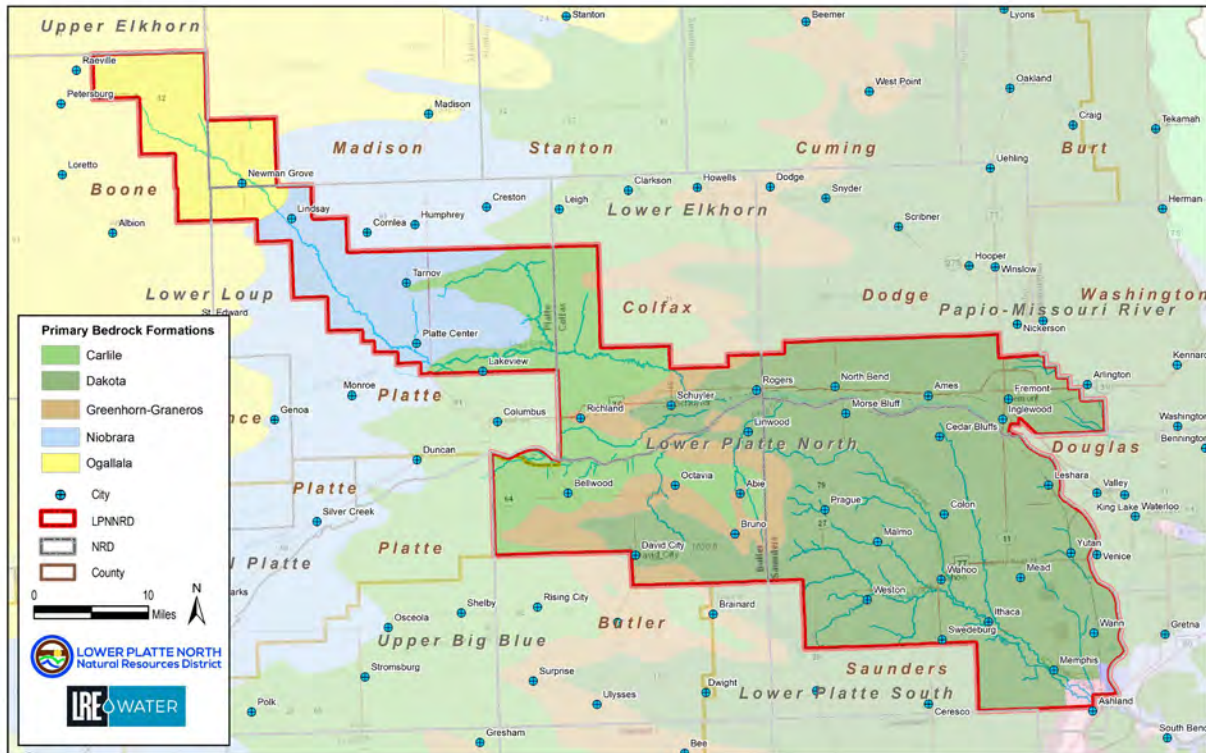


Figure 12: Bedrock Formations

Table 2: Geologic Sequence of Major Formations in LPNDRD

SYSTEM	SERIES	MAJOR STRATIGRAPHIC UNITS	PHYSICAL CHARACTER	WATER SUPPLY
Quaternary	Holocene	Modern Soils	Locally silty, clayey, or sandy.	Transmits locally variable amounts of recharge to the groundwater reservoir.
		Recent valley-fill deposits	Alluvial deposits of gravel, sand, silt, and clay associated with the most recent cycle of erosion	May contribute significant amounts of water to wells.

SYSTEM	SERIES	MAJOR STRATIGRAPHIC UNITS	PHYSICAL CHARACTER	WATER SUPPLY
	Pleistocene	Loess	Wind-blown silt with lesser amounts of very fine sand and clay.	Transmits recharge to the underlying aquifers. May provide small quantities of water to shallow wells.
		Till	Ice-deposited silty, sandy clay with gravel and larger pebbles and boulders.	Relatively impermeable. Transmits water slowly to buried aquifers. Groundwater may be perched above the till. Sand deposits within the till provide water to low-capacity wells.
		Glacial outwash and other ancient valley-fill deposits	Alluvial deposits of gravel, sand, silt, and clay associated with ancient erosional and depositional cycles.	Contributes water to wells in generally large amounts, stream-deposited sand and gravel constitute the major aquifers and yields to high-capacity wells.
Tertiary	Pliocene(?)	Ancient valley-fill deposits	Mostly unconsolidated silt. May blanket Cretaceous bedrock at base and on side slopes of paleo-valleys.	Generally, too fine textured to yield water to wells.
	Miocene	Ogallala	Poorly sorted clay, silt, sand, and gravel generally uncemented to slightly cemented.	The Ogallala constitutes a major aquifer in western portion of LPNRD. Yields to large-capacity wells.
Cretaceous	Upper Cretaceous	Niobrara	Chalk	May supply water to wells where fractures exist or are saturated.
		Carlile	Shale	Not known to supply water to wells
		Greenhorn	Limestone	
		Graneros	Shale	
	Lower Cretaceous	Dakota	Sandstone and shale	Constitutes a significant aquifer in the eastern part, potentially yields and water quality are locally variable.

Source: HWS, 1995

## 2.6 TOTAL SATURATED SAND

The total thickness of saturated sand is an indicator that can be used to qualitatively evaluate the relative potential yield from an aquifer or aquifers. The total saturated sand in the District, shown in Figure 13 (LRE, 2023), was created using water level and geologic data from NeDNR well logs and UNL-CSD test holes logs. Figure 13 was created by reviewing only the available geologic logs that

encountered bedrock from the NeDNR and UNL CSD datasets. The thicker aquifers are present in the northwest and Todd Valley portions of the District, and generally become thinner in the central portion and beyond Todd Valley.

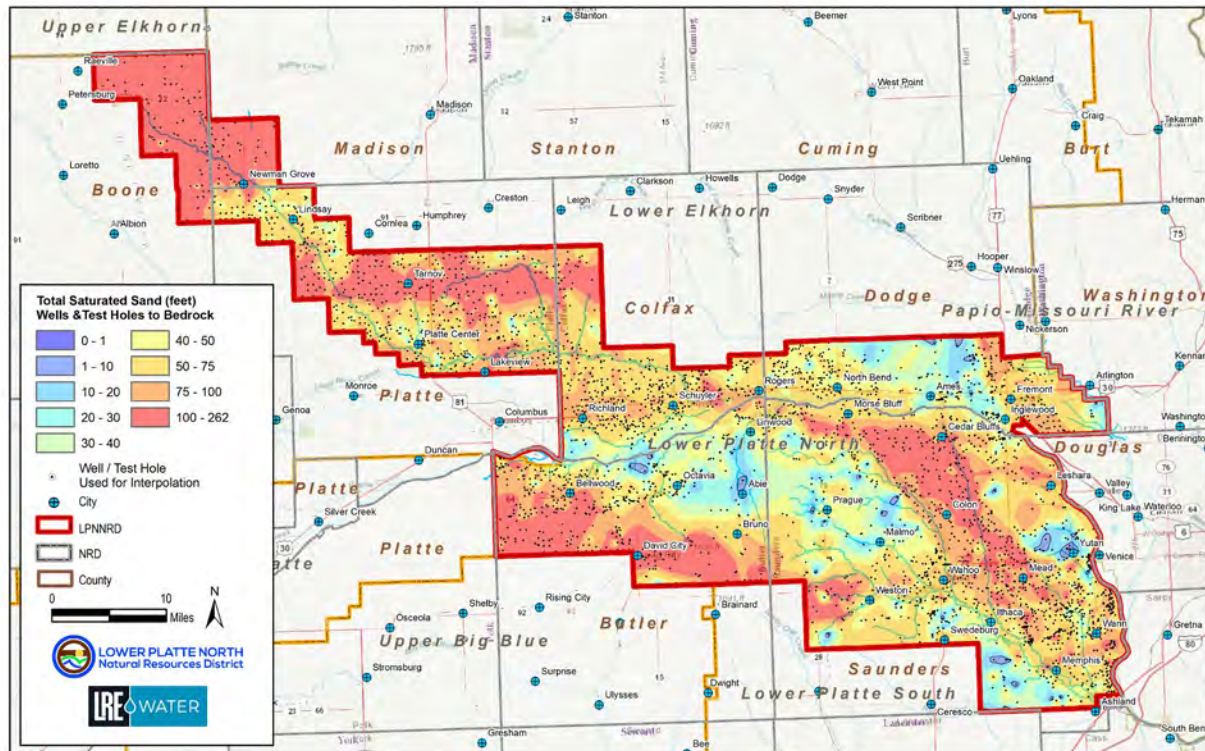


Figure 13: Total Saturated Sand, Well and Test Holes

## 2.7 CONFINED VS. UNCONFINED AQUIFERS

A confined aquifer is a formation below the land surface that is saturated with water and has impermeable layers above and below it causing it to be under pressure. As a result, when a confined aquifer is penetrated by a well, the water will rise above the top of the aquifer in the well. Artesian wells are a result of confined aquifers. In a confined aquifer, water level declines represent a reduction of artesian head, not saturated thickness.

A management strategy for a confined aquifer is to avoid pumping a confined aquifer to levels where it unnaturally transitions to unconfined conditions. The primary risk of this is decreasing the aquifer's pore pressure, which can potentially reduce well yields and quality due to changes in water pressure and oxidation. Over pumping can also lead to well interference by reducing the available head in the aquifer, declining water levels, and reduced well yields.

Unconfined aquifers, also referred to as water table aquifers, are present where the upper water surface (water table) is equal to atmospheric pressure. In an unconfined aquifer, water level changes (rise and decline) affect the saturated thickness.

Management strategies for an unconfined aquifer are to avoid over pumping if the rate of withdrawal exceeds the rate of recharge. In addition, pumping activities can draw in pollutants, potentially

contaminating the water source, and excessive pumping can lead to reduced saturated thickness and well yields, reduced water levels in nearby surface waters if hydraulically connected, and the potential for well interference with other users.

Differences in static (i.e., non-pumping) groundwater levels measured in adjacent wells could be caused by wells being screened at different depths and/or in different aquifers.

Knowing whether an aquifer is confined or unconfined is important for effective groundwater management in Nebraska for several reasons:

1. **Water Availability:** Unconfined aquifers, also known as water table aquifers, are more influenced by surface conditions and can be more susceptible to droughts. Confined aquifers, under pressure, provide a more stable water supply.
2. **Recharge Rates:** Unconfined aquifers recharge more quickly due to their proximity to the surface and direct receipt of precipitation. Confined aquifers recharge more slowly due to impermeable layers above them.
3. **Water Quality:** Unconfined aquifers are more vulnerable to surface contamination from activities like agriculture and industry, while confined aquifers are generally better protected. Well construction issues will increase the vulnerability.
4. **Management Strategies:** Different practices are required for managing confined and unconfined aquifers. Unconfined aquifer management focuses on protecting recharge areas and controlling surface contamination, while confined aquifer management involves monitoring pressure levels and ensuring sustainable withdrawal rates. Pressure levels can be monitored using a piezometer to measure water level, known as the piezometric head. The pressure is calculated at a specific depth using a formula that includes the density of water, acceleration due to gravity, and height of the water column above the point of measurement.
5. **Hydraulic Properties:** The hydraulic properties, such as transmissivity and storativity, differ between confined and unconfined aquifers, affecting water movement and extraction.

By understanding the differences in aquifer types, the staff and Board can develop more effective strategies to promote sustainable water use and protect water quality by allocating resources based on specific needs. Figure 14 (LRE, 2023) illustrates the distribution of confined and unconfined aquifers. In certain areas, aquifers may transition from unconfined to confined due to fluctuations in water levels, with transitional zones defined as areas experiencing water level changes of approximately  $\pm 10$  feet. For the purposes of the GWMP, all transitional zones are classified as unconfined. Figure 15 provides an example of a transitional zone where over pumping has resulted in a shift from confined to unconfined conditions.

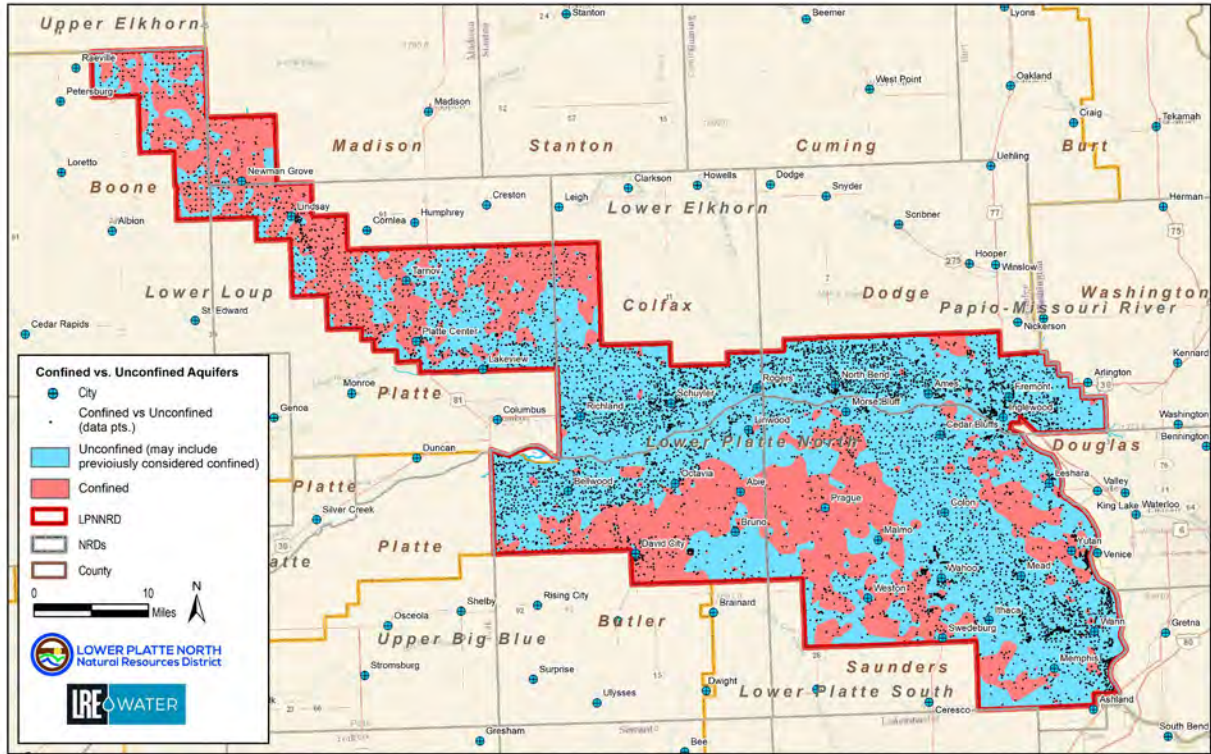


Figure 14: Confined vs. Unconfined Aquifers

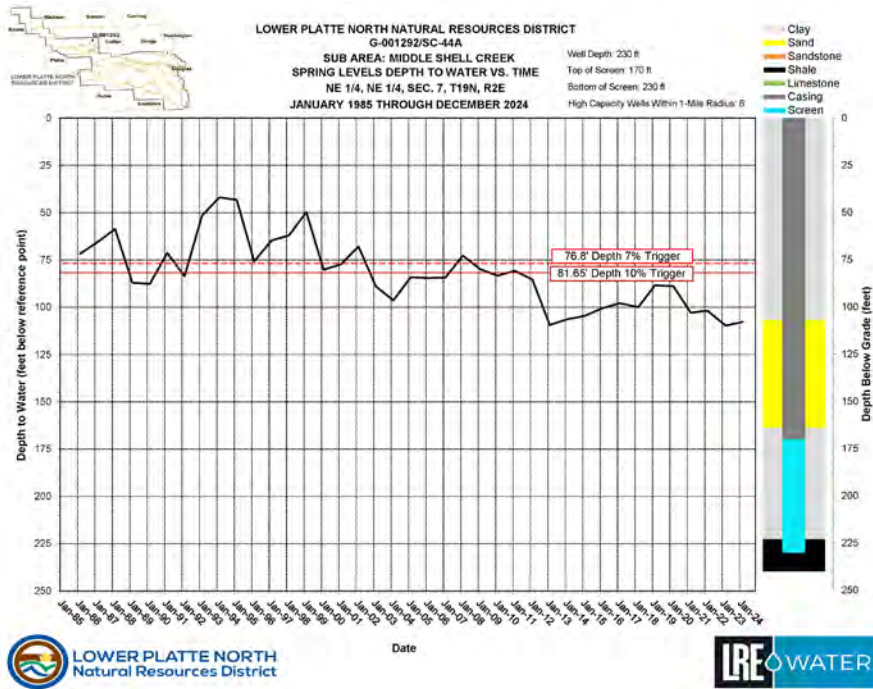


Figure 15: Hydrograph of Transitional Aquifer Type

## 2.8 TRANSMISSIVITY

Transmissivity is perhaps the one hydrologic parameter which best describes the aquifer and its potential for use and withdrawal. Transmissivity is the rate which quantifies the ability of an aquifer to transmit water and is dependent on saturated thickness and permeability.

Figure 16 shows the transmissivity of the Principal Aquifer for the LPNNRD based upon the Assessment (LRE Water, 2023). Areas with transmissivity less than 10,000 gallons per day per foot are not considered optimal areas for high-capacity wells, which are hatched.

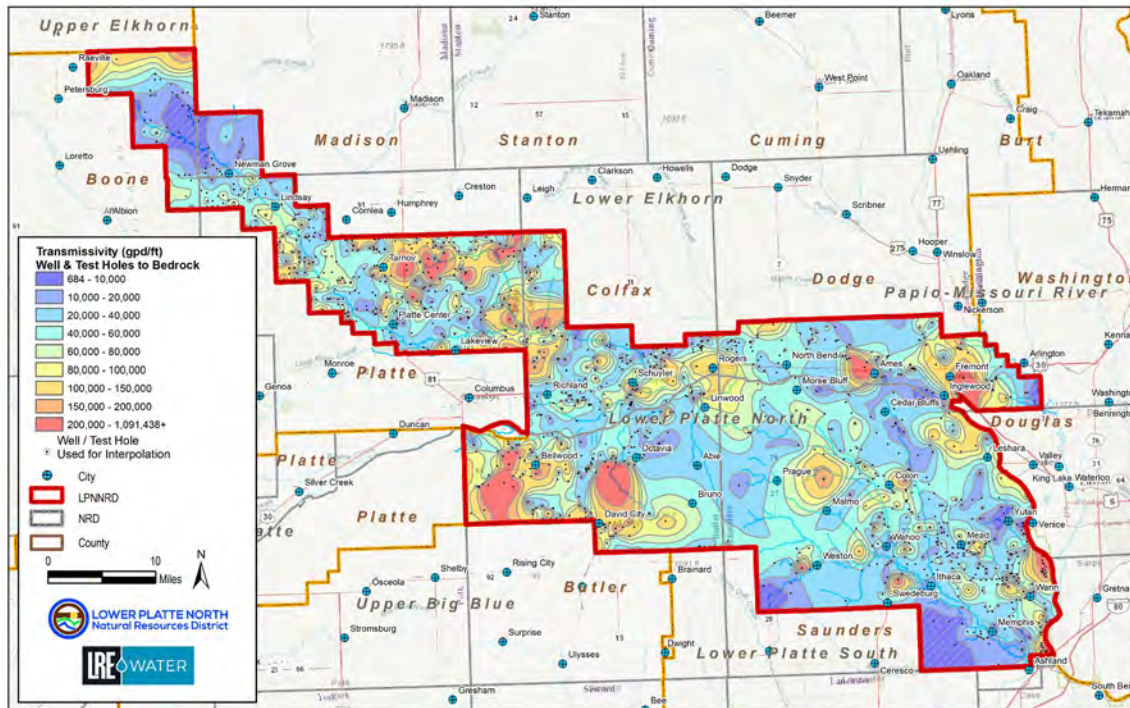


Figure 16: Aquifer Transmissivity

## 2.9 CLIMATE AND PRECIPITATION

Precipitation in the LPNNRD serves as the principal source of water for recharge, except in the Platte River Valley and areas adjacent to the Platte River, where river water contributes to aquifer recharge. Pumping in these areas can further induce additional recharge from the river. Figure 17 demonstrates the mean annual precipitation for the state and the LPNNRD between 1981 and 2020, provided by the National Oceanic and Atmospheric Administration. The average annual water requirement for maximum yield by crops varies from 25 inches for corn to 22 inches for grain sorghum and soybeans (HWS, 1995). The overall average water use for irrigation to supplement precipitation is 5.56 inches district-wide, with the exception of Butler/Saunders SQS#1 (4.65) and Platte/Colfax SQS#2 (4.59) where allocations restrict pumping (LPN, 2024). Moisture needs are more critical at certain times in the crop growing cycle and if moisture is not available, crop production can and does suffer. Detailed evaluations of precipitation versus soil moisture and crop water needs are necessary components in providing a comprehensive management system.

This area of the state receives maximum precipitation in April, May, and June, at which time the highest rate of leaching of contaminants is occurring. The maximum water use period by crops stretches from April through September (crop dependent), with July, August, and September water requirements exceeding available average precipitation. It is apparent that at certain times there is a need for irrigation water to consistently produce high yields.

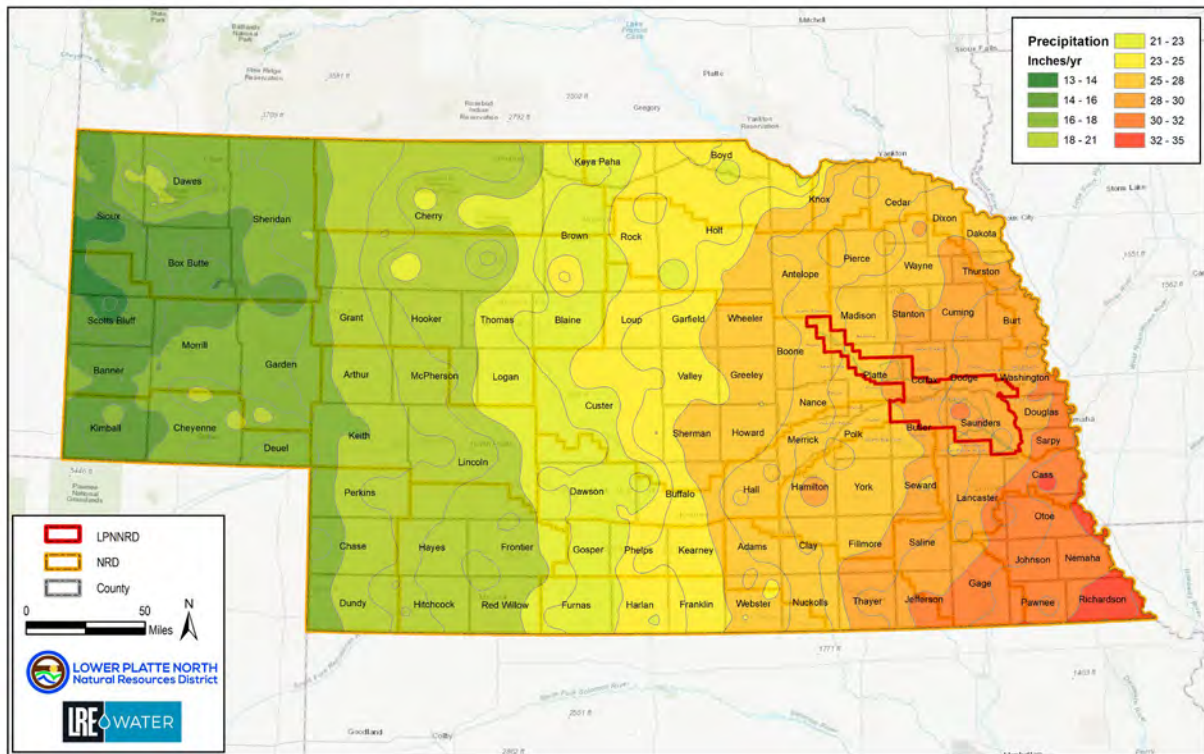


Figure 17: Average Annual Precipitation (1981-2010)

## 2.10 LAND COVER

The vast majority of the District’s 1,030,468 acres (approximately 75 percent) of LPNDRD is classified as row crop by the CropScape – Cropland Data Layer, derived from the U.S. Department of Agriculture’s National Agricultural Statistics Service (NASS). The NASS dataset was used to look at land cover changes since 2009 and categories were combined into seven sub-categories, out of the 37 that are available. As shown in Table 3, over 84,500 acres of grass or pasture have been converted since 2009. The increase in wetlands was not determined but could be a result of the 2019 flood event or potentially a difference in interpretations of data collected in each respective year. A spatial representation of land cover is shown in Figure 18.

Table 3: LPNNRD Land Cover Change (2009 – 2023)

Land Cover	2009	2023	Ac Change	% Change	2009 Coverage	2023 Coverage
Row Crop	716,285.3	769,604.6	53,319.3	7.4%	69.5%	74.7%
Alfalfa/Hay	19,640.1	34,722.4	15,082.3	76.8%	1.9%	3.4%
Developed	55,475.7	58,863.9	3,388.2	6.1%	5.4%	5.7%
Grass/pasture	179,834.1	95,315.4	-84,518.7	-47.0%	17.5%	9.2%
Forest	33,010.9	35,942.7	2,931.8	8.9%	3.2%	3.5%
Open Water	17,666.4	19,698.6	2,032.2	11.5%	1.7%	1.9%
Wetlands	8,556.2	16,320.7	7,764.5	90.7%	0.8%	1.6%

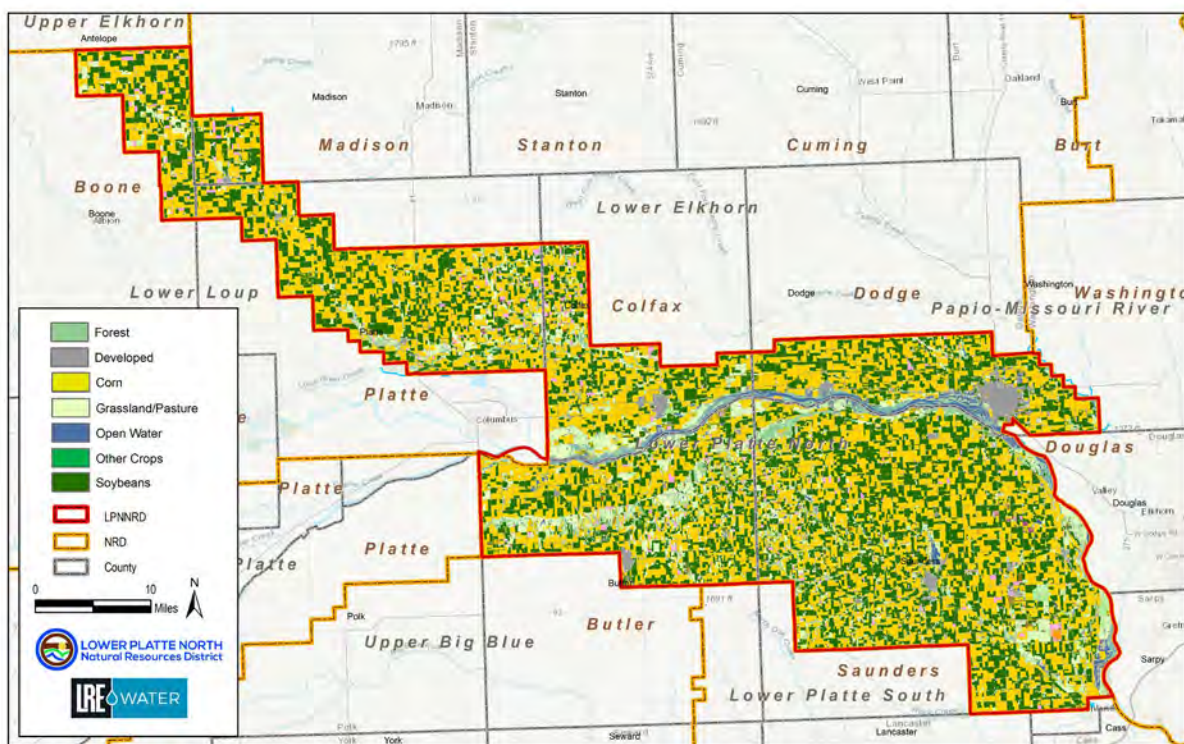


Figure 18: 2023 Land Cover

As the total number of acres harvested increases, the following occurs:

1. The number of acres of permanent cover decrease.
2. The number of acres more susceptible to erosion and runoff increases.
3. The usage of fertilizer, herbicides, pesticides, etc. increases.
4. The potential for ground and surface water degradation increases.
5. The use of high-capacity wells for irrigation increases demand on the aquifers and surface water resources.

## 2.11 POPULATION – ECONOMIC BASE

The economic base for LPNNRD communities varies, but generally includes agriculture, manufacturing, and services. Many of the communities rely heavily on agriculture, including crop production (corn, soybeans) and livestock farming. The City of Fremont, the largest community, has a diverse industrial base with food processing, metal fabrication, and other manufacturing sectors. Tourism and recreation are also available, with multiple state and locally operated lakes open to the public, along with use of the Platte River for open water recreation.

The total population of the LPNNRD is estimated at 65,447 (NARD, 2024) with approximately 49,860 within incorporated communities, or approximately 76 percent. Most of these residents in the rural areas are relying on private drinking water wells. A breakdown of population for the 28 LPNNRD communities is shown in Table 4.

Table 4: Population of Incorporated Places (1990 – 2025)

Village/City	1990	2000	2010	2020	Projected Population 2025
Yutan	1,100	1,216	1,174	1,308	1,350
Weston	310	310	324	335	340
Wahoo	3,700	3,942	4,508	4,509	4,600
Prague	340	346	303	285	290
Morse Bluff	130	134	135	135	140
Memphis	110	106	114	114	120
Mead	580	564	569	617	630
Malmo	120	109	120	120	125
Leshara	115	112	112	112	115
Ithaca	150	168	148	148	150
Colon	140	138	110	110	115
Cedar Bluffs	630	615	610	610	620
Schuyler	5,200	5,371	6,211	6,547	6,700
Rogers	95	95	95	95	100
Richland	75	73	73	73	75
North Bend	1,180	1,213	1,177	1,241	1,300
Inglewood	390	382	325	325	330
Fremont	24,500	25,174	26,397	27,141	27,500
Octavia	125	127	127	127	130
Linwood	88	88	88	88	90
David City	2,550	2,597	2,906	2,995	3,050
Bruno	110	112	99	99	100
Bellwood	440	446	435	435	440
Abie	110	108	69	69	70
Newman Grove	790	797	721	721	730
Tarnov	65	63	46	46	50

Village/City	1990	2000	2010	2020	Projected Population 2025
Platte Center	340	336	336	336	340
Lindsay	320	321	255	255	260
<b>TOTALS</b>	43,803	45,063	47,587	48,996	49,860

Source: Statistical Atlas of the U.S.

Information on industrial activity demonstrates a variety of industrial types present in the District that includes grain processing, alfalfa products, concrete products, equipment manufacturing, fiberglass manufacturing, irrigation equipment manufacturing, sand and gravel mining, steel fabrication, confined animal feeding operations (swine, beef, and chickens), packing plants, among many others. This industrial array also yields a diversity of water needs and waste treatment problems. These needs and problems may have a degrading effect on both ground and surface water quality and quantity if not properly addressed.

## 2.12 SURFACE WATER

The LPNNRD is recognized by its northwest boundary consisting of the Shell Creek watershed extending from the cities of Newman Grove to Schuyler, where it meets the Platte River. Other significant streams include Elm Creek, Loseke Creek, Lost Creek, Skull Creek, and Wahoo Creek and its tributaries including Sand Creek, Silver Creek, and Cottonwood Creek (Figure 19).

Outside of the Platte River, most of the other perennial streams do not support floating or active recreational uses. Flow through this region of the Platte River is a combination of the Upper Platte, the Loup, and the Elkhorn Rivers. Flow in the Platte River can range from no flow to overbank flows. The data (for 51 years up to 1995 as listed in the 1995 GWMP), at the City of Ashland shows the contributions of flow are: Elkhorn River (22 percent), Loup River (48 percent), upper Platte River (28 percent) and tributaries and valley groundwater inflow (2 percent). The annual and seasonal percentages of contribution vary extensively and are dependent upon the level of precipitation or runoff from snowmelt within the areas of influence. As precipitation influences streamflow, dry periods likewise influence streamflow and the manner of loss and gain to groundwater areas is often linked with streamflow volume.

Most of the streams receive baseflow from groundwater seepage to help maintain stream levels during dry periods. However, during heavy rain events, streams become 'flashy' and experience rapid increases in flow and water levels due to surface water runoff.

Surface water rights are managed by NeDNR. As of 2025, there are a total of 154 active surface water diversion points across the LPNNRD with a record of 10,163 acres of irrigated crops utilizing surface water (NeDNR, 2025a).

The Platte River's role in recharging groundwater by induced pumping and during periods of overbank flow within portions the LPNNRD is vital. Wellfields along the Platte River are crucial for supplying water to a significant portion of Nebraska's population, including water supplies for the City of Lincoln Water System (296,000 customers) (City of Lincoln, 2024) and Metropolitan Utilities District (600,000 customers) (MUD, 2024). The importance of this water source, managing the balance between groundwater recharge and surface water flow is essential. This involves monitoring water quality,

managing water withdraws, water rights, and ensuring sustainable practices to maintain the health of the aquifer and the river system.

There are a total of seven stream gages, managed USGS, within the LPNDR, including one in progress. The location and station name for each of the gage stations is shown in Table 6 with locations in Figure 19. Historical stream flow hydrographs can be found in Attachment A. Statistics from the USGS gage stations provide an idea of the volume of water, and variation in flow events, within Shell Creek, Wahoo Creek, and Platte River.

Table 5: LPNDR Steam Gage Information

Station Number	Station Name	General Location
06795500	Shell Creek near Columbus	122nd Ave - 4 miles NE of Lake Babcock
06796000	Platte River at North Bend	State HWY 79 - 0.5 miles S of North Bend
06796500	Platte River near Leshara	State HWY 64 west of Valley
06804000	Wahoo Creek at Ithaca	CRG - 1 mile S of Ithaca
06804700	Wahoo Creek at Ashland	State HWY 63 - 0.5 miles N of Ashland
06801000	Platte River near Ashland	At HWY 6
06795050	Shell Creek near Platte Center	In Progress

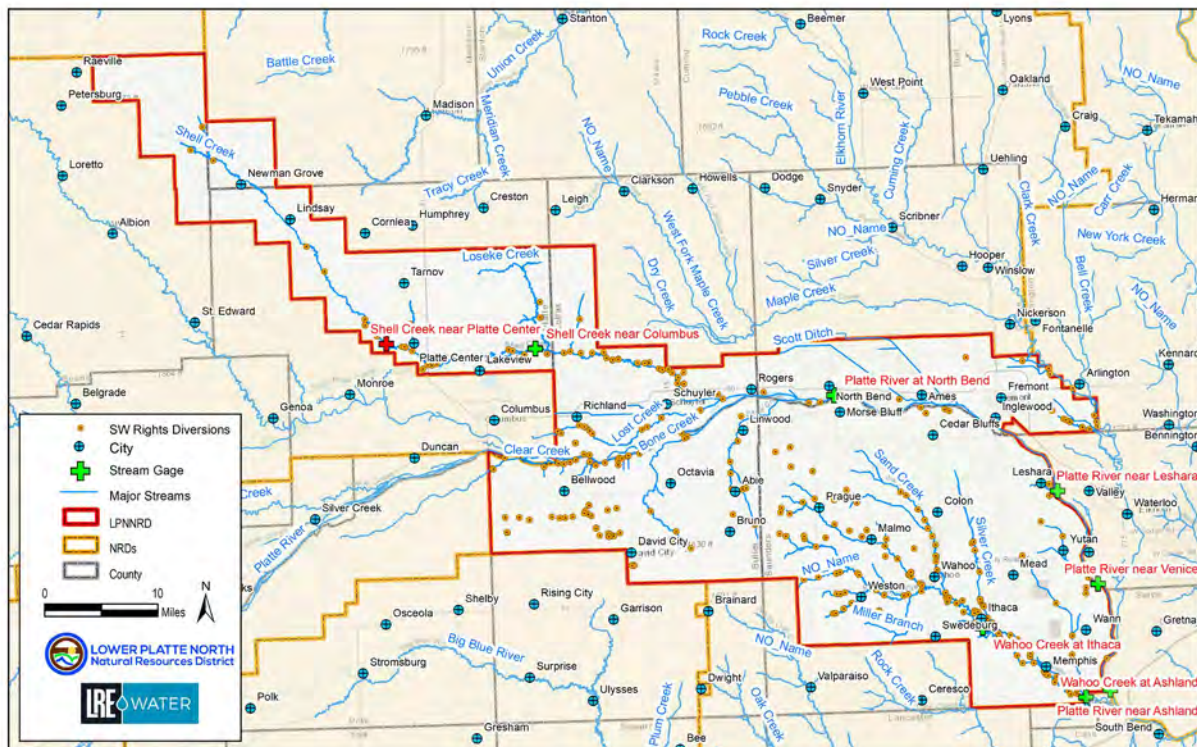


Figure 19: Major River Systems, Stream Gages and Diversion Points

## 2.13 WELLS AND TEST HOLES

The primary volumetric uses of groundwater in the District are for irrigation and municipal water needs, as shown in Figure 19. Groundwater is the principal source of supply for public drinking water systems, with all public water supplies deriving their supply from these sources. The cities of Lincoln, Omaha, and Fremont have extensive wellfields along the Platte River. Although the City of Lincoln is not located in the LPNNRD, a significant portion of its wellfield for public water supply is situated along the Platte River north of the City of Ashland.

The current use rate for the City of Lincoln's wellfield averages 39.4 million gallons per day (mgd) but can reach up to 64 mgd during the summer months (LWS, 2020). This volume, combined with the demand from irrigation and other public and private users within the District, underscores the importance of both the quantity and quality of groundwater for continued and sustained development. While community water use is reported annually as part of the IMP implementation, the development of irrigation wells serves as an indicator of the majority of the aquifer use, as shown in Figure 20.

The UNL-CSD's drilling program and has drilled 6,000 test holes throughout the state since 1930. Geologic material from these sites is preserved at the CSD Geological Sample Repository. This data is maintained by UNL-CSD and made available to the public for research, well siting, aquifer mapping, and much more. There are 151 UNL-CSD test holes within the LPNNRD, and another 136 within 5 miles of the LPNNRD boundary, as shown in Figure 21.

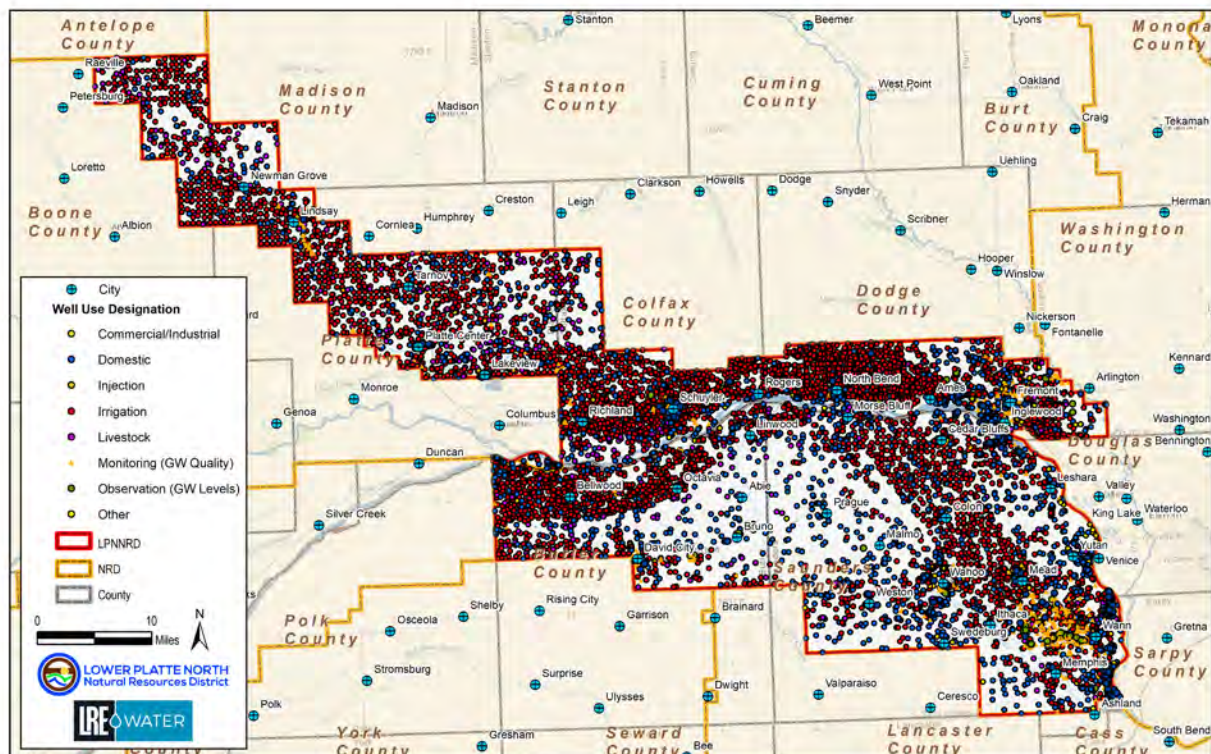


Figure 20: Registered Active Wells in the LPNNRD

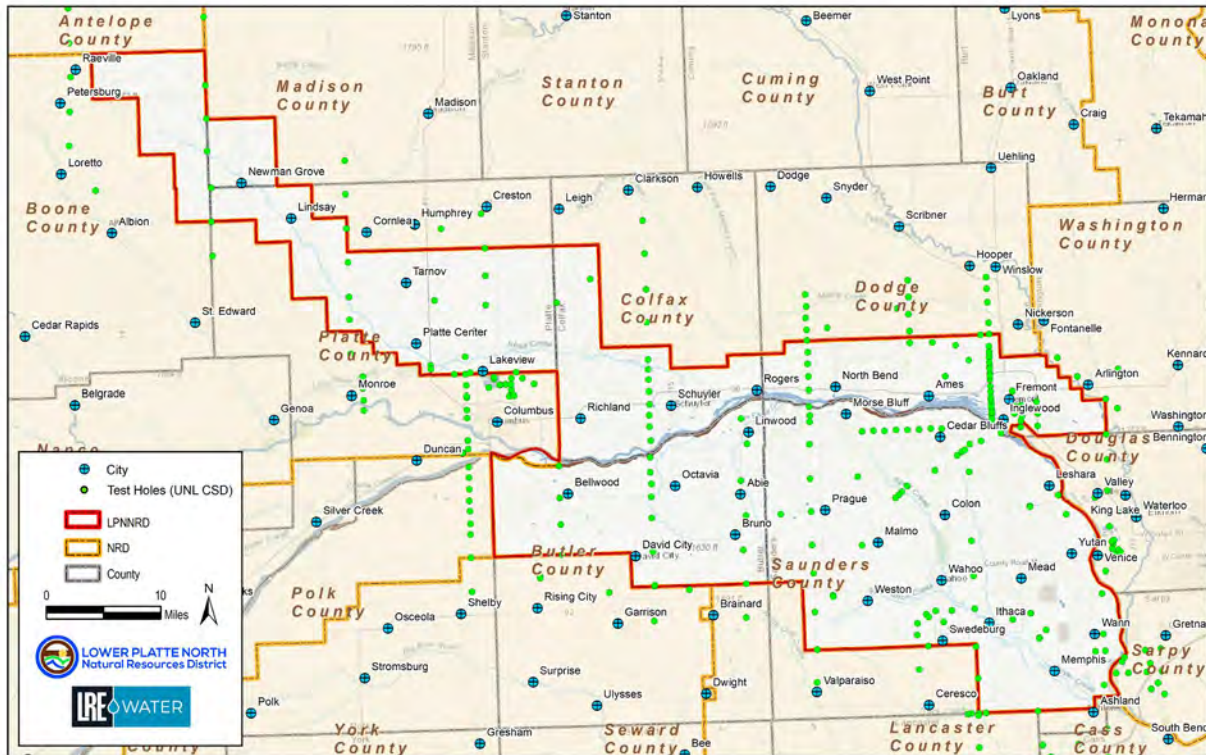


Figure 21: Test Holes within 5-miles of LPNNRD

## 2.14 PARTNERS AND PROGRAMS

The LPNNRD commonly works with a wide-array of partners in managing water resources. A summary of the major partners are listed below:

### U.S. Geologic Survey (USGS)

The Nebraska Water Science Center, a organization of the USGS, commonly partners with NRDs to provide reliable, impartial, and foundational data and scientific analysis to support a wide-variety of groundwater and surface water projects. The USGS is responsible for the maintenance of the five stream gages in the LPNNRD.

### Nebraska Department of Environment and Energy (NDEE)<sup>1</sup>

The NDEE is responsible for protecting and improving human health, the environment, and energy resources. Primary responsibilities include environmental protection of air quality, water quality, land and waste management, emergency response to spills, petroleum remediation, climate change, assistance to agricultural practices, and energy resources.

The NDEE maintains the Nebraska Groundwater Quality Clearinghouse, a one-stop location for a wide-variety of water quality data that is strongly supported by NRDs. The Source Water Protection Program

<sup>1</sup> As of July 1, 2025, NDEE and NeDNR merged and are referred to as the Nebraska Department of Water, Energy, and Environment (NeDWEE)

provides funding and is utilized to support the protection and sustainability of public water systems and the WHP program. Other programs related to groundwater include Underground Injection Control, Onsite Wastewater Compliance, Agricultural Permitting, and the National Pollution Discharge Elimination System. NDEE also provides Section 319 funding including support of projects addressing nitrate leaching to groundwater.

#### Nebraska Department of Natural Resources (NeDNR)<sup>2</sup>

The NeDNR is responsible for surface water, groundwater, floodplain management, dam safety, natural resources planning, water planning and integrated management, storage of natural resources and related data, and administration of State funds (NeDNR, 2025b). The NeDNR is a regular partner with the NRDs and is currently working with the LPNNRD on implementation and updates to the IMP. The NeDNR is responsible for the maintaining the registered well database, registering wells, providing GIS data, and maintaining stream gages. They also administer multiple funding programs.

#### University of Nebraska – Lincoln Extension

The UNL Extension provides education and outreach, and is spearheading a statewide initiative to enhance collaboration among project partners to tackle health concerns related to contamination of water resources.

#### University of Nebraska – Conservation and Survey Division (UNL-CSD)

The UNL-CSD serves as the natural resources component of the School of Natural Resources. Over time, UNL-CSD has partnered with the LPNNRD on a variety of projects aimed at installing dedicated monitoring wells and analyzing AEM data.

#### Eastern Nebraska Water Resources Assessment (ENWRA)

The ENWRA started in 2006 with six NRDs collaborating on the development of a geologic framework and water budget for the previously glaciated portion of eastern Nebraska (ENWRA, 2024). This group has been responsible for the collection of AEM surveys across a large area of Eastern Nebraska, including most of the LPNNRD.

#### Neighboring NRDs

Through efforts such as the Lower Platte River Basin Coalition, the LPNNRD regularly collaborates with neighboring NRDs on regional and local water management efforts. The LPNNRD is also a partner of the Lower Platte River Drought Contingency Plan and is working with NeDNR, LPSNRD and PMRNRD on development of a subregional groundwater model for the Lower Platte River.

#### Cities and Villages

The LPNNRD regularly collaborates with Nebraska cities and villages to manage and protect natural resources effectively including flood management, water quality programs, stormwater management, education outreach, recreation projects, and grant and funding assistance. The LPNNRD will assist

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<sup>2</sup> As of July 1, 2025, NDEE and NeDNR merged and are referred to as the Nebraska Department of Water, Energy, and Environment (NeDWEE)

communities with development of WHP plans, source water protection projects, and engage with communities to site new public water supply wells.

### Counties

The LPNNRD collaborates with Counties on flood reduction and ice jam management, groundwater management, education programs at county fairs, and engagement of special projects on a county-wide basis (SQS areas).

### NARD

The NARD serves as the trade association for Nebraska's 23 NRDs. Some of the basic functions include coordination and support, governmental representation, education and outreach, resource sharing, and policy development.

### Other Organizations

Local agronomists, cooperatives, and other partners support groundwater protection through nutrient management guidance, promotion of BMPs, and outreach that encourages sustainable farming practices across the LPNNRD.

## **2.15 ENVIRONMENTAL EDUCATION AND INFORMATION**

The LPNNRD offers a variety of hands-on activities, classroom presentations, field trip opportunities, career exploration and more for young and old to learn more about the environment and our natural resources. There are two full time staff available to implement environmental education programs. All activities are of no cost to the public. Activities offered include:

- Coffee Lakeside and Monthly Educational Program
- Local and Regional Land Judging Contests
- Adult Environmental Education Opportunities
- Field trips to recreation areas and prairies
- Envirothon Field Day at Clint Johannes Education Building at Lake Wanahoo
- Local and regional range judging contest in partnership with area NRDs
- Spring Conservation Sensation – a natural resources field day for local 5<sup>th</sup> and 6<sup>th</sup> graders
- Test Your Well events in conjunction with local FFA Chapters
- Scholarships for:
  - Students participating in the Shell Creek Watershed monitoring group
  - Nebraska Association for Conservation and Environmental Education (NACEE) – support for teachers and other educators who are interested in science as it relates to natural resources.
  - Ag in the Classroom – incorporation of program materials into the classroom
  - Natural Resources Grant – to assist local high school students monetarily in a natural resources-based project within their community.

### 3 GROUNDWATER QUANTITY

#### 3.1 GROUNDWATER LEVELS AND EXISTING WELLS

Most of the LPNNRD has not seen significant declines according to the UNL-CSD's annual 'Groundwater-Level Changes in Nebraska – Predevelopment (mid-1950s) to Spring 2023' dataset, shown in Figure 22. It is important to note that 2022 and 2023 were significantly dry years for the region. The primary area of concern is within Colfax County, where groundwater levels have declined 30 to 40 feet near the Village of Leigh where the District borders the LENRD. Other areas around the Village Bruno in Butler County also have documented declines. On the other hand, the far northwest corner of the District in the Shell Creek region has seen increasing level up to 30 feet near the Village of Petersburg and toward the Sandhills.

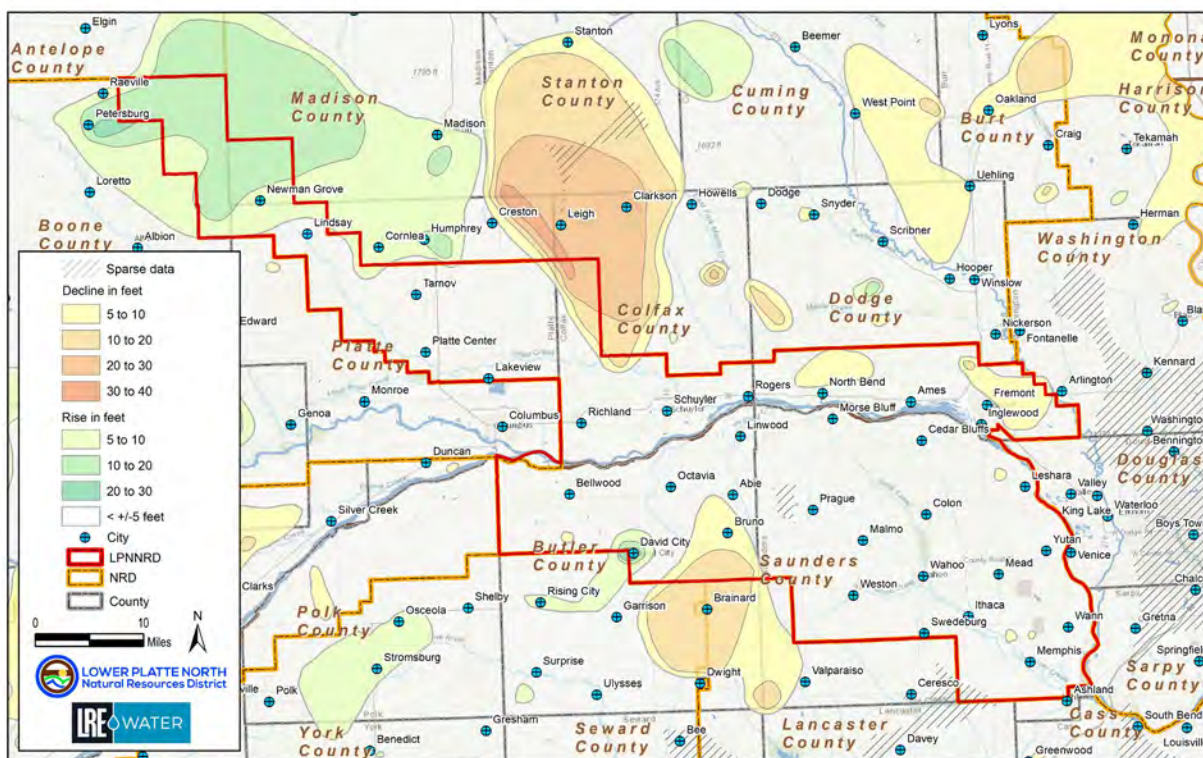


Figure 22: Groundwater-Level Changes in LPNNRD, Predevelopment to Spring 2023

Each spring and fall, LPNNRD staff measure static water levels from approximately 215 wells, most of which are utilized for high-capacity irrigation. The staff also manage a dedicated observation well network with 62 sites, each with a pressure transducer and logger with telemetry, providing real-time data to the staff and public through the District's website. The data from the spring water levels are utilized annually to review changes in water levels and are reviewed against the triggers set for Groundwater Management Phase Areas. Locations of the spring/fall static wells and dedicated network are shown in Figure 23.

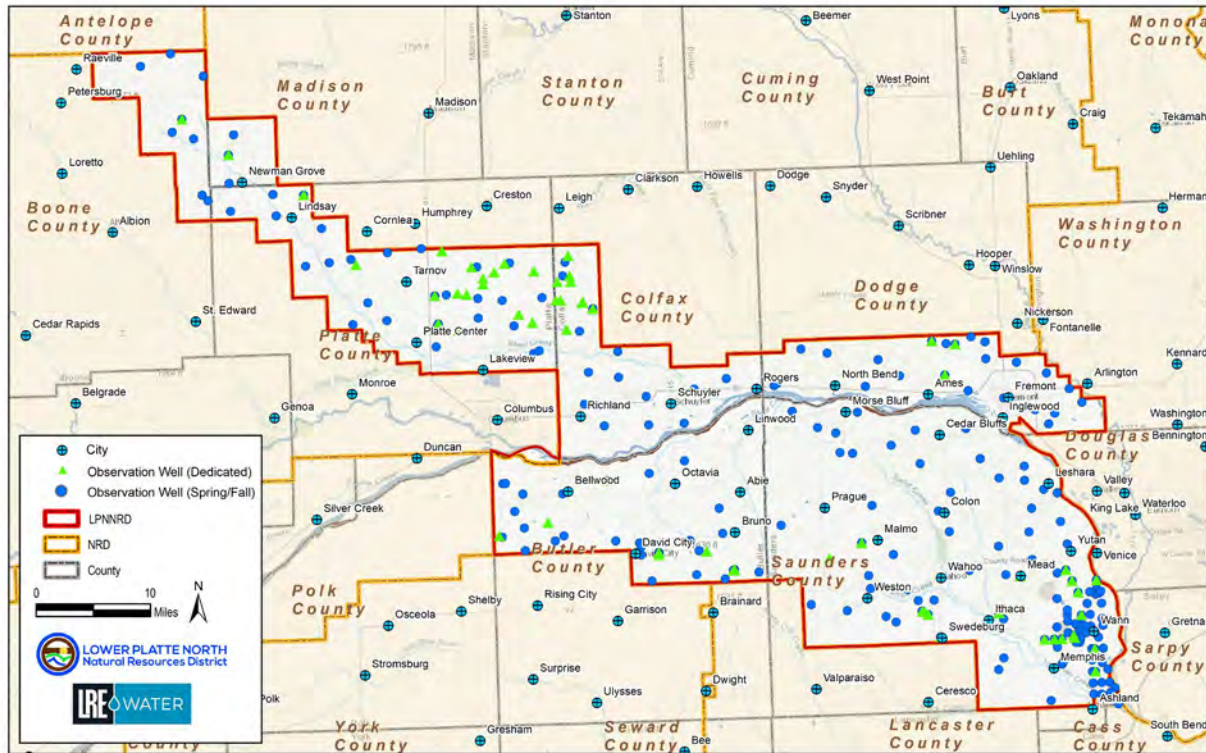


Figure 23: Observation Well Network

The depth to groundwater shown in Figure 24 was produced as part of the Assessment (LRE, 2023) and shows the depth to groundwater, in feet below ground surface. This elevation was determined by subtracting the ground surface elevation shown in Figure 10 from the groundwater surface elevations created during the Assessment. Water elevations were determined by reviewing all available geologic logs and test holes and utilizing static water level data at the time the well was drilled. Depth to water varies from near the surface to 20 feet deep along the Platte River to more than 250 feet below grade in the Shell Creek and Upland regions.

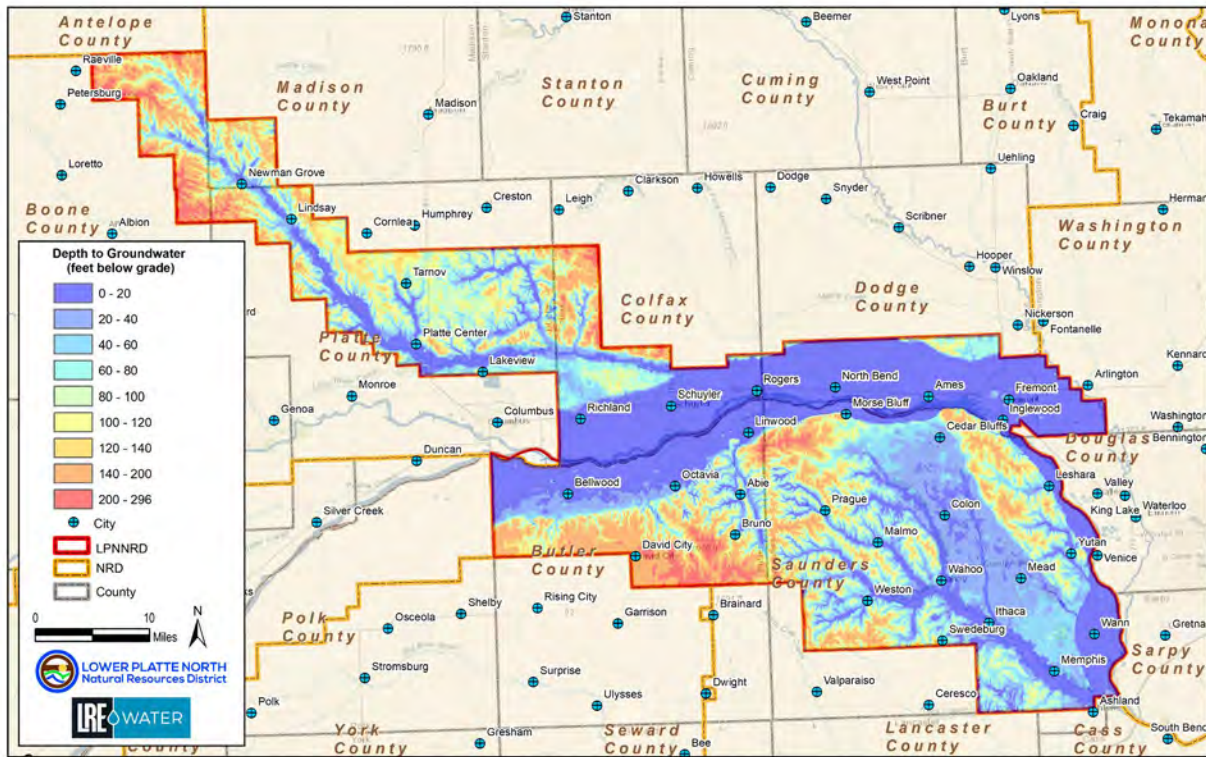


Figure 24: Depth to Groundwater

### 3.1.1 Sub-irrigation Potential

Sub-irrigation occurs naturally when a high groundwater table provides moisture to plant roots. There is significant potential for sub-irrigation within the LPNNRD, primarily due to the Platte River valley. The LPNNRD Rules and Regulations has defined sub-irrigation as, “the natural occurrence of a groundwater table within the root zone of agricultural vegetation, not exceeding ten feet below the surface of the ground”. Currently, the LPNNRD asks producers who plan to introduce new acres utilizing sub-irrigation to contact staff, but the LPNNRD is not currently requiring annual reports from agricultural producers who benefit from sub-irrigation.

The Hydrogeologic Assessment (LRE, 2023) was used to identify areas within the LPNNRD that include all areas that have groundwater within 10 feet or less, which totals over 228,000 acres, or over 22 percent, mostly due to the presence of the Lower Platte River valley. The depth of groundwater was determined by subtracting the groundwater elevation surface from the Digital Elevation Model, as shown in Figure 25.

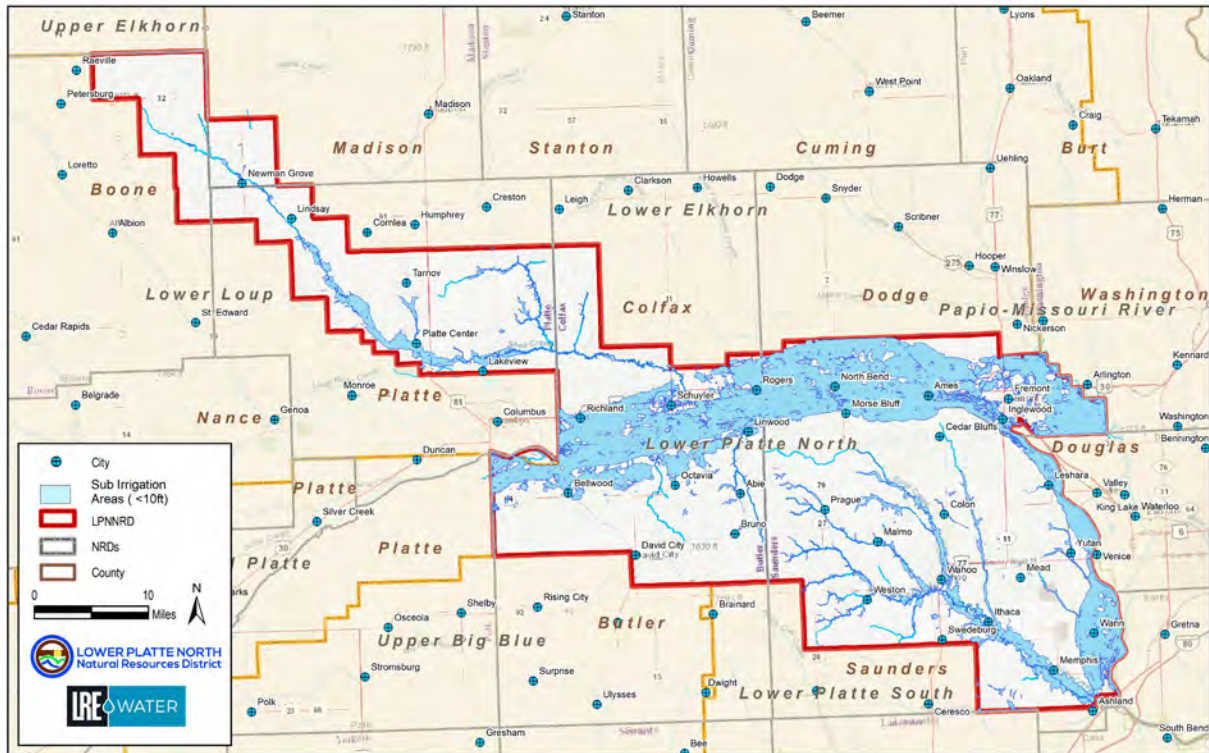


Figure 25: Potential Areas for Sub-irrigation

### 3.2 GROUNDWATER RECHARGE

Local precipitation serves as a major recharge source for aquifers in the LPNDR, complemented by the Platte River. The river receives significant runoff from Rocky Mountain snowmelt and baseflow contributions from major tributaries originating in the Nebraska Sandhills, facilitating natural infiltration. Its sand and gravel substrate enhances percolation into underlying aquifers, helping to sustain groundwater levels in the LPNDR. Additionally, groundwater from western regions, including the Sandhills, migrates eastward through the High Plains Aquifer system, contributing to baseflow in numerous rivers and streams. These hydrologically connected areas—particularly Shell Creek, Platte Valley, and Todd Valley aquifers—have been documented by the NeDNR.

Artificial groundwater recharge potential refers to the capacity of a specific area to effectively increase the amount of water entering an aquifer through human-controlled methods, which would require importing water or retiming water to make a project practical. This process, known as artificial recharge, involved techniques such as:

- **Surface spreading:** Using canals, infiltration basins, or ponds to direct water across the land surface.
- **Injection wells:** Directly injecting water into the subsurface.
- **Irrigation methods:** Recharge from agricultural practices involving furrow or sprinkler systems to enhance infiltration.

Using the GIS data resources available from the Assessment (LRE, 2023), a representation of artificial recharge was created using two key inputs, the depth to groundwater and unsaturated clay thickness above the Principle Aquifer. Using GIS, a qualitative model was created from lowest potential to very high potential, as shown in Figure 26. As expected, the Platte Valley and Todd Valley regions display a high to very high potential, whereas other areas within the Shell Creek and Upland regions tend to be limited to area along active waterways. This map is not necessarily representative of injection well methods. This map also provides a general representation of areas that are more likely to naturally recharge groundwater.

Artificial recharge potential is also closely linked to groundwater risk, as these areas are also prone to infiltration of contaminants, such as nitrate, into the aquifer, potentially degrading water quality. This is especially critical in areas where the recharge water might carry pollutants from agricultural runoff, industrial processes, or urban runoff. Treatment wetlands could be a consideration to improve water quality and provide groundwater recharge in the highly vulnerable locations.

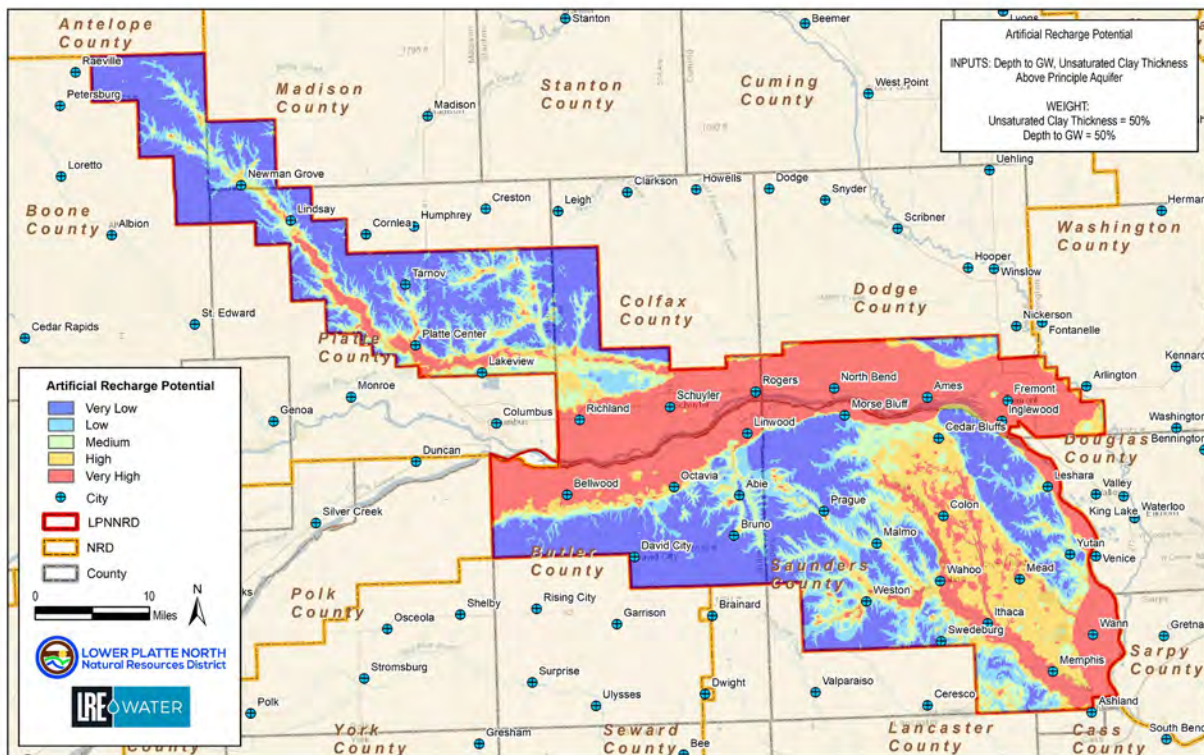


Figure 26: Artificial Recharge Potential

### 3.3 WATER USE AND DEMAND

The LPNNRD reports annually on water demand as part of the LPRCA Basin Water Management Plan Annual Report. This report is available by contacting the LPNNRD office. Highlights of the reporting on water use include the following:

1. Collection of data from over 1,300 flow meters, of which nearly 1,200 are on irrigation systems.
2. Recording of water use within SQS#1 (Bulter/Saunders) and SQS#2 (Platte/Colfax).
3. Continuous updating and tracking of nearly 392,500 certified irrigated acres (as of 2024).
4. Tracking of municipal and industrial groundwater uses.
5. Data collection and monitoring of new groundwater consumptive uses (agricultural, municipal, industrial).
6. Tracking of acres for groundwater consumptive uses (agricultural, municipal, industrial).
7. Creation of the 3-District Model, an ongoing effort with PMRNRD, LPSNRD, and NeDNR to utilize the 3-D AEM Framework created for the participating NRDs.
8. Working with the Coalition to track new stream depletion accounting (depletions and accretions).

The LPNNRD requires public water suppliers to report annual total water use as part of the LPRCA reporting. Table 6 displays the 2023 reported value, outside of Memphis, Bellwood, and Ithaca, which all have 2022 pumping shown. The Village of Bruno is connected to the City of David City and the Village of Colon receive water from the City of Wahoo. Numbers reported by the Lincoln Water System (LWS) and Metropolitan Utilities District (MUD), which serves Omaha and surrounding communities, including only pumping from wellfields located within the LPNNRD, each in eastern Saunders County. Table displays the same information, but without the LWS and MUD wellfields.

*Table 6: Annual Municipal Water Usage All Communities*

Municipality	Gallons Pumped	Percent of Total
Newman Grove	32,205,200	0.15%
North Bend	64,260,000	0.30%
Wahoo*	269,693,307	1.27%
Abie	2,576,600	0.01%
Lindsay	65,992,600	0.31%
Malmo	1,980,000	0.01%
Mead	20,280,316	0.10%
Morse Bluff	2,183,000	0.01%
Platte Center	19,348,203	0.09%
Weston	13,948,027	0.07%
Yutan	49,132,000	0.23%
Fremont	3,654,341,000	17.26%
David City*	163,436,066	0.77%
Schuyler	376,856,000	1.78%
LWS (Lincoln)	5,841,820,110	27.59%
Cedar Bluffs	25,147,232	0.12%

Municipality	Gallons Pumped	Percent of Total
MUD (Omaha)	10,334,804,000	48.80%
Ashland	190,022,000	0.90%
Prague	11,420,000	0.05%
Memphis	9,524,000	0.04%
Bellwood	19,807,000	0.09%
Ithaca	4,000,000	0.02%
Rogers	4,006,000	0.02%
TOTAL	21,176,782,661	100.00%

Table 7: Annual Municipal Water Usage Without LWS and MUD

Municipality	Gallons Pumped	Percent of Total
Newman Grove	32,205,200	0.64%
North Bend	64,260,000	1.29%
Wahoo*	269,693,307	5.39%
Abie	2,576,600	0.05%
Lindsay	5,992,600	1.32%
Malmo	1,980,000	0.04%
Mead	20,280,316	0.41%
Morse Bluff	2,183,000	0.04%
Platte Center	19,348,203	0.39%
Weston	13,948,027	0.28%
Yutan	49,132,000	0.98%
Fremont	3,654,341,000	73.08%
David City*	63,436,066	3.27%
Schuyler	76,856,000	7.54%
Cedar Bluffs	25,147,232	0.50%
Ashland	90,022,000	3.80%
Prague	1,420,000	0.23%
Memphis	9,524,000	0.19%
Bellwood	19,807,000	0.40%
Ithaca	4,000,000	0.08%
Rogers	4,006,000	0.08%
	5,000,158,551	100.00%

### 3.3.1 Registered Wells

One method to generally understand water demand is through an evaluation of registered wells, as shown in Figure 27. In total, there are 13,025 registered wells in the LPNNRD (including PWS wells) in 2024. This total does not account for the likely thousands of unregistered wells constructed before

registration was required for all domestic wells in 1993. Of this total, 9,711 are active, and 47 percent are used for irrigation. Domestic well use is the second most common at 28 percent, as seen in Table 7. The ‘other’ category includes injection, other, and recovery wells. The majority of inactive wells within the database were decommissioned wells.

Table 8: Active Registered Well Distribution

TYPE	ACTIVE	PERCENT
Irrigation	4,611	47%
Domestic	2,716	28%
Livestock	295	3%
Observation	211	2%
Monitoring	1,156	12%
Commercial/Industrial	71	1%
Ground Heat/Heat Pump	170	2%
Public Supply Wells	188	2%
Other	293	3%
TOTAL	9,711	100%

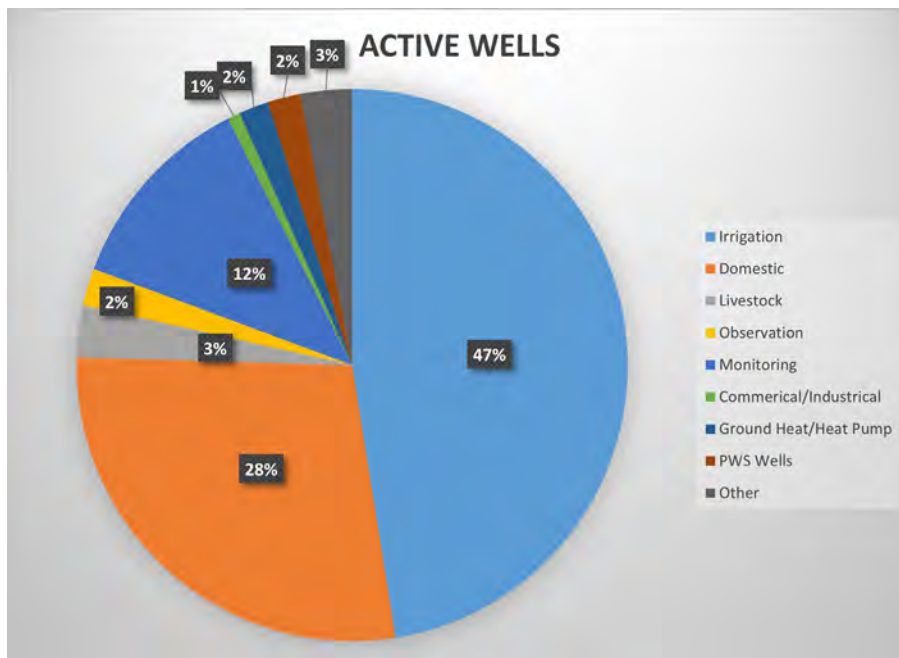


Figure 27: Percent of NeDNR Active Registered Wells

### 3.4 CERTIFIED IRRIGATED ACRES

The LPNNRD began certifying irrigated acres in the spring of 2010 as governed by the Nebraska Groundwater Management and Protection Act, 46-701. This statute provides the legal framework for managing and protection groundwater resources, including the certification of irrigated acres to ensure sustainable water use. The certification process helps catalog all existing irrigated acres and aligns

records from the LPNNRD, County Assessor, and the Farm Service Agency. This process helps ensure that irrigation practices comply with local and state water management regulations and helps manage and allocate water resources more effectively to prevent overuse and ensure sustainability. The certified irrigated acres as of January 2025 are shown in Figure 28.

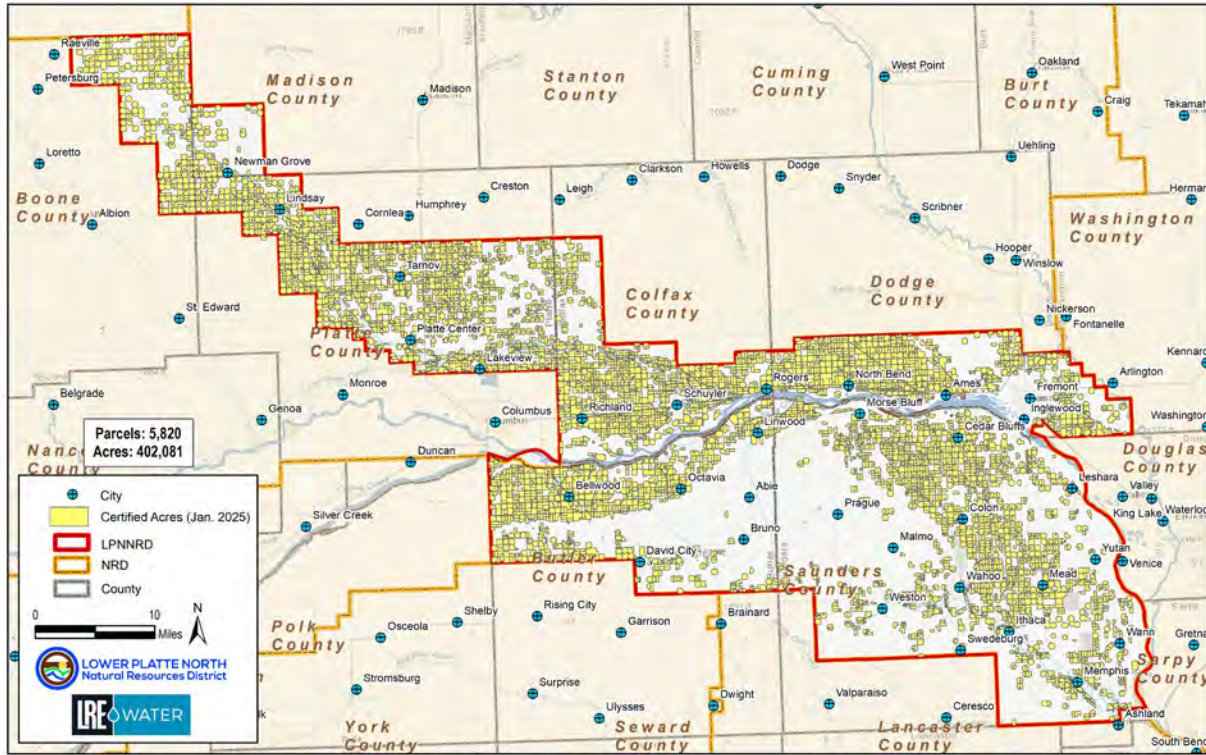


Figure 28: Certified Irrigated Acres in the LPNNRD (2024)

## 4 GROUNDWATER QUALITY

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### 4.1 AQUIFER VULNERABILITY

#### 4.1.1 Nonpoint Source Pollution

Non-point source pollution is generally defined as pollution arising from diffuse sources where no single point of release can be identified. While non-point source pollution can be related to weathering of minerals or soil erosion, human activities are commonly the originator for non-point source groundwater pollution. The diffuse application of fertilizers, pesticides, and herbicides in agricultural operations as well as urban areas account for large areas of land with soils containing these additives. Heavy application of chemicals, coupled with heavy precipitation or irrigation can result in these chemicals leaching to groundwater. Overland flow resulting from runoff can also provide a means of chemical leaching to a groundwater aquifer. In Nebraska, as well as in the LPNNRD, nitrate is the most common non-point source pollutant.

Aquifer vulnerability within the LPNNRD was mapped as part of the Assessment (LRE, 2023) by quantifying the amount of unsaturated clay above the top of the first encountered aquifer at each well or test hole location. The clay thickness values (75% of the model weight) were reclassified into five categories:

- 0 – 5 ft = 5
- 5 – 10 ft = 4
- 10 – 20 ft = 3
- 20 – 40 ft = 2
- > 40 ft = 1

Irrigated row crop agriculture has a high fertilizer input and irrigation accelerates leaching. Therefore, LRE Water included land use (25% weight) and reclassified into two categories with a value of either 1 or 5. For this particular model, irrigated farmland is considered the most vulnerable (a rating of 5), and the remaining land use categories, such as pasture, grassland, alfalfa, and dryland row crop, are considered least vulnerable (ratings of 1). Other potential pollutant sources, such as feedlots, were not included in this model.

The resulting raster layer contains qualitative values that show where the aquifer has more or less potential vulnerability to the downward migration of potential contaminants from activities on the ground surface. This map shows a qualitatively modeled spatial distribution of groundwater vulnerability, from very low to very high, across the LPNNRD Boundary. A “Very Low” potential vulnerability means the aquifer is not likely to receive contaminants from activities on the ground surface. Conversely, a “Very High” potential vulnerability means the aquifer is potentially very susceptible to surface contaminants. The aquifer vulnerability map is shown in Figure 29.

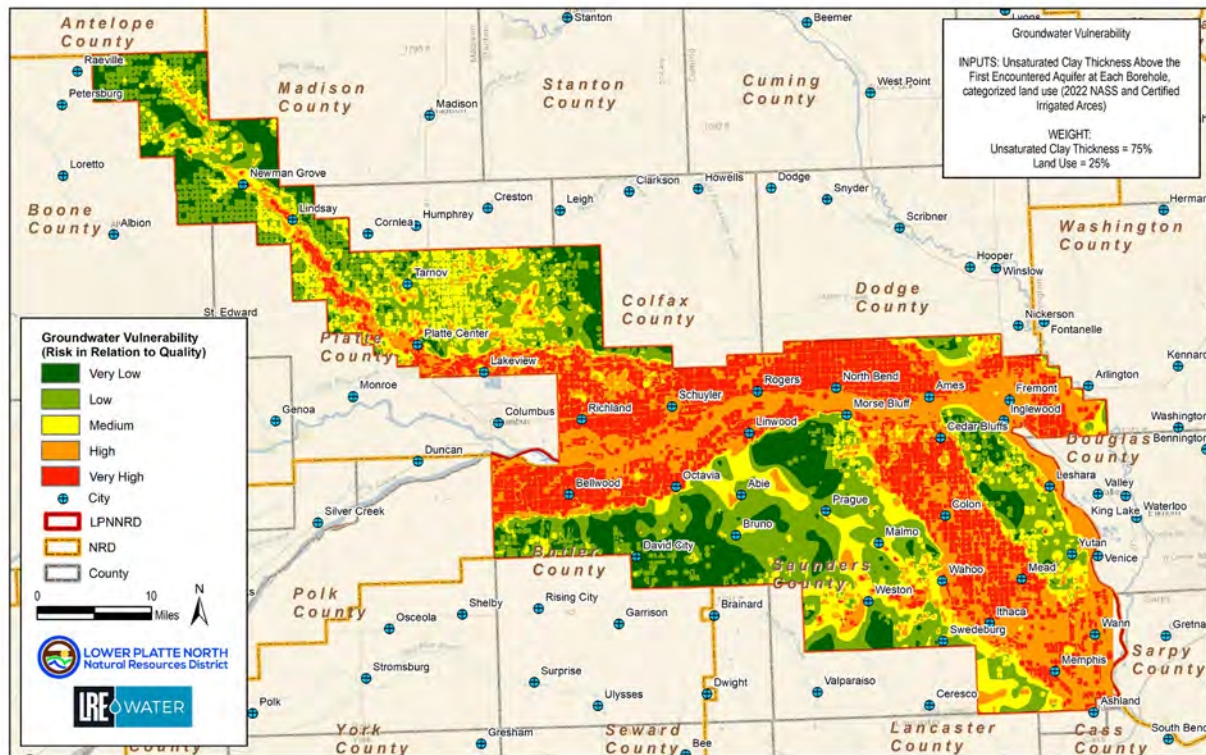


Figure 29: Aquifer Vulnerability

Nitrate can be found in most areas in Nebraska. Sources of nitrate include breakdown of organic material in soils, human or livestock wastes, and chemical fertilizers. When exposed to nitrate levels in excess of the U.S. Environmental Protection Area’s (USEPA) Maximum Contaminant Level (MCL) of 10 mg/L in drinking water, infants younger than about 6 months of age may develop methemoglobinemia or "blue-baby" syndrome. The University of Nebraska Medical Center has also recently begun researching the connection of nitrate in drinking water to various cancers in Nebraska.

To provide an illustration of the most recent nitrate concentrations, data from 2019 through 2023, collected by the LPNDR staff from 537 wells across the District, is shown in Figure 30. Each year, the LPNDR staff collected representative data across the entire District and concentrated sampling in Groundwater Management Areas, as seen within the Richland/Schuyler phase three GWMA. Staff have also been obtaining additional samples throughout the Shell Creek region where concentrations of nitrate have been slowly rising.

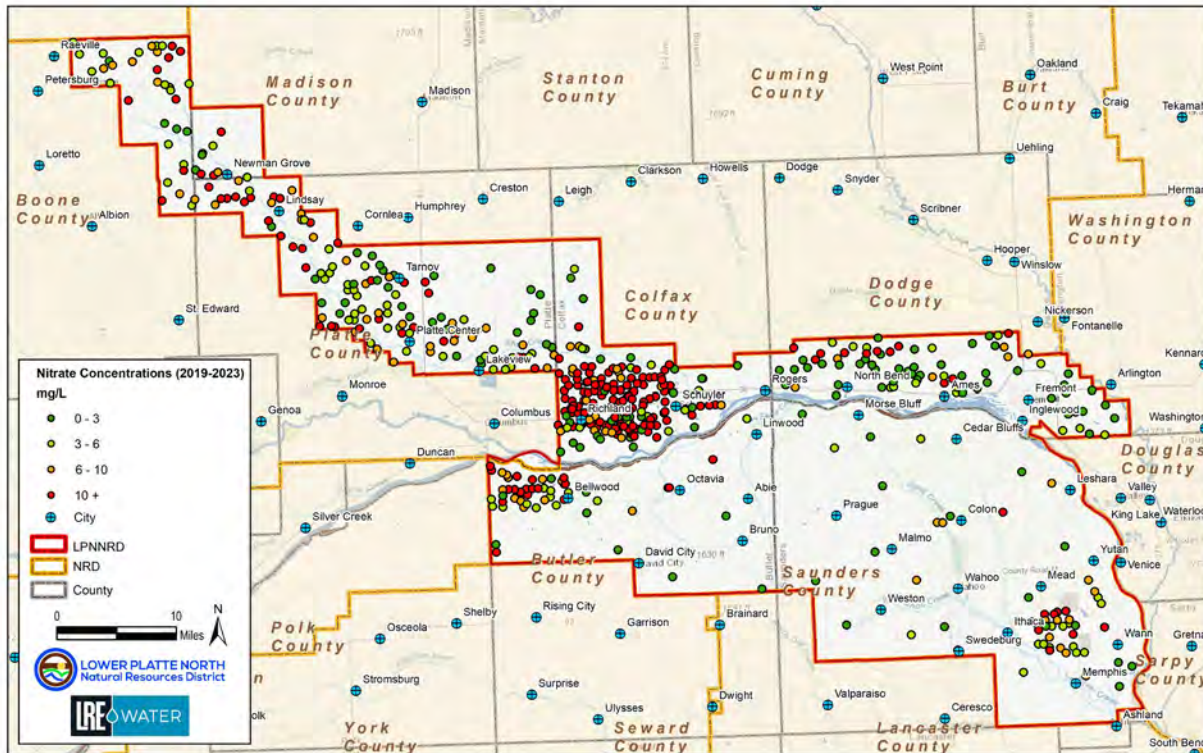


Figure 30: LPNNRD Nitrate Concentrations 2019-2023

#### 4.1.2 Additional Water Quality Monitoring

The LPNNRD conducts a wide variety of additional water quality data, including random sampling of wells for unique circumstances. In the past, sampling included nickel, sodium, selenium, mercury, among others. The LPNNRD can also provide property owners assistance to monitor nitrates and bacteria from private wells.

While nitrate remains the top water quality concern in LPNNRD due to agricultural runoff, other issues like arsenic, iron, uranium, and saltwater intrusion pose growing threats. Arsenic and uranium, both naturally occurring in regional geology, requires focused testing and public outreach—especially in areas like Richland-Schuyler, where uranium levels have exceeded 30 ppb in half of the sampled wells (LPN, 2025). Iron, though often an aesthetic nuisance, can signal redox conditions that mobilize other contaminants. Saltwater intrusion, driven by over-pumping or proximity to saline sources such as the Dakota aquifer, threatens aquifer quality and calls for proactive monitoring and recharge strategies (UNL, 2017). Meanwhile, emerging contaminants like PFAS and pharmaceuticals, though less prevalent, warrant early action through partnerships, education, and hotspot identification. By expanding monitoring, encouraging treatment and management practices, and collaborating with health and research agencies, LPNNRD can address these evolving challenges with foresight and resilience.

Starting in 2001, the Nebraska Legislature passed LB329, which directed the NDEE to report on groundwater quality monitoring in Nebraska (NDEE, 2024). The NRDs are also required (§46-1305) to submit an annual report on water quality to the legislature, which is prepared by NARD annually, and is issued concurrently with NDEE’s annual Nebraska Groundwater Quality Monitoring Report. As a partner, the LPNNRD collects water quality samples from a total of 53 wells district-wide over a four year period,

as shown in Figure 31. This data is part of the Nebraska Groundwater Quality Clearinghouse, which includes an online, interactive database featuring data, maps, well construction details, and statistics (NDEE, 2024). One of the focuses of the statewide network is on pesticides and includes the following:

1. **Metribuzin:** A herbicide used to control broadleaf weeds and grasses.
2. **Methoxychlor:** An insecticide used to control flies, mosquitoes, and other insects.
3. **Hexachlorobenzene:** A fungicide used to treat seeds.
4. **Alachlor:** A herbicide used to control annual grasses and broadleaf weeds.
5. **Butylate:** A herbicide used to control grasses and some broadleaf weeds.
6. **Atrazine:** A herbicide used to prevent pre- and post-emergence broadleaf weeds.
7. **Cyanazine:** A herbicide used to control annual grasses and broadleaf weeds.
8. **Hexachlorocyclopentadiene:** A chemical intermediate used in the production of pesticides.
9. **Propachlor:** A herbicide used to control annual grasses and some broadleaf weeds.
10. **Trifluralin:** A herbicide used to control annual grasses and broadleaf weeds.
11. **Chlorpyrifos:** An insecticide used to control various pests including termites and mosquitoes.
12. **Aldrin:** An insecticide used to control soil pests.
13. **Lindane:** An insecticide used to treat lice and scabies.
14. **Di(2-ethylhexyl)phthalate:** A plasticizer that can be found as a contaminant in the environment.
15. **Dieldrin:** An insecticide used to control soil pests.
16. **Fonofos:** An insecticide used to control soil insects.
17. **Simazine:** A herbicide used to control broadleaf weeds and grasses.
18. **Benzo(a)pyrene:** A polycyclic aromatic hydrocarbon that can be found as a contaminant.
19. **Heptachlor:** An insecticide used to control soil insects.
20. **Heptachlor Epoxide:** A breakdown product of heptachlor.
21. **Total Chlordane:** Refers to the sum of chlordane and its breakdown products.
22. **Endrin:** An insecticide used to control pests on crops.

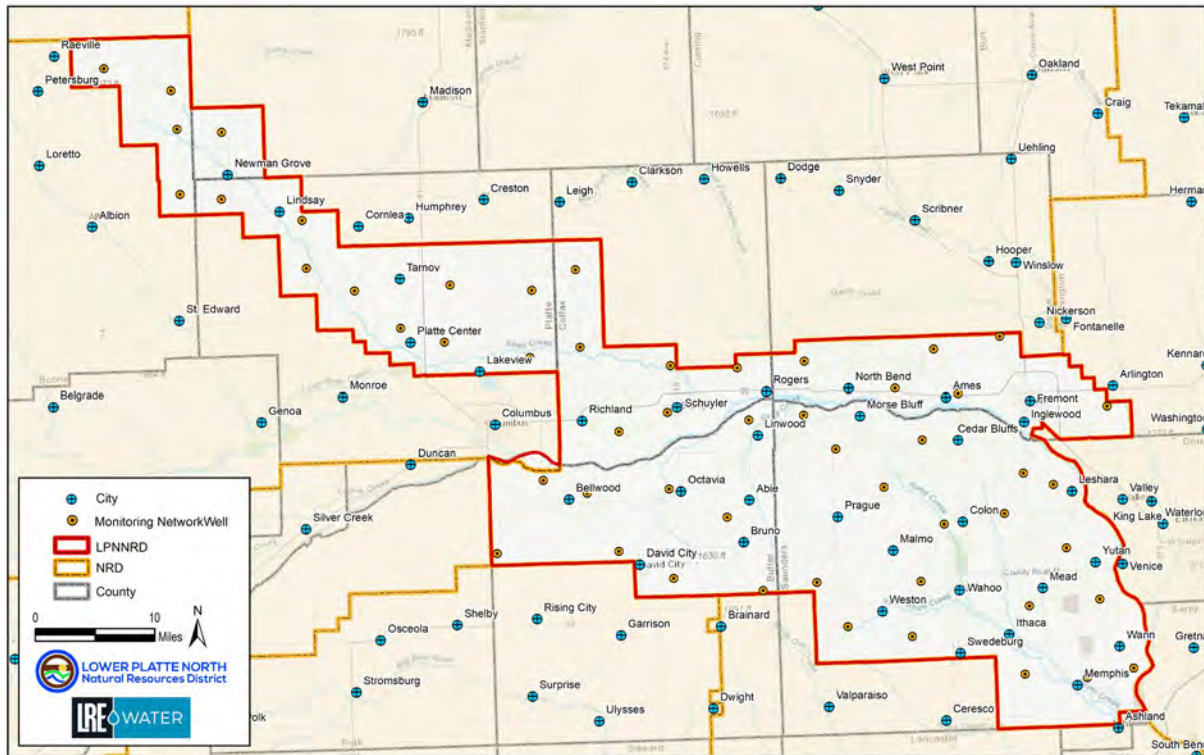


Figure 31: LPNNRD Statewide Water Quality Monitoring Network Wells

#### 4.1.3 Point Source Pollution

Point source pollution generally impacts the quality of the groundwater in localized areas. However, when these sites are located above potential drinking water supplies or are located adjacent to domestic or municipal wells the impact of a spill or leak can affect larger land areas and populations. Even spills that are cleaned up to health-based cleanup goals of a regulatory agency can impact drinking water supplies as human taste thresholds of many chemicals are below the health based "action" levels.

There are numerous manufacturing facilities and petroleum handling facilities, grain bin storage sites, and fertilizer and pesticide storage facilities within the LPNNRD. Although new regulations and generally improved product and waste handling procedures have reduced the chances of a spill or release of contaminants from these type of activities, historically, numerous spills have been documented.

The NDEE holds regulatory authority over substances from point source discharges that can cause or contribute to groundwater contamination. To obtain a permit, they are reviewed by engineering and permitted if they meet minimum design requirements and have no adverse impacts to water quality standards.

The NDEE maintains a permitted facilities database of regulated facilities under their jurisdiction, which are known or suspected to have soil and water contamination. This database includes various categories, such as the National Pollutant Discharge Elimination System (NPDES) program, Integrated Waste Management, Leaking Storage Tanks, Livestock Waste Control, Onsite Wastewater Treatment, Release Assessment, Remedial Action Plan Monitoring, Resource Conservation Recovery, Superfund, SARA Title III, and Underground Injection Control. Some of these facilities could potentially be point

sources of groundwater contamination if they do not maintain full compliance. Additional information on NDEE regulated facilities can be found on an interactive mapping application on their website.

## 4.2 WELLHEAD PROTECTION AREAS

The NDEE oversees the WHP program, a voluntary initiative that offers financial and technical support to communities with public water suppliers to safeguard water supplies from contamination. Each community water system with a groundwater supply has a designated WHP area, as shown in Figure 32, but few communities have exercised controls to regulate contamination threats within the WHP Area. The WHP area delineates the time-of-travel and the surficial region drawn around a water well or wellfield that supplies a Public Water System (PWS), indicating where contaminants are likely to travel toward and reach the well. Typically, a 20-year time-of-travel is utilized for the WHP Area, while some communities have opted to use the 50-year time-of-travel. The five minimum steps for the WHP Program are shown in Figure 33.

As of 2025, the LPNNRD was supporting WHP plans, well siting assessments, and delineation efforts in the Village of Platte Center and City of Newman Grove, and had recently supported projects for the cities of Ashland, David City, and Wahoo. A summary of WHP plans in the LPNNRD is shown in Table 8.

*Table 9: LPNNRD PWS State-Approved WHP Plans*

PWS Name	COUNTY	DATA APPROVED
Platte Center	Platte	2025
Newman Grove	Platte/Madison	2025
Wahoo	Saunders	2023 (plan & ordinance)
David City	Butler	2023 (plan & ordinance)
Lindsay	Platte	2015
Fremont	Dodge/Douglas	2010
Woodcliff Water System	Saunders/Dodge	2006
Weston	Saunders	2005
Abie	Butler	2003
North Bend	Dodge	2003
Yutan	Saunders	2003

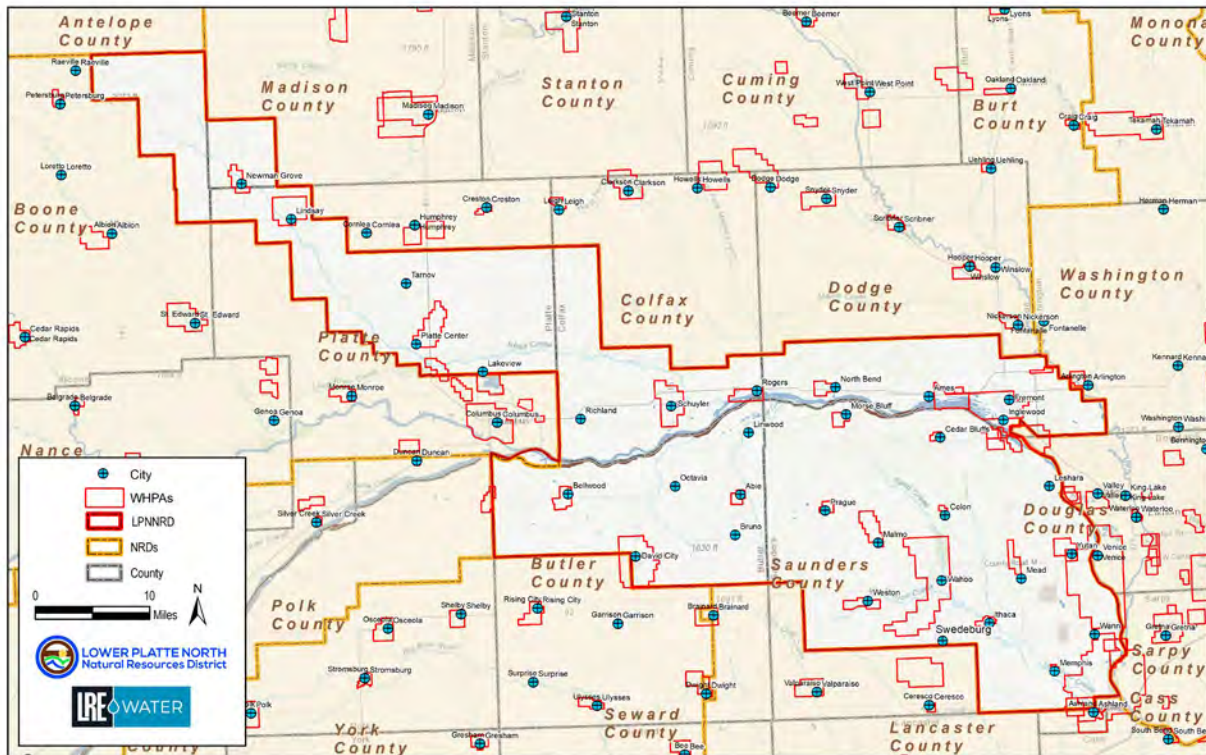


Figure 32: Wellhead Protection Areas



Source: NDEE

Figure 33: Five Steps of the WHP Program

### 4.2.1 Water Quality Activities

A summary of recent water quantity activities for the LPNNRD for 2023 are as follows:

- Completion of 6 nitrogen/irrigation certification meetings with 200 - 300 in attendance.

- Implementation of a program, funded by WSF, to provide cost-share practices in the Schuyler-Richland GWMA for gravity to pivot/SDI conversions, water flow meters, and cover crops.
- USGS is leading an age-dating project, in conjunction with LLNRD, near the Schuyler-Richland GWMA.
- District-wide soil moisture sensor cost-share
- Well decommissioning cost-share
- Shell Creek Watershed Water Quality Project, including agricultural and urban cost-share for best management practices.

## 5 GOALS AND OBJECTIVES

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### 5.1 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 designed to guide the staff and Board of Directors in making decisions about water resource management.

#### ***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.

#### **5.1.1 Goal 1 – Groundwater Monitoring**

Continuously monitor and assess groundwater levels and quality, ensuring early detection of significant changes for proactive resource management, with clear benchmarks for expansion and data utilization.

- **Objective 1.1** – Expand groundwater monitoring efforts by installing up to four new dedicated observation wells per year over the next 10 years covering more vulnerable areas such as WHP areas.
- **Objective 1.2** – Integrate scientific advances and research into regulatory frameworks, updating policies at least every two years to incorporate the latest hydrogeologic findings.
- **Objective 1.3** – Conduct annual water quality sampling, tracking nonpoint source contamination trends over time and using the data to refine mitigation strategies.
- **Objective 1.4** – Strengthen collaborative efforts by partnering with new organizations or research institution to enhance the water quality monitoring network.
- **Objective 1.5** – Maintain and expand the spring/fall water energy level monitoring network by adding at least five additional wells with construction data annually, ensuring comprehensive coverage.
- **Objective 1.6** – Develop a real-time monitoring initiative by adding telemetry to dedicated observation wells, integrating data into a public-facing online dashboard within two years (2027) to improve transparency.
- **Objective 1.7** – Implement more frequent monitoring programs to track water quantity changes in known problem areas related to groundwater pumping, identifying risks early and adjusting management strategies accordingly.

### 5.1.2 Goal 2 – Water Quality

Reduce the potential for pollution to ensure a sustainable supply of high-quality, consumable, and safe groundwater for all users in the NRD. Implement and support best management practices that achieve a district-wide reduction in nitrate concentrations by an average of 0.5 ppm per year, tracked through annual water quality monitoring reports.

- **Objective 2.1** – Utilize advanced studies and modeling tools (MODFLOW) to conduct at least two groundwater flow and contamination movement analyses per year, ensuring data-driven management decisions.
- **Objective 2.2** – Obtain and assess new groundwater and contamination data using sources such as the Clearinghouse, integrating findings into sustainable development strategies to track improvement trends.
- **Objective 2.3** – Develop and implement at least one new cost-share initiative annually that supports pollution reduction efforts, focusing on precision nutrient management and contaminant mitigation programs.
- **Objective 2.4** – Provide cost-share funding for at least 15 well decommissioning projects per year, prioritizing locations with high contamination risks.
- **Objective 2.5** – Actively manage Phase Areas with vulnerable aquifers or excessive nitrate concentrations by conducting annual mitigation strategy reviews, ensuring targeted interventions effectively reduce nitrogen loading in public water supply sources.

### 5.1.3 Goal 3 – Water Quantity

The LPNNRD will continue to encourage highly efficient water conservation management practices, with the objective of recovering and maintaining sustainable water levels to support beneficial uses.

- **Objective 3.1** – Utilize hydrogeologic and modeling data to assess the impacts of new uses and quantify water level responses to drought or reduced precipitation trends, setting baseline measurements and tracking fluctuations annually.
- **Objective 3.2** – Connect 1,000+ property owners annually to conservation programs that enhance water quality and quantity, tracking participation rates and success metrics.
- **Objective 3.3** – Develop a drought response strategy with phased thresholds, defining trigger points for water conservation measures and emergency response actions within the district.
- **Objective 3.4** – Conduct annual groundwater assessments for Special Quantity Sub-areas and Control Areas with thin or limited aquifers, using the data to refine conjunctive management strategies and improve hydrologic sustainability and reverse declining water level trends.

### 5.1.4 Goal 4 – Outreach and Education

Continue to be a resource for outreach and education for youth and adults, emphasizing the importance of protecting groundwater resources through measurable engagement and awareness strategies.

- **Objective 4.1** – Conduct stakeholder review at least every five years (agriculture, industry, local government, environmental groups, and public health) to gather diverse perspectives and needs.
- **Objective 4.2** – Expand public environmental education programs by hosting four or more outreach events annually focused on nitrate impacts and water conservation, measured by attendance and participant feedback surveys.

- **Objective 4.3** – Utilize hydrogeologic data and studies, to conduct a minimum of 20 one-on-one educational sessions per year, ensuring direct engagement with landowners, producers, or other stakeholders.
- **Objective 4.4** – Participate in at least 10 natural resources workshops, county fairs, camps, or classroom presentations annually, tracking engagement metrics.
- **Objective 4.5** – Demonstrate cutting-edge water and fertilizer management technologies through three or more field demonstrations annually, documenting adoption rates among participants.
- **Objective 4.6** – Provide information and education through a minimum of six published pieces per year across news articles, social media posts, newsletters, brochures, and website updates.
- **Objective 4.7** – Develop and launch a web-based graphic user interface within two years, ensuring public accessibility to hydrogeologic data and maps, with a tracking system for user engagement.
- **Objective 4.8** – Develop and launch a district-wide notification system to be in place by 2026 with at least 500 members to provide timely updates on water quality, conservation programs, and regulatory changes.

### 5.1.5 Goal 5 – Rules and Regulations

Develop and enforce rules, regulations, and plans that balance water usage with natural replenishment rates while reducing contamination through structured monitoring and compliance efforts.

- **Objective 5.1** – Conduct updates at least every five years to the Groundwater Management Plan and Rules and Regulations to reflect emerging contaminants, policy changes, and evolving water use patterns.
- **Objective 5.2** – Align regulations with 100% compliance to new state and federal policies within six months of adoption, ensuring resources are leveraged for district-wide water management improvements.
- **Objective 5.3** – Implement an adaptive management strategy with annual performance evaluations, adjusting policies and responses based on monitoring data trends.
- **Objective 5.4** – Maintain consistent engagement in Lower Platte River Basin integrated and drought management plans, tracking participation and policy influence through quarterly reports.
- **Objective 5.5** – Increase community participation in NDEE’s Wellhead Protection Program by at least 15% annually, expanding outreach efforts and tracking adoption rates.
- **Objective 5.6** – Utilize hydrogeologic-based subareas for Control Area management, conducting annual data reviews to refine Phase Area designations and mitigation strategies.
- **Objective 5.7** – Conduct biennial reviews of the Integrated Management Plan, ensuring sustainable water use strategies align with conservation goals and include annual instream flow assessments.
- **Objective 5.8** – Support and conduct at least three special studies annually, focusing on research initiatives that enhance groundwater sustainability and contamination mitigation.

## 6 STAKEHOLDER INVOLVEMENT

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### 6.1 OUTREACH METHODS

The LPNNRD utilized the website ([www.lpnnrd.org](http://www.lpnnrd.org)), district-wide publications, press releases to local newspapers, radio, social media, and announcements through Board meetings to spread the word about the GWMP update. The Summer 2024 edition of the Viaduct included an announcement on the update process, need for Stakeholders, and the locations and times of the first two public open houses.

### 6.2 STAKEHOLDER GROUP

The LPNNRD established two Stakeholder Groups, one meeting in the Village of Platte Center and another meeting in the City of Wahoo. The group included agricultural producers, community representatives, NeDNR, UNL Extension, NRCS, LPNNRD, and LRE Water. The role of the stakeholder group was to work closely with LPNNRD to provide feedback, identify information, discuss concerns, communicate and engage with other stakeholders, and provide feedback on the draft Plan. A summary of the meetings included:

- Platte Center meetings on June 4<sup>th</sup>, 2024, and January 16, 2025
- Wahoo meetings on June 6, 2024, and January 9<sup>th</sup>, 2025

### 6.3 OPEN HOUSE MEETINGS

Two sets of Open House meetings were held to provide an opportunity for the public to learn about the purpose and requirements of the GWMP, discuss water quality and quantity concerns, review the proposed subareas, review the highlights of the draft GWMP, and discuss recommendations. Meetings occurred at:

- Wahoo on August 24, 2024, and January 9, 2025
- Platte Center on August 26, 2024, and January 16, 2025

### 6.4 BOARD RETREAT

On February 7, 2025, the LPNNRD held a Board of Directors retreat with a major focus on the GWMP and key recommendations by LRE Water. The retreat aimed to provide a general education on key hydrogeologic terminology and principles, obtain consensus on actions to enhance groundwater management effectiveness, and discuss the goals and objectives.

## 7 RECOMMENDATIONS

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This section outlines considerations for modifications, additions, or adjustments to the current procedures used for the management of groundwater. These recommendations were established after a review of existing data, reports, studies, water level data, hydrographs, and input from the LPNNRD staff, Board of Directors, the Stakeholder Group, and the public.

### 7.1 ADOPTION OF GROUNDWATER MANAGEMENT SUBAREAS

The original subareas were delineated by Olsson in the March 2009 LPNNRD Hydrogeologic Evaluation and Subarea Delineation Study (Olsson, 2008) based on local hydrogeologic conditions and depositional characteristics; however, these were not officially recognized by the LPNNRD. LRE Water and the LPNNRD staff reviewed the existing sub-areas and made slight adjustments using hydrogeologic information from the Assessment (LRE, 2023). This process included the following key steps:

- 1) LPNNRD staff squared off the subareas to the nearest section boundary.
- 2) Subareas were adjusted by LRE Water by reviewing the saturated sand thickness, hydrogeologic cross sections, AEM, and the DEM. Overall, changes were minimal by merging small areas and adding or subtracting a few sections based upon the new saturated sand thickness.
- 3) LRE Water provided the LPNNRD with GIS data and an updated subarea map to allow for review and edits by District staff and the Board of Directors.

There are several advantages to adopting and utilizing subareas named by local communities or other known features. Some of the benefits include:

- 1) **Localized Management:** Subareas allow for more precise and localized management of groundwater resources. This means that specific issues within a smaller area can be addressed more effectively, rather than applying a one-size-fits-all approach across a larger region.
- 2) **Tailored Solutions:** Different subareas may have unique geological and hydrological characteristics. By focusing on subareas, the LPNNRD can focus studies and develop tailored solutions that are more effective for the specific conditions of each subarea.
- 3) **Efficient Resource Allocation:** Managing groundwater at the subarea level helps in the efficient allocation of resources. It ensures that efforts and funds are directed towards areas with the most pressing needs or the highest potential for improvement.
- 4) **Enhanced Monitoring and Data Collection:** Subareas facilitate more detailed monitoring and data collection. This detailed data can lead to better decision-making and more effective management practices.
- 5) **Community Involvement:** Working with subareas often involves local stakeholders and communities, leading to greater public involvement and support for groundwater management initiatives.

While groundwater quality and quantity studies may occur across an entire subarea, it is important to note that Groundwater Quality and Quantity Management Areas, or phase areas, can be smaller or larger than a subarea and could include may also cross multiple subareas or portions of subareas. A breakdown of the proposed subareas is shown in Figure 34. It is also recommended that the areas be referred to by name, rather than only a number.

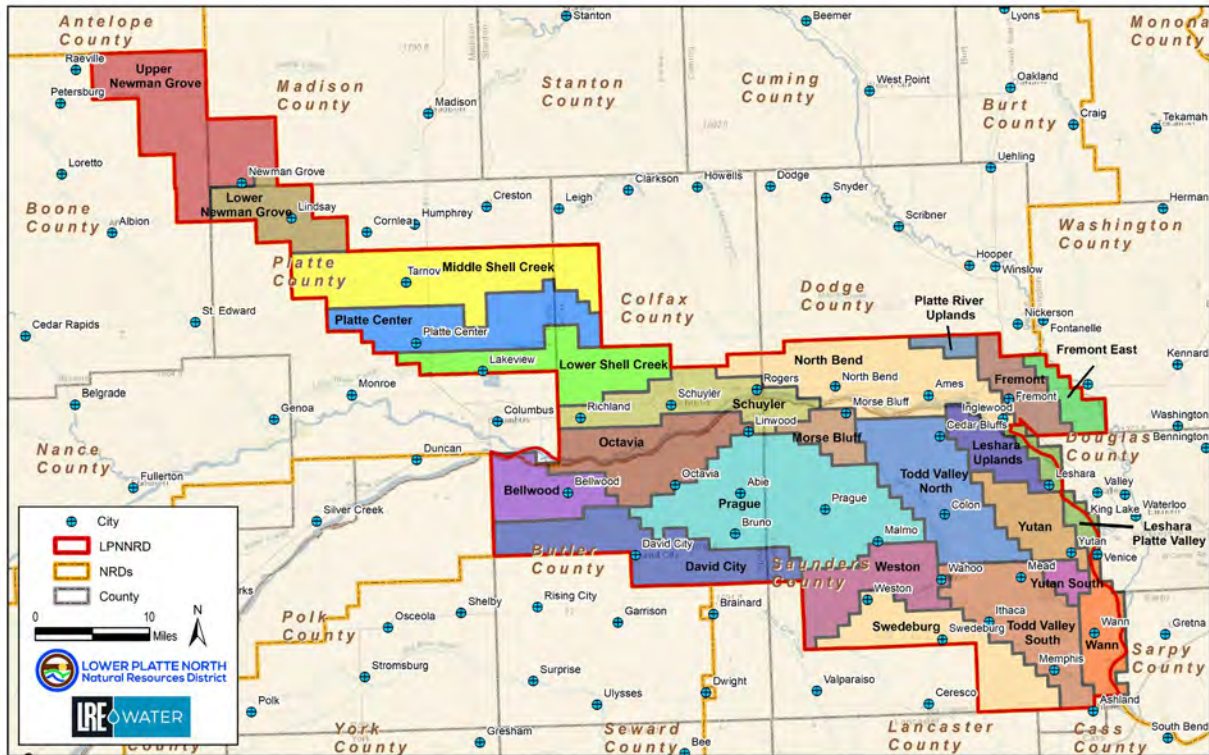


Figure 34: Proposed Groundwater Management Subareas

## 7.2 EXPANSION OF THE OBSERVATION NETWORK

Water levels alone cannot accurately determine the percentage of decline in saturated thickness for an unconfined aquifer or hydraulic head in a confined aquifer unless the screen interval and depth to water are compared to the geologic layers. Variations in water levels in wells may result from data collected from wells of differing depths and screened at various intervals, penetrating both confined and unconfined aquifers. To ensure that the data collected is representative of the area of study or concern, the following recommendations are proposed:

- Utilize the new standard scale hydrograph format to analyze all future observation wells, ensuring consistency and accuracy in data interpretation.
- Categorize and select new observation wells that are consistent and representative of the subarea, considering factors such as well depth, screened interval, and whether the aquifer is confined or unconfined.
- Ensure adequate spacing of observation wells from pumping wells to avoid interference and obtain more accurate readings.
- Partner with public water supplies to strategically place observation wells within wellhead protection areas and/or upgradient from PWS wells, enhancing the monitoring of water levels and water quality.

To assist with understanding the spatial representation of the current observation well network, an evaluation was completed by subarea. Table 9 displays the current spatial representation of spring/fall monitoring wells and the dedicated observation wells by subarea, which is displayed in Figure 35.

Table 10: Observation Wells and Proposed Sites by Subarea

Subarea Name	Spring Fall Well Count	Dedicated Observation Well Count	Potential Area for New Observation Well Count
Bellwood	6	0	1
David City	22	8	0
Fremont	7	0	0
Fremont East	3	0	0
Leshara Platte Valley	0	0	0
Leshara Uplands	5	0	0
Lower Newman Grove	5	1	0
Lower Shell Creek	6	1	3
Middle Shell Creek	19	16	5
Morse Bluff	4	0	0
North Bend	12	2	1
Octavia	5	1	2
Platte Center	11	9	0
Platte River Uplands	4	2	0
Prague	5	2	6
Schuyler	7	0	0
Swedeburg	10	4	2
Todd Valley North	8	0	0
Todd Valley South	12	9	0
Upper Newman Grove	10	2	6
Wann	10	4	0
Weston	11	0	2
Yutan	7	0	0
Yutan South	4	3	0

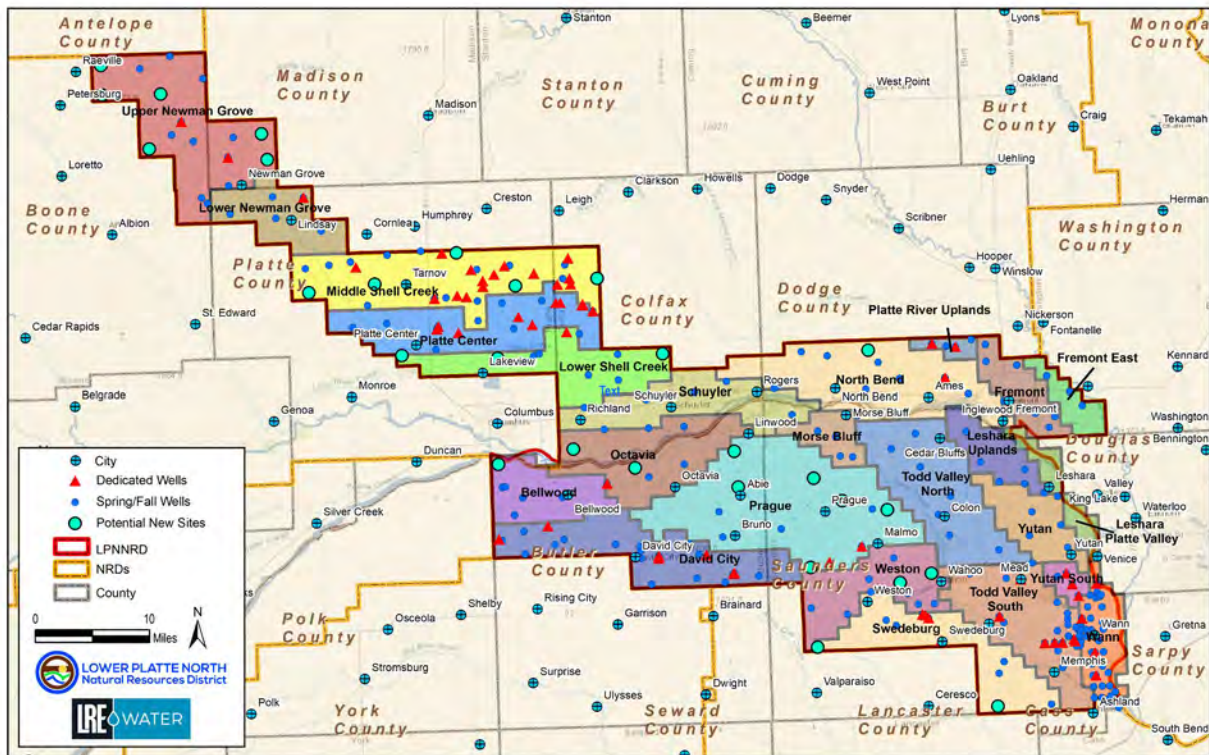


Figure 35: Existing Observation Wells and Potential Expansion Sites

### 7.3 ALTERATION TO THE WELL VARIANCE SCORING PROTOCOL

Many well permit application reviews raise questions about adequate aquifer thickness, target yield capabilities, pumping influence on surface water, well interference, and aquifer protection. To address these questions and uncertainties, alternations to the well variance scoring sheet would improve the accuracy of the decision-making process. The following recommendations are proposed:

#### Point Sheet

1. Include points for the location of the well within the Groundwater Resource Development Risk map.
2. Review ranges for the New Groundwater Consumptive Use category.
3. Create separate sheets for unconfined and confined aquifers, considering specific yield and saturated thickness for an unconfined aquifer, but not confined.
4. Use aquifer thickness, storativity, and available head for a confined aquifer.
5. Include irrigation well density, domestic well density, and other well densities (livestock, municipal) to address potential well interference.
6. Review how transmissivity is calculated (e.g., from aquifer thickness multiplied by estimated hydraulic conductivity, or from hydrogeologic assessment maps).
7. Approximate the extent of the aquifer (e.g., any negative aquifer boundaries).
8. Include a theoretical radius of influence based on the above information.
9. Include a score for water level trends in the area of the proposed well.

10. Include point ranges based on existing nitrate concentrations.
11. Review other NRD scoring systems for additional criteria and methods.

#### Other Review Criteria and Procedures

1. Establish a radius for Class 1 and Class 2 and obtain all well logs within the study area.
2. Review well logs within a radius determined by the scoring sheet or class.
3. Conduct a limited desktop assessment, if necessary, to determine the level of uncertainty qualitatively, based on the class of well and data gaps.
4. Provide the applicant with a summary of the District's review and any additional data required, with technical justification.
5. Complete test hole(s) prior to issuing the permit if a data gap analysis indicates this is necessary.
6. Require an aquifer pumping test or capacity test for Class 2 and Class 3 variances based on points scored and data gaps, if necessary.

## **7.4 QUANTITY TRIGGER ADJUSTMENTS**

Since 1987, quantity management triggers have been in place but have yet to initiate a Groundwater Management Area 'control area' designation. To improve effectiveness, adjustments to the policy may include eliminating triggers for confined aquifers, incorporating qualitative criteria, and refining delineation strategies for quantity control areas. The proposed modifications include:

- Identify and prioritize areas with consistent well interference, incorporating data from annual pumping impact reports to track severity.
- Differentiate management strategies for confined and unconfined aquifers, ensuring policy adjustments align with their distinct hydrologic responses.
- Enhance monitoring practices by utilizing observation wells and hydrograph trends to detect seasonal declines rather than relying solely on spring/fall measurements, allowing for continuous multi-season assessments.
- Incorporate historical drought impact data to evaluate magnitude trends, setting baseline depletion benchmarks for proactive response measures.
- Strengthen unconfined aquifer management through policies aligned with Integrated Management Plan goals, including stream depletion factors and annual recharge trend analyses.
- Refine decline impact assessments, distinguishing significant drops (e.g., a 10% decline in aquifers exceeding 100 feet vs. those under 50 feet) to prioritize intervention efforts accordingly.
- Establish quantified thresholds for confined aquifers, such as triggering management action at 50% of remaining head above the aquifer top, ensuring proactive conservation.
- Implement subarea-based resource allocation, directing management efforts and funding to high-risk zones where depletion issues are most pronounced.
- Utilize numerical groundwater flow models to identify areas of concern, assessing long-term trends and aquifer response to pumping impacts from a variety of scenarios to refine management strategies and improve predictive capabilities.

## 7.5 CLARIFICATION OF TERMINOLOGY

When updating the Rules and Regulations, provide clarity and consistency to key terminology utilized in the GWMP.

- Revise the GWMP and Rules and Regulations to ensure clear and consistent terminology and definitions throughout. This may include, but is not limited to, the clarifying the following terms: “Trigger Level,” “Level Controls,” “Level Criteria,” “Control Areas,” “Quantity Areas,” “Subareas,” “Groundwater Management Areas,” “Limited Development Area,” “Restricted Development Areas,” and “Special Quantity Sub Areas.”
- Recognize the following hierarchy for groundwater management within the Rules and Regulations, GWMP, and other district publications:
  - Groundwater Regions: Platte, Shell Creek, Uplands, and Todd Valley
    - Within the regions, establish Groundwater Subareas
  - Groundwater Management Areas:
    - Quality: Phase I, II, III, IV
    - Quantity: Phase I, II, III
  - Groundwater Control Areas
    - Limited and restricted development areas
- Where relevant, ensure the GWMP and Rules and Regulations refer to “aquifer thickness,” “available head” or “hydraulic head,” and “potentiometric surface” for confined aquifers, and “water table surface” and “saturated thickness” for unconfined aquifers.

## 7.6 RE-EVALUATION OF SPECIAL QUANTITY SUBAREAS

In 2016, the Special Quantity Subareas were established to address significant pressure drops in the aquifer during peak irrigation periods, which can cause shallower wells to run short on water. Overtime, it is valuable to reevaluate these Groundwater Management Areas to monitor improvement or worsening conditions.

- Complete a hydrogeologic study to reassess the sufficiency of the current boundaries of the Butler/Saunders SQS #1 and Platte/Colfax SQS #2. Utilize existing studies and research, including AEM surveys and hydrogeologic assessment data.
- Engage with local farmers and stakeholders to gather input and address concerns regarding the accuracy of the current boundaries.
- Incorporate recent data and technological advancements to ensure the boundaries reflect the most accurate and up-to-date information.
- Provide a detailed report with recommendations for any necessary modifications to improve groundwater management and address stakeholder concerns.

## 7.7 EFFORTS TO ENHANCE DATA TRANSPARENCY AND COMMUNICATION

Nebraska’s NRDs have been making significant efforts to improve transparency and accessibility of data through real-time data collection and online visualization tools. The following recommendations are provided for consideration to enhance communication with constituents:

- Create an online, data visualization tool to allow users to obtain data on recent nitrate concentrations, water level trends, and similar water use information.
- Provide maps and information from the Hydrogeologic Assessment, the GWMP, features of the Rules and Regulations such as locations of Groundwater Management Areas, subareas, and groundwater regions; Wellhead Protection Areas, and similar features.
- Establish a system to communicate with the public by allowing sign-up using a feature on the website to receive push notifications through text messaging and/or email about upcoming events, meetings, and planned changes to policies.

## 7.8 REASSESSMENT OF WATER QUALITY TRIGGERS

The UNMC has conducted extensive research recently on the public health effects of nitrates in groundwater, highlighting several critical concerns (Water for Food, 2024):

- **Health Risks:** High concentrations of nitrates in drinking water have been linked to various adverse health outcomes, including methemoglobinemia (especially in infants), colorectal cancer, thyroid disease, and neural tube defects. Other potential health issues include increased heart rate, nausea, headaches, and abdominal cramps.
- **Cancer and Birth Defects:** Studies have shown a significant association between high nitrate levels and certain cancers, such as pediatric brain cancer, kidney cancer, bladder cancer, and non-Hodgkin lymphoma. Additionally, there is evidence linking nitrate exposure to an increase in birth defects.
- **Economic Impact:** The economic costs associated with health effects from nitrate-contaminated drinking water are substantial. These costs include medical expenses and lost productivity due to illness. Treating drinking water for nitrate has a significant economic impact, especially for small communities, and drilling new wells can be expensive.

Given these findings, the LPNNRD should consider a reassessment of the water quality triggers. By doing so, the LPNNRD can proactively reduce nitrate levels in groundwater, thereby protecting public health and mitigating economic burdens associated with nitrate contamination.

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## **ATTACHMENT A – STREAM FLOW HYDROGRAPHS**



*This newsletter is intended to keep you, our area's producers, knowledgeable about the latest developments, trends, and initiatives concerning water quality and quantity within the district. As the Lower Platte North Natural Resources District remains steadfast in its commitment to protecting Nebraska's groundwater for future generations, this newsletter will provide you with straightforward, informative updates, relevant data, and valuable insights into the vital work being done to manage this critical resource.*

## **Groundwater Management Plan Available for Review**

How does the Lower Platte North Natural Resources District ensure sustainable groundwater for generations to come? The answer lies in a carefully crafted document called the Groundwater Management Plan (GWMP). Over the last year, the LPNNRD has been updating the Groundwater Management Plan with current and previous information. This plan will serve as a guideline for how the district will manage groundwater for future generations.

**This is where we need your help!**

LPNNRD is asking for public review and comments of the most recent draft copy of the plan by August 25. A final public hearing will be held after all comments are addressed. If you would prefer a print copy of the draft, please contact the LPNNRD office at 402-443-4675. All comments about the plan can be sent to Daryl Andersen, LPNNRD Water Resources Manager, by email at [dandersen@lpnnrd.org](mailto:dandersen@lpnnrd.org)

[Read the GWMP](#)

---

## Wellhead Protection Program Meetings

With approximately 85% of Nebraskans relying on groundwater as their source of drinking water, it is essential to protect this natural resource from contamination. By participating in the Wellhead Protection Program, communities can help safeguard their drinking water supplies now and for the future. LPNNRD has partnered with local officials to discuss the Wellhead Protection Plan in Newman Grove and Platte Center.

**August 12 at 7:00 pm in Newman Grove**

**September 15 at 7:00 p.m. in Platte Center**

Residents are highly encouraged to attend their area public hearing to discuss the Wellhead Protection Plan. This is a great opportunity to understand this voluntary initiative aimed at safeguarding public drinking water from contamination.

---

**Producers are Invited to take Advantage of Text  
Message Alerts**

**What is it?** The Lower Platte North Natural Resources District is launching a new means of communication for producers – SMS texting. After signing up, producers will receive important LPNNRD functions such as public information meetings, public hearings, upcoming events, water use report information, chemigation information, well sampling information and other information relevant to important LPNNRD activities. You will not receive spam materials from the Lower Platte North Natural Resources District as part of this program.

**How often?** The frequency of these messages will vary depending on the area of the producer, specifically relating to groundwater quality and groundwater quantity areas. By opting in, you acknowledge that you may receive multiple messages per month, depending on your interactions with us. *Message and data rates may apply. Please contact your carrier with any questions regarding this.*

**How can I sign up?** Text LPNWATER to (844) 614-3120 to opt-in. A follow up message will be sent to confirm your subscription. Or visit [lpnnrd.org/downloads](http://lpnnrd.org/downloads), under the Other Water-Related Forms section you will find an opt-in form near the bottom titled "Producer/Landowner Text Message Opt-In." Additionally, the [Privacy Policy and Terms and Conditions](#) can be found in this location.

How did I get this? The Lower Platte North NRD Water Resources Department is working to ensure landowners and producers across our district are able to receive current news and updates as much as possible! We are testing a new email marketing system to assist in our communications. Stay subscribed for more updates coming soon!



**Lower Platte North Natural Resources District**

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# Groundwater Management Plan

**Public Review Version 10.0**

*Approval Date: XX/XX/XXX*

*Prepared for:*



**LOWER PLATTE NORTH**  
Natural Resources District

*Prepared by:*



### **Board of Directors - 2024**

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Dave Saalfeld	3
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Ryan Sabatka, Chairman	7
Ryan Engel	7
Jerry Johnson	8
Roger Harder	8
Duane Johnson	9
Robert Meduna Jr	9
Thomas McKnight	At-Large

*This third update of the Lower Platte North Natural Resources Groundwater Management Plan (GWMP) has been prepared per Nebraska Revised Statute 46-709. The GWMP was created based upon the best available scientific information.*

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## LIST OF ABBREVIATIONS AND ACRONYMS

ACT	Nebraska Groundwater Management Act
AF	Acre Feet
AEM	Airborne Electromagnetic
Assessment	LPNNRD Hydrogeologic Assessment (2023)
Coalition	Lower Platte River Basin Coalition
CSD	Conservation and Survey Division
District	Lower Platte North NRD
DCP	Drought Contingency Plan
DEM	Digital Elevation Model
DWEE	Nebraska Department of Water, Energy, and Environment
ENWRA	Eastern Nebraska Water Resources Assessment
EQIP	Environmental Quality Incentive Program
GIS	Geographic Information System
GWMA	Groundwater Management Area
GWMP	Groundwater Management Plan
HCA	Hydrologically Connected Areas
IMP	Integrated Management Plan
LENRD	Lower Elkhorn Natural Resources District
LPMT	Lower Platte Missouri Tributary Groundwater Model
LPNNRD	Lower Platte North Natural Resources District
LPSNRD	Lower Platte South Natural Resources District
LPRCA	Lower Platte River Corridor Alliance
LWS	Lincoln Water System
Mg/L	Milligrams per Liter
MUD	Metropolitan Utilities District
NARD	Nebraska Association of Resources Districts
NASS	National Agricultural Statistics Service
NDEE	Nebraska Department of Environment and Energy

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NeDNR	Nebraska Department of Natural Resources
NeDWEE	Nebraska Department of Water, Energy, and Environment
NHCAs	Non Hydrologically Connected Areas
NPDES	National Pollutant Discharge Elimination System
NRC	Natural Resources Commission
NRD	Natural Resources District
LWS	Lincoln Water System
PMRNRD	Papio-Missouri River Natural Resources District
PPM	Parts Per Million
PPB	Parts per Billion
RWS	Rural Water System
SQS	Special Quantity Subareas
UNL	University of Nebraska-Lincoln
USGS	United States Geological Survey
WHP	Wellhead Protection

# 1 INTRODUCTION

## 1.1 LPNNRD BACKGROUND

The Lower Platte North Natural Resources District (LPNNRD or District) spans 1,587 square miles, or just over 1 million acres, over seven counties in eastern Nebraska and is shown in Figure 1. The total estimated population is nearly 66,000 (NARD, 2024). The primary watersheds used to delineate the LPNNRD includes Shell Creek, starting at the northwest boundary past Newman Grove and to the southeast to the Lower Platte River at Fremont, and the Wahoo Creek watershed to the southeast near Ashland. The LPNNRD economy is predominantly focused on agricultural and industrial activities.

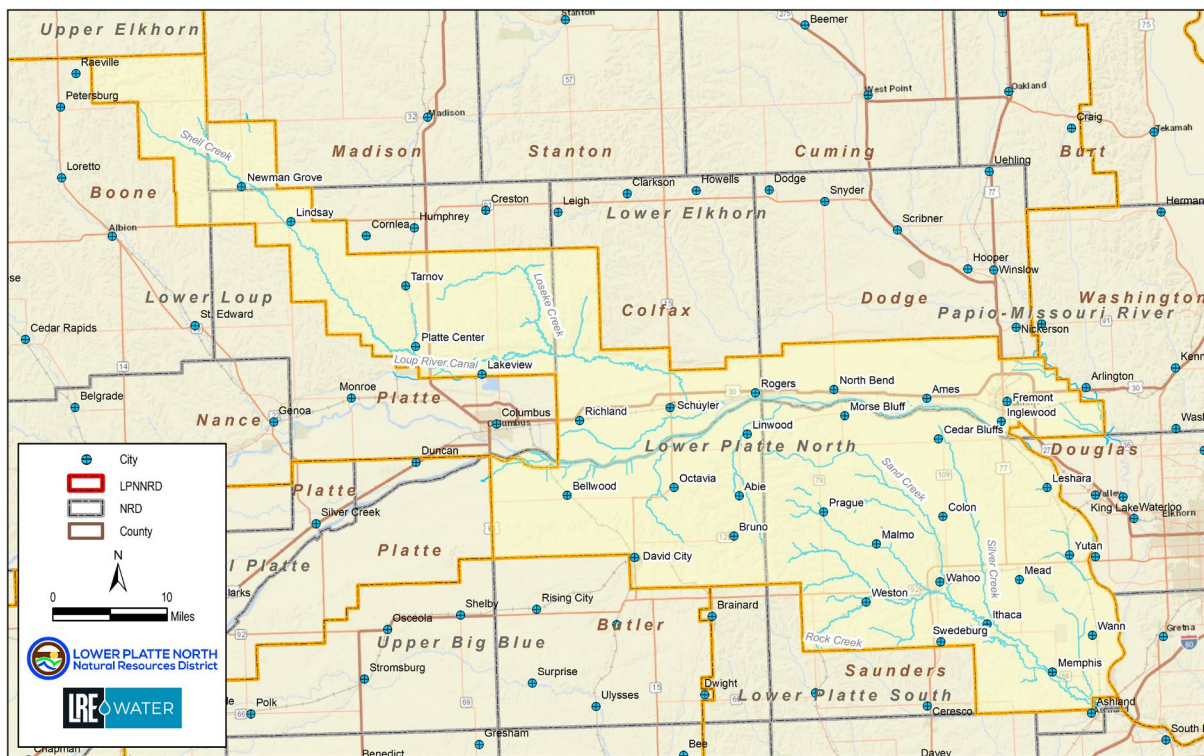


Figure 1: LPNNRD Location

## 1.2 LEGAL AUTHORITY AND OBLIGATIONS

Groundwater is widely recognized as one of the state's most valuable natural resources, and the management is a key responsibility granted to the Nebraska Natural Resources Districts (NRDs), which were established in 1972. The declaration, intent, and purpose of NRDs groundwater management responsibilities were established by the Nebraska Groundwater Management and Protection Act (Act) as outlined in Nebraska Revised Statute Chapter 46, Article 7, passed in 1975.

In 1984, the Nebraska Legislature mandated that NRDs prepare a Groundwater Management Plan (GWMP) by January 1986. The original LPNNRD GWMP was prepared in 1985 and with the adoption of the 1985 plan, the LPNNRD embarked upon a new era of groundwater resource management marked by an intensive program of data collection designed to characterize the resource and establish the relationship with other water resources. In addition, the District developed education and demonstration programs designed to increase awareness of groundwater supplies, use, and protection.

Legislative Bill 51 (LB51) was passed in 1991 and amended the Act by providing clarification, therefore the GWMP was updated in 1995, as an amendment to the 1985 version and the amendment meets the intent of LB51 and fulfills the District's need for continued understanding of the supply and quality of its groundwater resource, and sets forth a plan of protection for the future. The Board of Directors recognizes, along with the Nebraska legislature, that groundwater is a valuable resource and planned management is essential and in the public interest.

This version of the GWMP is intended to meet requirements of Section 46-709 of the Act (NeDNR, 2021), which states, The plan shall include, but not be limited to, the identification to the extent possible of the following:

- 1) Groundwater supply information within the District including transmissivity, saturated thickness maps, and other groundwater reservoir information, if available;
- 2) Local recharge characteristics and rates from any sources, if available;
- 3) Average annual precipitation and the variations within the District;
- 4) Crop water needs within the District;
- 5) Current groundwater data-collection programs;
- 6) Past, present, and potential groundwater use within the District;
- 7) Groundwater quality concerns within the District;
- 8) Proposed water conservation and supply augmentation programs for the District;
- 9) The availability of supplemental water supplies, including the opportunity for groundwater recharge;
- 10) The opportunity to integrate and coordinate the use of water from different sources of supply;
- 11) Groundwater management objectives, including a proposed groundwater reservoir life goal for the District. For management plans adopted or revised after July 19, 1996, the groundwater management objectives may include any proposed integrated management objectives for hydrologically connected groundwater and surface water supplies but a management plan does not have to be revised prior to the adoption or implementation of an integrated management plan pursuant to section 46-718 or 46-719;
- 12) Existing subirrigation uses within the District;
- 13) The relative economic value of different uses of groundwater proposed or existing within the District; and

- 14) The geographic and stratigraphic boundaries of any proposed management area.

This version was prepared by the staff, the Board of Directors, with technical and planning assistance provided by LRE Water.

### **1.3 AGENCY ROLES AND FUNCTIONS**

The LPNNRD is governed by a locally elected Board consisting of 19 Directors. The LPNNRD is divided into sub-districts (Figure 2), with two Directors per sub-district and one at-large member. Based upon state statute, each NRD shares a common set of responsibilities, listed below, but each also establishes its own additional priorities based upon need.

- Erosion prevention and control
- Soil conservation
- Flood prevention and control
- Prevention of damages from flood water and sediment
- Water supply for any beneficial uses
- Development, management, utilization and conservation of groundwater and surface water
- Pollution control
- Solid waste disposal and sanitary discharge
- Drainage improvement and channel rectification
- Development and management of recreational and park facilities
- Forestry and range management
- Outdoor recreation
- Education

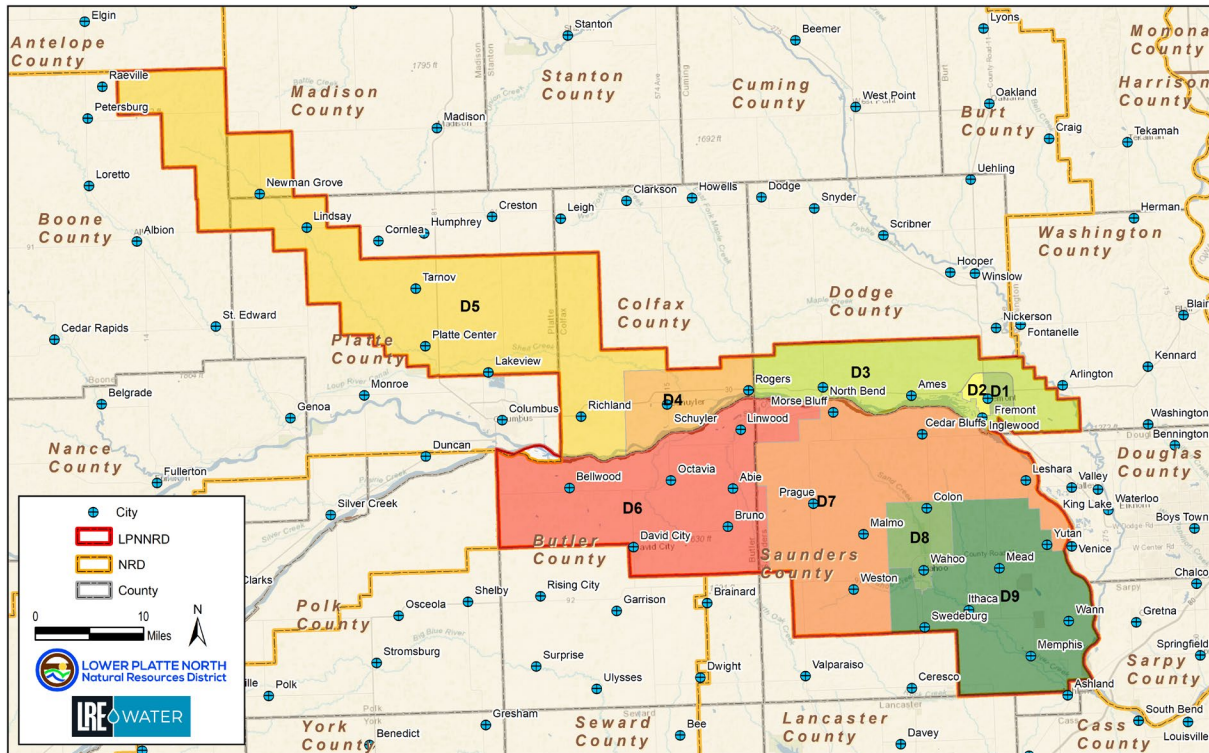


Figure 2: Board of Director Sub-districts (2025)

The LPNNRD is responsible for a variety of programs and projects and has identified five primary services with a focus on the following:

- Water Management
  - Groundwater management phase areas, monitoring programs, chemigation, nitrogen certification, nitrate management, wellhead protection (WHP) program, non-point source pollution management, and well decommissioning.
  - Groundwater restricted and limited control areas, well permits and registration, variances, irrigated acre certification, water use management, and conservation.
- Rural Water Systems (RWS)
  - Management of the Bruno-David City RWS and Colon-Wahoo RWS.
- Forestry and Wildlife
  - Implementing a tree planting program
- Watershed and Flood Damage Reduction
  - Management of seven watershed-wide flood reduction projects that include nearly 60 flood reduction structures, including three high-hazard dams.
- Conservation Programs
  - Cost-share for soil and water conservation, small dams, cost-share for priority watersheds, rock and jetty program, and weed management.
- Education
  - Includes newsletters, environmental education program, events, grants and scholarships, and workshops

## 1.4 JOINT-PLANNING EFFORTS

### Lower Platte River Basin Coalition

In 2017, seven NRDs came together with NeDNR to form the Lower Platte River Basin (Basin) Coalition (Coalition). This Coalition is operating under the guidance of the Basin Water Management Plan, published in October 2017. The Basin is one of Nebraska's most valuable resources, playing a crucial role in the state's agricultural, social, industrial, and municipal development and sustainability (Coalition, 2017).

The Coalition includes the LPNDR, along with the NeDNR and six other NRDS, including Upper Loup, Lower Loup, Lower Platte South, Papio-Missouri River, Lower Elkhorn, and Upper Elkhorn. These NRDs collaborate with the Nebraska Association of Resource Districts (NARD) to maintain a sustainable balance between water supplies and uses in the Basin (Figure 3). Key groundwater elements of the Basin Water Management Plan have been integrated in this GWMP update.

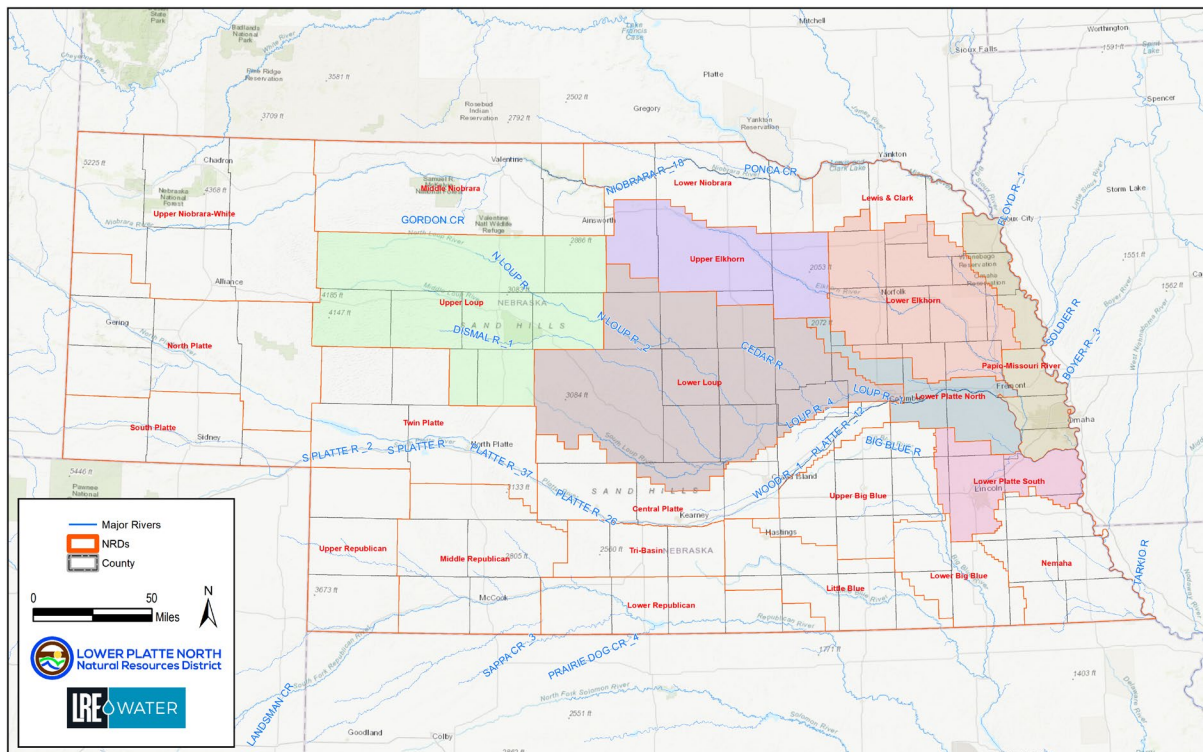


Figure 3: Lower Platte River Basin Coalition NRDs

### Lower Platte River Drought Contingency Plan

The Lower Platte River Basin, including its tributaries and aquifers, serves approximately 80 percent of Nebraska's population, thousands of businesses, and industries, includes more than two million irrigated acres, and provides streamflow for threatened and endangered species. The drought-driven risks are diverse and a potential drought in the region would pose serious risk to public health, the economy, and fish/wildlife. Projects and programs designed to increase water supply and decrease water demands would benefit a variety of interests, including irrigation, power, environmental, and recreational

activities (Consortium, 2019). As a result, the LPNNRD, LPSNRD, PMRNRD, Metropolitan Utilities District (MUD), Lincoln Water System (LWS), and NeDNR established the Lower Platte River Drought Contingency Plan in 2019.

### Integrated Management Plan

The LPNNRD's first voluntary Integrated Management Plan (IMP) was adopted by the District on June 11, 2018, and by the NeDNR on June 13, 2018, with an effective date of July 15, 2018. The IMP was developed in accordance with the Nebraska Ground Water Management and Protection Act (Act). The Act assigns the NeDNR and the District responsibilities and authority for management of groundwater, surface water, and their hydrologically connected areas in accordance with the Act, N.R.S. Chapter 46, Article 7. The voluntary IMP provides the framework for joint management of groundwater and surface water, recognizing that the two water sources are hydrologically connected. This framework enables the District and the NeDNR to coordinate management actions and monitoring of groundwater and surface water, to better protect water resources for future generations (LPN, 2018a). The IMP recognized five goals:

- 1) Develop and maintain a District-wide water supply inventory
- 2) Develop and maintain a District-wide water demand inventory
- 3) Develop and implement water use policies and practices with the purpose of achieving and sustaining a balance between water uses and supplies
- 4) Communicate to the public that Nebraska has a great supply of water, and a need to continue to manage it well
- 5) Coordinate with the Lower Platte River Basin NRDs, and appropriate groups and agencies, to develop a water management plan for the Coalition that maintains a balance between current and future water supplies and demands

### LPNNRD Drought Contingency Plan

The LPNNRD was developing a district-wide Drought Management Plan in 2025. The Drought Management Plan will help to reduce district-wide impacts during drought events and aid the LPNNRD 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. The GWMP will be a key resource integrated into the Drought Plan.

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.

## **1.5 CURRENT RULES AND REGULATIONS**

The Groundwater Management Area Rules and Regulations were first implemented on January 1, 1997, and last amended on June 15, 2018. Under Neb. Rev. Statutes 46-701 to 46-754 of the Act. The LPNNRD

has designated the entirety of the District as a Phase I Management Area for groundwater quality and quantity.

### 1.5.1 Groundwater Quality Management Areas

Groundwater quality management areas can have one of four designated phases (i.e., Phase I through Phase IV) based on nitrate contamination concentrations. If concentrations increase in an area enough to meet specified trigger levels, that area is moved to a higher Phase area with increased corresponding management regulations. Areas are triggered by 50 percent of the wells sampled being over the trigger for a minimum of two sampling events, a minimum of ten registered wells must be sampled, and the area must be a minimum 9-square miles unless the area is a Wellhead Protection Area. Based on the June 15, 2018, amended Rules and Regulations, the phases and corresponding groundwater nitrate concentration trigger levels are as follows:

1. **Phase I:** 0 to 8.01 parts per million (ppm)
2. **Phase II:** > 8.01 to 10.01 ppm
3. **Phase III:** > 10.01 to 15 ppm
4. **Phase IV:** > 15 ppm

For all other contaminants, a Phase 2 is triggered at 81% of the MCL, Phase 3 = >100% of the MCL. Currently, the LPNNRD has two Quality Groundwater Management Areas shown in Figure 4 triggered by nitrate concentrations. One is near the Village of Bellwood and is currently in a Phase II level of management. The second is near the cities of Richland/Schuyler area, where Phase III and Phase IV levels of management are in place. Additional nitrogen management, reporting, and educational requirements are required for operators within these areas. In 2024, a Phase IV area was added for exceedance of the Maximum Contaminant Level (MCL) of nitrates and uranium west of Schuyler.

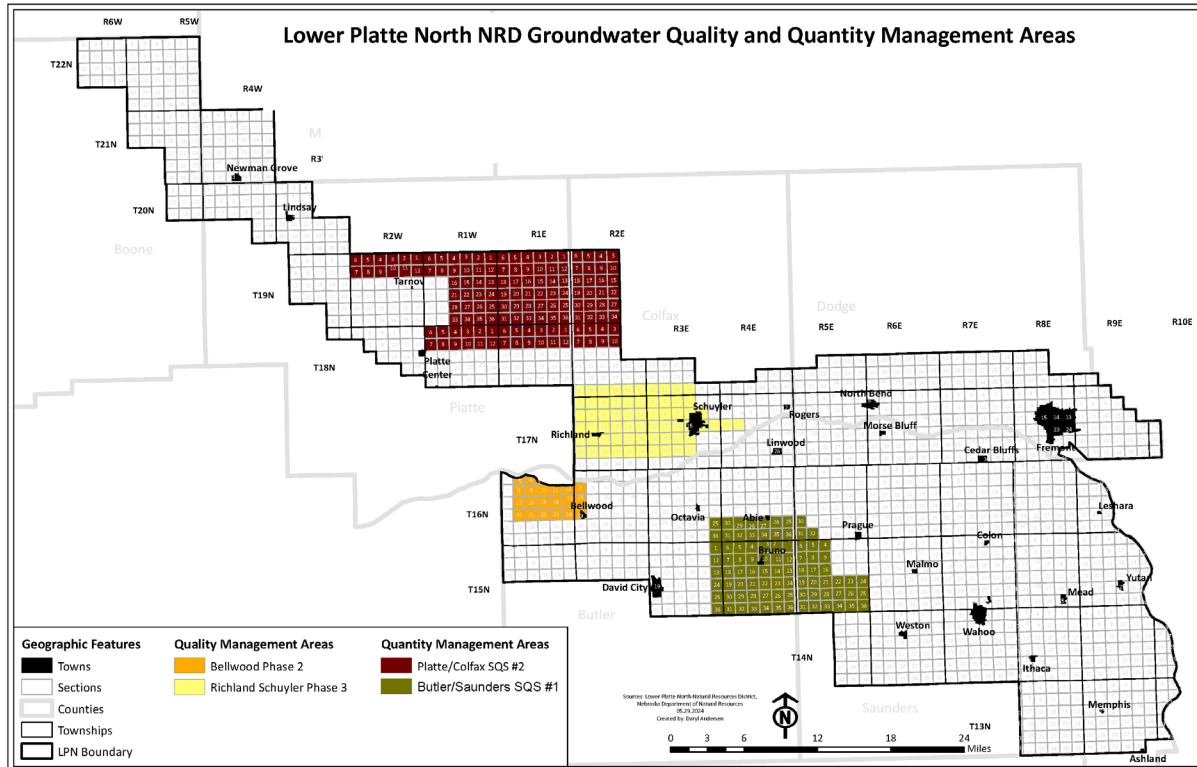


Figure 4: Quality and Special Quantity Sub-areas

### 1.5.2 Special Quantity Sub-Areas

Starting on January 1, 1997, the LPNNRD established two Special Quantity Sub-Areas (SQS) as a result of excessive seasonal declines in water levels that caused well interference. Due to the declines occurring during the summer, they did not qualify under the criteria for Groundwater Quantity Management Areas described below. These are referred to as Butler/Saunders SQS #1 and Platte/Colfax SQS #2. There are no new wells and expansion of irrigated acres are limited to the original allocation in these areas, and several other restrictions apply. The SQS areas are shown on Figure 4 above along with the Quality Management Areas.

### 1.5.3 Groundwater Quantity Management Areas

The Rules and Regulations also allow for the development of Groundwater Quantity Management Areas based on the percentage of water level decline for an unconfined aquifer and the percentage of hydraulic head decline for a confined aquifer. Assessment of the percentage drop is calculated using spring readings of the District’s spring/fall static observation wells over a 3-year period. Over 50 percent of the wells must reach or exceed a predetermined water level percent trigger. A general summary of the quantity triggers is shown below. Currently, the LPNNRD does not have a designated Groundwater Quantity Management Area.

Table 1: Confined and Unconfined Aquifer Triggers

AQUIFER TYPE	TRIGGER %	LEVEL CONTROL
Unconfined	10	I
	15	II
Confined	7	IA
	10	IIA

#### 1.5.4 Groundwater Development Areas

In March 2018, the LPNNRD established Groundwater Limited Development Areas (Figure 5), where restrictions are in place on the development of high-capacity wells and the expansion of irrigated acres. These areas were delineated by the results of NeDNR's Lower Platte Missouri Tributaries Groundwater Model (LPMT)'s Hydrologically Connected Areas (HCAs). These areas have been determined to have a physical hydrologic connection between groundwater and surface water, and the goal is to ensure no further impact to surface water flow occurs as a result of excessive groundwater pumping. These areas are shown in Figure 5, along with the Special Quantity Subareas, which are unrelated to the HCAs.

- **Outside Groundwater Control Area (white):** Up to 75 new acre-feet (AF) per year are allowed through a variance process due annually on August 15.
- **Inside Groundwater Control Area (blue):** Up to 200 new AF per year with a variance deadline of September 15.
- **Restricted Development Area (red):** Was established through a separate study, and there are no new irrigated acres or water uses allowed, but consideration is given to areas within 1 mile of the red area.

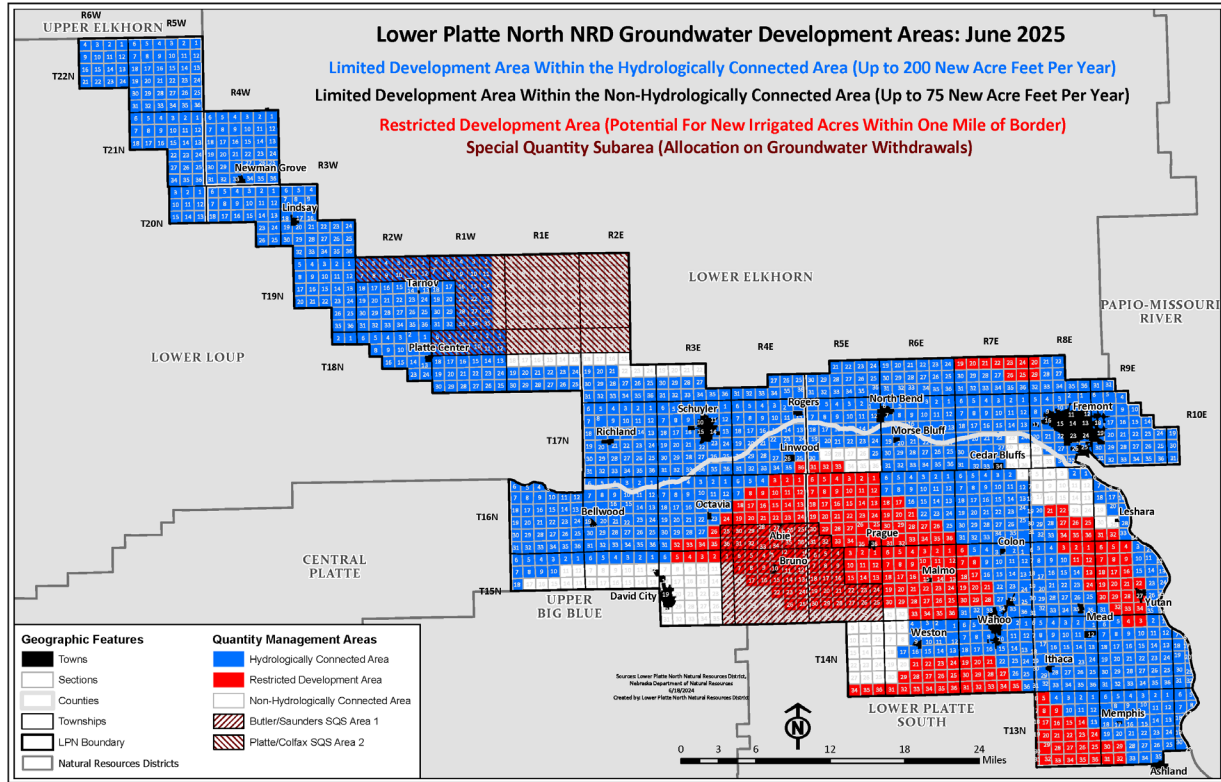


Figure 5: Groundwater Limited Development Areas

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## 2 DESCRIPTION OF THE NRD

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### 2.1 GROUNDWATER REGIONS AND PRINCIPAL AQUIFER

The 1995 GWMP subdivides the District into four distinct regions based on hydrogeologic and physiographic characteristics. The regions are described in the LPNNRD Hydrogeologic Evaluation and Subarea Delineation Study (Olsson, 2009) and are shown in Figure 6.

- **Platte River** This area is characterized by fluvial sand and gravel deposits of varying thickness, which are overlain by alluvial silt and clay, and younger loess deposits. Coarser and thicker sands and gravels appear to be present in paleovalley deposits, which sometimes extend into the Uplands Region described below.
- **Shell Creek:** Located in the northwest portion of the District, this region extends from the Platte River to the Sandhills and dissects glacial terrain similar to that of the Uplands Region. The upper reaches include the Ogallala Group.
- **Todd Valley:** This region was formed by the ancestral Platte River, which carved a fluvial valley. This region consists of fluvial sand and gravel deposits capped by loess and overlies the Cretaceous-age Dakota Group bedrock formations. The fluvial deposits typically grade from fine to a progressively coarser-grained sands and gravels with depth. The Todd Valley aquifer is connected to the Platte River alluvial sand and gravel aquifer.
- **Uplands:** This region is characterized by dissected clay-rich glacial till and younger loess deposits with interbedded, discontinuous sand and gravel outwash deposits. In places, the glacial deposits overlie deeper paleovalleys that contain thicker and coarser sands and gravels or are in contact with the underlying Dakota Group. The sandstone units of the Dakota Formation contain brackish to saline water.

Principal Aquifer is the major groundwater reservoir in the District. It refers to the saturated unconsolidated sand and gravel aquifers, including the Ogallala Group, where present.

The following sections provide more insight into the hydrogeologic data and recent assessments, and background of the LPNNRD.

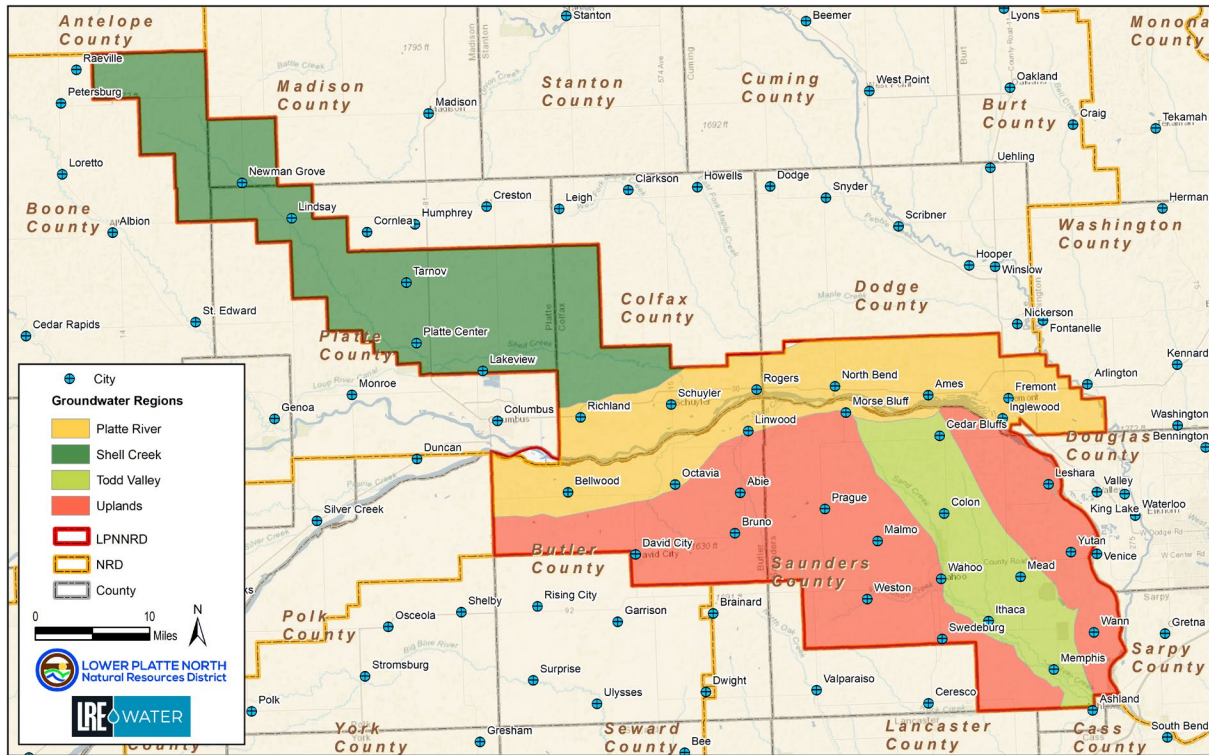


Figure 6: Groundwater Regions of the LPNNRD

## 2.2 HYDROGEOLOGIC DATASETS

Since 2006, the Eastern Nebraska Water Resources Assessment's (ENWRA) work has resulted in vast geologic datasets and creation of hydrogeologic frameworks for six NRDs in eastern Nebraska, including the LPNNRD. The major datasets include airborne electromagnetic (AEM) data, and geologic logs from the NeDNR and University of Nebraska-Lincoln, Conservation Survey Division (UNL-CSD) well and test holes database. These data sets and detailed desktop hydrogeologic assessments completed recently for the District are available to aid in well siting and similar groundwater management actions.

### 2.2.1 Airborne Electromagnetic Survey

AEM is an airborne geophysical survey method that can provide characterization of electrical properties of earth materials from 3 to 10 feet to depths over 1,000 feet. These surveys provide geophysical data quickly and efficiently and when analyzed, can help define aquifer and non-aquifer materials. The AEM surveys have been crucial in the LPNNRD's efforts to help address water quality and quantity challenges.

The LPNNRD's AEM survey datasets and reports from 2009, 2012, 2015, 2016 and 2018 are available on EWRA's projects website (<https://enwra.org/projects>). The AEM flight line locations within the District and adjacent NRDs are shown in Figure 7.

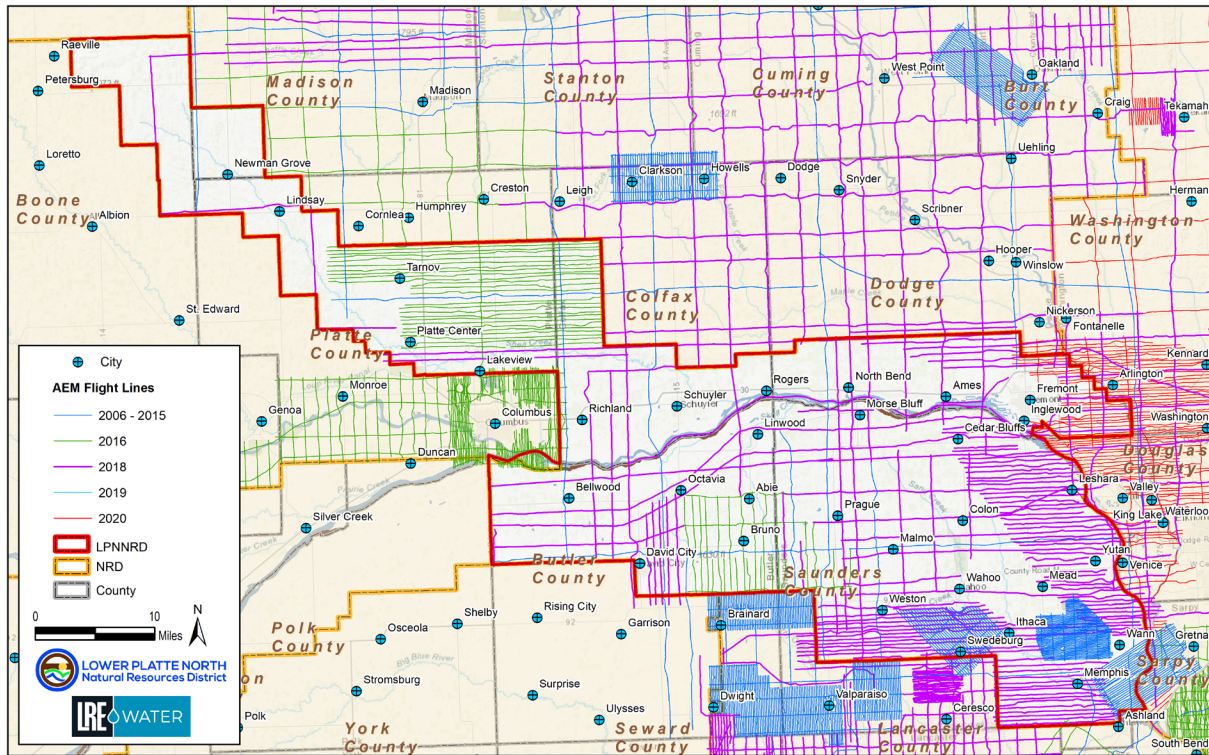


Figure 7: AEM Flights within and near the LPNNRD

### 2.2.2 3D AEM Framework and Hydrogeologic Assessment

In 2022, the LPNNRD utilized the AEM datasets to create a 3D AEM Framework (LRE Water, 2022), in addition to constructing detailed hydrogeologic cross sections from geologic logs. The framework was created using Leapfrog, a 3D geological modeling software program. The program delineated the hydrostratigraphy and hydraulic conductivity zones from the processed AEM data. The framework offers several benefits:

- Provides hydrogeologic information to assist staff in reviewing well permits.
- Enhances understanding of aquifer characteristics, such as recharge areas and water-bearing layers.
- Facilitates vulnerability assessments and identifies areas needing best management practices.
- Better defines hydrologically connected surface and groundwater.
- Improves collaboration with neighboring NRDs and NeDNR.
- Creates a MODFLOW grid, including layers, cells, and hydraulic conductivity zones for numerical groundwater flow modeling.

An example of a Leapfrog Works model output is shown in Figure 8 where higher resistivities are shown as brighter colors and are representative of sand and gravel. The darker colors represent low resistivity and represent clay, till, and losses. The bedrock surface is shown as a black line.

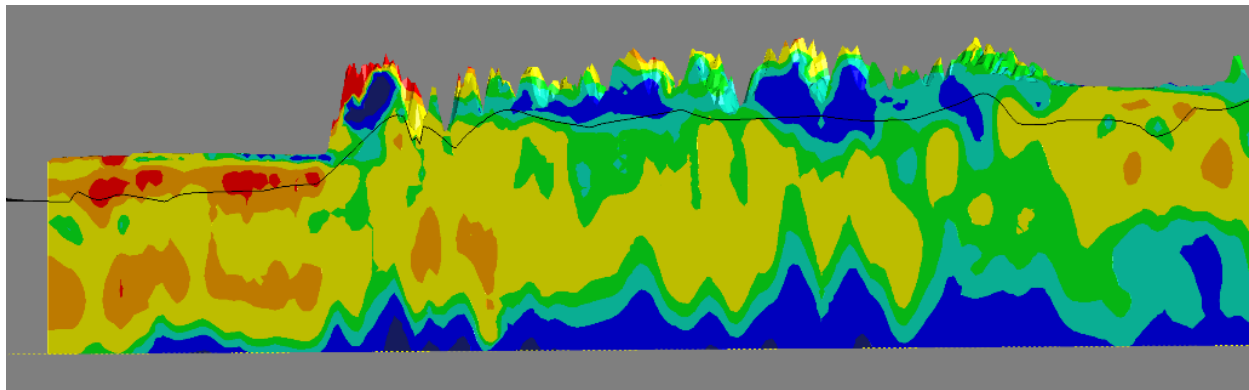


Figure 8: 3D Leapfrog output in cross section

In 2023, a Hydrogeologic Assessment (Assessment) was completed for the LPNNRD utilizing all available NeDNR well logs UNL-CSD test holes (LRE Water, 2023). In total, 22,500 well logs and 290 test holes were incorporated into the Assessment, which included a 5-mile buffer around the LPNNRD boundary. There were a total of 11,893 wells within the LPNNRD with geologic logs as seen in Figure 79. The Assessment also utilized existing geologic information from the 2022 3D AEM Framework.

In addition to a bedrock surface, the geospatial and hydrogeologic analyses completed on the geologic log data were used to develop 28 hydrogeologic cross sections, and to generate the other hydrogeologic raster surfaces, many of which were utilized to create the maps illustrated below within this plan.

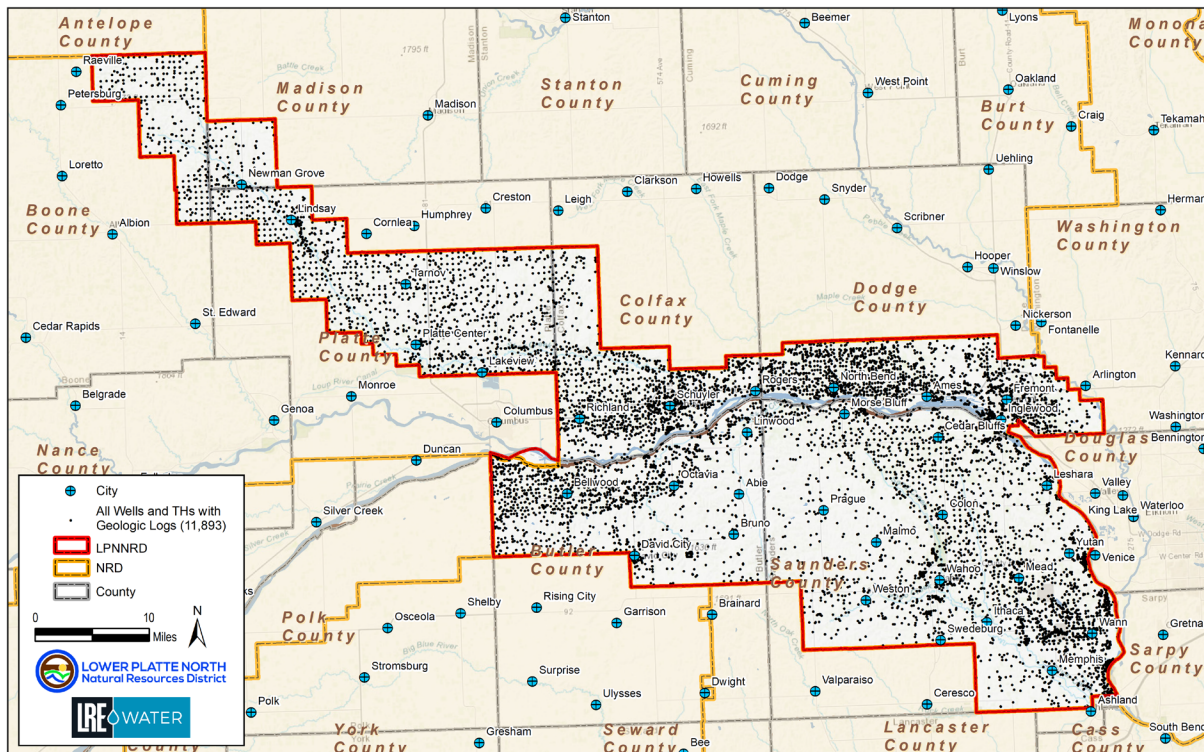


Figure 9: Well and Test Holes with Geologic Logs (LRE Water, 2023)

## 2.3 TOPOGRAPHY

The northwest arm of the District is dominated by upland dissected plains topography and includes portions of Boone and Madison counties, and about two-thirds of Platte County. To the southeast, the central portion of the LPNND includes approximately 125 miles of the Platte River Valley, extending from the cities of Columbus to the west and Ashland to the east. Through the east-central portion of Saunders County, from the cities of North Bend to Ashland, is a broad fertile area 5 to 8 miles wide, referred to as the Todd Valley. West and southwest Saunders County and eastern Butler County, known locally as the 'hill area', is comprised of bluffs along the north edge and rolling hills, ridges, and steep valley slopes south of the Platte River Valley. A map of the topography, derived from a Digital Elevation Model (LRE Water, 2023), is shown in Figure 10.

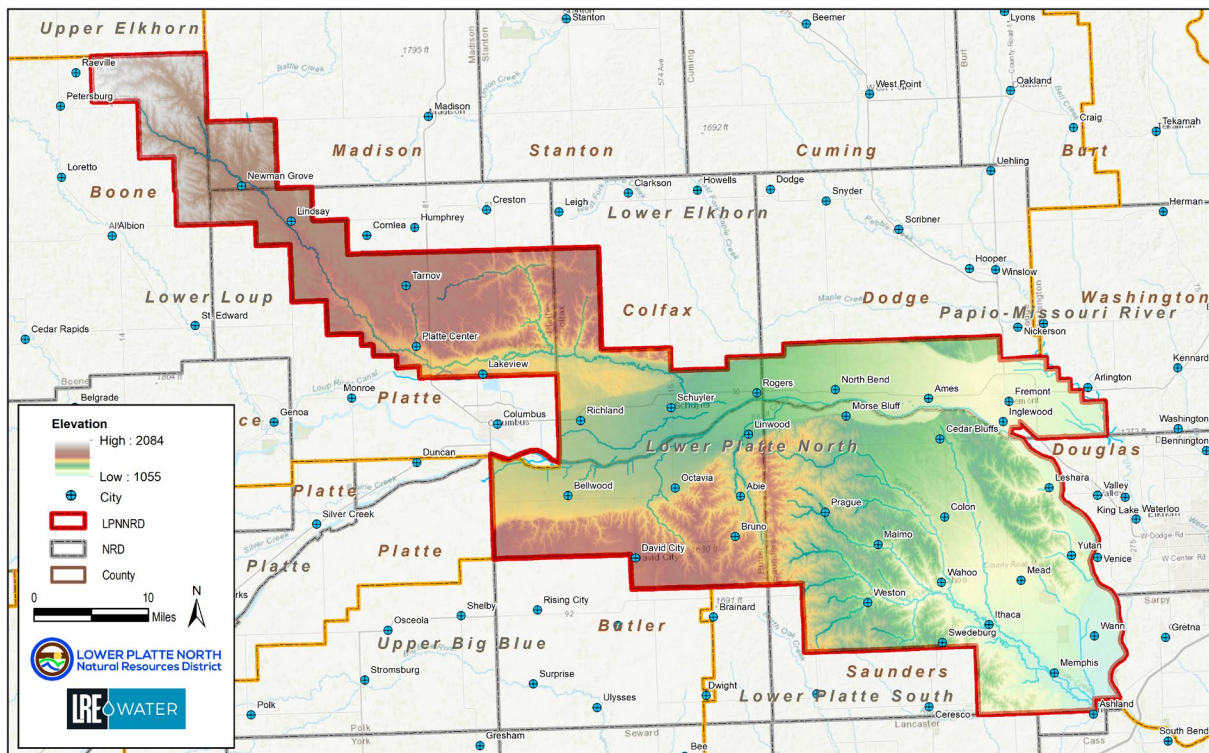


Figure 10: Topography of the LPNND

## 2.4 SOILS

Soils in the uplands of Butler and Saunders counties consist primarily of clays and silty clays to silty clay loams somewhat similar to the Sharpsburg and Sharpsburg-Pawnee association. Primary soils in the upland areas are eroded to a point where they no longer exist, and landowners are now farming in the "B" horizon. This has implications for surface and groundwater quality. The permeability of these soils is less than 1.0 inch per hour on slopes that range from gentle to 20 percent. Recharge rates are quite low and recharge is principally limited to perched aquifers. These soils are loess type soils with some intermixed glacial till areas. The drainage pattern and flood plain configuration of Wahoo Creek is primarily composed of Kennebec soils of silty clay loam ranging from moderate to poorly drained (HWS, 1995).

The western portion of the Platte River corridor is comprised of Acadia-Platte alluvial fine sands underlain by sands and gravels. The eastern portion of the corridor is practically the same, however, depth to water in the eastern area is greater. This primary water line, where groundwater is most significantly present within the Platte River corridor, is bounded on the north by poorly drained Gibbon-Luton silty and clayey soils. Areas to the south and a few areas along the western end of the Platte River corridor contain silty soils that are well drained and of loess origin (HWS, 1995).

The northwest corner of the District is composed of moderately to well drained silty type soils with permeabilities ranging from 1 to 2 inches per hour above the areas adjacent to Shell Creek. Areas in northeast Platte County have permeability ranges of 1.5 to 5 inches per hour (HWS, 1995).

The general pattern of soil distribution shows that soils of loess origin are found on the uplands with alluvial soils predominant on the bottom lands, as seen in Figure 11. Permeabilities range from practically zero to greater than 10 inches per hour (near Columbus and southeast of Bellwood). The pattern shows that, generally, soils south of the Platte River are less permeable than those of the north side. Soil textures range from fine sands to silty clays.

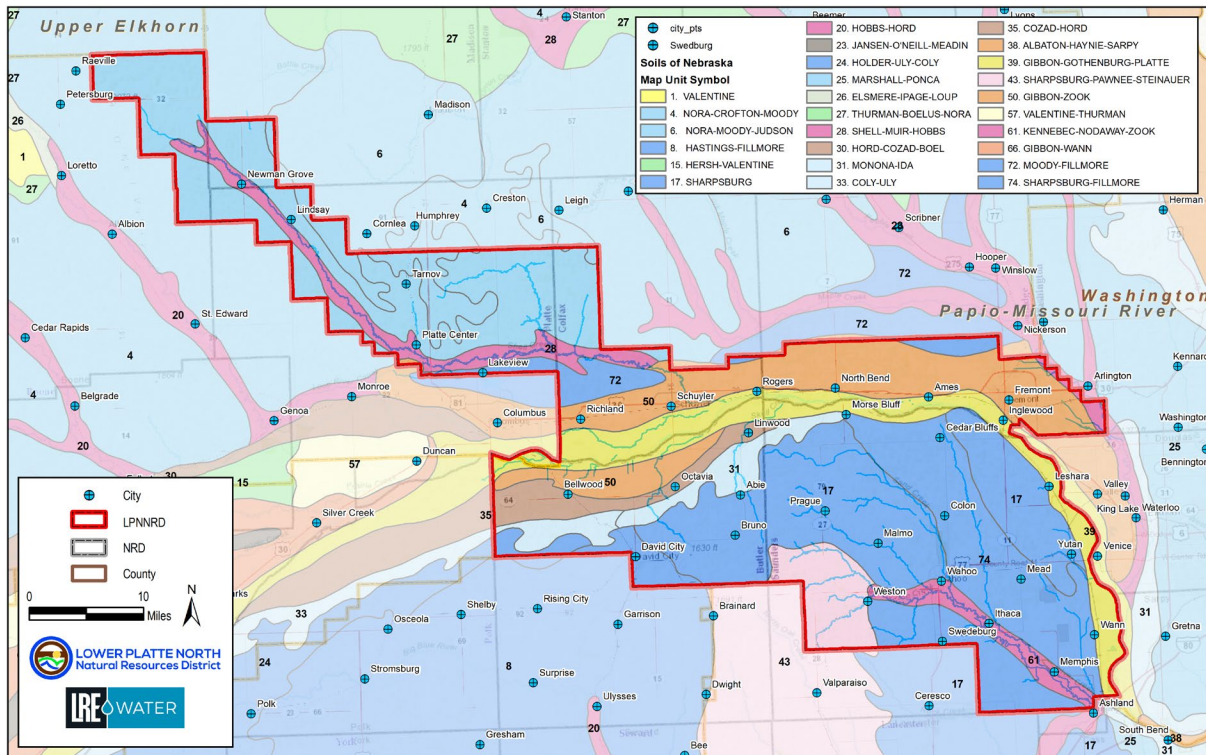


Figure 11: Soil Types

## 2.5 GEOLOGY AND HYDROLOGICAL CHARACTERISTICS

The geology of the District generally consists of Quaternary-age unconsolidated loess, glacial till and outwash, and older buried fluvial deposits overlying bedrock. The five primary bedrock formations are shown in Figure 12. A description of the major unconsolidated and bedrock formations and their potential to transmit water to wells, as described in the previous plan, are listed in Table 2.

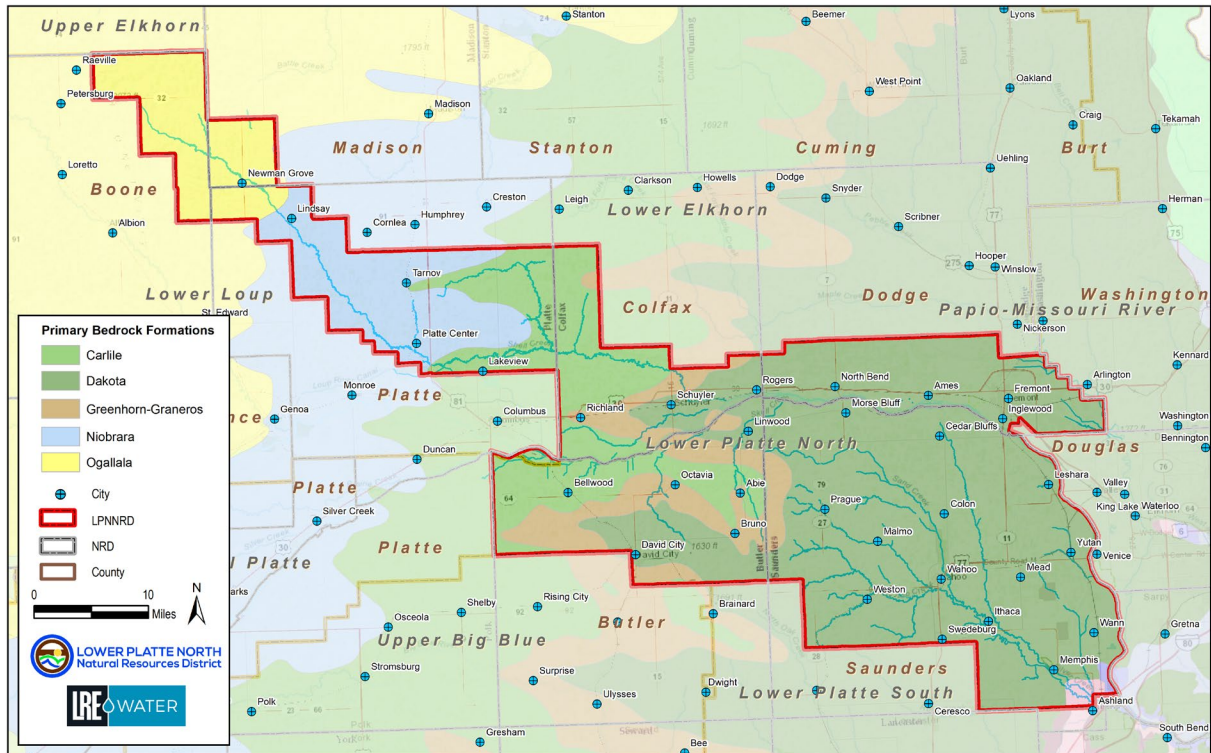


Figure 12: Bedrock Formations

Table 2: Geologic Sequence of Major Formations in LPNNRD

SYSTEM	SERIES	MAJOR STRATIGRAPHIC UNITS	PHYSICAL CHARACTER	WATER SUPPLY
Quaternary	Holocene	Modern Soils	Locally silty, clayey, or sandy.	Transmits locally variable amounts of recharge to the groundwater reservoir.
		Recent valley-fill deposits	Alluvial deposits of gravel, sand, silt, and clay associated with the most recent cycle of erosion	May contribute significant amounts of water to wells.

SYSTEM	SERIES	MAJOR STRATIGRAPHIC UNITS	PHYSICAL CHARACTER	WATER SUPPLY
	Pleistocene	Loess	Wind-blown silt with lesser amounts of very fine sand and clay.	Transmits recharge to the underlying aquifers. May provide small quantities of water to shallow wells.
		Till	Ice-deposited silty, sandy clay with gravel and larger pebbles and boulders.	Relatively impermeable. Transmits water slowly to buried aquifers. Groundwater may be perched above the till. Sand deposits within the till provide water to low-capacity wells.
		Glacial outwash and other ancient valley-fill deposits	Alluvial deposits of gravel, sand, silt, and clay associated with ancient erosional and depositional cycles.	Contributes water to wells in generally large amounts, stream-deposited sand and gravel constitute the major aquifers and yields to high-capacity wells.
Tertiary	Pliocene(?)	Ancient valley-fill deposits	Mostly unconsolidated silt. May blanket Cretaceous bedrock at base and on side slopes of paleo-valleys.	Generally, too fine textured to yield water to wells.
	Miocene	Ogallala	Poorly sorted clay, silt, sand, and gravel generally uncemented to slightly cemented.	The Ogallala constitutes a major aquifer in western portion of LPNRD. Yields to large-capacity wells.
Cretaceous	Upper Cretaceous	Niobrara	Chalk	May supply water to wells where fractures exist or are saturated.
		Carlile	Shale	Not known to supply water to wells
		Greenhorn	Limestone	
		Graneros	Shale	
	Lower Cretaceous	Dakota	Sandstone and shale	Constitutes a significant aquifer in the eastern part, potentially yields and water quality are locally variable.

Source: HWS, 1995

## 2.6 TOTAL SATURATED SAND

The total thickness of saturated sand is an indicator that can be used to qualitatively evaluate the relative potential yield from an aquifer or aquifers. The total saturated sand in the District, shown in Figure 13 (LRE, 2023), was created using water level and geologic data from NeDNR well logs and UNL-CSD test holes logs. Figure 13 was created by reviewing only the available geologic logs that

encountered bedrock from the NeDNR and UNL CSD datasets. The thicker aquifers are present in the northwest and Todd Valley portions of the District, and generally become thinner in the central portion and beyond Todd Valley.

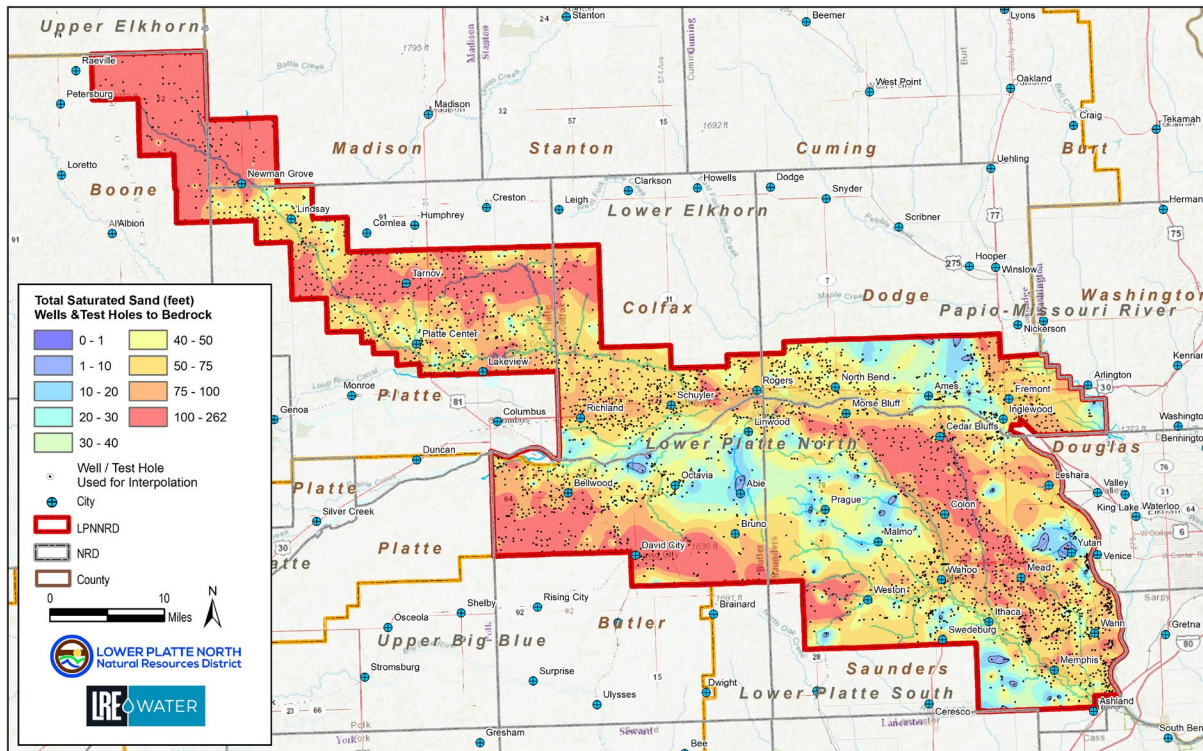


Figure 13: Total Saturated Sand, Well and Test Holes

## 2.7 CONFINED VS. UNCONFINED AQUIFERS

A confined aquifer is a formation below the land surface that is saturated with water and has impermeable layers above and below it causing it to be under pressure. As a result, when a confined aquifer is penetrated by a well, the water will rise above the top of the aquifer in the well. Artesian wells are a result of confined aquifers. In a confined aquifer, water level declines represent a reduction of artesian head, not saturated thickness.

A management strategy for a confined aquifer is to avoid pumping a confined aquifer to levels where it unnaturally transitions to unconfined conditions. The primary risk of this is decreasing the aquifer's pore pressure, which can potentially reduce well yields and quality due to changes in water pressure and oxidation. Over pumping can also lead to well interference by reducing the available head in the aquifer, declining water levels, and reduced well yields.

Unconfined aquifers, also referred to as water table aquifers, are present where the upper water surface (water table) is equal to atmospheric pressure. In an unconfined aquifer, water level rises and declines changes affect the saturated thickness.

Management strategies for an unconfined aquifer are to avoid over pumping if the rate of withdrawal exceeds the rate of recharge. In addition, dewatering activities can draw in pollutants, potentially

contaminating the water source, and excessive pumping can lead to reduced saturated thickness and well yields, reduced water levels in nearby surface waters if hydraulically connected, and the potential for well interference with other users.

Differences in static (i.e., non-pumping) groundwater levels measured in adjacent wells could be caused by wells being screened at different depths and/or in different aquifers.

Knowing whether an aquifer is confined or unconfined is important for effective groundwater management in Nebraska for several reasons:

1. **Water Availability:** Unconfined aquifers, also known as water table aquifers, are more influenced by surface conditions and can be more susceptible to droughts. Confined aquifers, under pressure, provide a more stable water supply.
2. **Recharge Rates:** Unconfined aquifers recharge more quickly due to their proximity to the surface and direct receipt of precipitation. Confined aquifers recharge more slowly due to impermeable layers above them.
3. **Water Quality:** Unconfined aquifers are more vulnerable to surface contamination from activities like agriculture and industry, while confined aquifers are generally better protected. Well construction issues will increase the vulnerability.
4. **Management Strategies:** Different practices are required for managing confined and unconfined aquifers. Unconfined aquifer management focuses on protecting recharge areas and controlling surface contamination, while confined aquifer management involves monitoring pressure levels and ensuring sustainable withdrawal rates. Pressure levels can be monitored using a piezometer to measure water level, known as the piezometric head. The pressure is calculated at a specific depth using a formula that includes the density of water, acceleration due to gravity, and height of the water column above the point of measurement.
5. **Hydraulic Properties:** The hydraulic properties, such as transmissivity and storativity, differ between confined and unconfined aquifers, affecting water movement and extraction.

By understanding the differences in aquifer types, the staff and Board can develop more effective strategies to promote sustainable water use and protect water quality by allocating resources based on specific needs. Figure 14 (LRE, 2023) illustrates the distribution of confined and unconfined aquifers. In certain areas, aquifers may transition from unconfined to confined due to fluctuations in water levels, with transitional zones defined as areas experiencing water level changes of approximately  $\pm 10$  feet. For the purposes of the GWMP, all transitional zones are classified as unconfined. Figure 15 provides an example of a transitional zone where over pumping has resulted in a shift from confined to unconfined conditions.

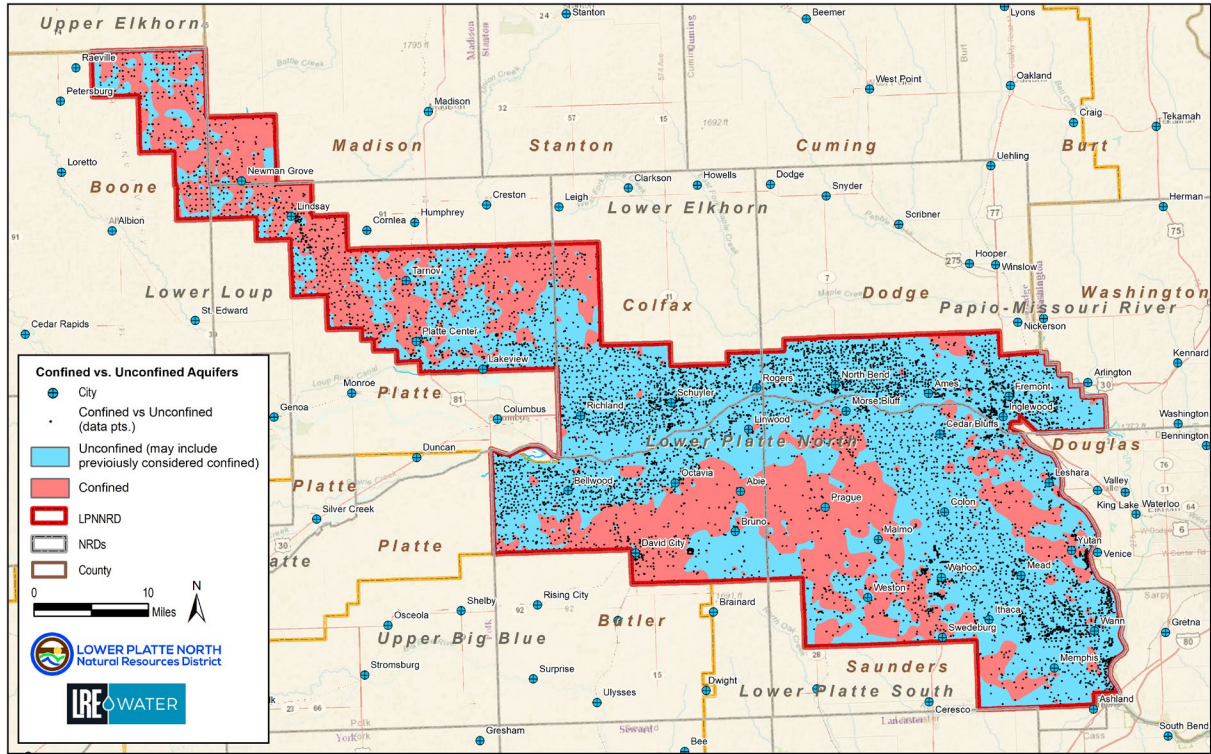


Figure 14: Confined vs. Unconfined Aquifers

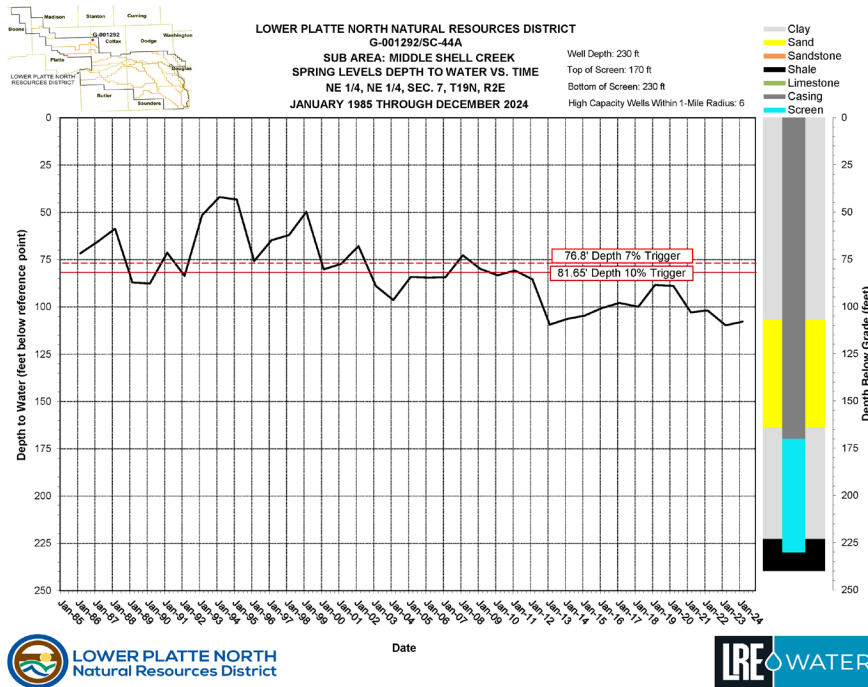


Figure 15: Hydrograph of Transitional Aquifer Type

## 2.8 TRANSMISSIVITY

Transmissivity is perhaps the one hydrologic parameter which best describes the aquifer and its potential for use and withdrawal. Transmissivity is the rate which quantifies the ability of an aquifer to transmit water and is dependent on saturated thickness and permeability.

Figure 16 shows the transmissivity of the Principal Aquifer for the LPNNRD based upon the Assessment (LRE Water, 2023). Areas with transmissivity less than 10,000 gallons per day per foot are not considered optimal areas for high-capacity wells, which are hatched.

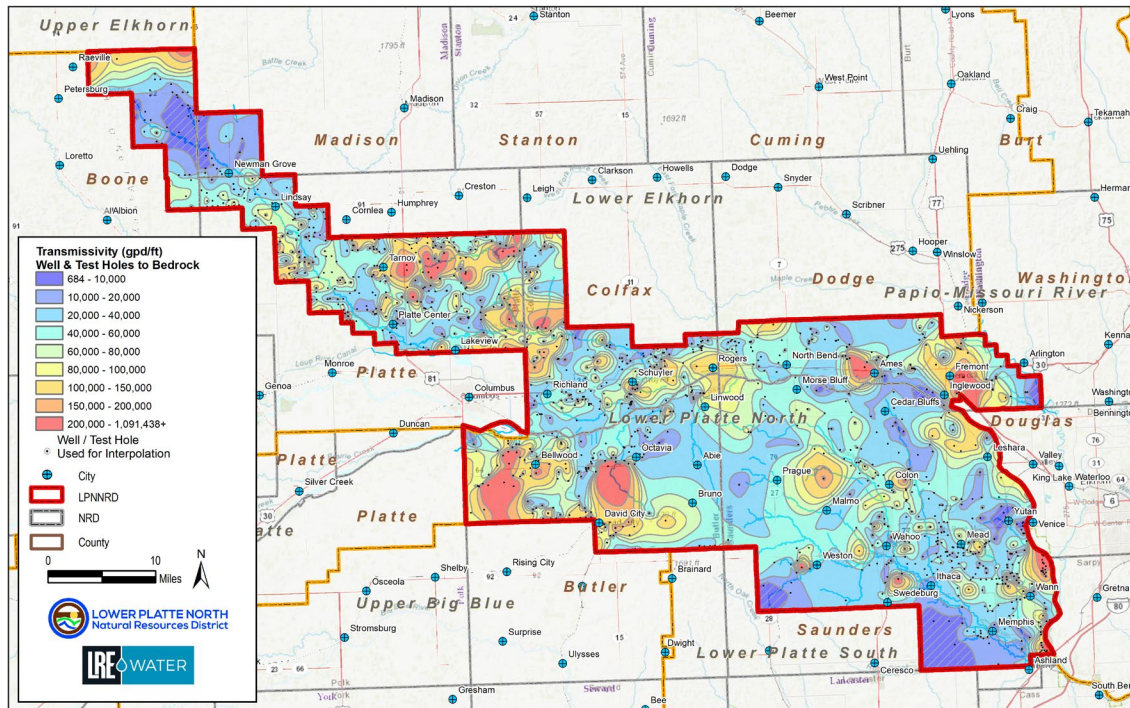


Figure 16: Aquifer Transmissivity

## 2.9 CLIMATE AND PRECIPITATION

Precipitation in the LPNNRD serves as the principal source of water for recharge, except in the Platte River Valley and areas adjacent to the Platte River, where river water contributes to aquifer recharge. Pumping in these areas can further induce additional recharge from the river. Figure 17 demonstrates the mean annual precipitation for the state and the LPNNRD between 1981 and 2020, provided by the National Oceanic and Atmospheric Administration. The average annual water requirement for maximum yield by crops varies from 25 inches for corn to 22 inches for grain sorghum and soybeans (HWS, 1995). The overall average water use for irrigation to supplement precipitation is 5.56 inches district-wide, with the exception of Butler/Saunders SQS#1 (4.65) and Platte/Colfax SQS#2 (4.59) where allocations restrict pumping (LPN, 2024). Moisture needs are more critical at certain times in the crop growing cycle and if moisture is not available, crop production can and does suffer. Detailed evaluations of precipitation versus soil moisture and crop water needs are necessary components in providing a comprehensive management system.

This area of the state receives maximum precipitation in April, May, and June, at which time the highest rate of leaching of contaminants is occurring. The maximum water use period by crops stretches from April through September (crop dependent), with July, August, and September water requirements exceeding available average precipitation. It is apparent that at certain times there is a need for irrigation water to consistently produce high yields.

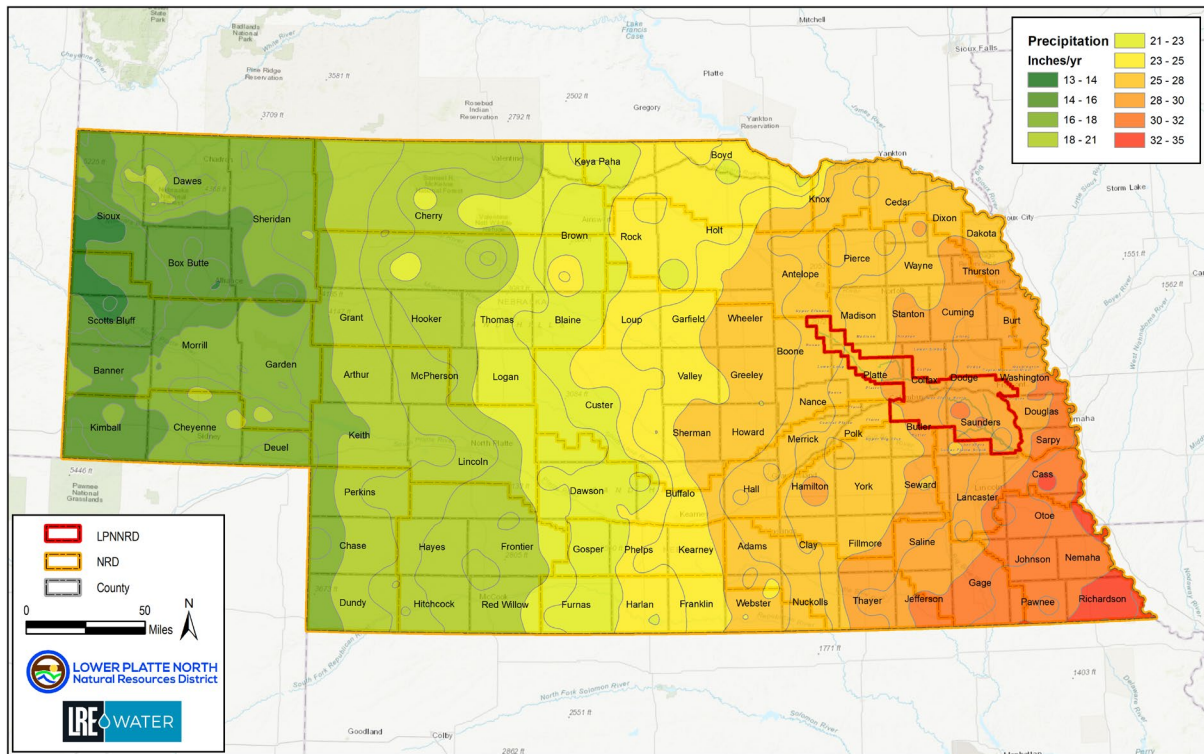


Figure 17: Average Annual Precipitation (1981-2010)

## 2.10 LAND COVER

The vast majority of the District’s 1,030,468 acres (approximately 75 percent) of LPNNRD is classified as row crop by the CropScape – Cropland Data Layer, derived from the U.S. Department of Agriculture’s National Agricultural Statistics Service (NASS). The NASS dataset was used to look at land cover changes since 2009 and categories were combined into seven sub-categories, out of the 37 that are available. As shown in Table 3, over 84,500 acres of grass or pasture has been converted since 2009. The increase in wetlands was not determined but could be a result of the 2019 flood event or potentially a difference in interpretations of data collected in each respective year. A spatial representation of land cover is shown in Figure 18.

Table 3: LPNNRD Land Cover Change (2009 – 2023)

Land Cover	2009	2023	Ac Change	% Change	2009 Coverage	2023 Coverage
Row Crop	716,285.3	769,604.6	53,319.3	7.4%	69.5%	74.7%
Alfalfa/Hay	19,640.1	34,722.4	15,082.3	76.8%	1.9%	3.4%
Developed	55,475.7	58,863.9	3,388.2	6.1%	5.4%	5.7%
Grass/pasture	179,834.1	95,315.4	-84,518.7	-47.0%	17.5%	9.2%
Forest	33,010.9	35,942.7	2,931.8	8.9%	3.2%	3.5%
Open Water	17,666.4	19,698.6	2,032.2	11.5%	1.7%	1.9%
Wetlands	8,556.2	16,320.7	7,764.5	90.7%	0.8%	1.6%

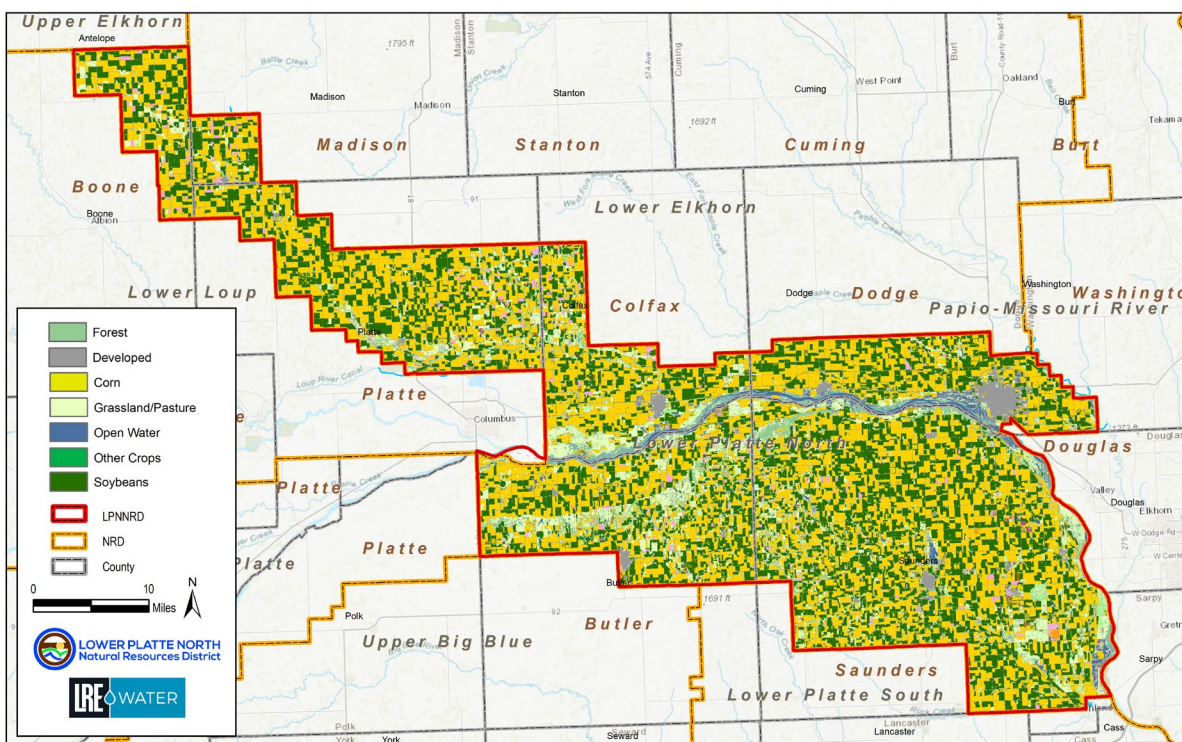


Figure 18: 2023 Land Cover

As the total number of acres harvested increases, the following occurs:

1. The number of acres of permanent cover decrease.
2. The number of acres more susceptible to erosion and runoff increases.
3. The usage of fertilizer, herbicides, pesticides, etc. increases.
4. The potential for ground and surface water degradation increases.
5. The use of high-capacity wells for irrigation increases demand on the aquifers and surface water resources.

## 2.11 POPULATION – ECONOMIC BASE

The economic base for LPNNRD communities varies, but generally includes agriculture, manufacturing, and services. Many of the communities rely heavily on agriculture, including crop production (corn, soybeans) and livestock farming. The City of Fremont, the largest community, has a diverse industrial base with food processing, metal fabrication, and other manufacturing sectors. Tourism and recreation are also available, with multiple state and locally operated lakes open to the public, along with use of the Platte River for open water recreation.

The total population of the LPNNRD is estimated at 65,447 (NARD, 2024) with approximately 49,860 within incorporated communities, or approximately 76 percent. Most of these residents in the rural areas are relying on private drinking water wells. A breakdown of population for the 28 LPNNRD communities is shown in Table 4.

Table 4: Population of Incorporated Places (1990 – 2025)

Village/City	1990	2000	2010	2020	Projected Population 2025
Yutan	1,100	1,216	1,174	1,308	1,350
Weston	310	310	324	335	340
Wahoo	3,700	3,942	4,508	4,509	4,600
Prague	340	346	303	285	290
Morse Bluff	130	134	135	135	140
Memphis	110	106	114	114	120
Mead	580	564	569	617	630
Malmo	120	109	120	120	125
Leshara	115	112	112	112	115
Ithaca	150	168	148	148	150
Colon	140	138	110	110	115
Cedar Bluffs	630	615	610	610	620
Schuyler	5,200	5,371	6,211	6,547	6,700
Rogers	95	95	95	95	100
Richland	75	73	73	73	75
North Bend	1,180	1,213	1,177	1,241	1,300
Inglewood	390	382	325	325	330
Fremont	24,500	25,174	26,397	27,141	27,500
Octavia	125	127	127	127	130
Linwood	88	88	88	88	90
David City	2,550	2,597	2,906	2,995	3,050
Bruno	110	112	99	99	100
Bellwood	440	446	435	435	440
Abie	110	108	69	69	70
Newman Grove	790	797	721	721	730
Tarnov	65	63	46	46	50

Village/City	1990	2000	2010	2020	Projected Population 2025
Platte Center	340	336	336	336	340
Lindsay	320	321	255	255	260
<b>TOTALS</b>	43,803	45,063	47,587	48,996	49,860

Source: Statistical Atlas of the U.S.

Information on industrial activity demonstrates a variety of industrial types present in the District that includes grain processing, alfalfa products, concrete products, equipment manufacturing, fiberglass manufacturing, irrigation equipment manufacturing, sand and gravel mining, steel fabrication, confined animal feeding operations (swine, beef, and chickens), packing plants, among many others. This industrial array also yields a diversity of water needs and waste treatment problems. These needs and problems may have a degrading effect on both ground and surface water quality and quantity if not properly addressed.

## 2.12 SURFACE WATER

The LPNNRD is recognized by its northwest boundary consisting of the Shell Creek watershed extending from the cities of Newman Grove to Schuyler, where it meets the Platte River. Other significant streams include Elm Creek, Loseke Creek, Lost Creek, Skull Creek, and Wahoo Creek and its tributaries including Sand Creek, Silver Creek, and Cottonwood Creek (Figure 19).

Outside of the Platte River, most of the other perennial streams do not support floating or active recreational uses. Flow through this region of the Platte River is a combination of the Upper Platte, the Loup, and the Elkhorn Rivers. Flow in the Platte River can range from no flow to overbank flows. The data (for 51 years up to 1995 as listed in the 1995 GWMP), at the City of Ashland shows the contributions of flow are: Elkhorn River (22 percent), Loup River (48 percent), upper Platte River (28 percent) and tributaries and valley groundwater inflow (2 percent). The annual and seasonal percentages of contribution vary extensively and are dependent upon the level of precipitation or runoff from snowmelt within the areas of influence. As precipitation influences streamflow, dry periods likewise influence streamflow and the manner of loss and gain to groundwater areas is often linked with streamflow volume.

Most of the streams receive baseflow from groundwater seepage to help maintain stream levels during dry periods. However, during heavy rain events, streams become 'flashy' and experience rapid increases in flow and water levels due to surface water runoff.

Surface water rights are managed by NeDNR. As of 2025, there are a total of 154 active surface water diversion points across the LPNNRD with a record of 10,163 acres of irrigated crops utilizing surface water (NeDNR, 2025a).

The Platte River's role in recharging groundwater by induced pumping and during periods of overbank flow within portions the LPNNRD is vital. Wellfields along the Platte River are crucial for supplying water to a significant portion of Nebraska's population, including water supplies for the City of Lincoln Water System (296,000 customers) (City of Lincoln, 2024) and Metropolitan Utilities District (600,000 customers) (MUD, 2024). The importance of this water source, managing the balance between groundwater recharge and surface water flow is essential. This involves monitoring water quality,

managing water withdraws, water rights, and ensuring sustainable practices to maintain the health of the aquifer and the river system.

There are a total of seven stream gages, managed USGS, within the LPNDR, including one in progress. The location and station name for each of the gage stations is shown in Table 6 with locations in Figure 19. Historical stream flow hydrographs can be found in Attachment A. Statistics from the USGS gage stations provide an idea of the volume of water, and variation in flow events, within Shell Creek, Wahoo Creek, and Platte River.

Table 5: LPNDR Steam Gage Information

Station Number	Station Name	General Location
06795500	Shell Creek near Columbus	122nd Ave - 4 miles NE of Lake Babcock
06796000	Platte River at North Bend	State HWY 79 - 0.5 miles S of North Bend
06796500	Platte River near Leshara	State HWY 64 west of Valley
06804000	Wahoo Creek at Ithaca	CRG - 1 mile S of Ithaca
06804700	Wahoo Creek at Ashland	State HWY 63 - 0.5 miles N of Ashland
06801000	Platte River near Ashland	At HWY 6
06795050	Shell Creek near Platte Center	In Progress

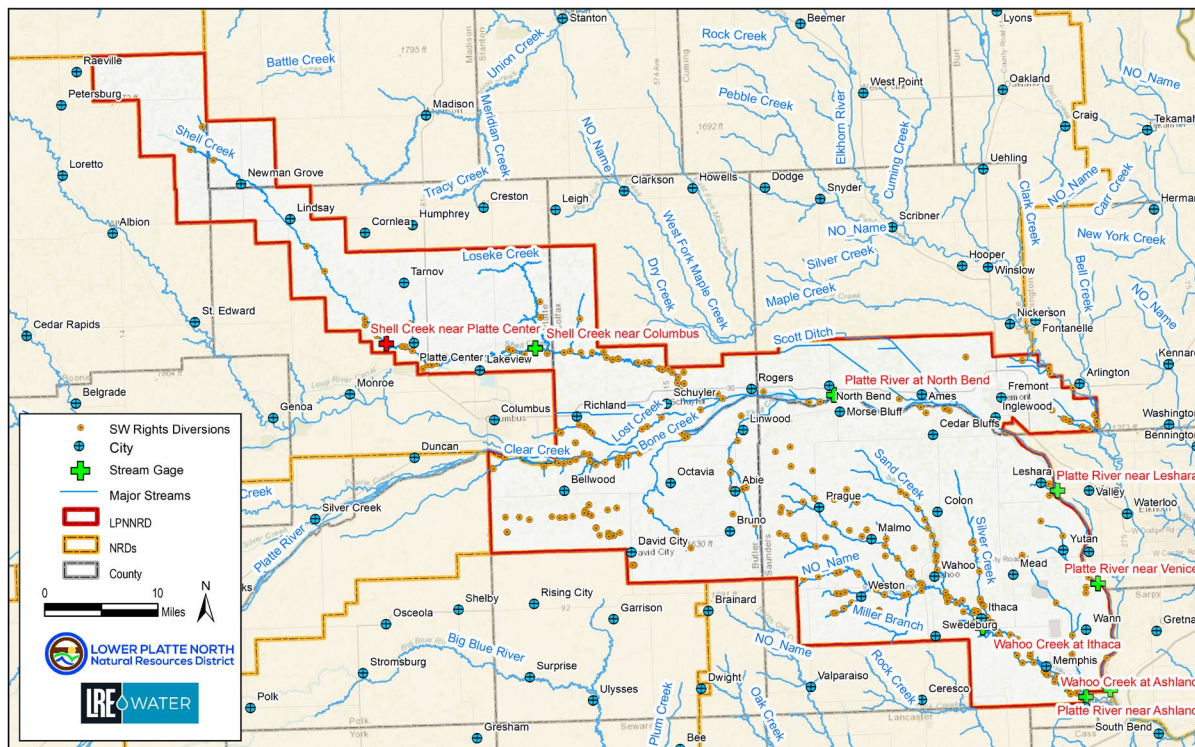


Figure 19: Major River Systems, Stream Gages and Diversion Points

## 2.13 WELLS AND TEST HOLES

The primary volumetric uses of groundwater in the District are for irrigation and municipal water needs, as shown in Figure 19. Groundwater is the principal source of supply for public drinking water systems, with all public water supplies deriving their supply from these sources. The cities of Lincoln, Omaha, and Fremont have extensive wellfields along the Platte River. Although the City of Lincoln is not located in the LPNNRD, a significant portion of its wellfield for public water supply is situated along the Platte River north of the City of Ashland.

The current use rate for the City of Lincoln’s wellfield averages 39.4 million gallons per day (mgd) but can reach up to 64 mgd during the summer months (LWS, 2020). This volume, combined with the demand from irrigation and other public and private users within the District, underscores the importance of both the quantity and quality of groundwater for continued and sustained development. While community water use is reported annually as part of the IMP implementation, the development of irrigation wells serves as an indicator of the majority of the aquifer use, as shown in Figure 20.

The UNL-CSD’s drilling program and has drilled 6,000 test holes throughout the state since 1930. Geologic material from these sites is preserved at the CSD Geological Sample Repository. This data is maintained by UNL-CSD and made available to the public for research, well siting, aquifer mapping, and much more. There are 151 UNL-CSD test holes within the LPNNRD, and another 136 within 5 miles of the LPNNRD boundary, as shown in Figure 21.

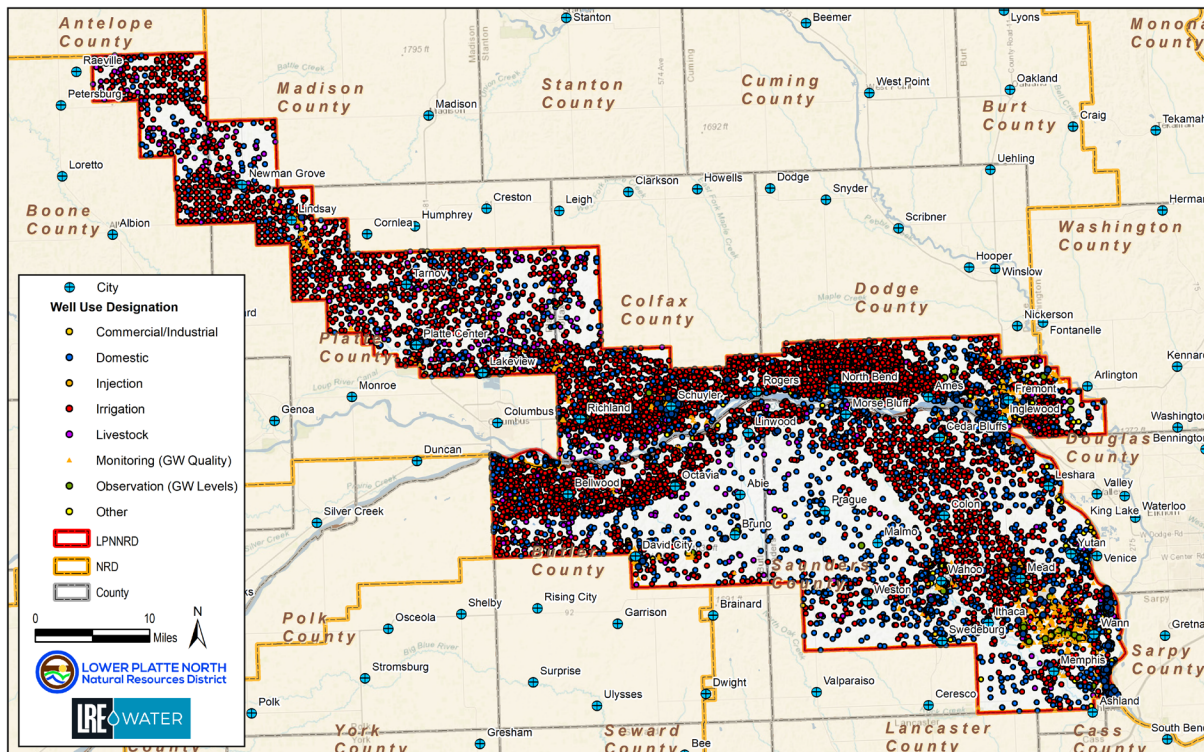


Figure 20: Registered Active Wells in the LPNNRD

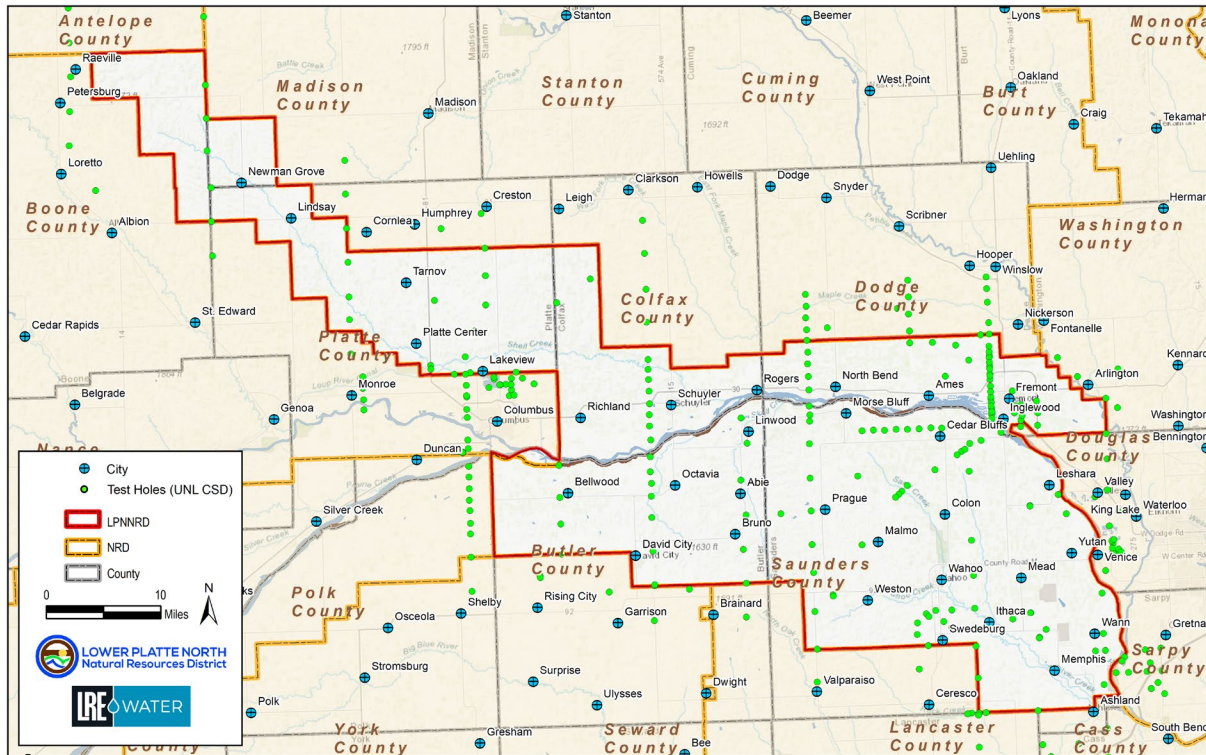


Figure 21: Test Holes within 5-miles of LPNNRD

## 2.14 PARTNERS AND PROGRAMS

The LPNNRD commonly works with a wide-array of partners in managing water resources. A summary of the major partners are listed below:

### U.S. Geologic Survey (USGS)

The Nebraska Water Science Center, a organization of the USGS, commonly partners with NRDs to provide reliable, impartial, and foundational data and scientific analysis to support a wide-variety of groundwater and surface water projects. The USGS is responsible for the maintenance of the five stream gages in the LPNNRD.

### Nebraska Department of Environment and Energy (NDEE)<sup>1</sup>

The NDEE is responsible for protecting and improving human health, the environment, and energy resources. Primary responsibilities include environmental protection of air quality, water quality, land and waste management, emergency response to spills, petroleum remediation, climate change, assistance to agricultural practices, and energy resources.

The NDEE maintains the Nebraska Groundwater Quality Clearinghouse, a one-stop location for a wide-variety of water quality data that is strongly supported by NRDs. The Source Water Protection Program

<sup>1</sup> As of July 1, 2025, NDEE and NeDNR merged and are referred to as the Nebraska Department of Water, Energy, and Environment (NeDWEE)

provides funding and is utilized to support the protection and sustainability of public water systems and the WHP program. Other programs related to groundwater include Underground Injection Control, Onsite Wastewater Compliance, Agricultural Permitting, and the National Pollution Discharge Elimination System. NDEE also provides Section 319 funding including support of projects addressing nitrate leaching to groundwater.

#### Nebraska Department of Natural Resources (NeDNR)<sup>2</sup>

The NeDNR is responsible for surface water, groundwater, floodplain management, dam safety, natural resources planning, water planning and integrated management, storage of natural resources and related data, and administration of State funds (NeDNR, 2025b). The NeDNR is a regular partner with the NRDs and is currently working with the LPNNRD on implementation and updates to the IMP. The NeDNR is responsible for the maintaining the registered well database, registering wells, providing GIS data, and maintaining stream gages. They also administer multiple funding programs.

#### University of Nebraska – Lincoln Extension

The UNL Extension provides education and outreach, and is spearheading a statewide initiative to enhance collaboration among project partners to tackle health concerns related to contamination of water resources.

#### University of Nebraska – Conservation and Survey Division (UNL-CSD)

The UNL-CSD serves as the natural resources component of the School of Natural Resources. Overtime, UNL-CSD has partnered with the LPNNRD on a variety of projects aimed at installing dedicated monitoring wells and analyzing AEM data.

#### Eastern Nebraska Water Resources Assessment (ENWRA)

The ENWRA started in 2006 with six NRDs collaborating on the development of a geologic framework and water budget for the previously glaciated portion of eastern Nebraska (ENWRA, 2024). This group has been responsible for the collection of AEM surveys across a large area of Eastern Nebraska, including most of the LPNNRD.

#### Neighboring NRDs

Through efforts such as the Lower Platte River Basin Coalition, the LPNNRD regularly collaborates with neighboring NRDs on regional and local water management efforts. The LPNNRD is also a partner of the Lower Platte River Drought Contingency Plan and is working with NeDNR, LPSNRD and PMRNRD on development of a subregional groundwater model for the Lower Platte River.

#### Cities and Villages

The LPNNRD regularly collaborates with Nebraska cities and villages to manage and protect natural resources effectively including flood management, water quality programs, stormwater management, education outreach, recreation projects, and grant and funding assistance. The LPNNRD will assist

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<sup>2</sup> As of July 1, 2025, NDEE and NeDNR merged and are referred to as the Nebraska Department of Water, Energy, and Environment (NeDWEE)

communities with development of WHP plans, source water protection projects, and engage with communities to site new public water supply wells.

### Counties

The LPNNRD collaborates with Counties on flood reduction and ice jam management, groundwater management, education programs at county fairs, and engagement of special projects on a county-wide basis (SQS areas).

### NARD

The NARD serves as the trade association for Nebraska's 23 NRDs. Some of the basic functions include coordination and support, governmental representation, education and outreach, resource sharing, and policy development.

### Other Organizations

Local agronomists, cooperatives, and other partners support groundwater protection through nutrient management guidance, promotion of BMPs, and outreach that encourages sustainable farming practices across the LPNNRD.

## **2.15 ENVIRONMENTAL EDUCATION AND INFORMATION**

The LPNNRD offers a variety of hands-on activities, classroom presentations, field trip opportunities, career exploration and more for young and old to learn more about the environment and our natural resources. There are two full time staff available to implement environmental education programs. All activities are of no cost to the public. Activities offered include:

- Coffee Lakeside and Monthly Educational Program
- Local and Regional Land Judging Contests
- Adult Environmental Education Opportunities
- Field trips to recreation areas and prairies
- Envirothon Field Day at Clint Johannes Education Building at Lake Wanahoo
- Local and regional range judging contest in partnership with area NRDs
- Spring Conservation Sensation – a natural resources field day for local 5<sup>th</sup> and 6<sup>th</sup> graders
- Test Your Well events in conjunction with local FFA Chapters
- Scholarships for:
  - Students participating in the Shell Creek Watershed monitoring group
  - Nebraska Association for Conservation and Environmental Education (NACEE) – support for teachers and other educators who are interested in science as it relates to natural resources.
  - Ag in the Classroom – incorporation of program materials into the classroom
  - Natural Resources Grant – to assist local high school students monetarily in a natural resources-based project within their community.

### 3 GROUNDWATER QUANTITY

#### 3.1 GROUNDWATER LEVELS AND EXISTING WELLS

Most of the LPNNRD has not seen significant declines according to the UNL-CSD's annual 'Groundwater-Level Changes in Nebraska – Predevelopment (mid-1950s) to Spring 2023' dataset, shown in Figure 22. It is important to note that 2022 and 2023 were significantly dry years for the region. The primary area of concern is within Colfax County, where groundwater levels have declined 30 to 40 feet near the Village of Leigh where the District borders the LENRD. Other areas around the Village Bruno in Butler County also have documented declines. On the other hand, the far northwest corner of the District in the Shell Creek region has seen increasing level up to 30 feet near the Village of Petersburg and toward the Sandhills.

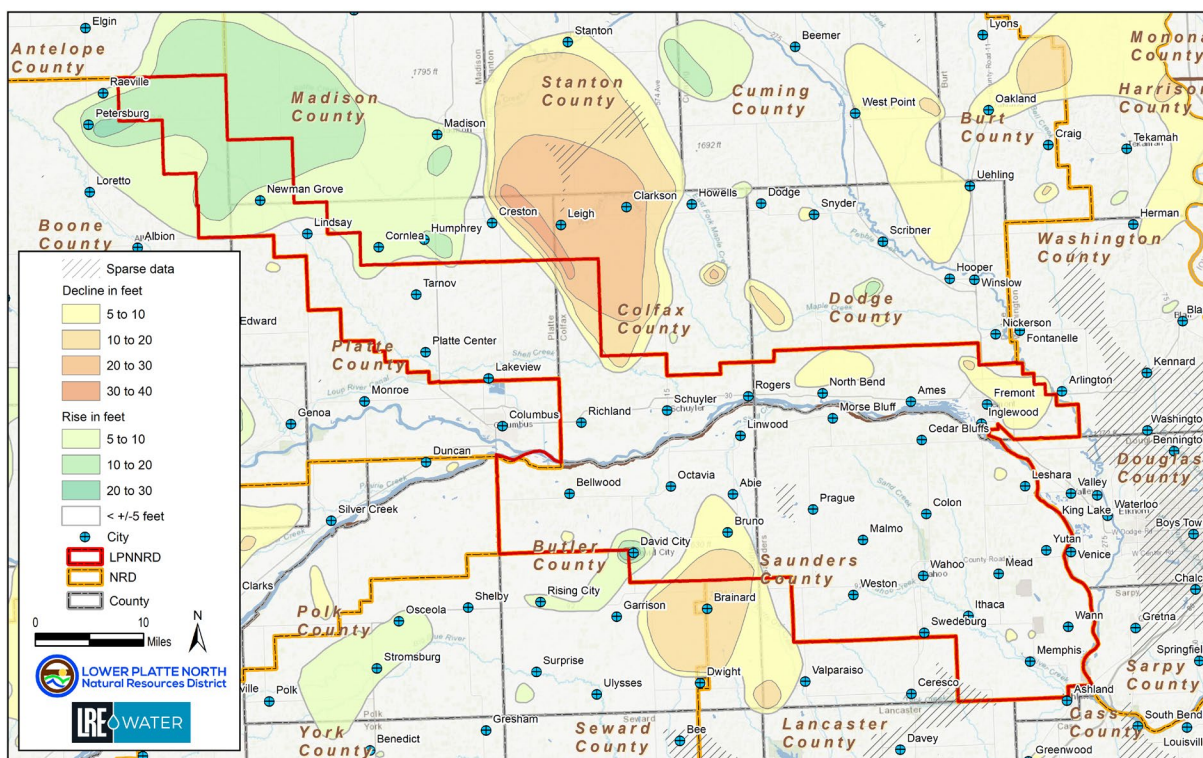


Figure 22: Groundwater-Level Changes in LPNNRD, Predevelopment to Spring 2023

Each spring and fall, LPNNRD staff measure static water levels from approximately 215 wells, most of which are utilized for high-capacity irrigation. The staff also manage a dedicated observation well network with 62 sites, each with a pressure transducer and logger with telemetry, providing real-time data to the staff and public through the District's website. The data from the spring water levels are utilized annually to review changes in water levels and are reviewed against the triggers set for Groundwater Management Phase Areas. Locations of the spring/fall static wells and dedicated network is shown in Figure 23.

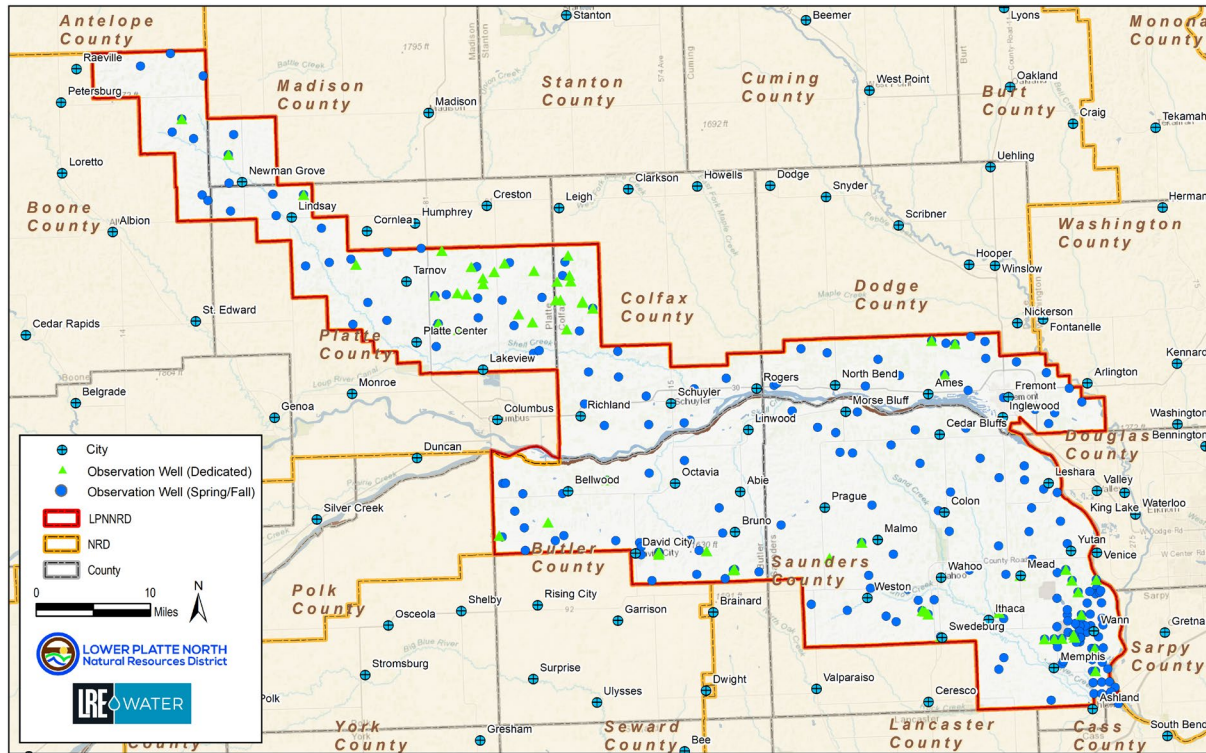


Figure 23: Observation Well Network

The depth to groundwater shown in Figure 24 was produced as part of the Assessment (LRE, 2023) and shows the depth to groundwater, in feet below ground surface. This elevation was determined by subtracting the ground surface elevation shown in Figure 10 from the groundwater surface elevations created during the Assessment. Water elevations were determined by reviewing all available geologic logs and test holes and utilizing static water level data at the time the well was drilled. Depth to water varies from near the surface to 20 feet deep along the Platte River to more than 250 feet below grade in the Shell Creek and Upland regions.

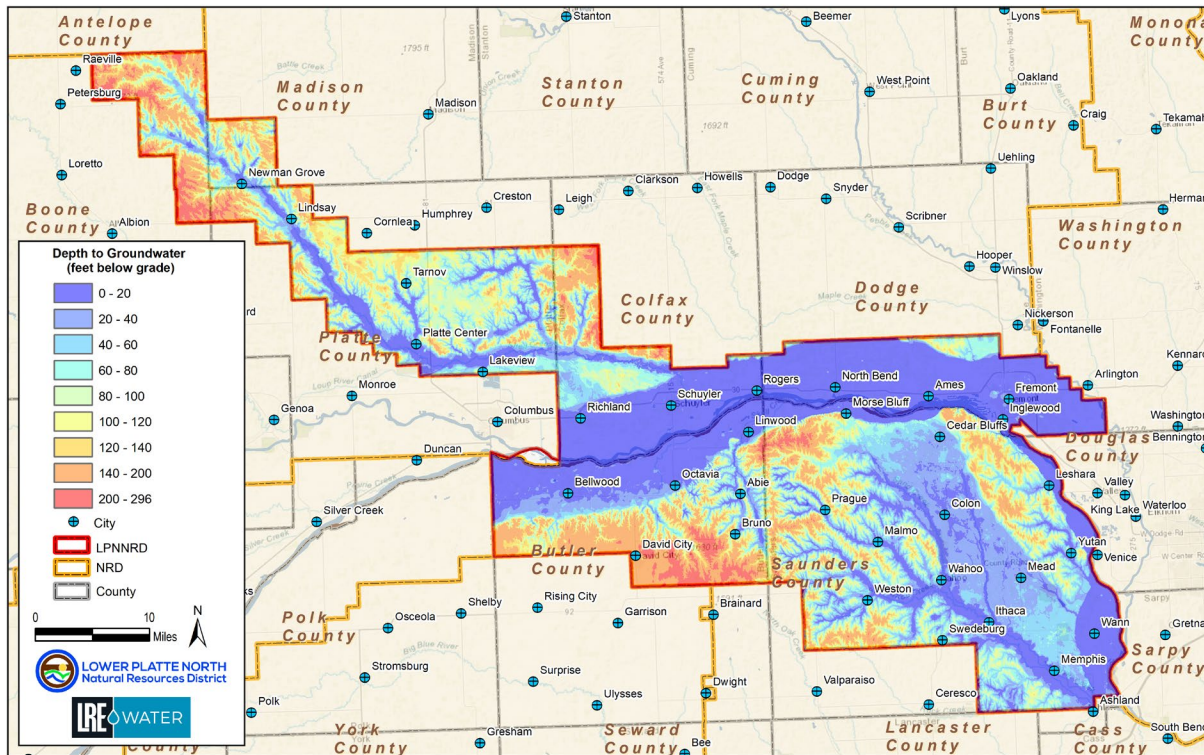


Figure 24: Depth to Groundwater

### 3.1.1 Sub-irrigation Potential

Sub-irrigation occurs naturally when a high groundwater table provides moisture to plant roots. There is significant potential for sub-irrigation within the LPNNRD, primarily due to the Platte River valley. The LPNNRD Rules and Regulations has defined sub-irrigation as, “the natural occurrence of a groundwater table within the root zone of agricultural vegetation, not exceeding ten feet below the surface of the ground”. Currently, the LPNNRD asks producers who plan to introduce new acres utilizing sub-irrigation to contact staff, but the LPNNRD is not currently requiring annual reports from agricultural producers who benefit from sub-irrigation.

The Hydrogeologic Assessment (LRE, 2023) was used to identify areas within the LPNNRD that include all areas that have groundwater within 10 feet or less, which totals over 228,000 acres, or over 22 percent, mostly due to the presence of the Lower Platte River valley. The depth of groundwater was determined by subtracting the groundwater elevation surface from the Digital Elevation Model, as shown in Figure 25.

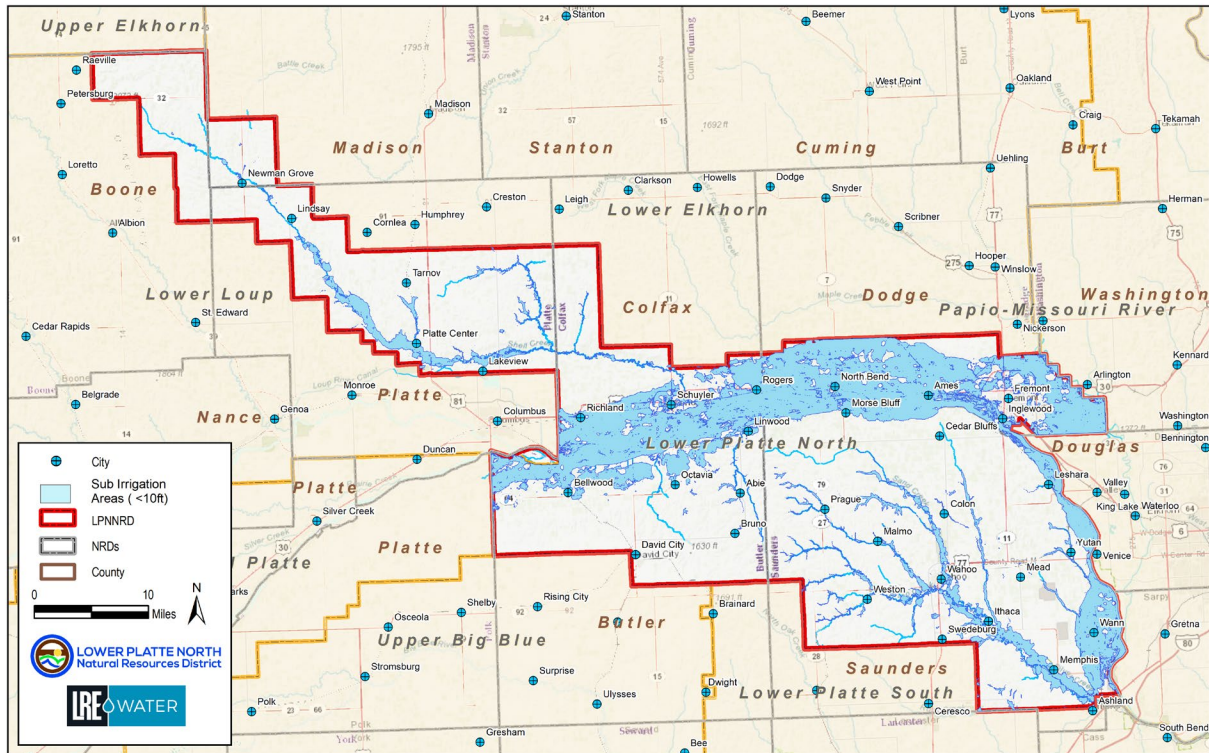


Figure 25: Potential Areas for Sub-irrigation

### 3.2 GROUNDWATER RECHARGE

Local precipitation serves as a major recharge source for aquifers in the LPNDR, complemented by the Platte River. The river receives significant runoff from Rocky Mountain snowmelt and baseflow contributions from major tributaries originating in the Nebraska Sandhills, facilitating natural infiltration. Its sand and gravel substrate enhances percolation into underlying aquifers, helping to sustain groundwater levels in the LPNDR. Additionally, groundwater from western regions, including the Sandhills, migrates eastward through the High Plains Aquifer system, contributing to baseflow in numerous rivers and streams. These hydrologically connected areas—particularly Shell Creek, Platte Valley, and Todd Valley aquifers—have been documented by the NeDNR.

Artificial groundwater recharge potential refers to the capacity of a specific area to effectively increase the amount of water entering an aquifer through human-controlled methods, which would require importing water or retiming water to make a project practical. This map also provides a general representation of areas that are more likely to naturally recharge groundwater. This process, known as artificial recharge, involved techniques such as:

- **Surface spreading:** Using canals, infiltration basins, or ponds to direct water across the land surface.
- **Injection wells:** Directly injecting water into the subsurface.
- **Irrigation methods:** Recharge from agricultural practices involving furrow or sprinkler systems to enhance infiltration.

Using the GIS data resources available from the Assessment (LRE, 2023), a representation of artificial recharge was created using two key inputs, the depth to groundwater and unsaturated clay thickness above the Principle Aquifer. Using GIS, a qualitative model was created on a scale from 1 (Lowest Potential) to 5 (Very High Potential), as shown in Figure 26. As expected, the Platte Valley and Todd Valley regions display a high to very high potential, whereas other areas within the Shell Creek and Upland regions tend to be limited to area along active waterways. This map is not necessarily representative of injection well methods.

Artificial recharge potential is also closely linked to groundwater risk, as these areas are also prone to infiltration of contaminants, such as nitrate, into the aquifer, potentially degrading water quality. This is especially critical in areas where the recharge water might carry pollutants from agricultural runoff, industrial processes, or urban runoff. Treatment wetlands could be a consideration to improve water quality and provide groundwater recharge in the highly vulnerable locations.

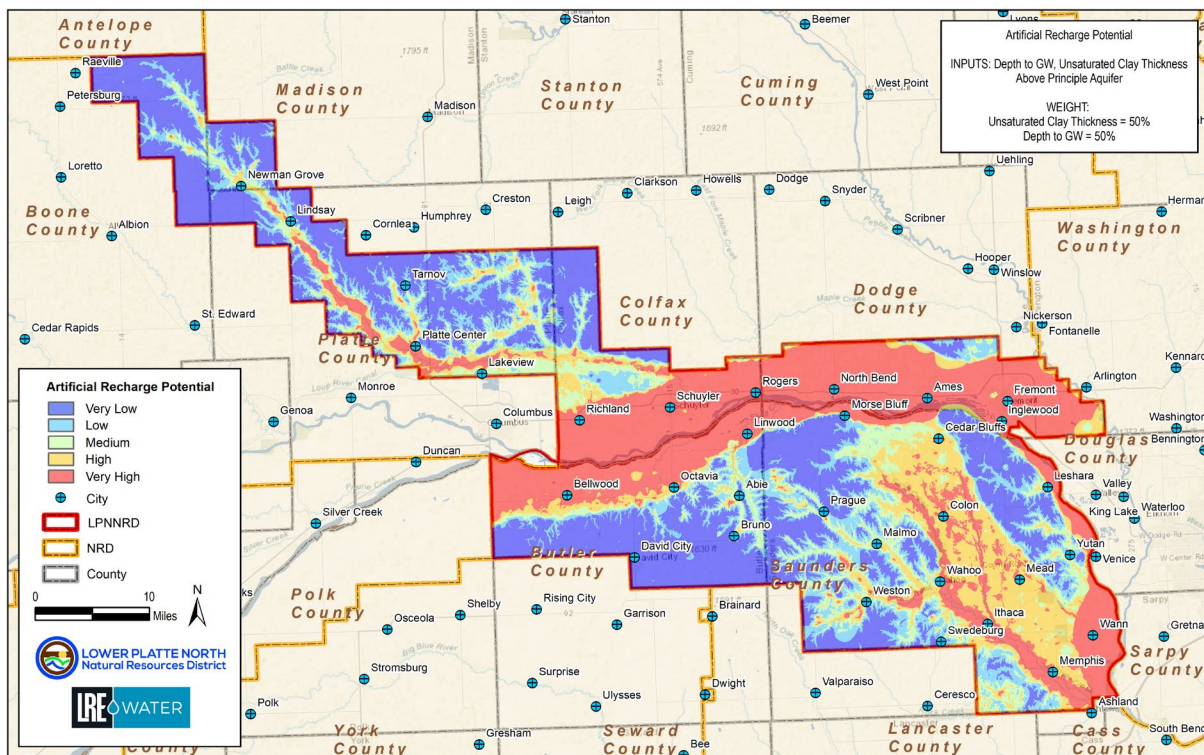


Figure 26: Artificial Recharge Potential

### 3.3 WATER USE AND DEMAND

The LPNNRD reports annually on water demand as part of the LPRCA Basin Water Management Plan Annual Report. This report is available by contacting the LPNNRD office. Highlights of the reporting on water use include the following:

1. Collection of data from over 1,300 flow meters, of which nearly 1,200 are on irrigation systems.
2. Recording of water use within SQS#1 (Bulter/Saunders) and SQS#2 (Platte/Colfax).
3. Continuous updating and tracking of nearly 392,500 certified irrigated acres (as of 2024).
4. Tracking of municipal and industrial groundwater uses.
5. Data collection and monitoring of new groundwater consumptive uses (agricultural, municipal, industrial).
6. Tracking of acres for groundwater consumptive uses (agricultural, municipal, industrial).
7. Creation of the 3-District Model, an ongoing effort with PMRNRD, LPSNRD, and NeDNR to utilize the 3-D AEM Framework created for the participating NRDs.
8. Working with the Coalition to track new stream depletion accounting (depletions and accretions).

The LPNNRD requires public water suppliers to report annual total water use as part of the LPRCA reporting. Table 5 displays the 2023 reported value, outside of Memphis, Bellwood, and Ithaca, which all have 2022 pumping shown. The Village of Bruno is connected to the City of David City and the Village of Colon receive water from the City of Wahoo. Numbers reported by the Lincoln Water System (LWS) and Metropolitan Utilities District (MUD), which serves Omaha and surrounding communities, including only pumping from wellfields located within the LPNNRD, each in eastern Saunders County. Table 6 displays the same information, but without the LWS and MUD wellfields.

*Table 6: Annual Municipal Water Usage All Communities*

Municipality	Gallons Pumped	Percent of Total
Newman Grove	32,205,200	0.15%
North Bend	64,260,000	0.30%
Wahoo*	269,693,307	1.27%
Abie	2,576,600	0.01%
Lindsay	65,992,600	0.31%
Malmo	1,980,000	0.01%
Mead	20,280,316	0.10%
Morse Bluff	2,183,000	0.01%
Platte Center	19,348,203	0.09%
Weston	13,948,027	0.07%
Yutan	49,132,000	0.23%
Fremont	3,654,341,000	17.26%
David City*	163,436,066	0.77%
Schuyler	376,856,000	1.78%
LWS (Lincoln)	5,841,820,110	27.59%
Cedar Bluffs	25,147,232	0.12%

Municipality	Gallons Pumped	Percent of Total
MUD (Omaha)	10,334,804,000	48.80%
Ashland	190,022,000	0.90%
Prague	11,420,000	0.05%
Memphis	9,524,000	0.04%
Bellwood	19,807,000	0.09%
Ithaca	4,000,000	0.02%
Rogers	4,006,000	0.02%
TOTAL	21,176,782,661	100.00%

Table 7: Annual Municipal Water Usage Without LWS and MUD

Municipality	Gallons Pumped	Percent of Total
Newman Grove	32,205,200	0.64%
North Bend	64,260,000	1.29%
Wahoo*	269,693,307	5.39%
Abie	2,576,600	0.05%
Lindsay	5,992,600	1.32%
Malmo	1,980,000	0.04%
Mead	20,280,316	0.41%
Morse Bluff	2,183,000	0.04%
Platte Center	19,348,203	0.39%
Weston	13,948,027	0.28%
Yutan	49,132,000	0.98%
Fremont	3,654,341,000	73.08%
David City*	63,436,066	3.27%
Schuyler	76,856,000	7.54%
Cedar Bluffs	25,147,232	0.50%
Ashland	90,022,000	3.80%
Prague	1,420,000	0.23%
Memphis	9,524,000	0.19%
Bellwood	19,807,000	0.40%
Ithaca	4,000,000	0.08%
Rogers	4,006,000	0.08%
	5,000,158,551	100.00%

### 3.3.1 Registered Wells

One method to generally understand water demand is through an evaluation of registered wells, as shown in Figure 27. In total, there are 13,025 registered wells in the LPNNRD (including PWS wells) in 2024. This total does not account for the likely thousands of unregistered wells constructed before

registration was required for all domestic wells in 1993. Of this total, 9,711 are active, and 47 percent are used for irrigation. Domestic well use is the second most common at 28 percent, as seen in Table 7. The ‘other’ category includes injection, other, and recovery wells. The majority of inactive wells within the database were decommissioned wells.

Table 8: Active Registered Well Distribution

TYPE	ACTIVE	PERCENT
Irrigation	4,611	47%
Domestic	2,716	28%
Livestock	295	3%
Observation	211	2%
Monitoring	1,156	12%
Commercial/Industrial	71	1%
Ground Heat/Heat Pump	170	2%
Public Supply Wells	188	2%
Other	293	3%
TOTAL	9,711	100%

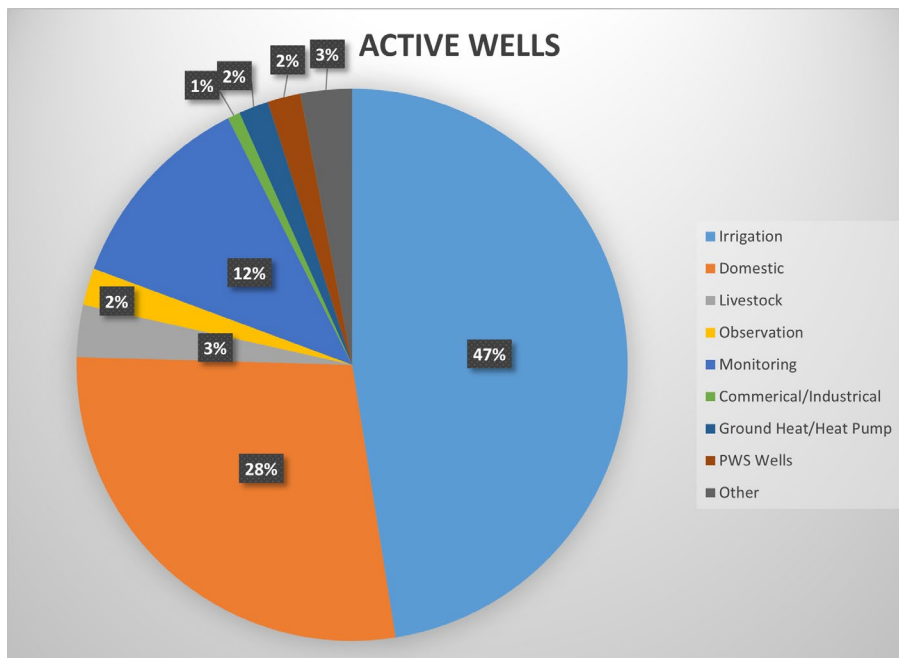


Figure 27: Percent of NeDNR Active Registered Wells

### 3.4 CERTIFIED IRRIGATED ACRES

The LPNNRD began certifying irrigated acres in the spring of 2010 as governed by the Nebraska Groundwater Management and Protection Act, 46-701. This statute provides the legal framework for managing and protection groundwater resources, including the certification of irrigated acres to ensure sustainable water use. The certification process helps catalog all existing irrigated acres and aligns

records from the LPNNRD, County Assessor, and the Farm Service Agency. This process helps ensure that irrigation practices comply with local and state water management regulations and helps manage and allocate water resources more effectively to prevent overuse and ensure sustainability. The certified irrigated acres as of January 2025 are shown in Figure 28.

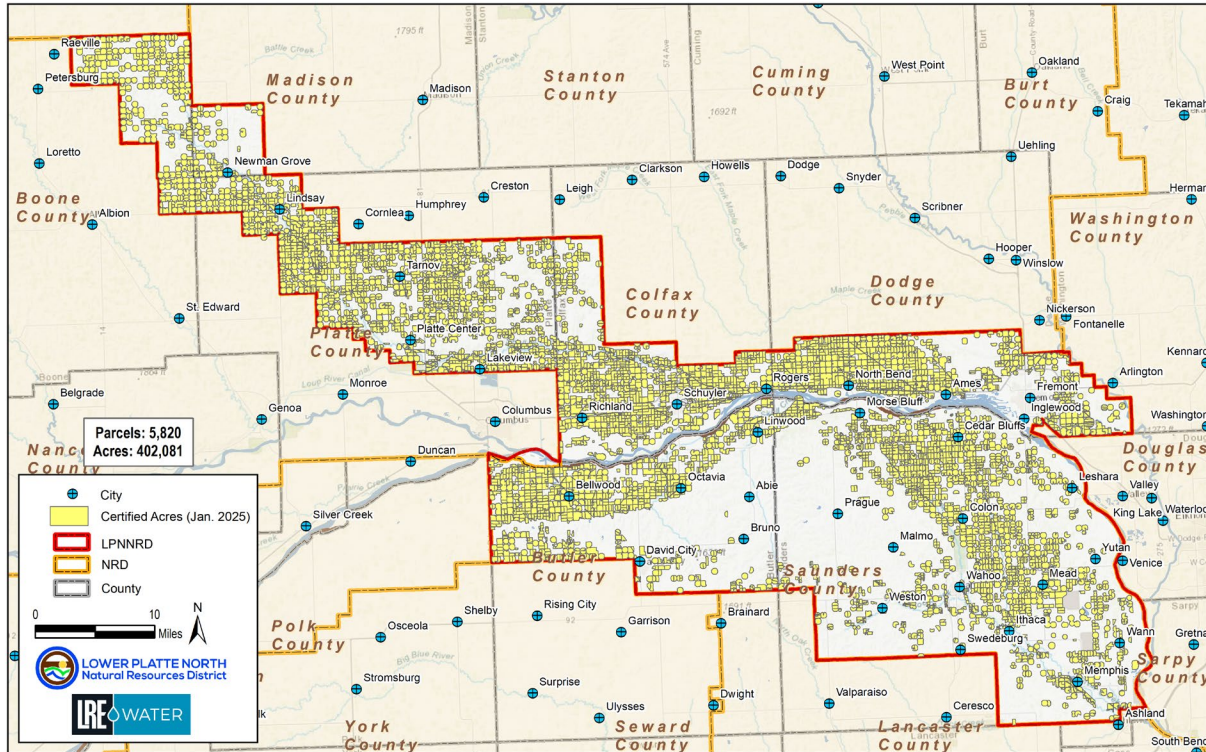


Figure 28: Certified Irrigated Acres in the LPNNRD (2024)

## 4 GROUNDWATER QUALITY

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### 4.1 AQUIFER VULNERABILITY

#### 4.1.1 Nonpoint Source Pollution

Non-point source pollution is generally defined as pollution arising from diffuse sources where no single point of release can be identified. While non-point source pollution can be related to weathering of minerals or soil erosion, human activities are commonly the originator for non-point source groundwater pollution. The diffuse application of fertilizers, pesticides, and herbicides in agricultural operations as well as urban areas account for large areas of land with soils containing these additives. Heavy application of chemicals, coupled with heavy precipitation or irrigation can result in these chemicals leaching to groundwater. Overland flow resulting from runoff can also provide a means of chemical leaching to a groundwater aquifer. In Nebraska, as well as in the LPNNRD, nitrate is the most common non-point source pollutant.

Aquifer vulnerability within the LPNNRD was mapped as part of the Assessment (LRE, 2023) by quantifying the amount of unsaturated clay above the top of the first encountered aquifer at each well or test hole location. The clay thickness values (75% of the model weight) were reclassified into five categories:

- 0 – 5 ft = 5
- 5 – 10 ft = 4
- 10 – 20 ft = 3
- 20 – 40 ft = 2
- > 40 ft = 1

Land use was also considered (25% weight) and reclassified into two categories with a value of either 1 or 5. Irrigated farmland is considered the most vulnerable (a rating of 5), and the remaining land use categories are considered least vulnerable (ratings of 1).

The resulting raster layer contains qualitative values that show where the aquifer has more or less potential vulnerability to the downward migration of potential contaminants from activities on the ground surface. This map shows a qualitatively modeled spatial distribution of groundwater vulnerability, from very low to very high, across the LPNNRD Boundary. A “Very Low” potential vulnerability means the aquifer is not likely to receive contaminants from activities on the ground surface. Conversely, a “Very High” potential vulnerability means the aquifer is potentially very susceptible to surface contaminants. The aquifer vulnerability map is shown in Figure 29.

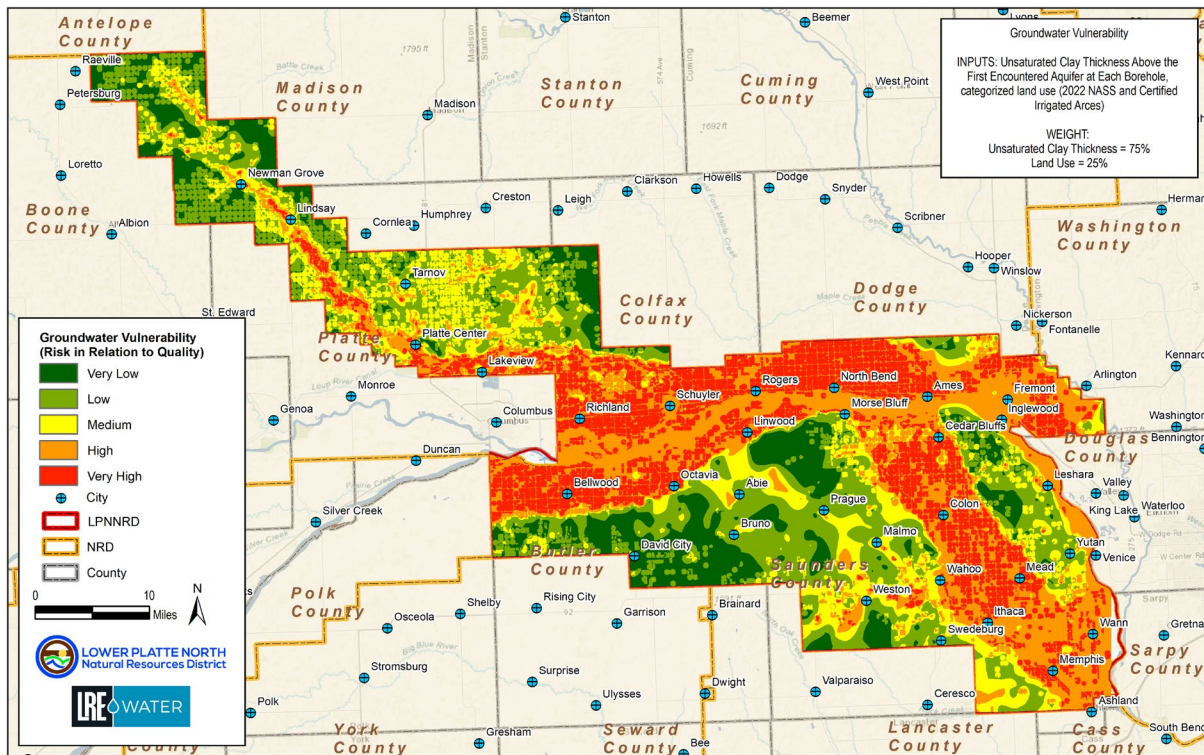


Figure 29: Aquifer Vulnerability

Nitrate can be found in most areas in Nebraska. Sources of nitrate include breakdown of organic material in soils, human or livestock wastes, and chemical fertilizers. When exposed to nitrate levels in excess of the U.S. Environmental Protection Area’s (USEPA) Maximum Contaminant Level (MCL) of 10 mg/L in drinking water, infants younger than about 6 months of age may develop methemoglobinemia or "blue-baby" syndrome. The University of Nebraska Medical Center has also recently begun researching the connection of nitrate in drinking water to various cancers in Nebraska.

To provide an illustration of the most recent nitrate concentrations, data from 2019 through 2023, collected by the LPNNRD staff from 537 wells across the District, is shown in Figure 30. Each year, the LPNNRD staff collected representative data across the entire District and concentrated sampling in Groundwater Management Areas, as seen within the Richland/Schuyler phase three GWMA. Staff have also been obtaining additional samples throughout the Shell Creek region where concentrations of nitrate have been slowly rising.

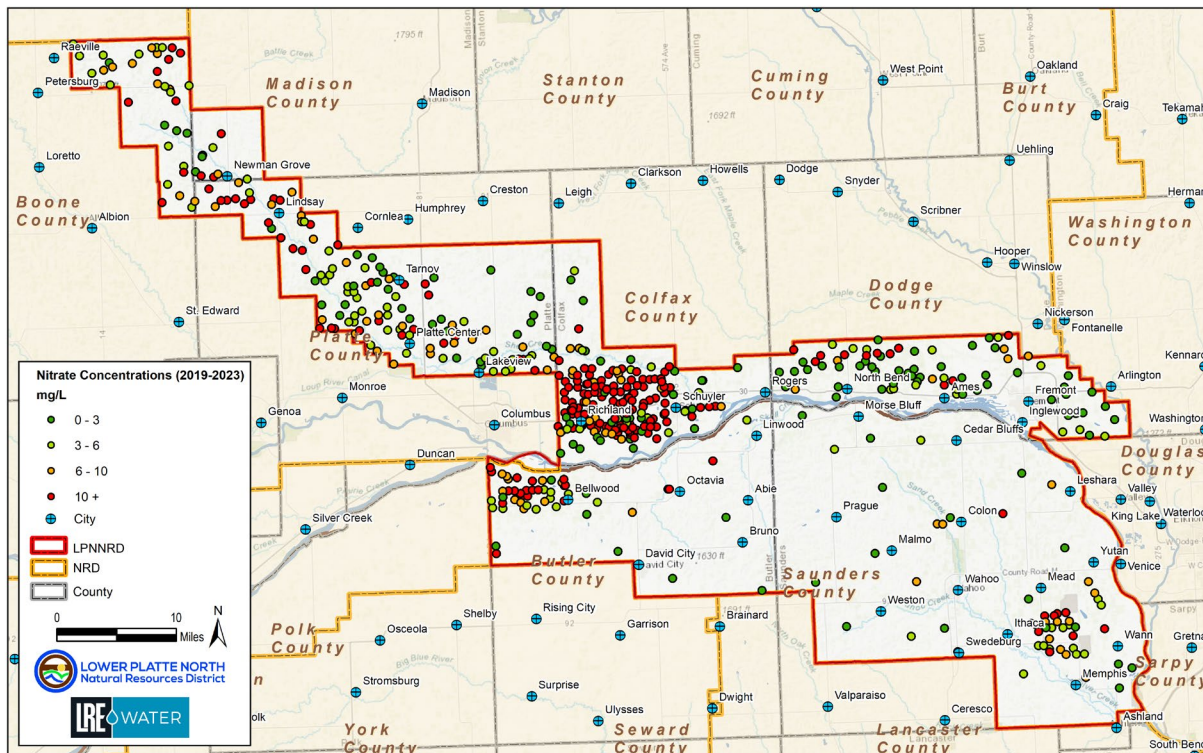


Figure 30: LPNNRD Nitrate Concentrations 2019-2023

#### 4.1.2 Additional Water Quality Monitoring

The LPNNRD conducts a wide variety of additional water quality data, including random sampling of wells for unique circumstances. In the past, sampling included nickel, sodium, selenium, mercury, among others. The LPNNRD can also provide property owners assistance to monitor nitrates and bacteria from private wells.

While nitrate remains the top water quality concern in LPNNRD due to agricultural runoff, other issues like arsenic, iron, uranium, and saltwater intrusion pose growing threats. Arsenic and uranium, both naturally occurring in regional geology, requires focused testing and public outreach—especially in areas like Richland-Schuyler, where uranium levels have exceeded 30 ppb in half of the sampled wells (LPN, 2025). Iron, though often an aesthetic nuisance, can signal redox conditions that mobilize other contaminants. Saltwater intrusion, driven by over-pumping or proximity to saline sources such as the Dakota aquifer, threatens aquifer quality and calls for proactive monitoring and recharge strategies (UNL, 2017). Meanwhile, emerging contaminants like PFAS and pharmaceuticals, though less prevalent, warrant early action through partnerships, education, and hotspot identification. By expanding monitoring, encouraging treatment and management practices, and collaborating with health and research agencies, LPNNRD can address these evolving challenges with foresight and resilience.

Starting in 2001, the Nebraska Legislature passed LB329, which directed the NDEE to report on groundwater quality monitoring in Nebraska (NDEE, 2024). The NRDs are also required (§46-1305) to submit an annual report on water quality to the legislature, which is prepared by NARD annually, and is issued concurrently with NDEE’s annual Nebraska Groundwater Quality Monitoring Report. As a partner, the LPNNRD collects water quality samples from a total of 53 wells district-wide over a four year period,

as shown in Figure 31. This data is part of the Nebraska Groundwater Quality Clearinghouse, which includes an online, interactive database featuring data, maps, well construction details, and statistics (NDEE, 2024). One of the focuses of the statewide network is on pesticides and includes the following:

1. **Metribuzin:** A herbicide used to control broadleaf weeds and grasses.
2. **Methoxychlor:** An insecticide used to control flies, mosquitoes, and other insects.
3. **Hexachlorobenzene:** A fungicide used to treat seeds.
4. **Alachlor:** A herbicide used to control annual grasses and broadleaf weeds.
5. **Butylate:** A herbicide used to control grasses and some broadleaf weeds.
6. **Atrazine:** A herbicide used to prevent pre- and post-emergence broadleaf weeds.
7. **Cyanazine:** A herbicide used to control annual grasses and broadleaf weeds.
8. **Hexachlorocyclopentadiene:** A chemical intermediate used in the production of pesticides.
9. **Propachlor:** A herbicide used to control annual grasses and some broadleaf weeds.
10. **Trifluralin:** A herbicide used to control annual grasses and broadleaf weeds.
11. **Chlorpyrifos:** An insecticide used to control various pests including termites and mosquitoes.
12. **Aldrin:** An insecticide used to control soil pests.
13. **Lindane:** An insecticide used to treat lice and scabies.
14. **Di(2-ethylhexyl)phthalate:** A plasticizer that can be found as a contaminant in the environment.
15. **Dieldrin:** An insecticide used to control soil pests.
16. **Fonofos:** An insecticide used to control soil insects.
17. **Simazine:** A herbicide used to control broadleaf weeds and grasses.
18. **Benzo(a)pyrene:** A polycyclic aromatic hydrocarbon that can be found as a contaminant.
19. **Heptachlor:** An insecticide used to control soil insects.
20. **Heptachlor Epoxide:** A breakdown product of heptachlor.
21. **Total Chlordane:** Refers to the sum of chlordane and its breakdown products.
22. **Endrin:** An insecticide used to control pests on crops.

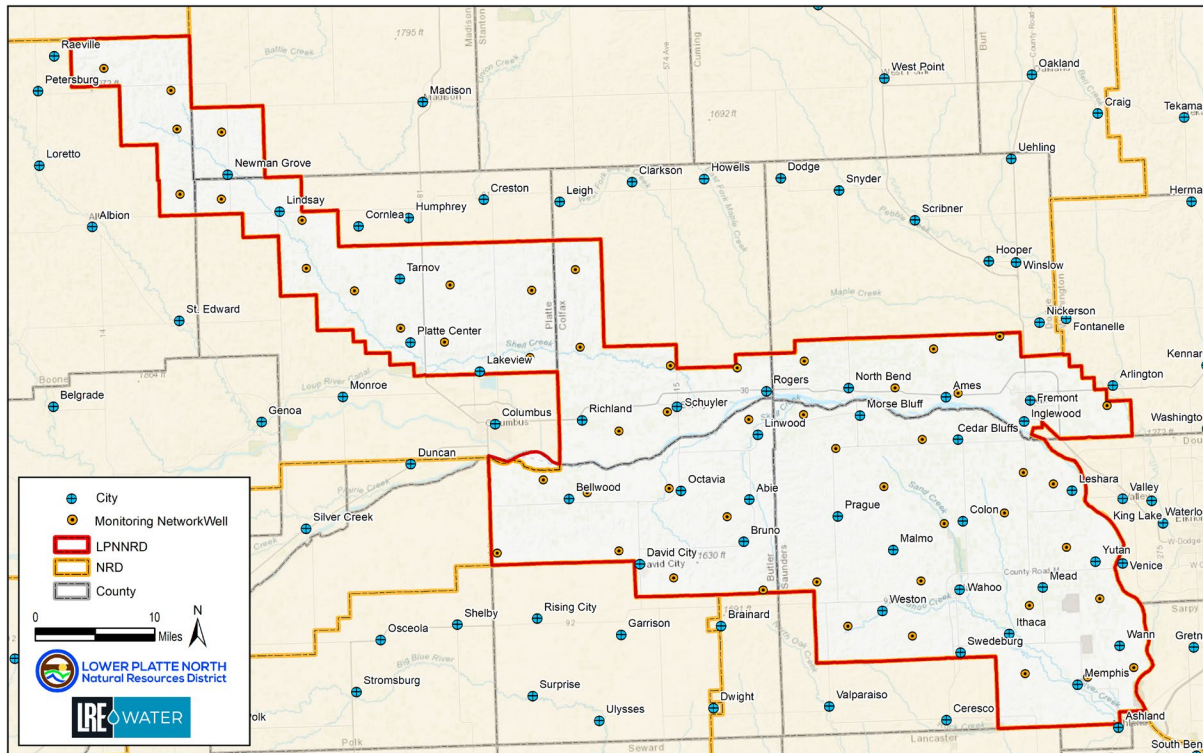


Figure 31: LPNNRD Statewide Water Quality Monitoring Network Wells

#### 4.1.3 Point Source Pollution

Point source pollution generally impacts the quality of the groundwater in localized areas. However, when these sites are located above potential drinking water supplies or are located adjacent to domestic or municipal wells the impact of a spill or leak can affect larger land areas and populations. Even spills that are cleaned up to health-based cleanup goals of a regulatory agency can impact drinking water supplies as human taste thresholds of many chemicals are below the health based "action" levels.

There are numerous manufacturing facilities and petroleum handling facilities, grain bin storage sites, and fertilizer and pesticide storage facilities within the LPNNRD. Although new regulations and generally improved product and waste handling procedures have reduced the chances of a spill or release of contaminants from these type of activities, historically, numerous spills have been documented.

The NDEE holds regulatory authority over substances from point source discharges that can cause or contribute to groundwater contamination. To obtain a permit, they are reviewed by engineering and permitted if they meet minimum design requirements and have no adverse impacts to water quality standards.

The NDEE maintains a permitted facilities database of regulated facilities under their jurisdiction, which are known or suspected to have soil and water contamination. This database includes various categories, such as the National Pollutant Discharge Elimination System (NPDES) program, Integrated Waste Management, Leaking Storage Tanks, Livestock Waste Control, Onsite Wastewater Treatment, Release Assessment, Remedial Action Plan Monitoring, Resource Conservation Recovery, Superfund, SARA Title III, and Underground Injection Control. Some of these facilities could potentially be point

sources of groundwater contamination if they do not maintain full compliance. Additional information on NDEE regulated facilities can be found an interactive mapping application on their website.

## 4.2 WELLHEAD PROTECTION AREAS

The NDEE oversees the WHP program, a voluntary initiative that offers financial and technical support to communities with public water suppliers to safeguard water supplies from contamination. Each community water system with a groundwater supply has a designated WHP area, as shown in Figure 32, but few communities have exercised controls to regulate contamination threats within the WHP Area. The WHP area delineates the time-of-travel and the surficial region drawn around a water well or wellfield that supplies a Public Water System (PWS), indicating where contaminants are likely to travel toward and reach the well. Typically, a 20-year time-of-travel is utilized for the WHP Area, while some communities have opted to use the 50-year time-of-travel. The five minimum steps for the WHP Program are shown in Figure 33.

As of 2025, the LPNNRD was supporting WHP plans, well siting assessments, and delineation efforts in the Village of Platte Center and City of Newman Grove, and had recently supported projects for the cities of Ashland, David City, and Wahoo. A summary of WHP plans in the LPNNRD is shown in Table 8.

*Table 9: LPNNRD PWS State-Approved WHP Plans*

PWS Name	COUNTY	DATA APPROVED
Platte Center	Platte	2025
Newman Grove	Platte/Madison	2025
Wahoo	Saunders	2023 (plan & ordinance)
David City	Butler	2023 (plan & ordinance)
Lindsay	Platte	2015
Fremont	Dodge/Douglas	2010
Woodcliff Water System	Saunders/Dodge	2006
Weston	Saunders	2005
Abie	Butler	2003
North Bend	Dodge	2003
Yutan	Saunders	2003

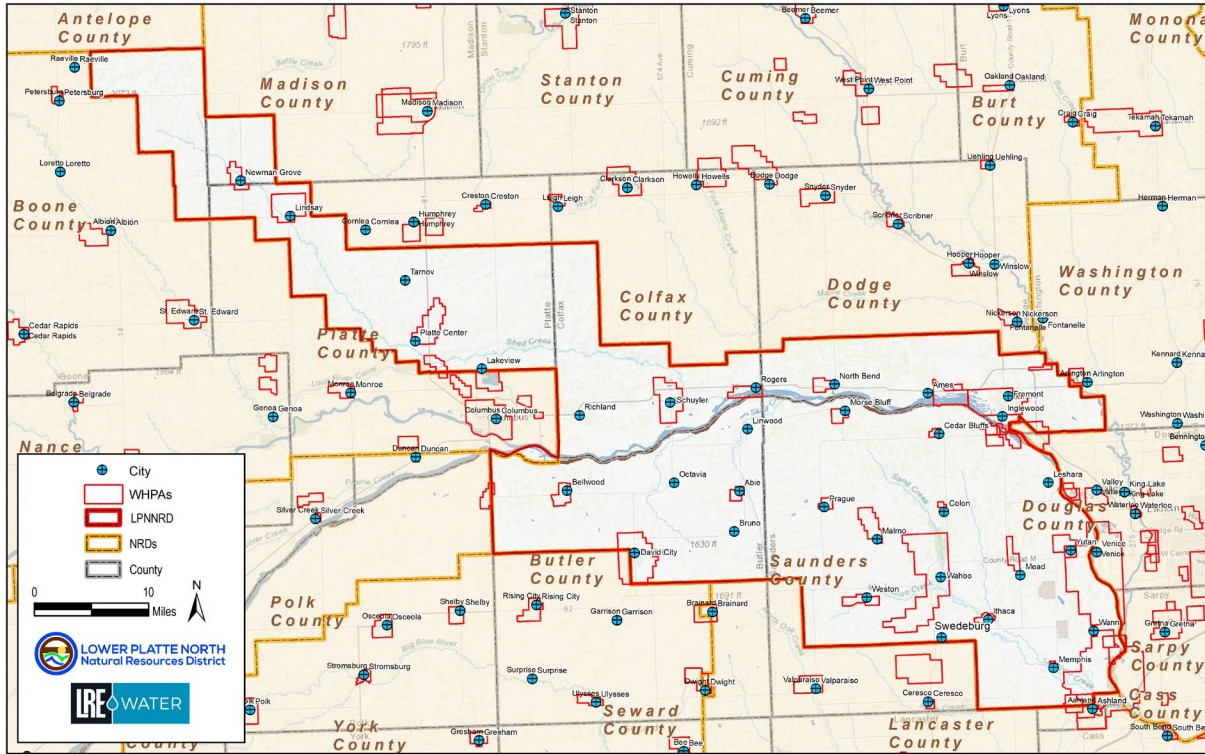


Figure 32: Wellhead Protection Areas



Source: NDEE

Figure 33: Five Steps of the WHP Program

### 4.2.1 Water Quality Activities

A summary of recent water quantity activities for the LPNNRD for 2023 are as follows:

- Completion of 6 nitrogen/irrigation certification meetings with 200 - 300 in attendance.

- Implementation of a program, funded by WSF, to provide cost-share practices in the Schuyler-Richland GWMA for gravity to pivot/SDI conversions, water flow meters, and cover crops.
- USGS is leading an age-dating project, in conjunction with LLNRD, near the Schuyler-Richland GWMA.
- District-wide soil moisture sensor cost-share
- Well decommissioning cost-share
- Shell Creek Watershed Water Quality Project, including agricultural and urban cost-share for best management practices.

## 5 GOALS AND OBJECTIVES

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### 5.1 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 designed to guide the staff and Board of Directors in making decisions about water resource management.

#### ***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.

#### **5.1.1 Goal 1 – Groundwater Monitoring**

Continuously monitor and assess groundwater levels and quality, ensuring early detection of significant changes for proactive resource management, with clear benchmarks for expansion and data utilization.

- **Objective 1.1** – Expand groundwater monitoring efforts by installing up to four new dedicated observation wells per year over the next 10 years covering more vulnerable areas such as WHP areas.
- **Objective 1.2** – Integrate scientific advances and research into regulatory frameworks, updating policies at least every two years to incorporate the latest hydrogeologic findings.
- **Objective 1.3** – Conduct annual water quality sampling, tracking nonpoint source contamination trends over time and using the data to refine mitigation strategies.
- **Objective 1.4** – Strengthen collaborative efforts by partnering with new organizations or research institution to enhance the water quality monitoring network.
- **Objective 1.5** – Maintain and expand the spring/fall water energy level monitoring network by adding at least five additional wells with construction data annually, ensuring comprehensive coverage.
- **Objective 1.6** – Develop a real-time monitoring initiative by adding telemetry to dedicated observation wells, integrating data into a public-facing online dashboard within two years (2027) to improve transparency.
- **Objective 1.7** – Implement more frequent monitoring programs to track water quantity changes in known problem areas related to groundwater pumping, identifying risks early and adjusting management strategies accordingly.

### 5.1.2 Goal 2 – Water Quality

Reduce the potential for pollution to ensure a sustainable supply of high-quality, consumable, and safe groundwater for all users in the NRD. Implement and support best management practices that achieve a district-wide reduction in nitrate concentrations by an average of 0.5 ppm per year, tracked through annual water quality monitoring reports.

- **Objective 2.1** – Utilize advanced studies and modeling tools (MODFLOW) to conduct at least two groundwater flow and contamination movement analyses per year, ensuring data-driven management decisions.
- **Objective 2.2** – Obtain and assess new groundwater and contamination data using sources such as the Clearinghouse, integrating findings into sustainable development strategies to track improvement trends.
- **Objective 2.3** – Develop and implement at least one new cost-share initiative annually that supports pollution reduction efforts, focusing on precision nutrient management and contaminant mitigation programs.
- **Objective 2.4** – Provide cost-share funding for at least 15 well decommissioning projects per year, prioritizing locations with high contamination risks.
- **Objective 2.5** – Actively manage Phase Areas with vulnerable aquifers or excessive nitrate concentrations by conducting annual mitigation strategy reviews, ensuring targeted interventions effectively reduce nitrogen loading in public water supply sources.

### 5.1.3 Goal 3 – Water Quantity

The LPNNRD will continue to encourage highly efficient water conservation management practices, with the objective of recovering and maintaining sustainable water levels to support beneficial uses.

- **Objective 3.1** – Utilize hydrogeologic and modeling data to assess the impacts of new uses and quantify water level responses to drought or reduced precipitation trends, setting baseline measurements and tracking fluctuations annually.
- **Objective 3.2** – Connect 1,000+ property owners annually to conservation programs that enhance water quality and quantity, tracking participation rates and success metrics.
- **Objective 3.3** – Develop a drought response strategy with phased thresholds, defining trigger points for water conservation measures and emergency response actions within the district.
- **Objective 3.4** – Conduct annual groundwater assessments for Special Quantity Sub-areas and Control Areas with thin or limited aquifers, using the data to refine conjunctive management strategies and improve hydrologic sustainability and reverse declining water level trends.

### 5.1.4 Goal 4 – Outreach and Education

Continue to be a resource for outreach and education for youth and adults, emphasizing the importance of protecting groundwater resources through measurable engagement and awareness strategies.

- **Objective 4.1** – Conduct stakeholder review at least every five years (agriculture, industry, local government, environmental groups, and public health) to gather diverse perspectives and needs.
- **Objective 4.2** – Expand public environmental education programs by hosting four or more outreach events annually focused on nitrate impacts and water conservation, measured by attendance and participant feedback surveys.

- **Objective 4.3** – Utilize hydrogeologic data and studies, including the Nitrate Risk Too, to conduct a minimum of 20 one-on-one educational sessions per year, ensuring direct engagement with landowners, producers, or other stakeholders.
- **Objective 4.4** – Participate in at least 10 natural resources workshops, county fairs, camps, or classroom presentations annually, tracking engagement metrics.
- **Objective 4.5** – Demonstrate cutting-edge water and fertilizer management technologies through three or more field demonstrations annually, documenting adoption rates among participants.
- **Objective 4.6** – Provide information and education through a minimum of six published pieces per year across news articles, social media posts, newsletters, brochures, and website updates.
- **Objective 4.7** – Develop and launch a web-based graphic user interface within two years, ensuring public accessibility to hydrogeologic data and maps, with a tracking system for user engagement.
- **Objective 4.8** – Develop and launch a district-wide notification system to be in place by 2026 with at least 500 members to provide timely updates on water quality, conservation programs, and regulatory changes.

### 5.1.5 Goal 5 – Rules and Regulations

Develop and enforce rules, regulations, and plans that balance water usage with natural replenishment rates while reducing contamination through structured monitoring and compliance efforts.

- **Objective 5.1** – Conduct updates at least every five years to the Groundwater Management Plan and Rules and Regulations to reflect emerging contaminants, policy changes, and evolving water use patterns.
- **Objective 5.2** – Align regulations with 100% compliance to new state and federal policies within six months of adoption, ensuring resources are leveraged for district-wide water management improvements.
- **Objective 5.3** – Implement an adaptive management strategy with annual performance evaluations, adjusting policies and responses based on monitoring data trends.
- **Objective 5.4** – Maintain consistent engagement in Lower Platte River Basin integrated and drought management plans, tracking participation and policy influence through quarterly reports.
- **Objective 5.5** – Increase community participation in NDEE’s Wellhead Protection Program by at least 15% annually, expanding outreach efforts and tracking adoption rates.
- **Objective 5.6** – Utilize hydrogeologic-based subareas for Control Area management, conducting annual data reviews to refine Phase Area designations and mitigation strategies.
- **Objective 5.7** – Conduct biennial reviews of the Integrated Management Plan, ensuring sustainable water use strategies align with conservation goals and include annual instream flow assessments.
- **Objective 5.8** – Support and conduct at least three special studies annually, focusing on research initiatives that enhance groundwater sustainability and contamination mitigation.

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## 6 STAKEHOLDER INVOLVEMENT

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### 6.1 OUTREACH METHODS

The LPNNRD utilized the website ([www.lpnrd.org](http://www.lpnrd.org)), district-wide publications, press releases to local newspapers, radio, social media, and announcements through Board meetings to spread the word about the GWMP update. The Summer 2024 edition of the Viaduct included an announcement on the update process, need for Stakeholders, and the locations and times of the first two public open houses.

### 6.2 STAKEHOLDER GROUP

The LPNNRD established two Stakeholder Groups, one meeting in the Village of Platte Center and another meeting in the City of Wahoo. The group included agricultural producers, community representatives, NeDNR, UNL Extension, NRCS, LPNNRD, and LRE Water. The role of the stakeholder group was to work closely with LPNNRD to provide feedback, identify information, discuss concerns, communicate and engage with other stakeholders, and provide feedback on the draft Plan. A summary of the meetings included:

- Platte Center meetings on June 4<sup>th</sup>, 2024, and January 16, 2025
- Wahoo meetings on June 6, 2024, and January 9<sup>th</sup>, 2025

### 6.3 OPEN HOUSE MEETINGS

Two sets of Open House meetings were held to provide an opportunity for the public to learn about the purpose and requirements of the GWMP, discuss water quality and quantity concerns, review the proposed subareas, review the highlights of the draft GWMP, and discuss recommendations. Meetings occurred at:

- Wahoo on August 24, 2024, and January 9, 2025
- Platte Center on August 26, 2024, and January 16, 2025

### 6.4 BOARD RETREAT

On February 7, 2025, the LPNNRD held a Board of Directors retreat with a major focus on the GWMP and key recommendations by LRE Water. The retreat aimed to provide a general education on key hydrogeologic terminology and principles, obtain consensus on actions to enhance groundwater management effectiveness, and discuss the goals and objectives.

## 7 RECOMMENDATIONS

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This section outlines considerations for modifications, additions, or adjustments to the current procedures used for the management of groundwater. These recommendations were established after a review of existing data, reports, studies, water level data, hydrographs, and input from the LPNNRD staff, Board of Directors, the Stakeholder Group, and the public.

### 7.1 ADOPTION OF GROUNDWATER MANAGEMENT SUBAREAS

The original subareas were delineated by Olsson in the March 2009 LPNNRD Hydrogeologic Evaluation and Subarea Delineation Study (Olsson, 2008) based on local hydrogeologic conditions and depositional characteristics; however, these were not officially recognized by the LPNNRD. LRE Water and the LPNNRD staff reviewed the existing sub-areas and made slight adjustments using hydrogeologic information from the Assessment (LRE, 2023). This process included the following key steps:

- 1) LPNNRD staff squared off the subareas to the nearest section boundary.
- 2) Subareas were adjusted by LRE Water by reviewing the saturated sand thickness, hydrogeologic cross sections, AEM, and the DEM. Overall, changes were minimal by merging small areas and adding or subtracting a few sections based upon the new saturated sand thickness.
- 3) LRE Water provided the LPNNRD with GIS data and an updated subarea map to allow for review and edits by District staff and the Board of Directors.

There are several advantages to adopting and utilizing subareas named by local communities or other known features. Some of the benefits include:

- 1) **Localized Management:** Subareas allow for more precise and localized management of groundwater resources. This means that specific issues within a smaller area can be addressed more effectively, rather than applying a one-size-fits-all approach across a larger region.
- 2) **Tailored Solutions:** Different subareas may have unique geological and hydrological characteristics. By focusing on subareas, the LPNNRD can focus studies and develop tailored solutions that are more effective for the specific conditions of each subarea.
- 3) **Efficient Resource Allocation:** Managing groundwater at the subarea level helps in the efficient allocation of resources. It ensures that efforts and funds are directed towards areas with the most pressing needs or the highest potential for improvement.
- 4) **Enhanced Monitoring and Data Collection:** Subareas facilitate more detailed monitoring and data collection. This detailed data can lead to better decision-making and more effective management practices.
- 5) **Community Involvement:** Working with subareas often involves local stakeholders and communities, leading to greater public involvement and support for groundwater management initiatives.

While groundwater quality and quantity studies may occur across an entire subarea, it is important to note that Groundwater Quality and Quantity Management Areas, or phase areas, can be smaller or larger than a subarea and could include may also cross multiple subareas or portions of subareas. A breakdown of the proposed subareas is shown in Figure 34. It is also recommended that the areas be referred to by name, rather than only a number.

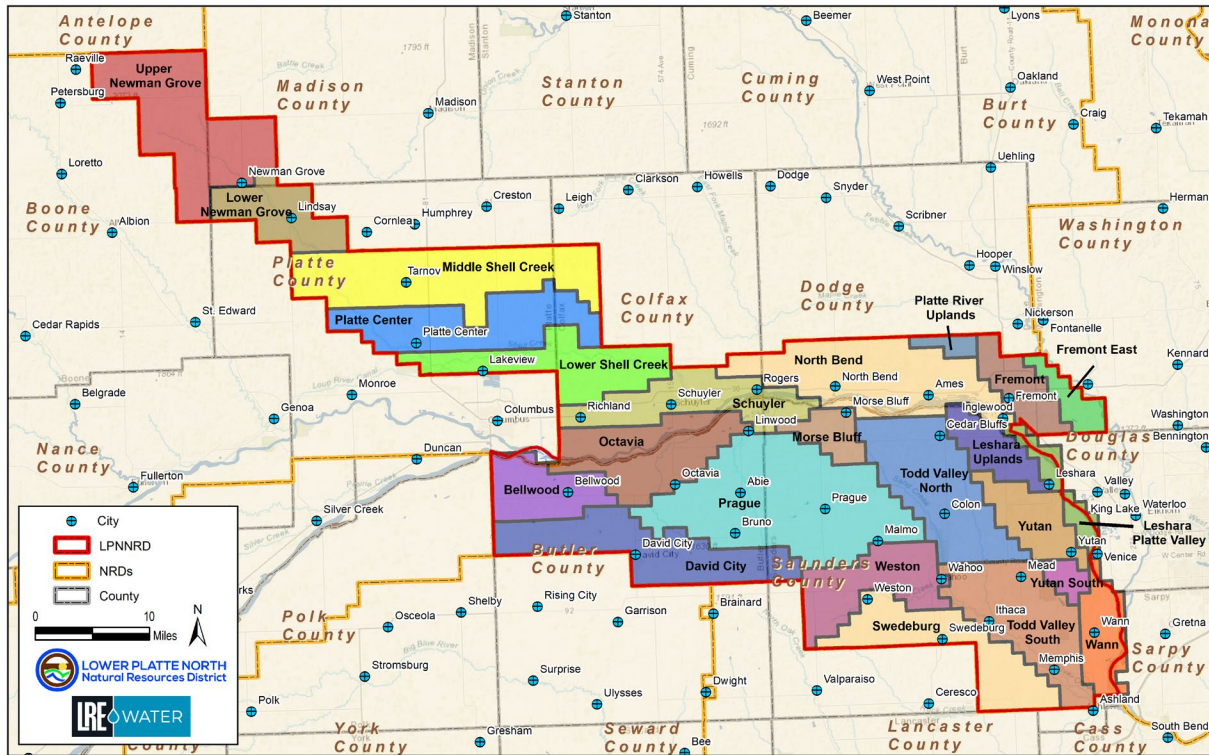


Figure 34: Proposed Groundwater Management Subareas

## 7.2 EXPANSION OF THE OBSERVATION NETWORK

Water levels alone cannot accurately determine the percentage of decline in saturated thickness for an unconfined aquifer or hydraulic head in a confined aquifer unless the screen interval and depth to water are compared to the geologic layers. Variations in water levels in wells may result from data collected from wells of differing depths and screened at various intervals, penetrating both confined and unconfined aquifers. To ensure that the data collected is representative of the area of study or concern, the following recommendations are proposed:

- Utilize the new standard scale hydrograph format to analyze all future observation wells, ensuring consistency and accuracy in data interpretation.
- Categorize and select new observation wells that are consistent and representative of the subarea, considering factors such as well depth, screened interval, and whether the aquifer is confined or unconfined.
- Ensure adequate spacing of observation wells from pumping wells to avoid interference and obtain more accurate readings.
- Partner with public water supplies to strategically place observation wells within wellhead protection areas and/or upgradient from PWS wells, enhancing the monitoring of water levels and water quality.

To assist with understanding the spatial representation of the current observation well network, an evaluation was completed by subarea. Table 9 displays the current spatial representation of spring/fall monitoring wells and the dedicated observation wells by subarea, which is displayed in Figure 35.

Table 10: Observation Wells and Proposed Sites by Subarea

Subarea Name	Spring Fall Well Count	Dedicated Observation Well Count	Potential Area for New Observation Well Count
Bellwood	6	0	1
David City	22	8	0
Fremont	7	0	0
Fremont East	3	0	0
Leshara Platte Valley	0	0	0
Leshara Uplands	5	0	0
Lower Newman Grove	5	1	0
Lower Shell Creek	6	1	3
Middle Shell Creek	19	16	5
Morse Bluff	4	0	0
North Bend	12	2	1
Octavia	5	1	2
Platte Center	11	9	0
Platte River Uplands	4	2	0
Prague	5	2	6
Schuyler	7	0	0
Swedeburg	10	4	2
Todd Valley North	8	0	0
Todd Valley South	12	9	0
Upper Newman Grove	10	2	6
Wann	10	4	0
Weston	11	0	2
Yutan	7	0	0
Yutan South	4	3	0

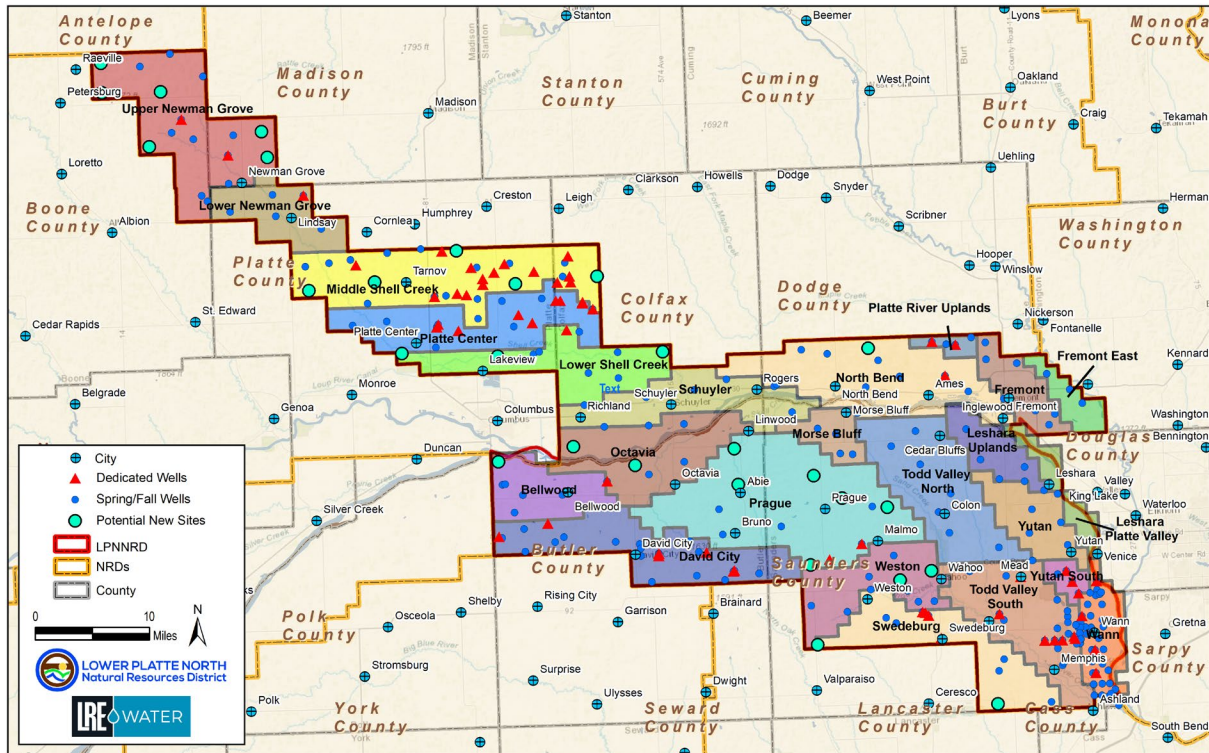


Figure 35: Existing Observation Wells and Potential Expansion Sites

### 7.3 ALTERATION TO THE WELL VARIANCE SCORING PROTOCOL

Many well permit application reviews raise questions about adequate aquifer thickness, target yield capabilities, pumping influence on surface water, well interference, and aquifer protection. To address these questions and uncertainties, alternations to the well variance scoring sheet would improve the accuracy of the decision-making process. The following recommendations are proposed:

#### Point Sheet

1. Include points for the location of the well within the Groundwater Resource Development Risk map.
2. Review ranges for the New Groundwater Consumptive Use category.
3. Create separate sheets for unconfined and confined aquifers, considering specific yield and saturated thickness for an unconfined aquifer, but not confined.
4. Use aquifer thickness, storativity, and available head for a confined aquifer.
5. Include irrigation well density, domestic well density, and other well densities (livestock, municipal) to address potential well interference.
6. Review how transmissivity is calculated (e.g., from aquifer thickness multiplied by estimated hydraulic conductivity, or from hydrogeologic assessment maps).
7. Approximate the extent of the aquifer (e.g., any negative aquifer boundaries).
8. Include a theoretical radius of influence based on the above information.
9. Include a score for water level trends in the area of the proposed well.

10. Include point ranges based on existing nitrate concentrations.
11. Review other NRD scoring systems for additional criteria and methods.

#### Other Review Criteria and Procedures

1. Establish a radius for Class 1 and Class 2 and obtain all well logs within the study area.
2. Review well logs within a radius determined by the scoring sheet or class.
3. Conduct a limited desktop assessment, if necessary, to determine the level of uncertainty qualitatively, based on the class of well and data gaps.
4. Provide the applicant with a summary of the District's review and any additional data required, with technical justification.
5. Complete test hole(s) prior to issuing the permit if a data gap analysis indicates this is necessary.
6. Require an aquifer pumping test or capacity test for Class 2 and Class 3 variances based on points scored and data gaps, if necessary.

## **7.4 QUANTITY TRIGGER ADJUSTMENTS**

Since 1987, quantity management triggers have been in place but have yet to initiate a Groundwater Management Area 'control area' designation. To improve effectiveness, adjustments to the policy may include eliminating triggers for confined aquifers, incorporating qualitative criteria, and refining delineation strategies for quantity control areas. The proposed modifications include:

- Identify and prioritize areas with consistent well interference, incorporating data from annual pumping impact reports to track severity.
- Differentiate management strategies for confined and unconfined aquifers, ensuring policy adjustments align with their distinct hydrologic responses.
- Enhance monitoring practices by utilizing observation wells and hydrograph trends to detect seasonal declines rather than relying solely on spring/fall measurements, allowing for continuous multi-season assessments.
- Incorporate historical drought impact data to evaluate magnitude trends, setting baseline depletion benchmarks for proactive response measures.
- Strengthen unconfined aquifer management through policies aligned with Integrated Management Plan goals, including stream depletion factors and annual recharge trend analyses.
- Refine decline impact assessments, distinguishing significant drops (e.g., a 10% decline in aquifers exceeding 100 feet vs. those under 50 feet) to prioritize intervention efforts accordingly.
- Establish quantified thresholds for confined aquifers, such as triggering management action at 50% of remaining head above the aquifer top, ensuring proactive conservation.
- Implement subarea-based resource allocation, directing management efforts and funding to high-risk zones where depletion issues are most pronounced.
- Utilize numerical groundwater flow models to identify areas of concern, assessing long-term trends and aquifer response to pumping impacts from a variety of scenarios to refine management strategies and improve predictive capabilities.

## 7.5 CLARIFICATION OF TERMINOLOGY

When updating the Rules and Regulations, provide clarity and consistency to key terminology utilized in the GWMP.

- Revise the GWMP and Rules and Regulations to ensure clear and consistent terminology and definitions throughout. This may include, but is not limited to, the clarifying the following terms: “Trigger Level,” “Level Controls,” “Level Criteria,” “Control Areas,” “Quantity Areas,” “Subareas,” “Groundwater Management Areas,” “Limited Development Area,” “Restricted Development Areas,” and “Special Quantity Sub Areas.”
- Recognize the following hierarchy for groundwater management within the Rules and Regulations, GWMP, and other district publications:
  - Groundwater Regions: Platte, Shell Creek, Uplands, and Todd Valley
    - Within the regions, establish Groundwater Subareas
  - Groundwater Management Areas:
    - Quality: Phase I, II, III, IV
    - Quantity: Phase I, II, III
  - Groundwater Control Areas
    - Limited and restricted development areas
- Where relevant, ensure the GWMP and Rules and Regulations refer to “aquifer thickness,” “available head” or “hydraulic head,” and “potentiometric surface” for confined aquifers, and “water table surface” and “saturated thickness” for unconfined aquifers.

## 7.6 RE-EVALUATION OF SPECIAL QUANTITY SUBAREAS

In 2016, the Special Quantity Subareas were established to address significant pressure drops in the aquifer during peak irrigation periods, which can cause shallower wells to run short on water. Overtime, it is valuable to reevaluate these Groundwater Management Areas to monitor improvement or worsening conditions.

- Complete a hydrogeologic study to reassess the sufficiency of the current boundaries of the Butler/Saunders SQS #1 and Platte/Colfax SQS #2. Utilize existing studies and research, including AEM surveys and hydrogeologic assessment data.
- Engage with local farmers and stakeholders to gather input and address concerns regarding the accuracy of the current boundaries.
- Incorporate recent data and technological advancements to ensure the boundaries reflect the most accurate and up-to-date information.
- Provide a detailed report with recommendations for any necessary modifications to improve groundwater management and address stakeholder concerns.

## 7.7 EFFORTS TO ENHANCE DATA TRANSPARENCY AND COMMUNICATION

Nebraska’s NRDs have been making significant efforts to improve transparency and accessibility of data through real-time data collection and online visualization tools. The following recommendations are provided for consideration to enhance communication with constituents:

- Create an online, data visualization tool to allow users to obtain data on recent nitrate concentrations, water level trends, and similar water use information.
- Provide maps and information from the Hydrogeologic Assessment, the GWMP, features of the Rules and Regulations such as locations of Groundwater Management Areas, subareas, and groundwater regions; Wellhead Protection Areas, and similar features.
- Establish a system to communicate with the public by allowing sign-up using a feature on the website to receive push notifications through text messaging and/or email about upcoming events, meetings, and planned changes to policies.

## 7.8 REASSESSMENT OF WATER QUALITY TRIGGERS

The UNMC has conducted extensive research recently on the public health effects of nitrates in groundwater, highlighting several critical concerns (Water for Food, 2024):

- **Health Risks:** High concentrations of nitrates in drinking water have been linked to various adverse health outcomes, including methemoglobinemia (especially in infants), colorectal cancer, thyroid disease, and neural tube defects. Other potential health issues include increased heart rate, nausea, headaches, and abdominal cramps.
- **Cancer and Birth Defects:** Studies have shown a significant association between high nitrate levels and certain cancers, such as pediatric brain cancer, kidney cancer, bladder cancer, and non-Hodgkin lymphoma. Additionally, there is evidence linking nitrate exposure to an increase in birth defects.
- **Economic Impact:** The economic costs associated with health effects from nitrate-contaminated drinking water are substantial. These costs include medical expenses and lost productivity due to illness. Treating drinking water for nitrate has a significant economic impact, especially for small communities, and drilling new wells can be expensive.

Given these findings, the LPNNRD should consider a reassessment of the water quality triggers. By doing so, the LPNNRD can proactively reduce nitrate levels in groundwater, thereby protecting public health and mitigating economic burdens associated with nitrate contamination.

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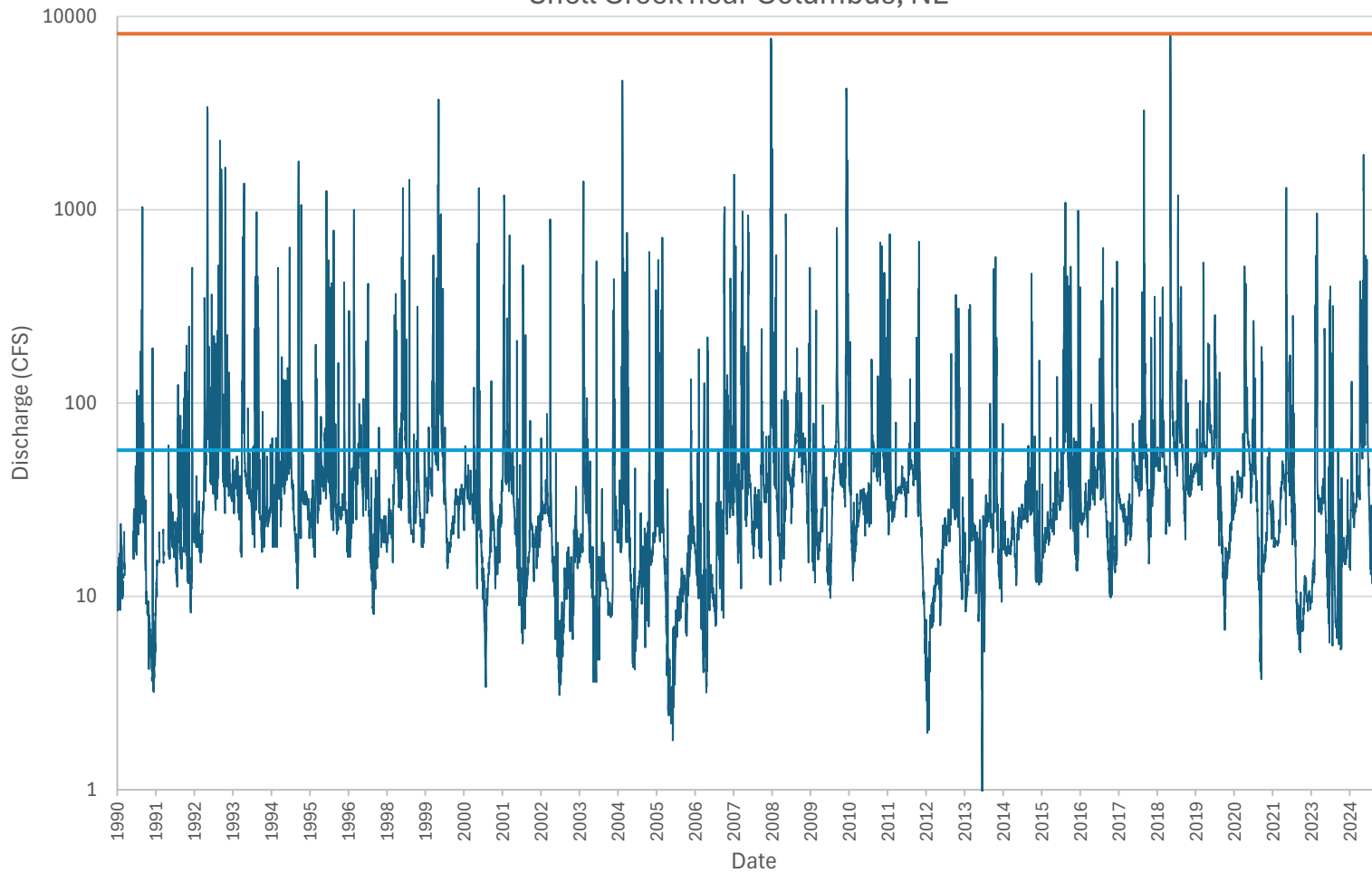
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University of Nebraska System. (2024). The Daugherty Water for Food Global institute website. Health and economic impact analysis of nitrate pollution in Nebraska's groundwater.

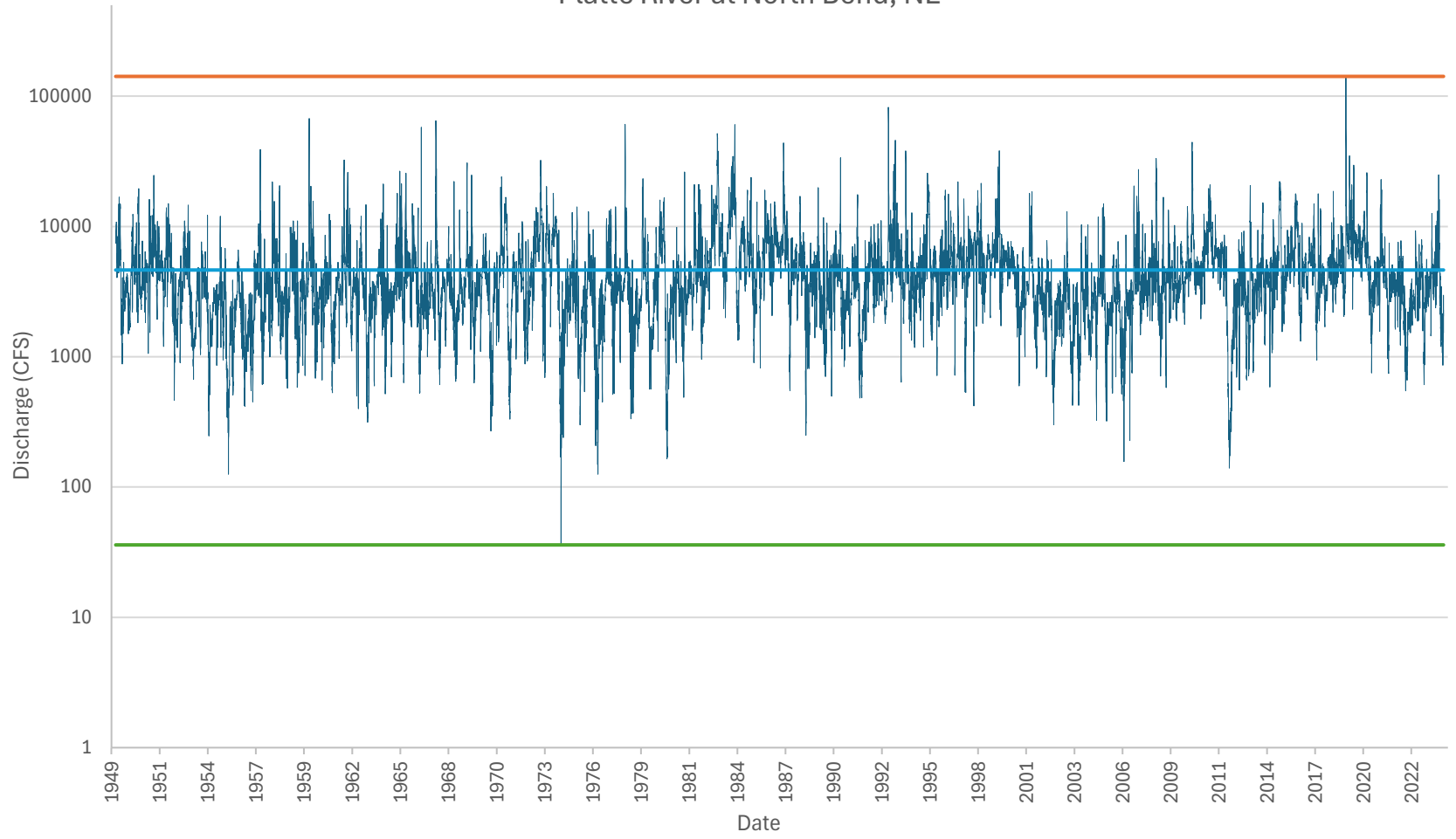
## **ATTACHMENT A – STREAM FLOW HYDROGRAPHS**

USGS Station No. 06795500  
Shell Creek near Columbus, NE



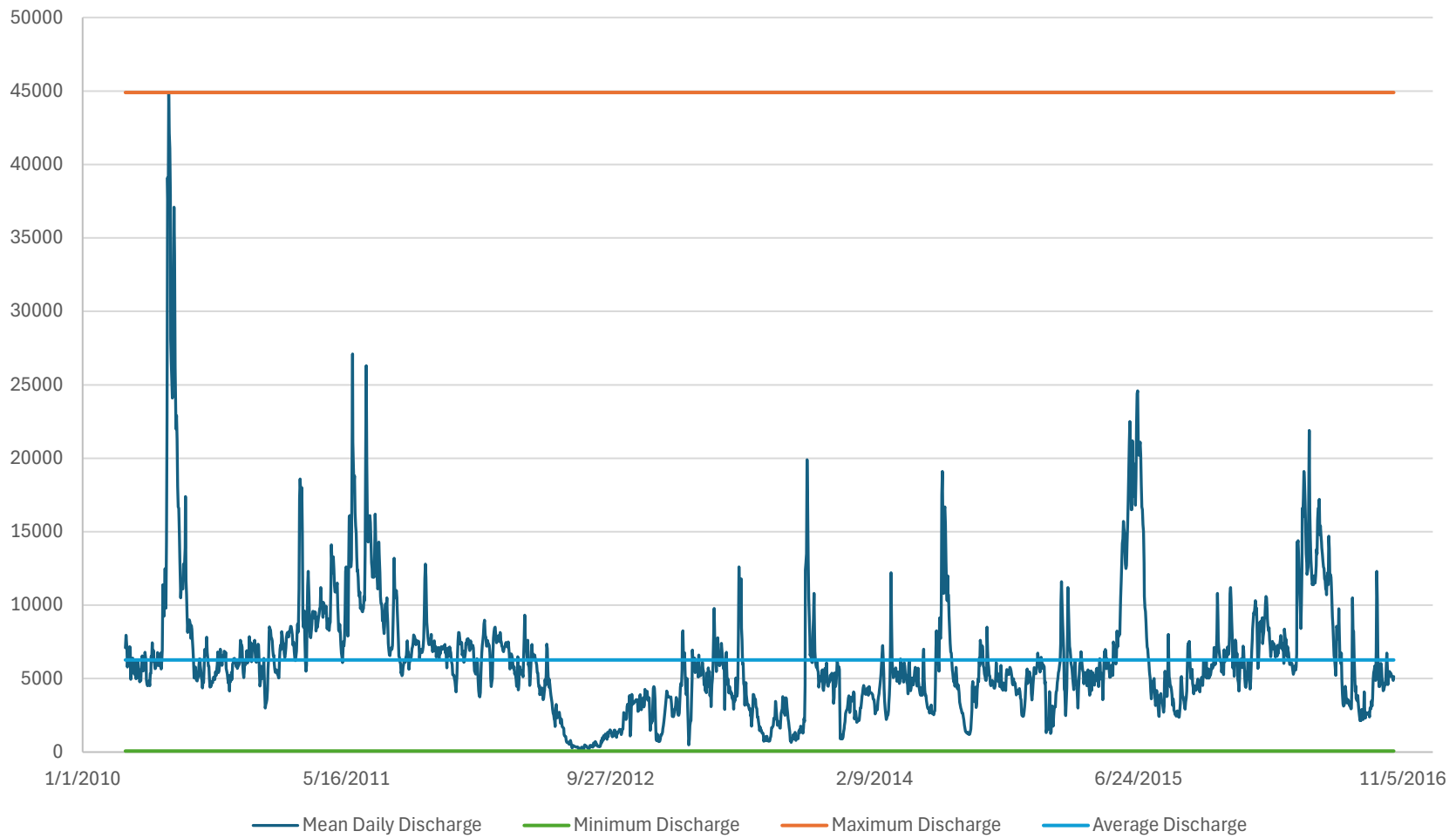
— Mean Daily Discharge    — Minimum Discharge    — Maximum Discharge    — Average Discharge

USGS Station No. 06796000  
Platte River at North Bend, NE

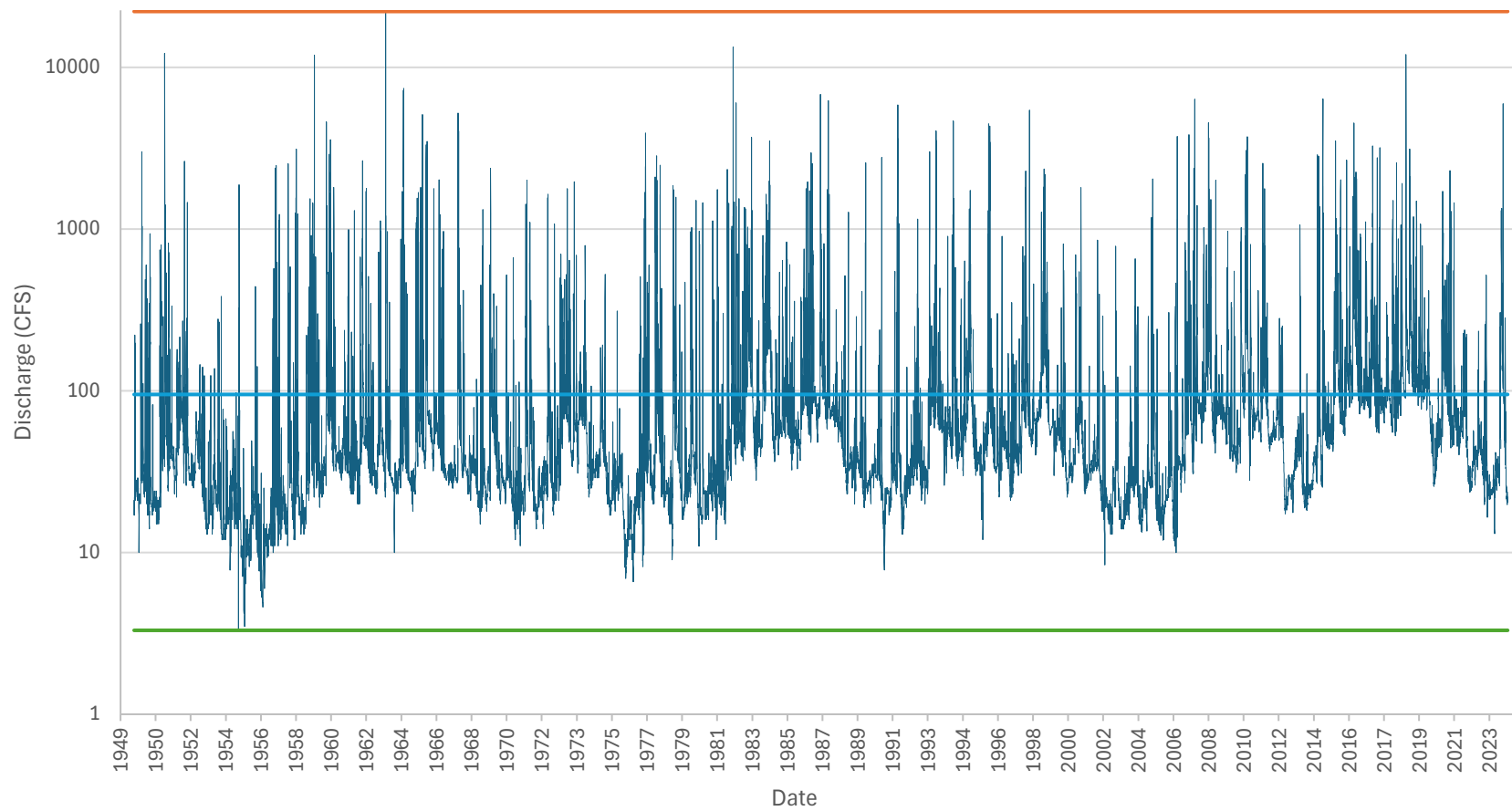


— Mean Daily Discharge    — Minimum Discharge    — Maximum Discharge    — Average Discharge

USGS Station No. 06796550  
Platte River near Leshara, NE

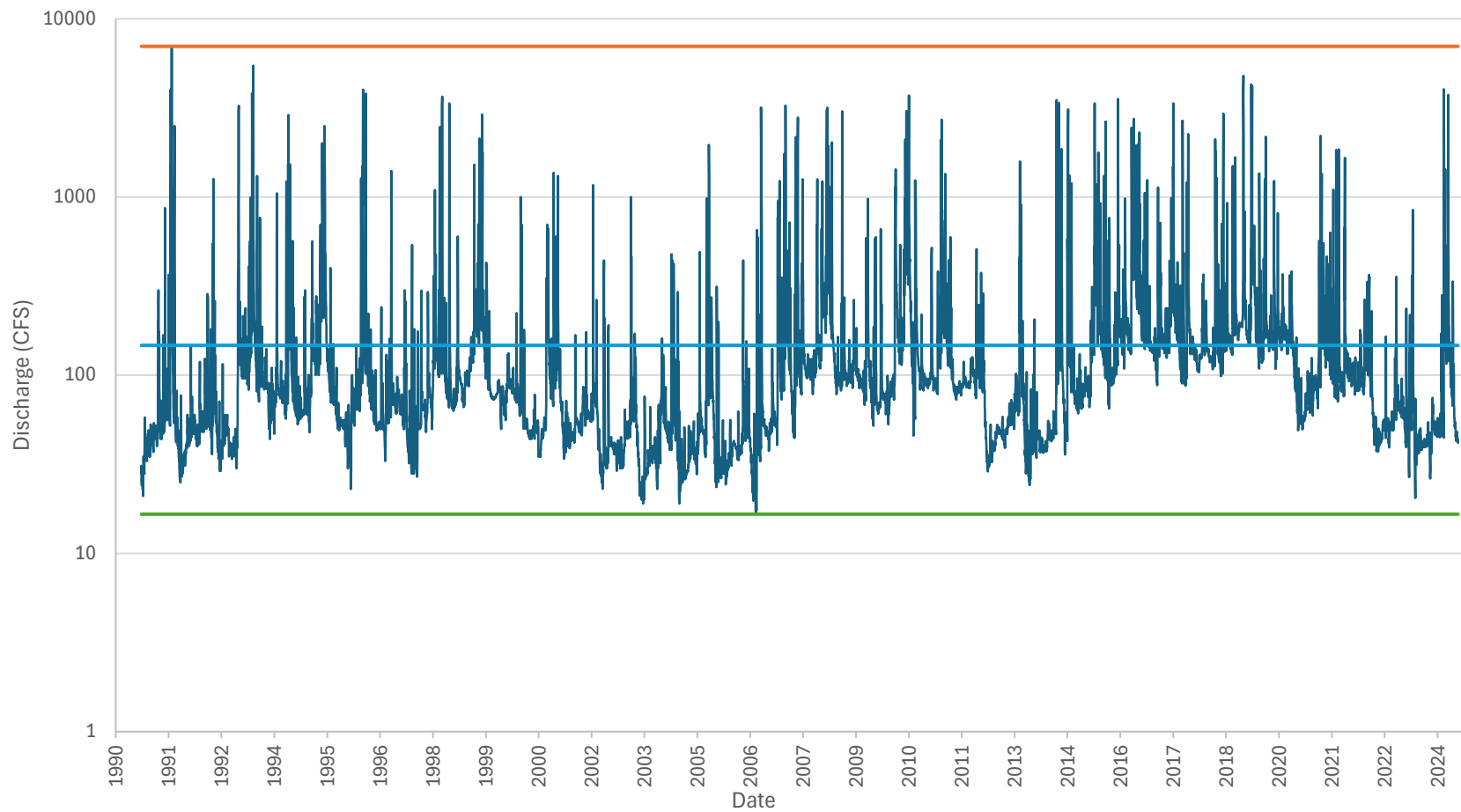


USGS Station No. 06804000  
Wahoo Creek at Ithica, NE



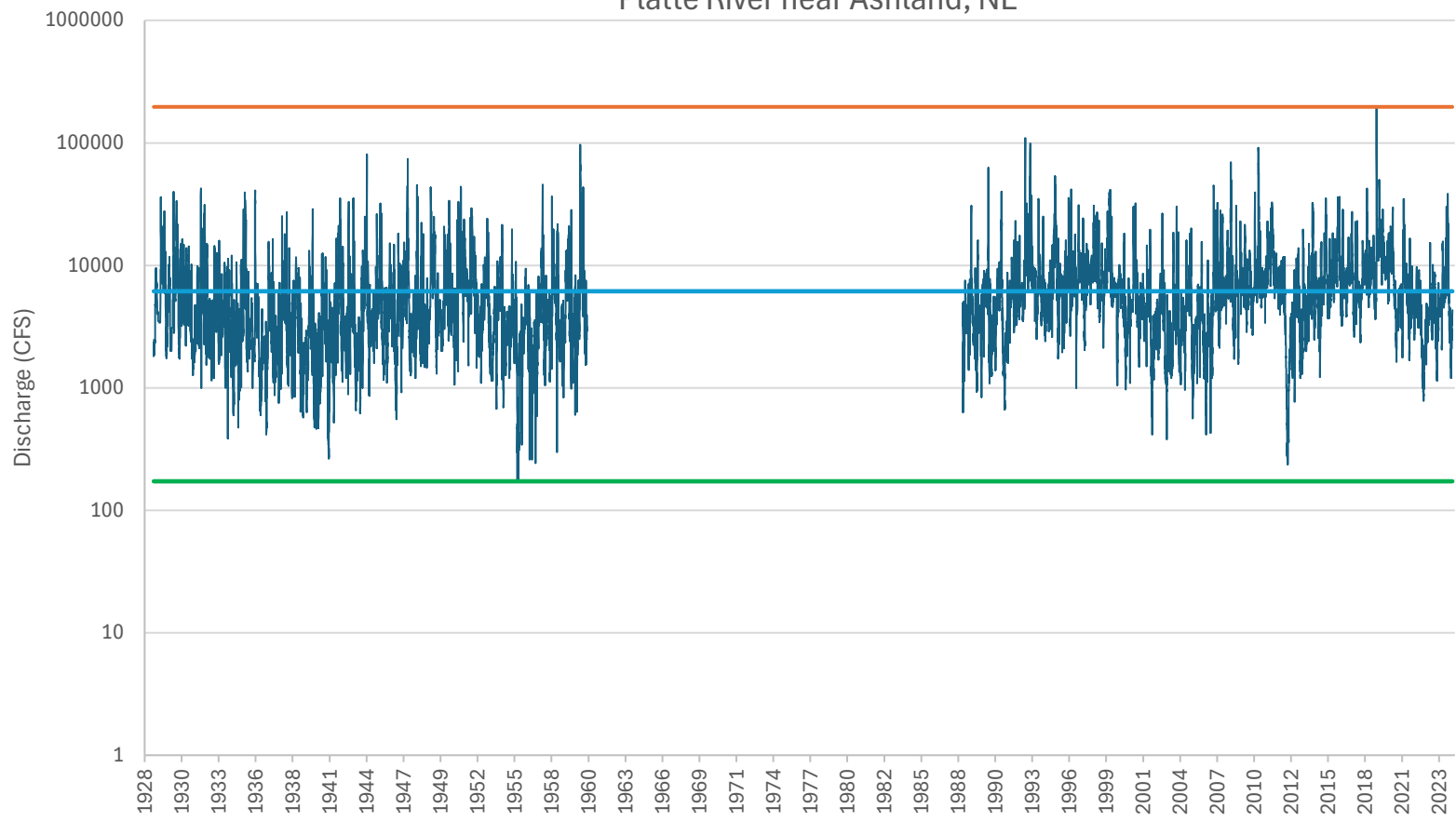
— Mean Daily Average    — Minimum Discharge    — Maximum Discharge    — Average Discharge

USGS Station No. 06804700  
Wahoo Creek at Ashland, NE



— Mean Daily Discharge    — Minimum Discharge    — Maximum Discharge    — Average Discharge

USGS Station No. 06801000  
Platte River near Ashland, NE



— Mean Daily Discharge    — Minimum Discharge    — Maximum Discharge    — Average Discharge



August 5, 2025  
Invoice No: 30981

<b>Invoice Total:</b>	<b>\$1,552.50</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 July 26, 2025**

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Task 04 Plan Review & Presentation

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Mohr, Jonathan	7.50	207.00	1,552.50	
Totals	7.50		1,552.50	
<b>Total Labor</b>				<b>\$1,552.50</b>
		<b>Total this Task</b>		<b>\$1,552.50</b>
		<b>Total this Invoice</b>		<b>\$1,552.50</b>

# CHEMIGATION - August 2025

## TOTAL CHEMIGATION APPLICATIONS IN 2024 (714)

### NEW CHEMIGATION APPLICATIONS - 42

(10) Boone (6) Butler (6) Colfax (5) Dodge (2) Madison (9) Platte (4) Saunders

### RENEWALS: 660

BOONE COUNTY - 49  
BUTLER COUNTY - 78  
COLFAX COUNTY - 79  
DODGE COUNTY - 111  
MADISON COUNTY - 7  
PLATTE COUNTY - 108  
SAUNDERS COUNTY - 228

### RENEWAL INSPECTIONS: 174

(11) Boone (21) Butler (26) Colfax (21) Dodge (0) Madison (35) Platte (60) Saunders

### NEW INSPECTIONS: 42

(13) Boone (5) Butler (5) Colfax (4) Dodge (2) Madison (9) Platte (4) Saunders

### NEW CANCELLATIONS: 4

(0) Boone (3) Butler (0) Colfax (1) Dodge (0) Madison (0) Platte (0) Saunders

### EMERGENCY: 0

**MEAD SOURCE WATER BUDGET AUGUST 2025**

<b>ACTIVITY</b>	<b>ESTIMATE D COST</b>	<b>NeDWEE</b>	<b>VILLAGE</b>	<b>NRD</b>
<b>PERSONNEL</b>				
Labor (In-kind)	\$ -	\$ -	\$ -	\$ -
<b>IMPLEMENTATION</b>				
Water sampling (lab fees)	\$ 700.00	\$ 700.00	\$ -	\$ -
<b>CONSULTANT*</b>				
GW Model	\$ 15,000.00	\$ 6,000.00	\$ 9,000.00	\$ -
Wellhead Ordinance	\$ 2,500.00	\$ 1,000.00	\$ 1,500.00	\$ -
Hydrogeo Report / Education / Open House	\$ 17,500.00	\$ 7,000.00	\$ 10,500.00	\$ -
Wellhead Protection Plan**	\$ 10,000.00	\$ -	\$ 5,000.00	\$ 5,000.00
<b>TOTALS</b>	<b>\$ 45,000.00</b>	<b>\$ 14,000.00</b>	<b>\$ 26,000.00</b>	<b>\$ 5,000.00</b>
<b>TOTAL PROJECT</b>	<b>\$ 45,700.00</b>	<b>\$ 14,700.00</b>	<b>\$ 26,000.00</b>	<b>\$ 5,000.00</b>
<b>PERCENT OF TOTAL</b>		<b>32.2%</b>	<b>56.9%</b>	<b>10.9%</b>

\*NeDWEE consultant fee cap of \$91.50/hr, assumes 40% of consultant as eligible

\*\*WHP Plans not eligible for SWP funds

ACTIVITY	ESTIMATED COST	NeDWEE	CITY	NRD
<b>PERSONNEL</b>				
Labor (In-kind)	\$ -	\$ -	\$ -	
<b>IMPLEMENTATION</b>				
Water sampling (lab fees)	\$ 500.00	\$ 500.00	\$ -	\$ -
Well No. 1 Decomm.	\$ 15,000.00	\$ 15,000.00	\$ -	\$ -
TOTALS	\$ 15,500.00	\$ 15,500.00	\$ -	\$ -
<b>TECHNICAL ASSISTANCE</b>				
Well Siting Assessment	\$ 15,000.00	\$ 6,000.00	\$ 9,000.00	
Groundwater Model	\$ 12,000.00	\$ 4,800.00	\$ 7,200.00	
WHP Plan Assistance	\$ 6,000.00	\$ -	\$ 3,000.00	\$ 3,000.00
TOTALS	\$ 33,000.00	\$ 10,800.00	\$ 19,200.00	\$ 3,000.00
<b>TOTAL PROJECT</b>	\$ 48,500.00	\$ 26,300.00	\$ 19,200.00	\$ 3,000.00
PERCENT OF TOTAL		54.2%	39.6%	6.2%

CERTIFICATE OF PAYMENT: 009



Date of Issuance: August 25, 2025

Project: LPNNRD Wahoo Creek Watershed Sites 26A 26B and 27

Project No.: 018-3423

Contractor: Thompson Construction

**DETAILED ESTIMATE**

Description	Unit Price	Extension
Refer to Attached Progress Estimate #9 thru 08-22-2025		
<b>PLEASE REMIT PAYMENT TO: Thompson Construction 2404 N Lincoln Ave Fremont, NE 68025</b>		

Value of Work Completed This Request: \$ 1,354,984.50

Original Contract Value: \$ 4,314,772.70  
 Approved Change Orders:  
 No. 1 \$24,274.50  
 No. 2 \_\_\_\_\_  
 No. 3 \_\_\_\_\_

Total Contract Value: \$ 4,339,047.20

Value of completed work and materials stored to date ..... \$ 1,354,984.50  
 Less retainage percentage 10% ..... \$ 135,498.45  
 Net amount due including this estimate ..... \$ 1,219,486.05  
 Less: Estimates previously approved:

No. 1 <u>\$153,421.65</u>	No. 2 <u>\$107,054.10</u>	No. 3 <u>\$167,139.00</u>
No. 4 <u>\$34,211.70</u>	No. 5 <u>\$116,193.60</u>	No. 6 <u>\$208,238.40</u>
No. 7 <u>\$285,587.10</u>	No. 8 <u>\$77,111.10</u>	No. 9 _____
No. 10 _____	No. 11 _____	No. 12 _____

Total Previous Estimates: \$1,148,956.65

**NET AMOUNT DUE THIS ESTIMATE: \$ 70,529.40**

The undersigned hereby certifies, based upon periodic observations as set forth in scope of work and the data included in all applicable payment applications that, to the best of its knowledge, information and belief: (1) the work has progressed as indicated in the applicable payment applications; (2) the work performed and materials delivered by Contractor are in conformance with the plans and specifications; and (3) the Contractor, in accordance with the contract, is entitled to payment as indicated above.

This certification does not constitute a warranty or guarantee of any type. Client shall hold its Contractor solely responsible for the quality and completion of the Project, including construction in accordance with the construction documents. Any duty or obligation of Olsson hereunder is for the sole benefit of the Client and not for any third party, including the Contractor or any Subcontractor.

cc: Project File  
 Sean Elliott - LPNNRD  
 Lance French - Thompson Construction

**OLSSON**

By: 

To: LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

From: THOMPSON CONSTRUCTION, INC.

Contract For: WAHOO CREEK WATERSHED DAM STRUCTURES 26A, 26B, AND 27

ENGINEER's Project No. 018-3423

For Work accomplished through the date of: 8/22/25

1. Original Contract Price:		\$	<u>4,314,772.70</u>
2. Net change by Change Orders and Written Amendments (+ or -):		\$	<u>24,274.50</u>
3. Current Contract Price (1 plus 2):		\$	<u>4,339,047.20</u>
4. Total completed and stored to date:		\$	<u>1,354,984.50</u>
5. Percent of Project Completed	<u>25%</u>		
6. Retainage (per agreement):			
	<u>10%</u> of completed Work and Stored Materials:	\$	<u>135,498.45</u>
	(10% of the first 50% of work completed & stored)		
		Total Retainage:	\$ <u>135,498.45</u>
7. Total completed and stored to date less retainage (4 minus 6):		\$	<u>1,219,486.05</u>
8. Less previous Application for Payments:		\$	<u>1,148,956.65</u>
<b>9. DUE THIS APPLICATION (7 MINUS 8):</b>		<b>\$</b>	<b><u>70,529.40</u></b>

Accompanying Documentation:

CONTRACTOR'S Certification:

The undersigned CONTRACTOR certifies that (1) all previous progress payments received from OWNER on account of Work done under the Contract referred to above have been applied on account to discharge CONTRACTOR's legitimate obligations incurred in connection with Work covered by prior Applications for Payment numbered 1 through 1 inclusive; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to OWNER indemnifying OWNER against any such Lien, security interest or encumbrance); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and not defective.

Dated: 8/22/25 \_\_\_\_\_ Thompson Construction \_\_\_\_\_

By: 

Payment of the above AMOUNT DUE THIS APPLICATION is recommended.

Dated: \_\_\_\_\_

By: \_\_\_\_\_

**APPLICATION APPROVED BY:**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**ATTEST:**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Owner: LOWER PLATTE NORTH NATURAL RESOURCE DISTRICT

Date: 22-Aug-25

Project: WAHOO CREEK WATERSHED

TOTAL STORED: \$ 297,234.00

DAM STRUCTURES 26A, 26B, AND 27

TOTAL COMPLETED: \$ 1,057,750.50

Estimate No.: 9

Contractor: THOMPSON CONSTRUCTION INC

TOTAL PLUS STORED: \$ 1,354,984.50

Project No.: 018-3423

ITEM NO.	QTY	UNIT	DESCRIPTION	MATERIAL STORED	QTY TO DATE	UNIT PRICE	TOTAL	TOTAL PLUS STORED MATERIAL
<b>SITE 26A</b>								
1	1	LS	MOBILIZATION		0.6	\$ 50,000.00	\$ 30,000.00	\$ 30,000.00
2	1	LS	CONSTRUCTION STAKING		0.25	\$ 12,000.00	\$ 3,000.00	\$ 3,000.00
3	1	EA	CONSTRUCTION ENTRANCE		1	\$ 2,625.00	\$ 2,625.00	\$ 2,625.00
4	1	LS	DEWATERING		0.5	\$ 15,000.00	\$ 7,500.00	\$ 7,500.00
5	12	AC	GENERAL CLEARING AND GRUBBING		12	\$ 2,900.00	\$ 34,800.00	\$ 34,800.00
7	86720	CY	EARTHWORK FILL (AT1.2 COMPACTION)		26500	\$ 3.90	\$ 103,350.00	\$ 103,350.00
8	13543	CY	EARTHWORK CUT AND SPOIL		13543	\$ 4.00	\$ 54,172.00	\$ 54,172.00
9	1047	TN	AGGREGATE 47B FINE		0	\$ 34.00	\$ -	\$ -
10	8	TN	1" WASHED AGGREGATE		0	\$ 105.00	\$ -	\$ -
11	200	TN	C33 #8 AGGREGATE		0	\$ 55.00	\$ -	\$ -
12	4273	TN	CLASS B RIP RAP - STORED = 788 TONS @\$72.00 / TON	\$ 56,736.00	0	\$ 90.00	\$ -	\$ 56,736.00
13	998	TN	3" CRUSHED AGGREGATE		0	\$ 45.00	\$ -	\$ -
14	1022	LF	6" PERFORATED DUAL WALL PVC		0	\$ 23.00	\$ -	\$ -
15	90	LF	8" GALVANIZED STEEL PIPE		0	\$ 25.00	\$ -	\$ -
16	177	LF	24" RCPP PRINCIPAL SPILLWAY	\$ 60,668.00	0	\$ 550.00	\$ -	\$ 60,668.00
17	2	EA	PRINCIPAL SPILLWAY PIPE SUPPORTS		1.5	\$ 4,000.00	\$ 6,000.00	\$ 6,000.00
18	29	CY	STRUCTURAL CONCRETE (CLASS 4000)		0	\$ 2,000.00	\$ -	\$ -
19	5320	LB	REINFORCING STEEL	\$ 3,277.00	0	\$ 2.50	\$ -	\$ 3,277.00
20	1	LS	METAL FABRICATION	\$ 6,063.00	0	\$ 11,000.00	\$ -	\$ 6,063.00
21	3	EA	SHEETPILE HEADWALL	\$ 2,570.00	0	\$ 1,700.00	\$ -	\$ 2,570.00
22	24	LF	18" CCP LOW STAGE INLET PIPE		0	\$ 75.00	\$ -	\$ -
23	1	EA	18" CONCRETE TRASH RACK		0	\$ 3,000.00	\$ -	\$ -
24	53	LF	12" PVC DRAWDOWN PIPE		0	\$ 60.00	\$ -	\$ -
25	1	EA	12" BAR TRASH RACK		0	\$ 400.00	\$ -	\$ -
26	1	EA	12" LINE GATE	\$ 6,617.00	0	\$ 30,000.00	\$ -	\$ 6,617.00
27	2300	LF	FENCE REMOVAL(ADB ENGINEER)		2300	\$ 1.00	\$ 2,300.00	\$ 2,300.00
28	1420	LF	FENCE PLACEMENT(ADB ENGINEER)		0	\$ 8.00	\$ -	\$ -
29	2	EA	GATE		0	\$ 650.00	\$ -	\$ -
30	2	EA	BRASS CAP MONUMENTS		0	\$ 1,300.00	\$ -	\$ -
31	7.9	AC	SEEDING		0	\$ 2,400.00	\$ -	\$ -
32	2960	LF	WATTLES		0	\$ 4.00	\$ -	\$ -
33	3	EA	PERMANENT PIEZOMETER(W/ BOLLARDS)		0	\$ 8,000.00	\$ -	\$ -
34	4	EA	SETTLEMENT PLATE		0	\$ 2,500.00	\$ -	\$ -
35	1100	LF	TYPE B DIVERSION		0	\$ 2.40	\$ -	\$ -
36	100	LF	DRAIN TILE REMOVAL (ADB ENGINEER)		0	\$ 5.00	\$ -	\$ -
37	100	LF	DRAIN TILE PLACEMENT(ADB ENGINEER)		0	\$ 10.00	\$ -	\$ -
38	0	EA	SEPTIC TANK AND LATERAL FIELD		0	\$ -	\$ -	\$ -
39	1	LS	QUALITY CNTROL INSPECTION		0.2	\$ 6,500.00	\$ 1,300.00	\$ 1,300.00
40	150	SY	GEOTEXTILE FILTER FABRIC		0	\$ 12.00	\$ -	\$ -
				<b>TOTAL 26A</b>		<b>\$135,931.00</b>	<b>\$ 245,047.00</b>	<b>\$ 380,978.00</b>

ITEM NO.	QTY	UNIT	DESCRIPTION	MATERIAL STORED	QTY TO DATE	UNIT PRICE	TOTAL	TOTAL PLUS STORED MATERIAL
<b>SITE 26B</b>								
1	1	LS	MOBILIZATION		0.5	\$ 50,000.00	\$ 25,000.00	\$ 25,000.00
2	1	LS	CONSTRUCTION STAKING		0.1	\$ 12,000.00	\$ 1,200.00	\$ 1,200.00
3	1	EA	CONSTRUCTION ENTRANCE		0	\$ 2,560.00	\$ -	\$ -
4	1	LS	DEWATERING		0	\$ 15,000.00	\$ -	\$ -
5	15	AC	GENERAL CLEARING AND GRUBBING		9	\$ 2,000.00	\$ 18,000.00	\$ 18,000.00
7	77628	CY	EARTHWORK FILL (AT1.2 COMPACTION)		0	\$ 3.70	\$ -	\$ -
8	2946	CY	EARTHWORK CUT AND SPOIL		0	\$ 4.00	\$ -	\$ -
9	814	TN	AGGREGATE 47B FINE		0	\$ 34.00	\$ -	\$ -
10	4	TN	1" WASHED AGGREGATE		0	\$ 210.00	\$ -	\$ -
11	205	TN	C33 #8 AGGREGATE		0	\$ 55.00	\$ -	\$ -
12	4888	TN	CLASS B RIP RAP		0	\$ 90.00	\$ -	\$ -
13	855	TN	3" CRUSHED AGGREGATE		0	\$ 45.00	\$ -	\$ -
14	961	LF	6" PERFORATED DUAL WALL PVC		0	\$ 23.00	\$ -	\$ -
15	90	LF	8" GALVANIZED STEEL PIPE		0	\$ 25.00	\$ -	\$ -
16	177	LF	24" RCPP PRINCIPAL SPILLWAY	\$ 60,668.00	0	\$ 550.00	\$ -	\$ 60,668.00
17	2	EA	PRINCIPAL SPILLWAY PIPE SUPPORTS		1.5	\$ 4,000.00	\$ 6,000.00	\$ 6,000.00
18	23	CY	STRUCTURAL CONCRETE (CLASS 4000)		0	\$ 2,150.00	\$ -	\$ -
19	4285	LB	REINFORCING STEEL	\$ 3,277.00	0	\$ 2.50	\$ -	\$ 3,277.00
20	1	LS	METAL FABRICATION	\$ 6,063.00	0	\$ 11,000.00	\$ -	\$ 6,063.00
21	3	EA	SHEETPILE HEADWALL	\$ 2,570.00	0	\$ 1,700.00	\$ -	\$ 2,570.00
22	24	LF	18" CCP LOW STAGE INLET PIPE		0	\$ 75.00	\$ -	\$ -
23	1	EA	18" CONCRETE TRASH RACK		0	\$ 3,100.00	\$ -	\$ -
24	64	LF	12" PVC DRAWDOWN PIPE		0	\$ 60.00	\$ -	\$ -
25	1	EA	12" BAR TRASH RACK		0	\$ 400.00	\$ -	\$ -
26	1	EA	12" LINE GATE	\$ 6,617.00	0	\$ 30,000.00	\$ -	\$ 6,617.00
27		LF	FENCE REMOVAL(ADB ENGINEER)		0		\$ -	\$ -
28		LF	FENCE PLACEMENT(ADB ENGINEER)		0		\$ -	\$ -
29		EA	GATE		0		\$ -	\$ -
30	2	EA	BRASS CAP MONUMENTS		0	\$ 1,300.00	\$ -	\$ -
31	12.5	AC	SEEDING		0	\$ 2,400.00	\$ -	\$ -
32	2985	LF	WATTLES		0	\$ 4.00	\$ -	\$ -
33		EA	PERMANENT PIEZOMETER(W/ BOLLARDS)		0		\$ -	\$ -
34	4	EA	SETTLEMENT PLATE		0	\$ 1,600.00	\$ -	\$ -
35	1040	LF	TYPE B DIVERSION		0	\$ 2.40	\$ -	\$ -
36	650	LF	DRAIN TILE REMOVAL (ADB ENGINEER)		0	\$ 2.00	\$ -	\$ -
37	100	LF	DRAIN TILE PLACEMENT(ADB ENGINEER)		0	\$ 26.00	\$ -	\$ -
38	1	EA	SEPTIC TANK AND LATERAL FIELD		0	\$ 13,000.00	\$ -	\$ -
39	1	LS	QUALITY CNTROL INSPECTION		0	\$ 6,500.00	\$ -	\$ -
40	150	SY	GEOTEXTILE FILTER FABRIC		0	\$ 12.00	\$ -	\$ -
<b>TOTAL 26B</b>				<b>\$ 79,195.00</b>			<b>\$ 50,200.00</b>	<b>\$ 129,395.00</b>

ITEM NO.	QTY	UNIT	DESCRIPTION	MATERIAL STORED	QTY TO DATE	UNIT PRICE	TOTAL	TOTAL PLUS STORED MATERIAL
<b>SITE 27</b>								
1	1	LS	MOBILIZATION		0.75	\$ 80,000.00	\$ 60,000.00	\$ 60,000.00
2	1	LS	CONSTRUCTION STAKING		0.55	\$ 12,000.00	\$ 6,600.00	\$ 6,600.00
3	1	EA	CONSTRUCTION ENTRANCE		1	\$ 2,650.00	\$ 2,650.00	\$ 2,650.00
4	1	LS	DEWATERING		0	\$ 15,000.00	\$ -	\$ -
5	22	AC	GENERAL CLEARING AND GRUBBING		16	\$ 3,000.00	\$ 48,000.00	\$ 48,000.00
7	93619	CY	EARTHWORK FILL (AT1.2 COMPACTION)		13285	\$ 3.90	\$ 51,811.50	\$ 51,811.50
8	9265	CY	EARTHWORK CUT AND SPOIL		5500	\$ 4.00	\$ 22,000.00	\$ 22,000.00
9	990	TN	AGGREGATE 47B FINE		747	\$ 34.00	\$ 25,398.00	\$ 25,398.00
10	4	TN	1" WASHED AGGREGATE		0	\$ 105.00	\$ -	\$ -
11	210	TN	C33 #8 AGGREGATE		24	\$ 55.00	\$ 1,320.00	\$ 1,320.00
12	7829	TN	CLASS B RIP RAP - STORED = 949 TONS @ \$72 / TON	\$ 68,328.00	3981	\$ 90.00	\$ 358,290.00	\$ 426,618.00
13	788	TN	3" CRUSHED AGGREGATE		201	\$ 45.00	\$ 9,045.00	\$ 9,045.00
14	964	LF	6" PERFORATED DUAL WALL PVC		793	\$ 23.00	\$ 18,239.00	\$ 18,239.00
15	90	LF	8" GALVANIZED STEEL PIPE		90	\$ 25.00	\$ 2,250.00	\$ 2,250.00
16	175	LF	24" RCPP PRINCIPAL SPILLWAY		176	\$ 550.00	\$ 96,800.00	\$ 96,800.00
17	2	EA	PRINCIPAL SPILLWAY PIPE SUPPORTS		2	\$ 4,000.00	\$ 8,000.00	\$ 8,000.00
18	23	CY	STRUCTURAL CONCRETE (CLASS 4000)		16	\$ 2,150.00	\$ 34,400.00	\$ 34,400.00
19	4465	LB	REINFORCING STEEL	\$ 1,100.00	3000	\$ 2.50	\$ 7,500.00	\$ 8,600.00
20	1	LS	METAL FABRICATION	\$ 6,063.00	0	\$ 11,000.00	\$ -	\$ 6,063.00
21	3	EA	SHEETPILE HEADWALL	\$ -	3	\$ 1,700.00	\$ 5,100.00	\$ 5,100.00
22	24	LF	18" CCP LOW STAGE INLET PIPE		0	\$ 75.00	\$ -	\$ -
23	1	EA	18" CONCRETE TRASH RACK		0	\$ 3,100.00	\$ -	\$ -
24	63	LF	12" PVC DRAWDOWN PIPE		0	\$ 60.00	\$ -	\$ -
25	1	EA	12" BAR TRASH RACK		0	\$ 400.00	\$ -	\$ -
26	1	EA	12" LINE GATE	\$ 6,617.00	0.1	\$ 30,000.00	\$ 3,000.00	\$ 9,617.00
27	1065	LF	FENCE REMOVAL(ADD ENGINEER)		500	\$ 1.00	\$ 500.00	\$ 500.00
28	1170	LF	FENCE PLACEMENT(ADD ENGINEER)		0	\$ 10.00	\$ -	\$ -
29		EA	GATE		0		\$ -	\$ -
30	2	EA	BRASS CAP MONUMENTS		0	\$ 1,300.00	\$ -	\$ -
31	18.4	AC	SEEDING		0	\$ 2,400.00	\$ -	\$ -
32	3735	LF	WATTLES		0	\$ 4.00	\$ -	\$ -
33	3	EA	PERMANENT PIEZOMETER(W/ BOLLARDS)		0	\$ 8,000.00	\$ -	\$ -
34	4	EA	SETTLEMENT PLATE		0	\$ 1,800.00	\$ -	\$ -
35	1402	LF	TYPE B DIVERSION		0	\$ 2.50	\$ -	\$ -
36	1500	LF	DRAIN TILE REMOVAL (ADB ENGINEER)		0	\$ 2.60	\$ -	\$ -
37	100	LF	DRAIN TILE PLACEMENT(ADB ENGINEER)		0	\$ 10.00	\$ -	\$ -
39	1	LS	QUALITY CNTROL INSPECTION		0.25	\$ 6,400.00	\$ 1,600.00	\$ 1,600.00
40	150	SY	GEOTEXTILE FILTER FABRIC		0	\$ 10.00	\$ -	\$ -
<b>TOTAL 27</b>				<b>\$ 82,108.00</b>			<b>\$ 762,503.50</b>	<b>\$ 844,611.50</b>

**Invoice**



601 P St Suite 200  
 PO Box 84608  
 Lincoln, NE 68501-4608  
 Tel 402.474.6311, Fax 402.474.5063

August 19, 2025  
 Invoice No: 548701

Ryan Chapman  
 Lower Platte North NRD  
 PO Box 126  
 Wahoo, NE 68066-0126

**Invoice Total \$14,399.04**

Olsson Project # B18-34230 Lower Platte North NRD Wahoo Creek Watershed & 3 Dam Sites

Professional services rendered from July 06, 2025 through August 02, 2025 for work completed in accordance with agreement.

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Phase	070	Construction Oversight	
<b>Labor</b>			
		<b>Hours</b>	<b>Amount</b>
Construction Services		80.00	8,356.99
Project Manager		5.00	838.00
Principal		24.00	4,021.18
	Totals	109.00	13,216.17
	<b>Total Labor</b>		<b>13,216.17</b>
<b>Reimbursable Expenses</b>			
Personal Vehicle Mileage			122.62
	<b>Total Reimbursables</b>		<b>122.62</b>
<b>Unit Billing</b>			
Field Vehicle 1297		44.0 Miles @ 0.75	33.00
Field Vehicle 1100		1,223.0 Miles @ 0.75	917.25
Atterberg Limit			
1 Tests @ \$110/Test			110.00
	<b>Total Units</b>		<b>1,060.25</b>
		<b>Total this Phase</b>	<b>\$14,399.04</b>
<b>Billing Limits</b>			
	<b>Current</b>	<b>Prior</b>	<b>To-Date</b>
Total Billings	14,399.04	92,777.43	107,176.47
Limit			481,603.42
Balance Remaining			374,426.95
		<b>AMOUNT DUE THIS INVOICE</b>	<b>\$14,399.04</b>

INVOICE PAYMENT IS REQUESTED WITHIN 30 DAYS

Email invoices to: [jbreunig@lpnnrd.org](mailto:jbreunig@lpnnrd.org); [selliott@lpnnrd.org](mailto:selliott@lpnnrd.org); [rchapman@lpnnrd.org](mailto:rchapman@lpnnrd.org)

Please include our invoice number(s) with your payment.

By Check: Make check payment to Olsson Inc and mail to PO Box 84608, Lincoln, NE 68501-4608

By Electronic / ACH Payment: When transferring funds, please reference the invoice number(s), Account Name Olsson Inc; Pinnacle Bank Account No. 254316; Routing (ABA) No. 104913912, Remittance Email Address: [deposits@olsson.com](mailto:deposits@olsson.com)

Questions: Contact us at (402) 458-5062 or [accountsreceivable@olsson.com](mailto:accountsreceivable@olsson.com)

Authorized By: Brian Jueneman

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INVOICE PAYMENT IS REQUESTED WITHIN 30 DAYS

**LPNNRD - Wahoo Creek Dam Sites 26A, 26B, 27**

**Construction Phase Services**

Progress Report No.

**007**

Date of Invoice

**08/19/2025**

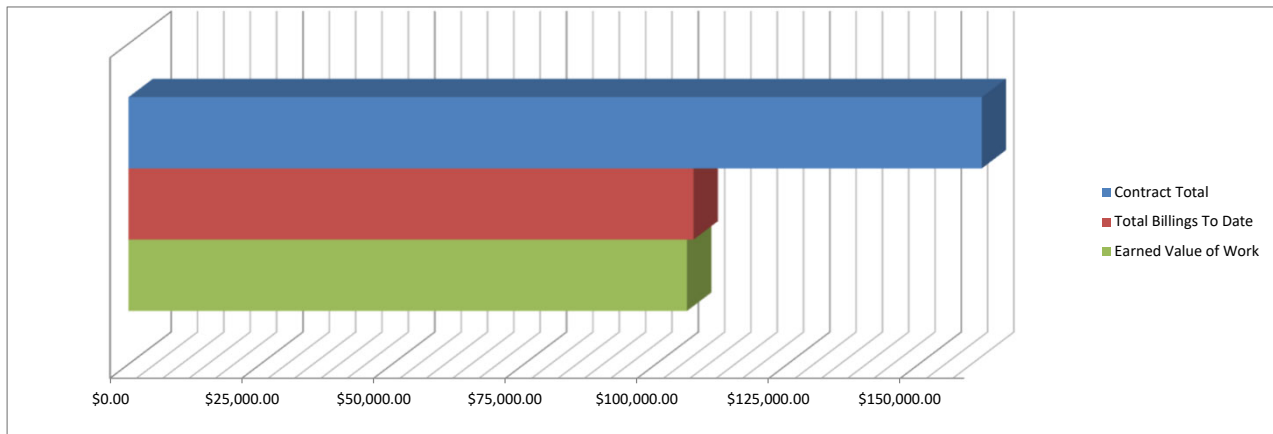
Invoice Number

**548701**

**Olsson # B18-34230**

Project Phase/Task	Estimated Cost	Prior Billings	Billings This Invoice	Total Billings To Date	Project Manager Estimated Percent Complete	Earned Value of Work Completed
Construction Management and Inspection	\$481,603.42	\$92,777.43	\$14,399.04	\$107,176.47	22.00%	\$105,952.75
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
<b>Totals</b>	<b>\$481,603.42</b>	<b>\$92,777.43</b>	<b>\$14,399.04</b>	<b>\$107,176.47</b>	<b>22.00%</b>	<b>\$105,952.75</b>

Amendment #4 - Approved 5-14-25



**Description of Work Completed This Period**

Project and Construction Management - Progress meetings, invoices/progress reports, submittal review and management, change orders

Construction Inspection and Testing - Site visits, contractor coordination, materials testing, project documentation, weekly reports

Construction Engineering Support - Progress meetings, site visits

Construction Phase Survey (QA and As-built) - None

Expenses - Vehicle mileage, field and laboratory testing

**Anticipated Work Next Period**

Project and Construction Management - Progress meetings, invoices/progress reports, submittal review and management, change orders

Construction Inspection and Testing - Site visits, contractor coordination, materials testing, project documentation, weekly reports

Construction Engineering Support - Progress meetings, site visits, piezometer and settlement plate coordination

Construction Phase Survey (QA and As-built) - None

Expenses - Vehicle mileage, field and laboratory testing

**Information/Decisions Needed from LPNNRD**

None -

**Summary of Potential Out of Scope Work/Current Project Issues**

Contract estimated duration vs. actual construction schedule (Amendment submitted on 4-10-25) - Resolved



**Wahoo Creek Dams 26A, 26B and 27**  
Prague, NE  
Olsson Project # 018-34230

**General Information:**

LPNNRD Project Manager:	Sean Elliot, LPNNRD
Project Engineer:	Dan Lightbody, Olsson
Construction Management & Inspection:	Isaac Miesbach, Brian Jueneman, Olsson
Contractor's Projected Final Completion Date:	September 25, 2026
Contract Final Completion Date:	October 1, 2026
Contract Completion by Amount Paid:	25%

**Summary of Activity:**

**Site 26A:**

Shanahan spent the week working on embankment overexcavation from approximately Sta. 108+75 – Sta. 109+25, 85' LT. – 105' RT. Shanahan moved from West to East along the top of the North bank of the channel using their excavator to remove material from the overexcavation limits. Removed materials that were determined to be usable as fill were placed in the channel cleanout and backfill limits, disced with a tractor and disc, and spread out to dry with their bulldozer. Removed materials that were determined to be spoil were hauled to waste areas. Once placed fill was at an acceptable moisture content, Shanahan used their sheepsfoot dozer to compact the placed fill. Once Shanahan was no longer able to reach from the top of the bank with their excavator they moved down into the channel and used their long arm excavator to bring the rest of the overexcavation down to the plan elevation of 1338'.

**Site 26B:**

**Site 27:**

**Items of Note:**

**Field and Acceptance Testing:**

Field compaction testing was conducted during backfill operations. Testing reports and break reports will be provided when available.

**1 Week Look-Ahead:**

Weather permitting Shanahan will place fill in the overexcavation limits on Site 26A.



**Wahoo Creek Dams 26A, 26B and 27**  
Prague, NE  
Olsson Project # 018-34230

<b>Project Name:</b> Wahoo Creek Dams	<b>Site Location: Prague, NE</b>	<b>Project No.</b> <b>018-34230</b>
<p>Direction Photo taken: Northwest</p> <p>Description: Shanahan removing and hauling embankment overexcavation from the top of the creek banks</p>		
<p>Direction Photo taken: North</p> <p>Description: Shanahan using their sheepsfoot dozer to compact and spread removed soils that were placed in the channel cleanout area as fill.</p>		

**Wahoo Creek Dams 26A, 26B and 27**  
 Prague, NE  
 Olsson Project # 018-34230

<p><b>Project Name:</b> Wahoo Creek Dams</p>	<p><b>Site Location: Prague, NE</b></p>	<p><b>Project No.</b> <b>018-34230</b></p>
<p>Direction Photo taken: North</p> <p>Description: Shanahan using their long arm excavator to bring the overexcavation limits down to the plan elevation of 1338'</p>		
<p>Direction Photo taken: Northwest</p> <p>Description: Shanahan's overexcavation from approximately Sta. 108+75 – Sta. 109+25, 85' LT. – 105' RT.</p>		
<p><b>Project Name:</b> Wahoo Creek Dams</p>	<p><b>Site Location: Prague, NE</b></p>	<p><b>Project No.</b> <b>018-34230</b></p>

**Wahoo Creek Dams 26A, 26B and 27**  
Prague, NE  
Olsson Project # 018-34230

<b>Project Name:</b> Wahoo Creek Dams	<b>Site Location: Prague, NE</b>	<b>Project No.</b> <b>018-34230</b>
<p>Direction Photo taken: West</p> <p>Description: Aerial photos of site progress on Site 26A from 08/12/2025</p>		
<p>Direction Photo taken: South</p> <p>Description: Aerial photos of site progress on Site 26A from 08/12/2025</p>		

Progress Report for Wahoo Creek Watershed Dams Sites



Lower Platte North NRD

For Work Completed During The Month Of : July, 2025

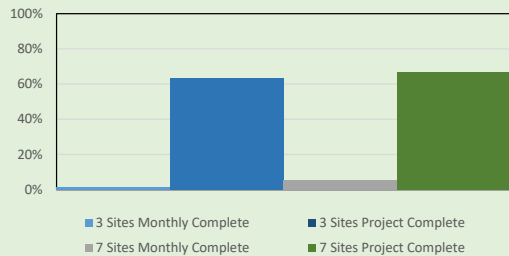
(through 8/2/2025)

Project # 018-3423 Dam Site 26A, 26B, &27 Project Phase	Phase Budget	Billings for Month		Project Total Billings to Date	
		Current Earned/Billings	% Completed This Month	JTD Earned/Billings	% Completed Overall
010 - Project Management/Meetings	\$ 25,709		0.0%	\$ 23,362.98	90.9%
020 - Geotechnical Engineering	\$ 224,493		0.0%	\$ 226,775.48	101.0%
030 - Dam Design	\$ 184,885		0.0%	\$ 199,168.83	107.7%
040 - Permitting	\$ 86,634		0.0%	\$ 60,884.18	70.3%
050 - Survey and Legal Descriptions	\$ 11,142		0.0%	\$ 23,636.47	212.1%
060 - Community/Public Participation	\$ -			\$ -	
070 - Construction Services	\$ 507,509	\$ 14,399.04	2.8%	\$ 117,281.05	23.1%
090-Tree Clearing Bidding and Enviro	\$ 11,554		0.0%	\$ 11,642.75	100.8%
100- Additional Easement Documents	\$ 5,085		0.0%	\$ 5,144.49	101.2%
110-Additional 90% Review	\$ 9,930		0.0%	\$ 9,911.40	99.8%
<b>3 Sites Totals</b>	<b>\$ 1,066,941</b>	<b>\$ 14,399.04</b>	<b>1.3%</b>	<b>\$ 677,807.63</b>	<b>63.5%</b>

Project # A18-3423 (separate invoice) Sites 55, 66, 77, 84, 85, & 86 Project Phase	Phase Totals	Billings for Month		Project Total Billings to Date	
		Current Earned/Billings	% Completed This Month	JTD Earned/Billings	% Completed Overall
100 - Project Management/Meetings	\$ 107,310	\$ 13,566.58	12.6%	\$ 81,652.45	76.1%
110 - Geotechnical Engineering	\$ 626,482	\$ 4,326.38	0.7%	\$ 597,772.85	95.4%
120 - Dam Design	\$ 672,426	\$ 81,771.42	12.2%	\$ 597,905.09	88.9%
130 - Permitting	\$ 253,448	\$ 22,135.57	8.7%	\$ 239,586.25	94.5%
140 - Survey and Legal Descriptions	\$ 114,486	\$ 1,542.65	1.3%	\$ 35,790.16	31.3%
150 - Community/Public Participation	\$ 30,000		0.0%	\$ 5,899.20	19.7%
160 - Other	\$ -			\$ -	
170- Construction Services	\$ 603,992		0.0%	\$ -	0.0%
180- Site 55 Additional Investigation	\$ 70,923		0.0%	\$ 46,770.79	65.9%
190-Easement Documents & Survey	\$ 14,953		0.0%	\$ 15,804.30	105.7%
200- 77 Additional Evaluation	\$ 45,215	\$ 9,036.81	20.0%	\$ 51,767.64	114.5%
210- 90% Review	\$ 19,827	\$ 12,080.70	60.9%	\$ 19,058.44	96.1%
220- Depletions Calculations	\$ 14,194		0.0%	\$ 11,882.19	83.7%
220- Biological Assesment	\$ 24,720	\$ 3,318.36	13.4%	\$ 26,423.38	106.9%
<b>6 Sites Totals</b>	<b>\$ 2,597,975</b>	<b>\$ 147,778.47</b>	<b>5.7%</b>	<b>\$ 1,730,312.74</b>	<b>66.6%</b>

<b>Billings For Month</b>	<b>\$ 162,177.51</b>
Total Billings To Date	\$ 2,408,120.37
Project Budget	\$ 3,664,916.43
Budget Remaining	\$ 1,256,796.06

% Budget Spent Per Site



Summary Of Work Completed This Month	
Sites 26A, 26B, & 27	Sites 55, 66, 77, 84, 85, & 86
-26A: Site prep and dewatering -27: Concrete poured for principal spillway, placement of steel and forms for riser structure, backfill around principal spillway pipe, concrete testing and field compaction testing	-Ongoing project management -Site 84 submittal to NRCS; Site 77 submittal to NRCS/NeDNR (NDWEE) -Submittal of Corps permit, rcv'd comments on BA, begin adjustments

Planned Work For Next Month	
Site 26A, 26B, & 27	Sites 55, 66, 77, 82, 84, 85, & 86
-Ongoing construction management/oversight -Site visits, contractor coordination, materials testing, doc. -Expenses to include vehicle mileage, laboratory testing	-Ongoing project management -Finalization of Site 77 upon DNR comments/adjustments, submittal to Ft Worth -Submittal of final BA -Ongoing design (90% for remaining sites or 100% for Sites 55 and 84) -Complete legal descriptions for remaining easements

For questions regarding billings, please contact Andrew Phillips at (402) 440-8807 or aphillips@olsson.com

**Wahoo Creek - 2nd Six Sites, Design Phase**  
**Olsson Project #A18-34230**  
**Summary of Billings by Month for July 2025 Invoice**

<b>Month</b>	<b>Billings</b>
Jan-25	\$ 415.47
Feb-25	\$ 1,525.59
Mar-25	\$ 2,625.27
Apr-25	\$ 12,155.15
May-25	\$ 25,631.15
Jun-25	\$ 82,642.77
Jul-25	\$ 22,783.07
Total	\$ 147,778.47

**Invoice**



601 P St Suite 200  
 PO Box 84608  
 Lincoln, NE 68501-4608  
 Tel 402.474.6311, Fax 402.474.5063

August 21, 2025  
 Invoice No: 549509

Ryan Chapman  
 Lower Platte North NRD  
 PO Box 126  
 Wahoo, NE 68066-0126

**Invoice Total \$147,778.47**

Olsson Project # A18-34230 Lower Platte North NRD Wahoo Creek Watershed & 7 Dam Sites  
 Phase II  
 Professional services rendered through August 2, 2025 for work completed in accordance with agreement.

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Phase	100	Sites 55 66 77 82 84 85 86 Project Management		
<b>Labor</b>				
			<b>Hours</b>	<b>Amount</b>
			2.00	519.12
			87.00	13,004.76
		Totals	89.00	13,523.88
		<b>Total Labor</b>		<b>13,523.88</b>
<b>Reimbursable Expenses</b>				
				42.70
		<b>Total Reimbursables</b>		<b>42.70</b>
				<b>13,566.58</b>
		<b>Total this Phase</b>		<b>\$13,566.58</b>

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Phase	110	Geotechnical Engineering		
<b>Labor</b>				
			<b>Hours</b>	<b>Amount</b>
			4.50	312.35
		Assistant Engineer	1.50	169.08
		Project Professional	19.25	3,411.87
		Assistant Professional	2.00	433.08
		Totals	27.25	4,326.38
		<b>Total Labor</b>		<b>4,326.38</b>
				<b>4,326.38</b>
		<b>Total this Phase</b>		<b>\$4,326.38</b>

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Phase	120	Dam Design		
<b>Labor</b>				
			<b>Hours</b>	<b>Amount</b>
		Principal	4.00	800.92

INVOICE PAYMENT IS REQUESTED WITHIN 30 DAYS

Project	A18-34230	Lower Platte North NRD Wahoo Creek Water	Invoice	549509
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Project Manager	128.25	21,494.70	
Project Professional	13.50	1,838.79	
Assistant Professional	239.00	26,897.37	
CAD Operator	379.25	29,502.45	
Administrative/Clerical	6.00	687.19	
Totals	770.00	81,221.42	
<b>Total Labor</b>			<b>81,221.42</b>

**Reimbursable Expenses**

Filing Fees		550.00	
<b>Total Reimbursables</b>		<b>550.00</b>	<b>550.00</b>

**Total this Phase \$81,771.42**

Phase 130 Permitting

**Labor**

	Hours	Amount	
Project Manager	73.75	13,426.93	
Project Professional	54.25	6,959.73	
Assistant Professional	18.25	1,748.91	
Totals	146.25	22,135.57	
<b>Total Labor</b>			<b>22,135.57</b>

**Total this Phase \$22,135.57**

Phase 140 Survey & Legal Descriptions

**Labor**

	Hours	Amount	
Survey Technical Manager	3.00	471.66	
Associate Surveyor	1.25	100.26	
Senior Team Leader	3.50	970.73	
Totals	7.75	1,542.65	
<b>Total Labor</b>			<b>1,542.65</b>

**Total this Phase \$1,542.65**

Phase 180 Site 55 Additional Investigation

**Total this Phase 0.00**

Phase 200 77 Additional Evaluation

**Labor**

	Hours	Amount	
Principal	46.25	8,275.95	
Assistant Professional	6.75	760.86	
Totals	53.00	9,036.81	
<b>Total Labor</b>			<b>9,036.81</b>

**Total this Phase \$9,036.81**

INVOICE PAYMENT IS REQUESTED WITHIN 30 DAYS

Project	A18-34230	Lower Platte North NRD Wahoo Creek Water	Invoice	549509
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Phase 210 90% Review Docs

**Labor**

	Hours	Amount	
Project Professional	90.00	12,080.70	
Totals	90.00	12,080.70	
<b>Total Labor</b>			<b>12,080.70</b>
		<b>Total this Phase</b>	<b>\$12,080.70</b>

Phase 220 Depletions Cals and BA

**Labor**

	Hours	Amount	
Project Manager	10.25	1,866.12	
Assistant Professional	16.00	1,452.24	
Totals	26.25	3,318.36	
<b>Total Labor</b>			<b>3,318.36</b>
		<b>Total this Phase</b>	<b>\$3,318.36</b>

**AMOUNT DUE THIS INVOICE \$147,778.47**

**Outstanding Invoices**

Number	Date	Balance
537617	5/16/2025	2,484.34
539948	6/16/2025	4,183.34
543594	7/14/2025	3,372.39
549509	8/21/2025	147,778.47
<b>Total</b>		<b>157,818.54</b>

Authorized By: Carrie Wiese

INVOICE PAYMENT IS REQUESTED WITHIN 30 DAYS



Invoice

August 25, 2025
Project No: R220954.00
Invoice No: 163857
Invoice Amount: 4,950.00

Eric Gottschalk
Lower Platte North NRD
Commercial Park Road
PO Box 126
Wahoo, NE 68066

Project Manager Rebecca Appleford

Project R220954.00 Lower Platte North NRD HMP 2025 Update

Professional Services through August 15, 2025

Table with 6 columns: Contract Amount, Percent Complete, Billed-to-Date, Previous Billing, Current Billing. Rows include Project Management, Public Involvement and Stakeholder Participation, Data Collection and GIS Mapping, Develop Hazard Mitigation Plan, HMP Adoption, Submission, and Approval, Threat and Hazard Identification and Risk Assessment, Drought Risk Assessment and Management, and Total.

Total Amount Due Upon Receipt : \$4,950.00

Email Invoice: rchapman@lpnrd.org; jbreunig@lpnrd.org

# Progress Report

## LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT HAZARD MITIGATION PLAN UPDATE

**August 25, 2025**

JEO Project Number: 220954.00  
Project Contact: Becky Appleford, 217-741-0117  
Professional Services through August 15, 2025

Below is a progress report for the above referenced project:

**1. Overall project and budget status:**

Overall Project Completion: <u>98%</u>	Overall Budget Expended: <u>98%</u>
HMP Completion: <u>99%</u>	HMP Budget Expended: <u>103%</u>
THIRA Completion: <u>100%</u>	THIRA Budget Expended: <u>100%</u>
Drought Plan Completion: <u>98%</u>	Drought Plan Budget Expended: <u>95%</u>

**2. Project activities during current period (thru August 15, 2025)**

- a. Updated HMP to meet required elements/revisions as stated in RFI #1
- b. Prepared documentation, QAQC, and response to RFI #1
- c. Resubmitted HMP on 7/30/2025 to FEMA in response to RFI #1
- d. Continued to collect and file adoption resolutions
  - i. Total of 17 out of 56 completed
- e. Met with NRD on 8/18 on drought plan implementation

**3. Planned project activities for next period (thru September 12, 2025)**

- a. Notify jurisdictions when the plan is approved
- b. Continue to collect adoption resolutions and submit to State
- c. Provide copy of HMP to participants (print to NRD & County EMs only)

**4. Information needed from NRD or key stakeholders**

- a. Jurisdictions to pass adoption resolution and send to JEO

**5. Project Schedule and Next Meeting(s)**

- a. Waiting for FEMA HMP approval



**Bills Pending**  
**September 8, 2025**

<b>Vendor</b>	<b>Description</b>	<b>Balance</b>
Adam Brockmann	Cell Phone Reimbursement	\$ 45.00
Aflac	Employee Benefits	\$ 259.10
Allen J. Svatora	RO Unit Cost-Share	\$ 505.45
American Union Ventures Inc.	Computer Expense	\$ 55.00
Benjamin Klug	Flow Meter Cost-Share	\$ 1,000.00
Bomgaars	Wanahoo/Vehicle/Ed Bldg./Czechland	\$ 411.41
Brandon Beethe	Mileage Reimbursement	\$ 25.20
Brandon Beethe	Cell Phone Reimbursement	\$ 45.00
Bromm Lindahl Freeman-Caddy & Lausterer	General Matters/Wahoo Creek/Retainer	\$ 4,032.00
Butler Public Power	Utilities Expense	\$ 4,761.36
Century Business Products	Copier Maintenance Agreement	\$ 168.29
Charles Jelinek	Permanent Easement	\$ 257,000.00
Column Software	Public Notice	\$ 11.41
Cornhusker State Industries	Office Desk	\$ 1,127.00
Cuda's Auto	Towing Expense	\$ 350.00
Daniel Stevenson	RO Unit Cost-Share	\$ 375.00
Daryl Andersen	Cell Phone Reimbursement	\$ 45.00
DAS State Acctg - Central Finance OCIO	Tablet/Cell Phone Expense	\$ 731.97
David A Moore	Cell Phone Reimbursement	\$ 45.00
David City Utilities	Bruno Water Purchase	\$ 1,671.65
David Lawrence	GMDA Airline/Hotel/Parking Reimbursement	\$ 1,057.09
Department of Revenue	Wanahoo Lodging Tax	\$ 987.12
Diode	NRD/Ed. Bldg. Open Path	\$ 54.58
Eakes Office Solutions	Copy Paper	\$ 244.95
Eakes Office Solutions	Name Plates Staff	\$ 27.85
Eric Gottschalk	Cell Phone Reimbursement	\$ 45.00
Fremont Sanitation	NRD/Wanahoo Garbage	\$ 754.22
Google	Google Email Service	\$ 414.00
HBE LLP	Professional Service Accounting	\$ 8,850.00
HDR Engineering Inc.	Cottonwood 21A	\$ 1,877.30
Heartland Office Cleaners	NRD Office Cleaning	\$ 525.00
Helm Connected, LLC	Computer Consultant/Software	\$ 2,159.96
Hergert Oil	Fuel Expense	\$ 2,800.53
Hill and Valley Farms, Inc.	Flow Meter Cost-Share	\$ 1,000.00
Humphrey Democrat	Viaduct	\$ 250.00
Intermedia	Long Distance Fees	\$ 162.30
Jacob Maslonka	Cell Phone Reimbursement	\$ 45.00
Jake Pittman	Cell Phone Reimbursement	\$ 45.00
JEO Consulting Group, Inc.	Hazard Mitigation Update	\$ 4,950.00
Jill Breunig	Cell Phone Reimbursement	\$ 45.00
John Andel	Beaver Trapping - Cottonwood 6E	\$ 200.00
Kaitlyn Bargaen	Cell Phone Reimbursement	\$ 45.00
Karen Henrichson	Postage Reimbursement	\$ 10.50
Karen Henrichson	Cell Phone Reimbursement	\$ 45.00
Kathleen Caniglia	Refund RW Deposit	\$ 13.17

**Bills Pending  
September 8, 2025**

Keith Kallweit	Flow Meter Cost-Share	\$ 1,000.00
Kim Homes	Ed Building Cleaning	\$ 150.00
KTIC	Radio Ads	\$ 248.00
Lacey Sabatka	Cell Phone Reimbursement	\$ 45.00
Lincoln Journal Star	Viaduct	\$ 1,077.91
LRE Water	GWMP Updates	\$ 1,552.50
Marlene H. Svoboda	Flow Meter Cost-Share	\$ 1,000.00
Midwest Laboratories, Inc	GW Quality	\$ 256.00
NARD	Director/Personnel Meeting Registration	\$ 4,900.00
NARD Risk Pool Association	Employee Benefits	\$ 38,877.55
NARD Risk Pool Association	Flex Spending	\$ 1,004.76
Nebraska Land Trust	Donation	\$ 250.00
Nebraska Public Health Environmental Lab	Producer Kits	\$ 32.00
Nebraska Public Health Environmental Lab	Bruno RW Expense	\$ 205.00
Nebraska Public Health Environmental Lab	Producer Kits	\$ 32.00
Nebraska Public Health Environmental Lab	Colon RW Expense	\$ 15.00
Nebraska Public Health Environmental Lab	GW Quality/Producer Kits	\$ 112.00
Nebraska Public Health Environmental Lab	GW Quality/Producer Kits	\$ 604.00
Nebraska Public Health Environmental Lab	GW Quality/Producer Kits	\$ 144.00
Nebraska's Natural Resource District	Annual Membership Dues	\$ 34,058.07
NextLink Internet	Internet Expense	\$ 353.29
NextLink Internet	Internet Expense	\$ 328.29
Norman Kavan, Jr.	Variance Reimbursement	\$ 75.00
North Bend Eagle	Viaduct	\$ 110.00
Olsson Associates	Wahoo Creek - 3 Dam Sites	\$ 14,399.04
Olsson Associates	Wahoo Creek - 7 Dam Sites	\$ 147,778.47
Omnify	Employee Benefits	\$ 20.00
One Call Concepts, Inc	One Call Expense	\$ 10.66
OOP Inc	Normal O & M/Wanahoo	\$ 266.50
Otte Oil & Propane	Normal O & M/Diesel	\$ 980.95
Papio-Missouri River NRD	Water Strategies Reimbursement	\$ 2,400.00
Pitney Bowes	Postage Expense	\$ 1,009.75
Plunkett's Pest Control	Ed Building Expense	\$ 92.82
Russell Shonka	Flow Meter Cost-Share	\$ 4,000.00
Ryan Chapman	Cell Phone Reimbursement	\$ 45.00
Scheele-Kayton	NRD Office	\$ 107,319.60
Sean Elliott	Cell Phone Reimbursement	\$ 45.00
Sean O'Brien	Cell Phone Reimbursement	\$ 45.00
Sid Dillon Inc.	Truck Repairs	\$ 570.24
Simons Home Store	Building Expense	\$ 34.26
Star Seed LLC	Pollinator Program	\$ 80.87
State of Nebraska DEE	Chemigation Expense	\$ 5.00
Sydney Abbott	Cell Phone Reimbursement	\$ 45.00
Thompson Construction, Inc.	Wahoo Creek Construction	\$ 70,529.40
Tim Svatora	RO Unit Cost-Share	\$ 800.00
UBT	Bi-Weekly Payroll 8/15/25	\$ 62,366.37

**Bills Pending**  
**September 8, 2025**

UBT	Bi-Weekly Payroll 8/29/25	\$ 62,298.74
UBT - VISA	Computers/Wanahoo Rec/Equip Upkeep/Ed Outreach	\$ 10,127.38
Union Bank	Bank Fees	\$ 45.52
Wahoo Auto Parts	Truck Repairs	\$ 55.10
Wahoo Metal	O & M Equipment	\$ 180.00
Wahoo Utilities	Colon RW Repairs	\$ 254.69
Wahoo Utilities	Colon Water Purchase/NRD/Ed. Bldg. Utilities	\$ 1,949.89
Wells Fargo Financial Leasing, Inc.	Copier Lease	\$ 209.00
William Klug	Flow Meter Cost-Share	\$ 4,000.00
Grand Total		\$ 877,668.03

# Consent Agenda

## September 9, 2025

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- 5. Approval of Minutes
- 6.A.3.f.1. NE Land Trust Sponsorship Request
- 6.A.6.b. Approval Manager Time and Expense Sheets
- 6.B.7.b. Bruno System
- 6.C.2.a.6. Groundwater Management Plan
- 6.C.2.a.7. Cost-Share Programs
- 6.C.2.a.7.A. Irrigation Well Sample Kits
- 6.C.3.b.1. Phase Area Update
- 6.D.2.a. SWCP Application Approvals
- 6.D.4.a. Shell Creek Implementation – 319 & NET
- 8. Authorize General Manager to approve and then treasurer to pay monthly recurring expenses pursuant to April 11, 2011 board policy.