

Water Committee Meeting
Wednesday, October 2, 2024 6:00 PM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS

2. REGULATORY

2.A. GROUND WATER MANAGEMENT AREA

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

The deadline for applications was September 15. The staff scored this year's applications and the previous years. Attached is the list of applications.

Staff explained to the Committee the variance for Jay Nelson. The well is located in the LPNNRD and will irrigate a tract of land in Lower Elkhorn (LE) NRD. This well already irrigates 35 acres from this existing well. Last year, LE had a well in their district, which LPN allowed the producer to swing the pivot over land in LPN. LE will still have to approve this application within their district.

Staff recommends approving all applications that score 333 or higher, which the NRD will approve 2612.16 acres for a total of 199.48 acre feet of depletion.

2.A.2. Variance Requests Expansion of Acres with Allocations

The NRD has received 2 applications in SQS #2 management area. John Schure is requesting an additional 10 acres for the purpose of adding a swing arm onto an existing pivot. He currently irrigates 140 acres with a 30-inch 3-year rolling allocation. His average for the last 4 years has been 6.08 acre inches. By adding the additional 10 acres, his allocation would be 28-inches on a 3-year rolling allocation.

Tim Foltz is requesting an additional 20 acres for the purpose of adding a swing arm onto an existing pivot. He currently irrigates 206 acres with a 30-inch 3-year rolling allocation. His average for the last 4 years has been 6.77 acre inches. By adding the additional 10 acres, his allocation would be 27.35-inches on a 3-year rolling allocation.

Attached are maps of both sites with each site scoring over 300 points.

2.A.3. Variance Requests in the Non-Hydrologically Connected Area (Normal Development Area)

2.A.4. Well Permit Program

2.A.5. Existing Irrigation Well Update

An irrigation well was drilled in 2017 with conditions in the NE1/4 S20-14N-7E, Saunders County. Attached is some updated information about the water levels in this area.

Staff gave an update of the groundwater levels and trends for this area as this well has been irrigating for over 5 years. Katie Cameron, UNL-CSD and ENWRA evaluated this area with AEM information, data logger information and explained what she observed.

2.A.6. Eastern Nebraska Water Resources Assessment (ENWRA)

Katie Cameron gave an update on the projects the group is working on. Katie showed an updated website for ENWRA, which is located at <https://enwra.org/> Some of the projects she is working on are recharge areas, updating static water levels and accessing the AEM information. She is always available to assist in geological evaluations for well locations.

2.A.7. Cost Share Programs

2.A.7.a. Irrigation Well Sample Kits

339 kits to producers so far in 2024.

2.A.7.b. Flow Meter Maintenance Program

Staff has sent the list to Tri-City Meters to start meter maintenance. The area that the firm will be working is Zone 1, which is part of Butler, Colfax and Platte County. The NRD is showing 331 meters that will be greased compared to 279 four years ago.

2.A.8. Bellwood Phase 2 Area

2024 is the twenty-second year for this Phase 2 Area.

	Nitrate-nitrogen Range	Percent Nitrate-nitrogen 0 to 8.0 ppm	Percent Nitrate-nitrogen 8.01 to 10.00 ppm	Percent Nitrate-nitrogen 10.01 to 15 ppm	Percent Nitrate-nitrogen greater than 15 ppm
	0 to 25 ppm	46.3% (44 of 95)	8.4% (8 of 95)	45.3% (43 of 95)	
	0 to 25 ppm	47% (44 of 94)	15% (14 of 94)	38% (36 of 94)	
	0 to 24 ppm	41% (29 of 71)	14% (10 of 71)	45% (32 of 71)	
	0 to 31 ppm	48% (48 of 100)	9% (9 of 100)	43% (43 of 100)	
	0 to 28 ppm	53.75% (43 of 80)	7.5% (6 of 80)	38.75% (31 of 80)	

	0 to 22 ppm	45.5% (41 of 90)	15.5% (14 of 90)	39% (35 of 90)	
	0 to 35.7 ppm	48.65% (54 of 111)	11.71% (13 of 111)	39.64% (44 of 111)	
	0 to 26.6 ppm	51% (56 of 110)	6% (7 of 110)	43% (47 of 110)	
	0 to 28.9 ppm	57% (61 of 107)	9% (10 of 107)	34% (36 of 107)	
	0 to 25.8 ppm	50% (53 of 107)	9% (10 of 107)	14% (44 of 107)	26%
	0 to 22.3 ppm	51% (55 of 108)	13% (14 of 108)	18% (39 of 108)	20%
	0 to 32.3 ppm	43% (31 of 72)	8% (6 of 72)	14% (35 of 72)	33%
	0 to 35.1 ppm	34% (25 of 74)	11% (8 of 74)	26% (41 of 74)	26%
	0 to 23.5 ppm	36% (27 of 74)	15% (11 of 74)	19% (36 of 74)	22%
	0 to 30.9 ppm	40% (25 of 63)	11% (7 of 63)	22% (31 of 63)	28%
	0 to 24.5 ppm	46% (22 of 48)	10% (5 of 48)	28% (21 of 48)	22%
	0 to 20.5 ppm	33.33% (20 of 60)	13.33% (8 of 60)	35% (21 of 60)	18.33% (11 of 60)

	0.12 to 27.7 ppm	40.6% (26 of 64)	15.6% (10 of 64)	25% (16 of 64)	18.8% (12 of 64)
	0.13 to 23.0 ppm	43.75% (28 of 64)	12.50% (8 of 64)	26.56% (17 of 64)	17.19% (11 of 64)
	0 to 19.8 ppm	50.8% (32 of 63)	15.9% (10 of 63)	20.6% (13 of 63)	12.7% (8 of 63)
	0.09 to 23.0 ppm	48% (27 of 56)	11% (17 of 56)	30% (17 of 56)	11% (6 of 56)

More samples from this area have been returned - these are either at HHS Lab or are to be taken to HHS Lab.

2.A.9. Richland - Schuyler Phase 3 Area

2024 is the ninth year of this Phase 3 Area. This Phase 3 area went into effect September 1, 2015. The 55 sections of this area first went into a Phase 2 Area in 2004. The ten sections that were in Phase 2 are now in Phase 3. As such, the 2020, 2021 and 2022 numbers (at bottom of table) are for 65 sections.

Year	Nitrate-nitrogen Range	Percent Nitrate-nitrogen 0 to 8.0 ppm	Percent Nitrate-nitrogen 8.01 to 10.00 ppm
2004	0 to 47 ppm	30% (42 of 139)	10% (14 of 139)
2005	0 to 120 ppm	31.3% (74 of 236)	10.2% (24 of 236)
2006	0 to 53 ppm	28% (50 of 181)	14% (26 of 181)
2007	0 to 99 ppm	32% (75 of 231)	10% (22 of 231)
2008	0 to 46 ppm	28% (53 of 190)	12% (23 of 190)
2009	0 to 57 ppm	33% (72 of 216)	6% (13 of 216)
2010	0 to 57.5 ppm	31% (70 of 229)	7% (15 of 229)
2011	0 to 65.8 ppm	28% (67 of 241)	9% (21 of 241)
2012	0 to 52.6 ppm	29% (70 of 241)	9% (21 of 241)
2013	0 to 94.0 ppm	25% (63 of 252)	9% (23 of 252)
2014	0 to 101.0 ppm	27% (68 of 251)	9% (22 of 251)
2015	0 to 53.3 ppm	23% (55 of 238)	12% (29 of 238)
2016	0 to 50.5 ppm	25% (58 of 228)	10% (22 of 228)

2017	0 to 53.4 ppm	25% (60 of 238)	6% (14 of 238)
2018	0 to 56.9 ppm	26.5% (50 of 189)	6.3% (12 of 189)
2019	0 to 39.4 ppm	25% (53 of 209)	11% (22 of 209)
2020	0 to 50.8 ppm	26% (69 of 261)	6% (15 of 261)
2021	0 to 43.0 ppm	25.5% (67 of 263)	8.4% (22 of 263)
2022	0 to 58.5 ppm	23.0% (57 of 248)	6.45% (16 of 248)
2023	0 to 46.5 ppm	26% (68 of 263)	6% (17 of 263)
2024	0 to 60.4 ppm	24% (62 of 256)	8% (20 of 256)

2.A.10. Schuyler-Richland Management Area

Staff presented information to the Board about considering moving part of the management area into Phase 4. The plan at that time was starting on November 1, but as staff was still sampling wells in September this year, that date will not be attainable. A hearing could be held the week of November 11, which would allow the hearing notices to be published 3 consecutive weeks with the last date 7 days prior to the hearing. The Committee could review the information and make a recommendation to the Board in December and implement the new management area on December 10, 2024.

Attached is the proposed boundary, rules and producer agreement. The proposed rules and boundaries are what staff suggests presenting at the hearing, with the rules being updated from comments received by producers last spring. Staff is asking the Committee to recommend starting the hearing process for moving a portion of the Schuyler-Richland Management into a Phase 4 level with management.

It was suggested that staff and the committee determine what the goal and objective for moving into Phase 4 water quality management is.

2.A.11. Nitrate Assessment

An invoice is attached for \$1,773.00 for nitrate assessment of the Shell Creek area in conjunction with Newman Grove and Platte Center.

2.B. Groundwater Management Plan Update

Attached is an invoice for \$12,800.37. This includes the 2 stakeholders meeting along with developing the first draft of the plan. LRE is planning on presenting the first draft of the plan for staff's review in the first part of October.

Attached is feedback from the stakeholder meetings.

2.C. GROUND WATER ENERGY LEVELS

Water levels were measured in the WANN Basin on August 27 with conjunction with USGS, LWS and ECC (company that monitors the NAD cleanup). Water levels were up 0.6 feet compared to the summer of 2023.

2.D. GROUND WATER QUALITY SAMPLING

The well of one site in Boone County was not run this year (soybeans). Initial results are attached for the District.

3. GROUND WATER PROGRAMS

3.A. DECOMMISSIONED WELL PROGRAM

3.A.1. Well Estimates

new wells has been reviewed and approved for decommissioning since the last Committee meeting.

Well Owner	Type of Well	Cost Share Estimate	County
Penny Sauder	Irrigation	\$1833.80	Platte
Audrey Williams	Livestock	\$558.75	Saunders

3.A.2. Plugged Wells

wells have been plugged, reviewed, and ready for cost share payment approval this month.

Well Owner	Type of Well	Cost Share Estimate	County
Audra Jedlicka	Irrigation	1,197.76	Colfax

3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

3.B.1. Phase Area Update

Attached is information on LB1368 Nitrogen Reduction Incentive Act (NIRA) being implemented by NeDNR. Lower Platte North could be receiving \$38,058.73 once a contract is signed and implemented by both parties. A draft contract is attached for review. There are different priority areas, but staff recommend working in LPN Priority A areas.

- **Priority A Areas:** Priority A Areas represent areas of elevated nitrate levels with enhanced management including wellhead protection areas and irrigated lands in phase II or higher areas. Most of these areas currently require establishment of a producer's baseline information and data

reporting to NRDs, including nitrogen application rates. NRD crop report data will be used to establish baseline nitrogen application rates for producers in these areas.

- Incentive payments in Priority A Areas will be set at \$15 per acre for producers that can demonstrate a reduction in nitrogen fertilizer application rates of the lesser of 40 pounds per acre or 15% of their baseline application rate. **Under no circumstance can other nitrogen sources (manure, wastewater, etc.) replace the reduced commercial fertilizer.**

The NRD has 30 producers in the Bellwood Area and 80 producers in the Schuyler-Richland Area. Both of these areas are in Phase II or higher.

If each producer signs up, the NRD could approve 25 acres x \$15 x 110 producers equal \$41,250. (a little over, but all producers might not qualify)

The other options would be 135 acres X \$15 X 15 producers. This would be more beneficial by doing larger fields in higher risk areas.

Some producers are already at the recommended rate, so decreasing 40 pounds might be tough.

Items to consider when ranking the fields

- Field locations and look at soil types, depth to aquifer and risks. The NRD has a risk tool evaluator already developed for these areas.
- Could limit it to one phase area.
- Willing to try different technology to decrease nitrogen rates.
- Irrigation systems being used presently.

The committee questions how many producers will think \$15 is enough incentive. Staff will work on developing a scoring system if more applications are received than money allows.

3.B.2. Lower Platte River Consortium

Conditions Update

Lower Platte River Drought Contingency Plan Trigger Updates

- **U.S. Drought Monitor (USDM) Categories:** as of September 27th, the Lower Platte Basin is divided into the following categories by percentage:
 - D2 - 0.12%
 - D1 - 37.55%
 - D0 - 46.76%
 - No Drought Category - 15.57%
- **Platte River near Ashland flow:**
- Between September 1-27th, daily mean discharge at Ashland varied between 1,100 cfs and 3,000 cfs (Severe Drought to no drought category according to the LPRDCP). Peak instantaneous flow was 3,870 cfs on September 2nd.
- **Palmer Drought Severity Index (PDSI) value at Ashland, NE:**
 - -3.22 as of September 27th, 2024 (Severe Drought according to the LPRDCP)

Highlights from the Central Region Climate & Drought Outlook webinar during September 2024:

- **Seasonal Outlooks (October - December 2024):** Temperature outlook is leaning to above-normal conditions, and precipitation has equal chances of above, below, or near normal conditions.
- **Crop Conditions in Nebraska as of September 23rd, 2024:**
 - Corn: 66% mature, 67% good to excellent conditions
 - Soybeans: 75% dropping leaves, 66% good to excellent conditions.
 - Pasture and Range: 33% poor to very poor conditions
- **Topsoil Moisture Conditions in Nebraska as of September 23rd, 2024:** 61% short to very short
- **El Niño-Southern Oscillation (ENSO) Outlook:** Currently in ENSO-neutral and developing La Niña conditions. La Niña conditions expected to persist through winter.

Find current and previous drought products at the following website:

- [NeDNR's LPRBC Drought Contingency Correspondence ShareFile site.](#)

3.C. MONITORING WELLS EQUIPMENT

The Nebraska Department of Natural Resources has \$30,000 in funding for telemetry in monitoring wells. At the present time, most of the LPNDRD dedicated monitoring wells have telemetry already present. Staff will be contacting communities within the district to determine if they have monitoring wells or test holes within their community so that a transducer can be utilized along with telemetry. This can be beneficial during drought for communities to look at real-time water measurements beyond their municipal well locations.

4. SURFACE WATER PROGRAMS

4.A. STATE LAKES, FOR THE WEEK OF

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

There are no lakes on Health Alert this week! Kirkman's Cove Lake in Richardson County will be removed from Health Alert status.

There are **0** beaches on Health Alert this week.

Current Lakes on "Health Alert"

Lake	County	Microcystin (ppb)	Sample Date
None! ??			

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 **0** beaches with *E.coli* testing above 235 colonies/100 ml.

Lakes with High *E.coli* Bacteria

Lake	County	Microcystin (ppb)	Sample Date
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None! ??			
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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 waterbody.

Harmful algal bloom at a Nebraska Reservoir.
 Have a good week and enjoy the lakes!

Justin Haas
State Lakes Coordinator
Nebraska Department of Environment and Energy
P.O. Box 98922
245 Fallbrook Blvd., Suite 100
Lincoln, NE 68509-8922
Direct: 402-471-4224 | Main Office: 402-471-2186
<http://dee.ne.gov>

4.B. USGS STREAM FLOW GAUGING SITES

5. Upcoming meetings

The Committee would like a water retreat in the latter part of January or first part of February. This time period would allow any new Committee or Board members to get a water update. Dave Hume from LRE will plan on attending to discuss the updated groundwater plan, new groundwater levels maps, updated sub-areas and suggested changes. Other things that could be discussed are water quality issues. The staff was looking at a date that would not be on Committee day.

Water Committee meetings in November and December. The November meeting lands on Wednesday, November 27 (the day before Thanksgiving) and the December meeting lands on January 1, 2025.

The Water Committee Meeting for November will be held on Tuesday, November 26, at 6 pm and the December meeting will be held on Wednesday, January 8, 2025, at 6 pm.

GMDA winter conference will be held February 25-27, 2025 in Temecula, CA. If interested, please let staff know soon.

6. OTHER

Attached is a draft statewide report on irrigated acres and basins along with a report from NARD conference from Jacob and Daryl.

6.A. COMMENTS FROM THE PUBLIC

Application ID	Applicant	Application Type	County	Ranking Score	Acres	Consumptive Use	Section	Township	Range	Dir
LPN-V-024-	Jon Engel	expansion	Colfax	492.18	31.70	4.22	6	17	2	E
LPN-V-024-	Bruce Hajek	expansion	Saunders	492.1	20.00	3.29	35	17	6	E
LPN-V-023-	John Larson	new	Boone	488.6	135.00	3.31	13	22	6	W
LPN-V-024-	Terry Lichtenberg/Keith	expansion	Boone	472.6	68.40	1.68	16	21	5	W
LPN-V-023-	Sylvia Walters	expansion	Boone	471	75.00	1.46	15	21	5	W
LPN-V-024-	Bruce Williams	expansion	Saunders	460	51.50	9.06	32	17	6	E
LPN-V-024-	Larry Rasmussen	new	Saunders	455.56	80.50	10.15	10	15	8	E
LPN-V-023-	McPhillips Bros.	new	Platte	450.5	135.00	8.96	26	19	3	W
LPN-V-024-	Gary Jarecki	expansion	Platte	444.36	9.40	0.16	19	20	3	W
LPN-V-024-	Bruce Fleming	expansion	Saunders	442.82	27.60	5.68	4	16	6	E
LPN-V-024-	UNL	expansion	Saunders	438.01	103.20	13.79	30	14	9	E
LPN-V-021-	Jeremy Janssen	expansion	Platte	429.82	34.00	6.00	10	18	2	W
LPN-V-024-	Dan Wondercheck	new	Boone	418.28	137.20	2.60	15	22	5	W
LPN-V-023-	Andrew Wallin	new	Boone	414.02	138.00	1.80	27	22	5	W
LPN-V-024-	Larry Rasmussen	new	Saunders	412.5	116.20	16.15	27	16	8	E
LPN-V-021-	Kent Lee	new	Madison	408.16	133.00	1.02	17	21	4	W
LPN-V-023-	Morseth Trust	new	Madison	403.38	70.00	0.50	22	21	4	W
LPN-V-021-	Scott Loseke	expansion	Platte	403.24	130.00	13.63	33	19	2	W
LPN-V-023-	Spencer Beller	new	Platte	394.02	145.00	0.87	4	20	3	W
LPN-V-023-	Kristin Nelson	new	Madison	393.32	130.00	0.81	15	21	4	W
LPN-V-023-	Rainier Resources Holdi	new	Saunders	389.6	60.00	11.57	15	13	9	E
LPN-V-023-	Justin Lee	new	Madison	388.8	122.00	1.19	17	21	4	W
LPN-V-023-	Harlan Jacobson	new	Madison	388.52	140.00	0.79	15	21	4	W
LPN-V-023-	Galen J. Pokorny	expansion	Butler	387	40.00	6.14	32	16	2	E
LPN-V-024-	Jay Nelson	expansion	Madison	385	35.00	1.08	6	21	3	W
LPN-V-022-	Carolyn A Petersen	expansion	Platte	366.12	70.00	9.66	8	18	2	W
LPN-V-023-	Barta Family Limited Lia	new	Butler	363.7	17.00	3.00	32	17	4	E
LPN-V-022-	Jeanie Trofholz	new	Colfax	361.4	130.00	24.58	2	17	4	E
LPN-V-023-	TMV Investments LLC	new	Butler	354.4	63.86	7.93	18	16	4	E

LPN-V-024- Vavrina Acres LLC	new	Butler	350.54	61.10	7.59	13	16	3	E
LPN-V-021-(Larry D Karloff Tree	new	Saunders	342.5	68.00	13.79	34	15	9	E
LPN-V-023-(Michael Chapman	expansion	Saunders	333.4	35.00	7.02	22	16	6	E
			Acres: 2612.66	: 199.48					
LPN-V-022-(John J Healy	new	Colfax	307.7	50.00		24	17	3	E
LPN-V-023-(Ralph M Papa	expansion	Butler	307.7	17.00	3.67	9	16	3	E
LPN-V-022-(Rick L Beranek	new	Saunders	303	79.00		13	13	8	E
LPN-V-021-(Roland D Kavan	new	Saunders	302.5	74.00	10.99	1	16	5	E
LPN-V-023-(Eugene Kremlacek	new	Saunders	302.2	132.00	25.83	31	15	7	E
LPN-V-023-(Gregory Kobza	new	Butler	302	75.00	15.52	11	16	2	E
LPN-V-024-(Doug/Dalton Bartek	expansion	Saunders	442.5	65.30	9.08	23	16	8	E



Legend

- Counties
- NRDS
- SubSections
- Active, Registered Wells
- Unregistered Wells

Well Use Descriptions

- Aquaculture
- Commercial/Industrial
- Dewatering (> 90 Days)
- Domestic
- Geothermal
- Ground Heat Exchange
- Heat Pump Well (Open)
- Injection
- Irrigation
- Livestock
- Monitoring (Quality)
- Observation (Quantity)
- Other
- Pit (Excavation)
- Recovery
- Unspecified

Disclaimer

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

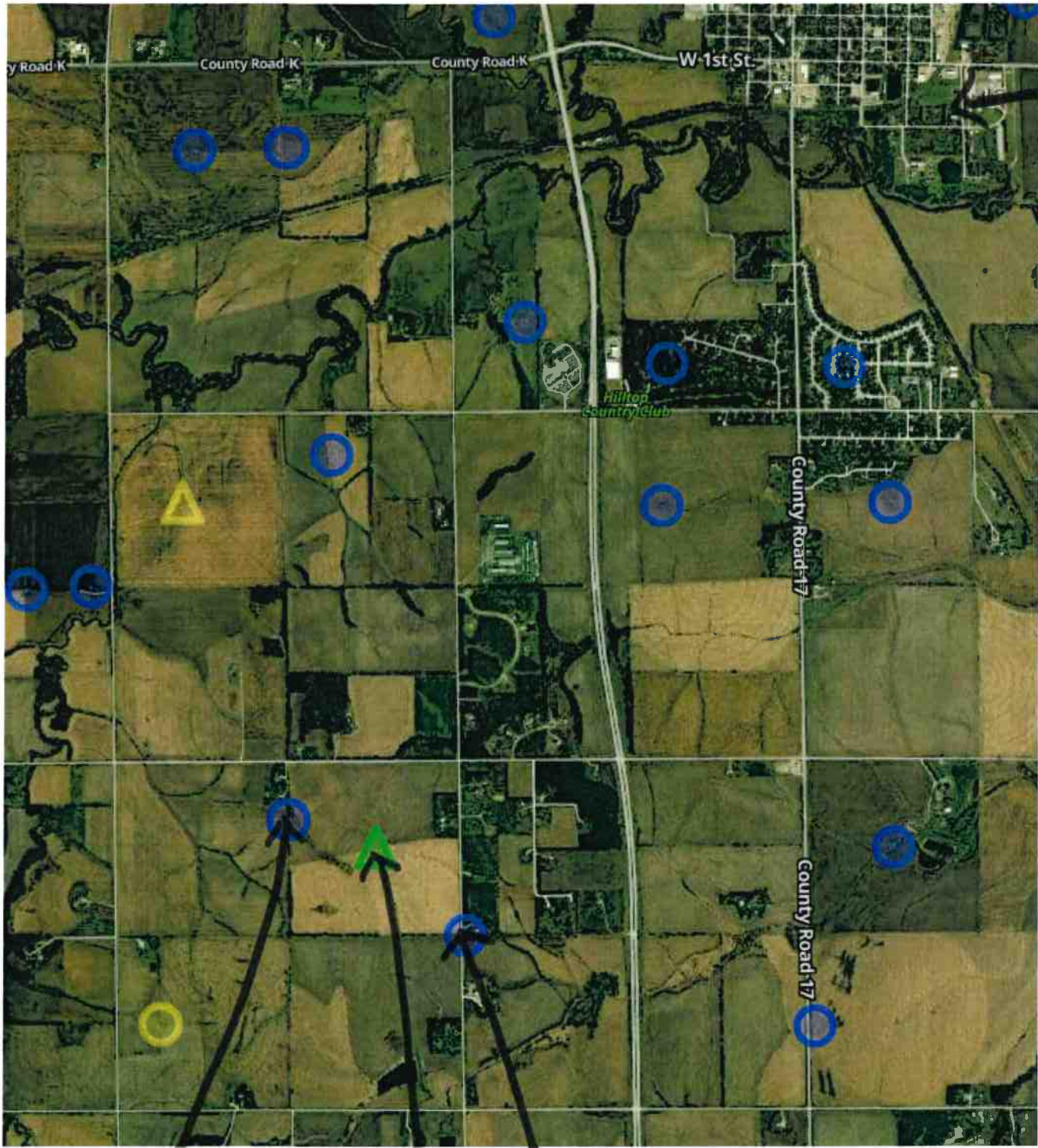
Notes

Printed Date

11/16/2023 7:33:29 PM



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Wahoo

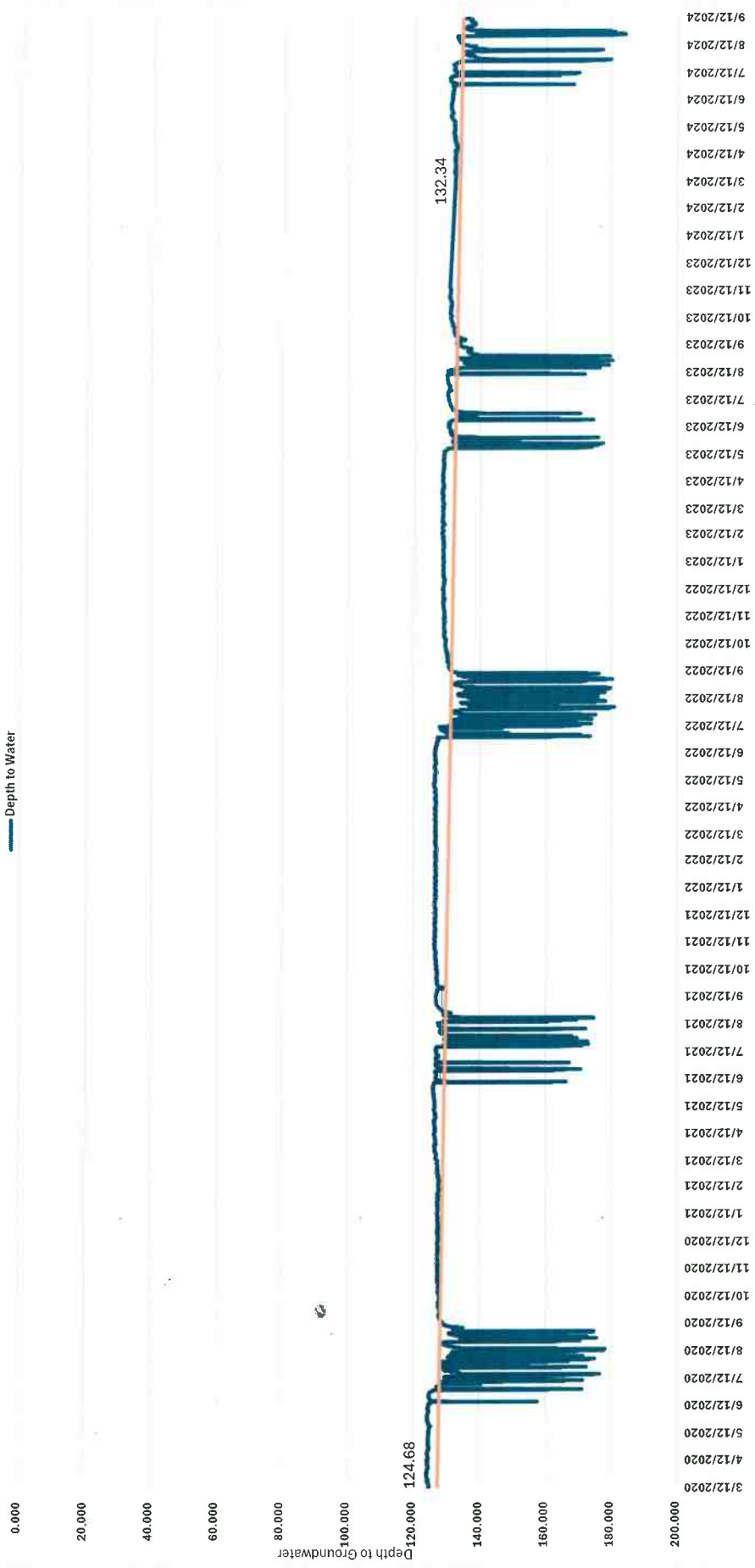
M.E. West
Monitoring Well

M.E.
Irrigation
Well

~~SW-05~~ SW-05 (Brarda)
Monitoring Well

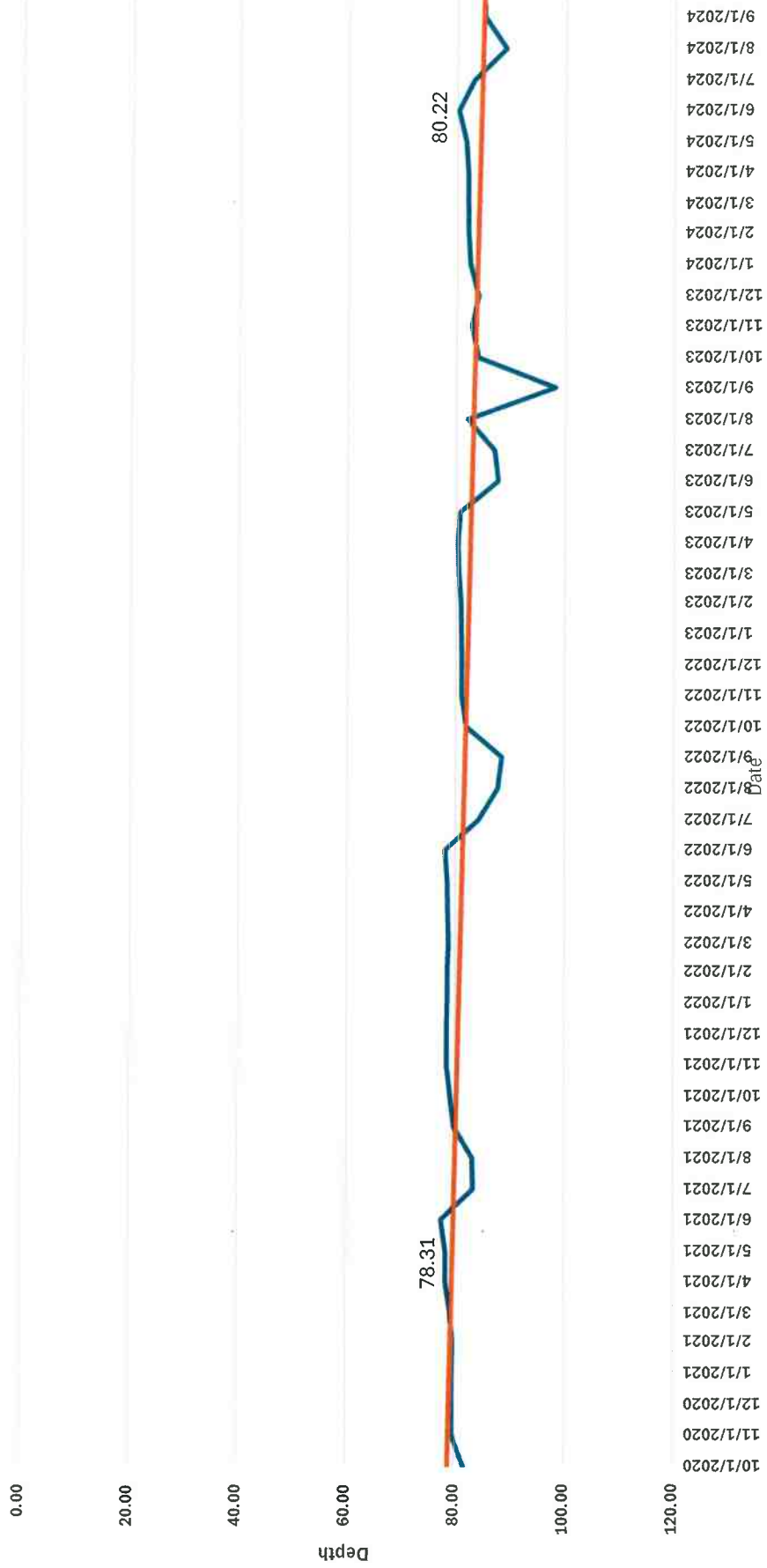
Erickson Irrigation Well

— Depth to Water



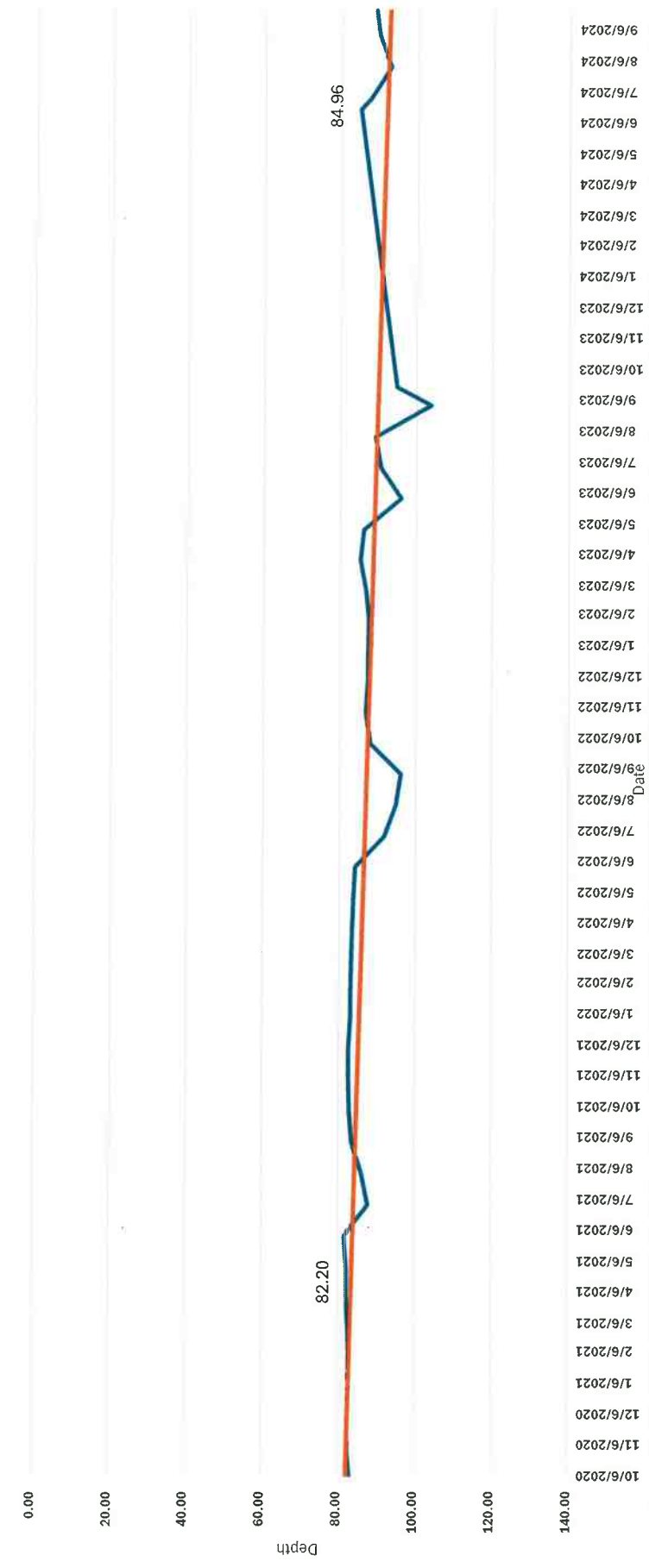
Erickson West Monitoring Well

— Depth to Groundwater



SW-05 Brazda

— Depth to Groundwater



RegCD: G-173994

Well #: SW-05

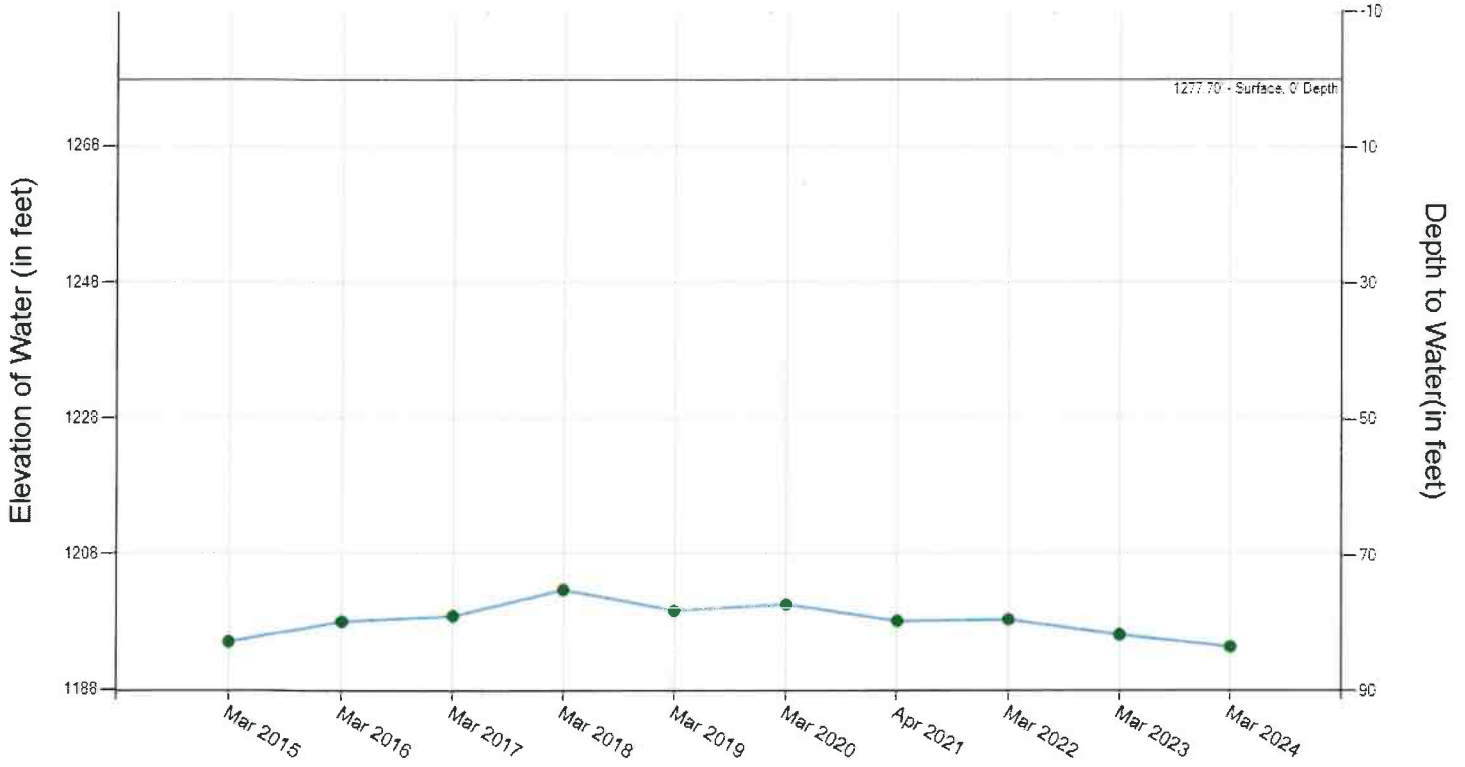
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County: Saunders

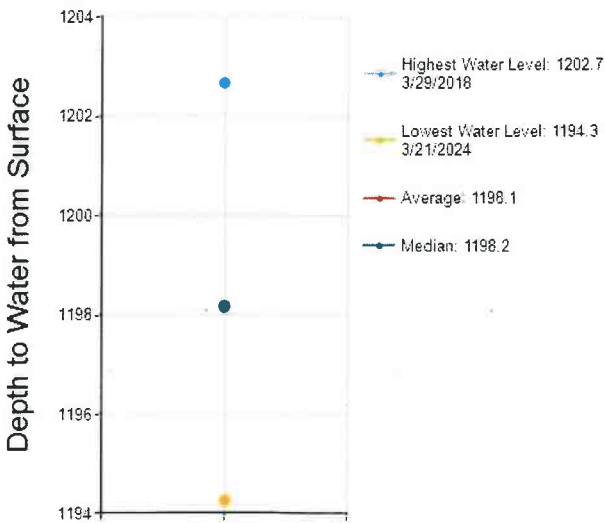
Legal: 14-7E-20

Owner Name: Lower Platte North Natural Resources District

Water Level Readings



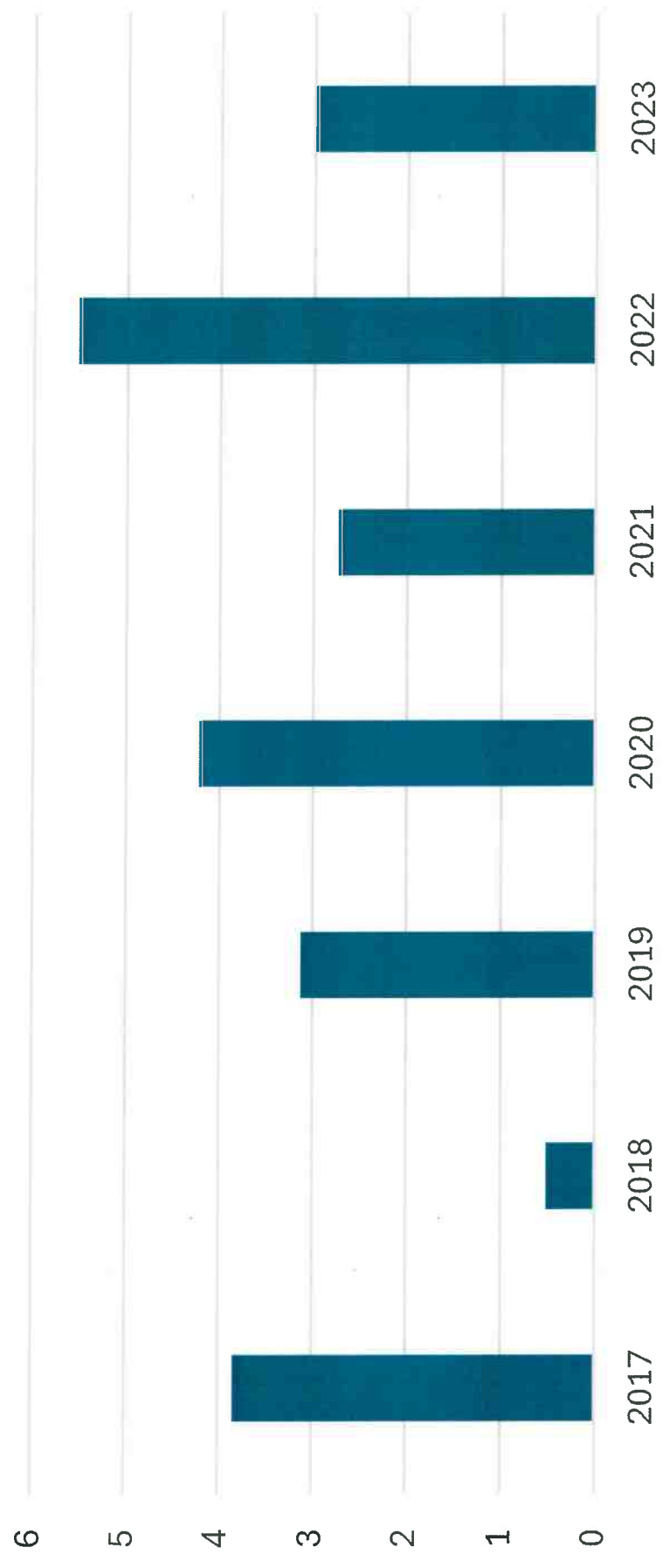
Record Results



Historical Readings (date - reading)

03/01/2015 - 1195	03/29/2018 - 1202.7	03/25/2020 - 1200.6	03/23/2023 - 1196.1
03/01/2016 - 1198	03/26/2019 - 1199.6	04/02/2021 - 1198.1	03/21/2024 - 1194.3
03/01/2017 - 1198.8		03/21/2022 - 1198.3	

Water Use

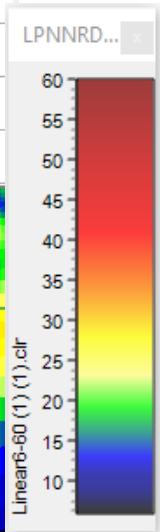
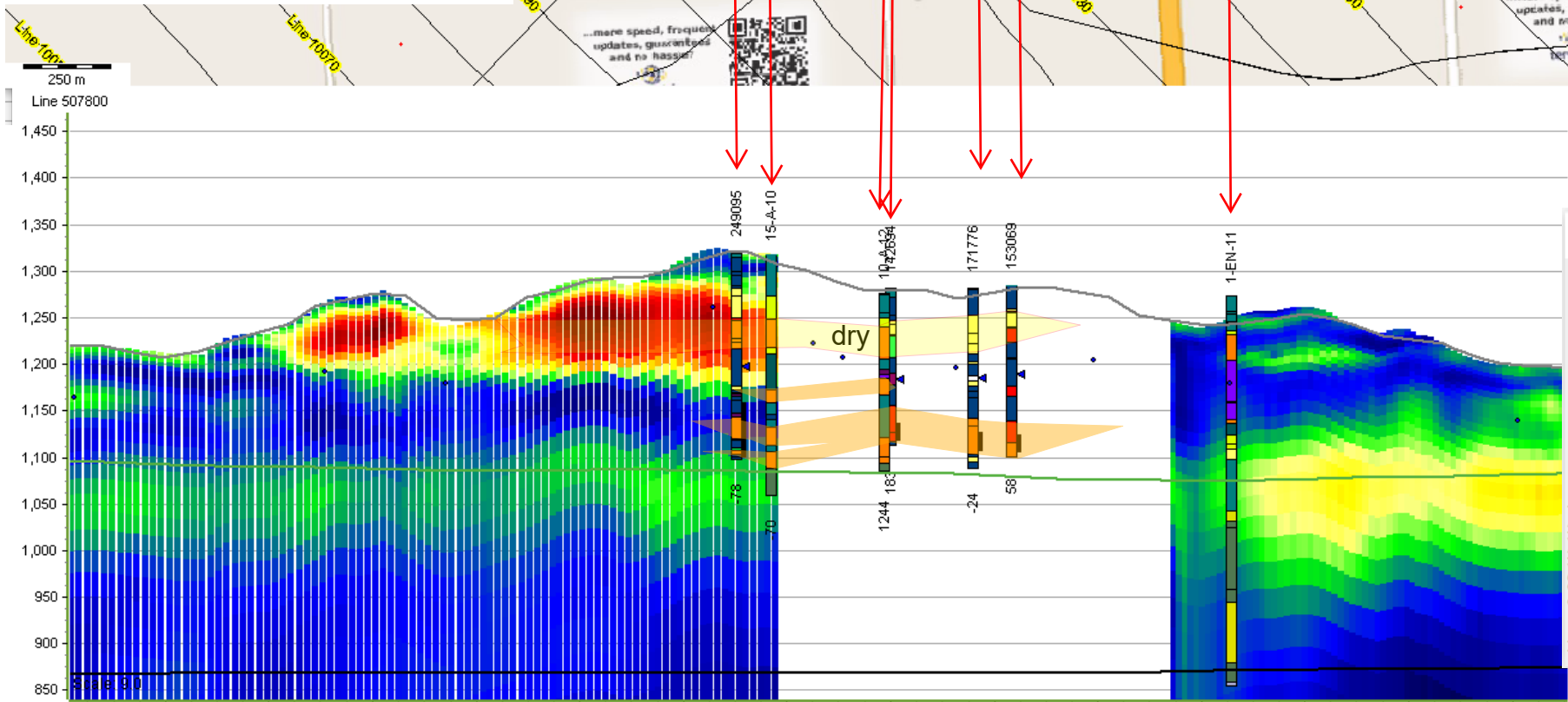


NE 1/4 Section 20 T14N R7E with reg. wells, test holes, AEM Lines and Draft aquifer material outlines from AEM reports (red line is possible salt in Dakota to the southwest)

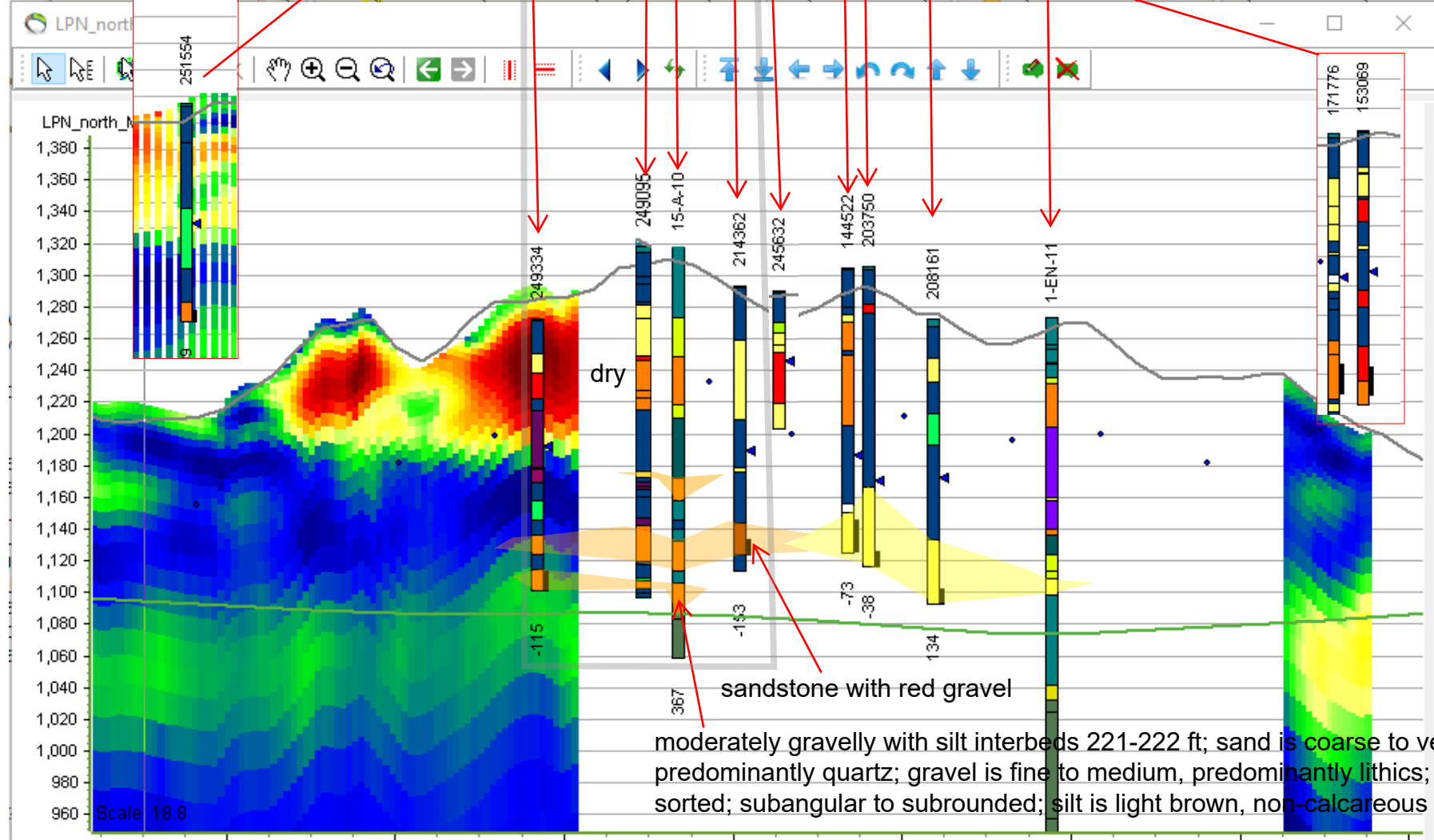
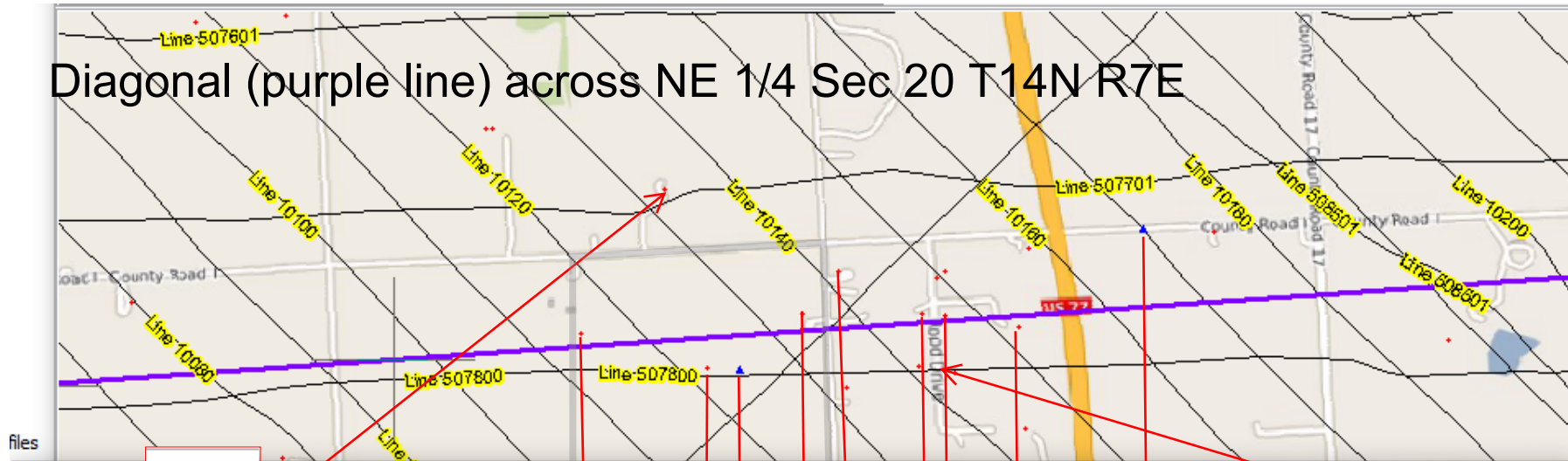


L507800 across NE 1/4 Sec 20 T14N R7E

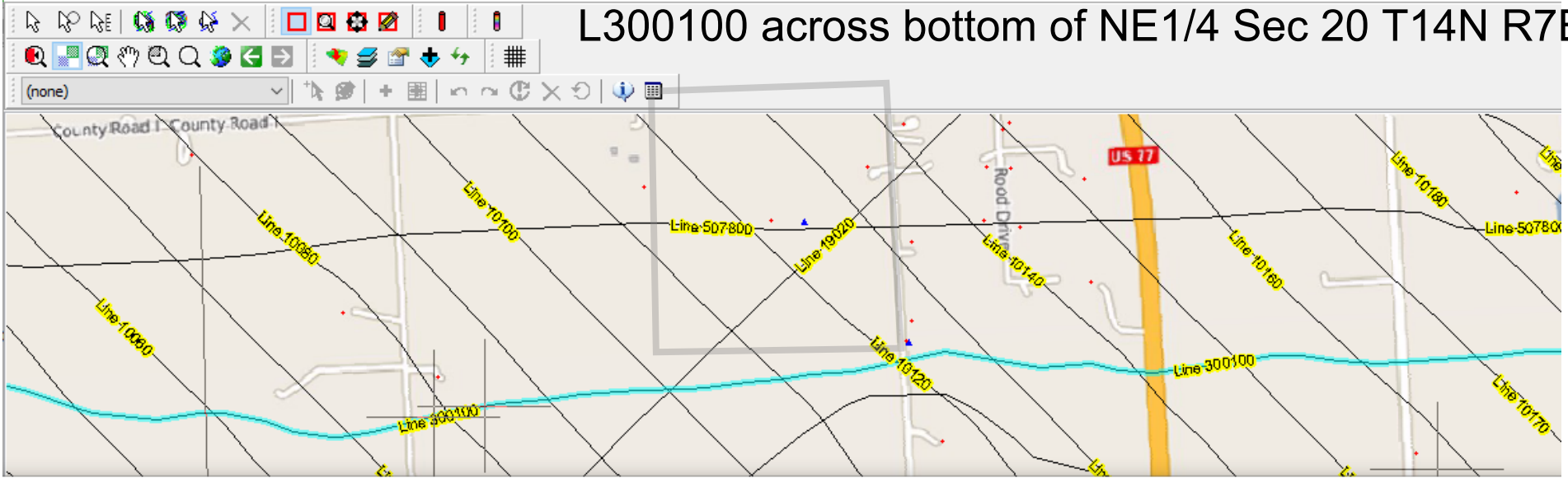
- SOIL_soil
- SOIL AND CLAY_soil and clay
- CLAY AND SOIL_clay and soil
- CLAY_clay
- CLAY AND SILT_clay and silt
- CLAY AND SAND_clay and sand
- CLAY AND GRAVEL_clay and gravel
- SILT AND SAND_silt and sand
- SAND AND CLAY_sand and clay
- SAND_sand
- SAND AND GRAVEL_sand and gravel
- GRAVEL AND SAND_gravel and sand
- GRAVEL_gravel
- CLAY AND SHALE_clay and shale
- SHALE_shale
- SHALE AND SANDSTONE_shale and sandstone
- SHALE AND LIMESTONE_shale and limestone
- CLAY AND SANDSTONE_clay and sandstone
- SANDSTONE AND SHALE_sandstone and shale
- SANDSTONE_sandstone
- SANDSTONE AND GRAVEL_sandstone and gravel
- SANDSTONE AND LIMESTONE_sandstone and limestone
- LIMESTONE_limestone
- NO RESULT_no result



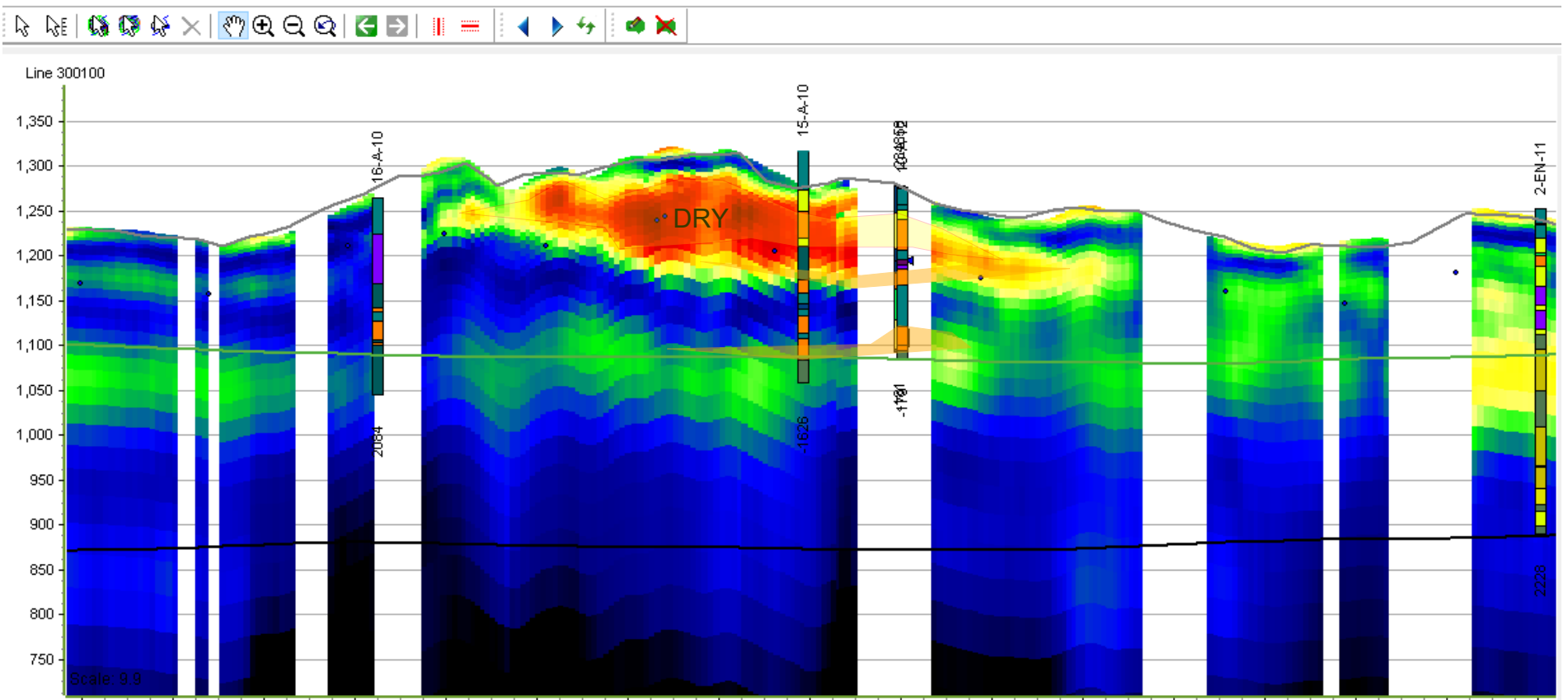
Diagonal (purple line) across NE 1/4 Sec 20 T14N R7E



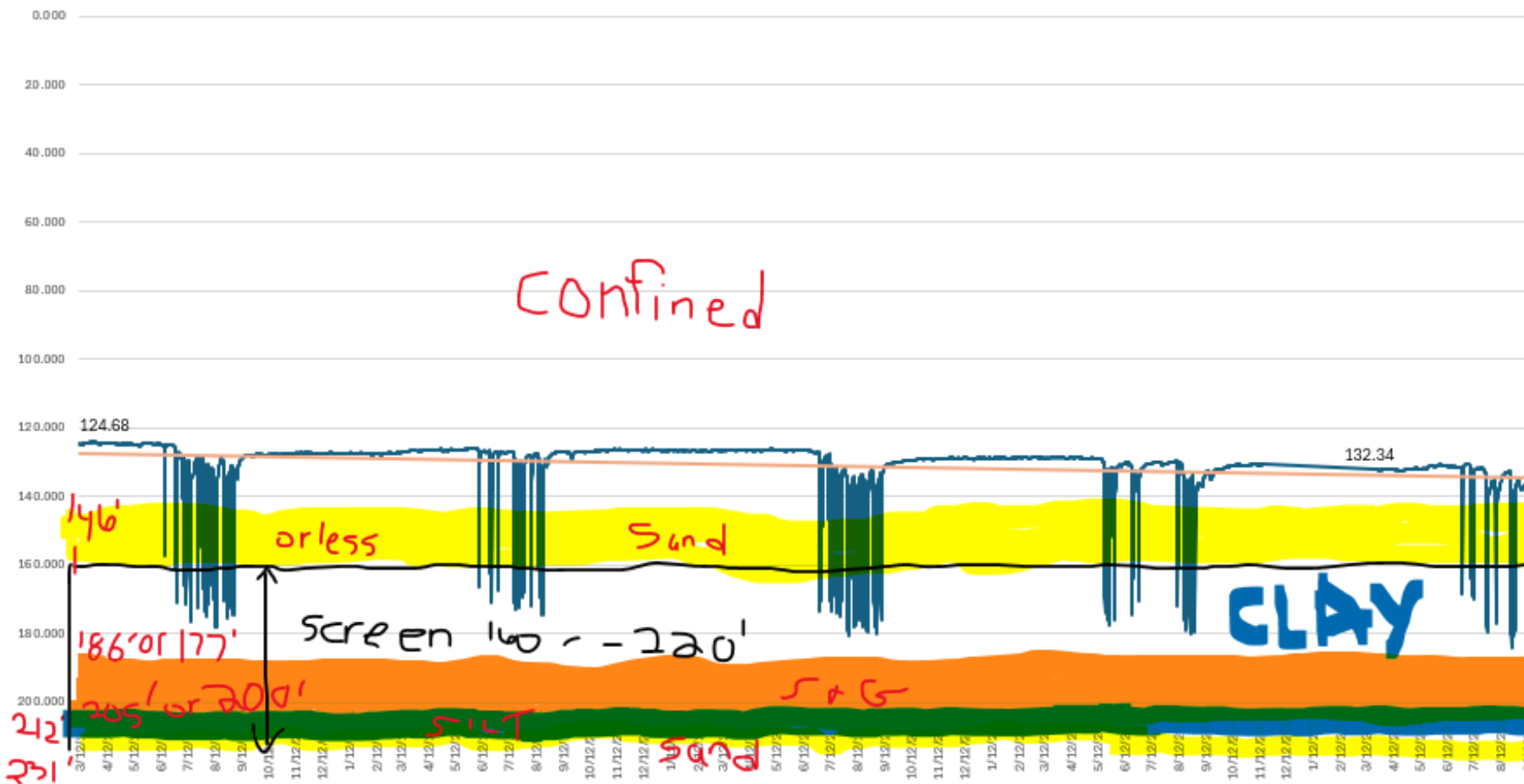
L300100 across bottom of NE1/4 Sec 20 T14N R7E



Line 300100



Depth to Water



124.994	G-182948	TH 15-A-10	TH 10-A-12	G-173934
125.003			SWL:	SWL 84.8
124.945	4 feet thick	14 feet thick	18 feet thick	
124.931	23 feet thick	19 feet thick	21 feet thick	18
124.904 +	5 feet thick	19 feet thick	7 feet thick	34
124.868				
124.816	32 feet thick	52 feet thick	46 feet thick	52

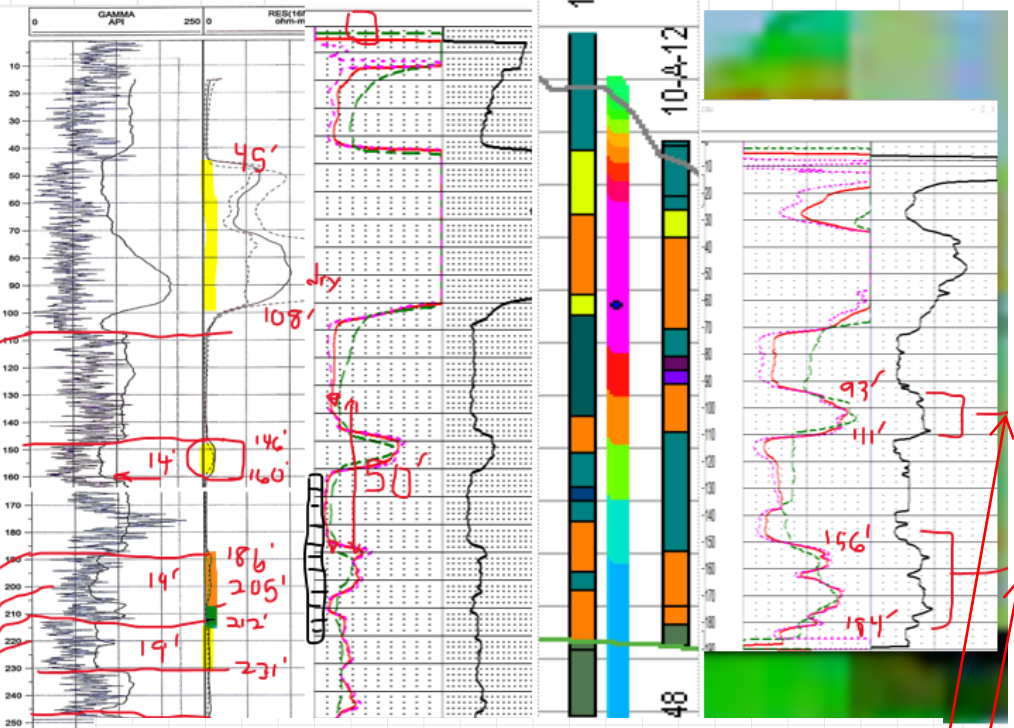
NOTES for matching up test holes and wells

G-182948

15-A-10

Geo Logs [Print Friendly Geo Logs](#)

FromDepth	ToDepth	Description	Color	Density	Composition
0	5		Brown	Dense/Stiff	Top Soil
5	20		Yellow	Dense/Stiff	Clay
20	25	lt	Brown	Dense/Stiff	Clay
25	36	med	Brown	Dense/Stiff	Clay
36	38	mixed some pebbles	Gray	Dense/Stiff	Clay
38	47	med	Gray	Loose	Sand fine-med
47	70		Gray	Loose	Sand med-coarse
70	73	fine	Yellow	Loose	Gravel
73	92	fine g co sand	Gray	Loose	Sand with gravel
92	97	rocks	Gray	Loose	Sand with gravel
97	104	fine g co sand	Yellow	Loose	Sand with gravel
104	143	rock 108-111	Gray	Dense/Stiff	Clay
143	147		Gray	Loose	Fine Sand 4'
147	150	gray mixed	Green	Dense/Stiff	Clay
150	152	gravel mix	Gray	Dense/Stiff	Clay
152	154	gravel mix	Yellow	Dense/Stiff	Clay
154	159		Tan	Dense/Stiff	Clay
159	172		Gray	Dense/Stiff	Clay
172	177	start of gravel	Brown	Dense/Stiff	Clay 23'
177	200	fine g co sand	Orange	Loose	Sand with gravel
200	202		Tan	Dense/Stiff	Clay
202	210	med	Brown	Dense/Stiff	Clay
210	212		Gray	Dense/Stiff	Sandy Clay
212	217	fine g co sand	Gray	Loose	Sand with gravel 5'
217	220		Yellow	Hard	Clay



G-173994

FromDepth	ToDepth	Description	Color	Density	Composition
0	31		Brown	Soft	Clay
31	72		White	Soft	Sand fine-med
72	85	light blue	Blue	Soft	Clay
85	99		Tan	Hard	Clay
99	117		Red	Loose	Sand with gravel
117	150		Tan	Soft	Sandy Clay
150	184	tight med. sand	Tan	Soft	Sand fine-med
184	187		Yellow	Hard	Shale

G-182948	TH 15-A-10	TH 10-A-12	G-173994
4 feet thick	14 feet thick	18 feet thick	
23 feet thick	19 feet thick	21 feet thick	18
5 feet thick	19 feet thick	7 feet thick	34
32 feet thick	52 feet thick	46 feet thick	52

Notice to Proceed:

The Lower Platte North Natural Resources District (District) is proceeding to implement a Phase 4 Water Quality Management Area within the Schuyler-Richland Phase 3 Water Quality Management Area. A public informational meeting will be held February 22 to present the information and receive suggestions from the public. The Board will be following the rules and regulations outlined in the District Groundwater Rules and Regulations (June 15, 2018). A hearing will be conducted with implementation of the Phase 4 rules starting November 1, 2024.

The following describe the details of the Rules and Regulations being proposed:

Section I Groundwater Quality Management Area - Phase Four

Rule 1 Phase Four Criteria

When levels of nitrate-nitrogen exceed 15.01 parts per million, or levels of other human induced non-point source contaminants exceed 100% of the MCL or LHAL, a Phase Four area will be declared. Within the same aquifer; boundary setting for Phase Four Areas will be initiated when: water quality analytical results within a minimum 9 square mile area are at identified trigger levels for a minimum of 2 sampling events. The area must contain a minimum of 10 registered wells and contaminant trigger levels must be exceeded in over 50% of the wells. When irrigation wells are not available, other wells may be used. Initial investigation by the District will be to determine if the contamination is a result of point-source or non-point source pollution. If non-point source pollution is found to be the reason, more intensive investigation for boundary setting will ensue. If a Wellhead Protection Area should be established due to non-point source pollution, the District may set boundaries that are less than 9 square miles. After the establishment of a Phase Four Area, if non-point source contamination levels should decline, two consecutive sampling events below the trigger levels are needed before the Area could be placed in Phase Three, Phase Two or Phase One.

- **The criteria for the boundary have been met, which includes sections with human induced non-point source contaminants exceeding 100% of the MCL concentration of uranium.**

Rule 2 Continuation of Phase One, Two and Three Rules

A continuation of Phase One Rules as defined in Section E, Rules 1-6, Section F, Rule 2, Phase Two Rules as defined in Section G, Rules 3, 4, 5, 8, 9, 10 and 11, Phase Three Rules as defined in Section H, Rule 4.

- **A 2-step reporting process for Phase 4 reports with March 15th for soil samples and District nitrogen recommendations with a December 15th deadline for reporting actual yields and nitrogen applications.**

Rule 3 Fertilizer Application On All Soils

Split application of commercial nitrogen fertilizer is required with 80 pounds maximum applied before May 1.

- **Encouraging split applications and utilizing the manure credit.**

Rule 4 Nitrogen Recommendations

Nitrogen applications must not exceed District Recommendations. Application data may be required to verify the amount of nitrogen that is applied to the field(s) within the management area.

- **The District will utilize the nitrogen recommendation formula that has been used since the management area was established. Emphasis will be given on correct soil sampling protocols and realistic yield expectations when calculating nitrogen recommendations.**
- **The District will required soil samples down to 36 inches but recommendations can be made on 0-8 and 8-24 results if deep soil types are not realistic.**

Rule 5 Well Metering

Flow meters are required on all high capacity wells.

- **All high capacity irrigation wells of 50 gallons per minute (GPM) or greater will require a properly installed District approved flow meter.**
- **Annual Water Use report is required annually with nitrogen report**

Rule 6 Acre-Inch Allocations

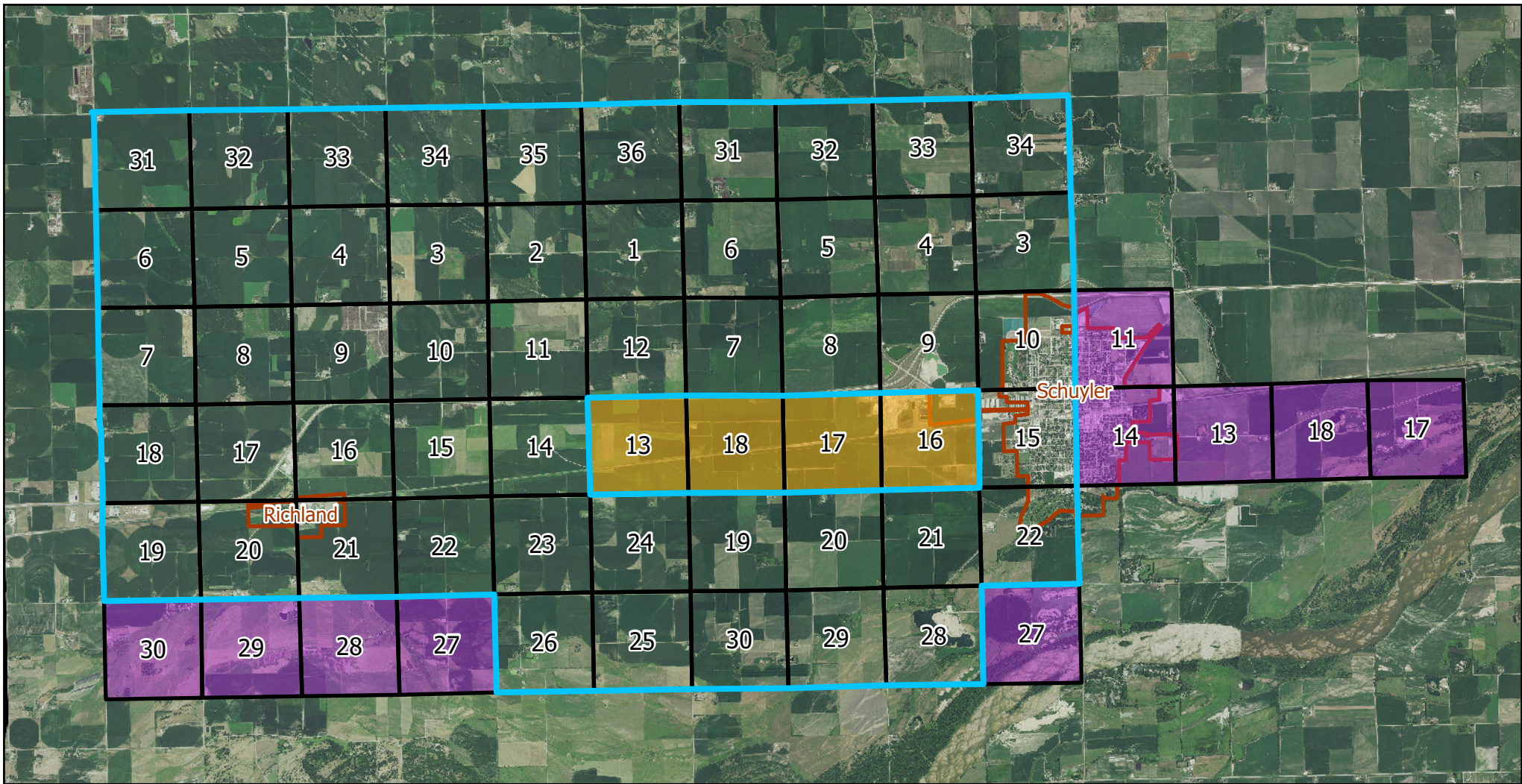
A rolling acre-inch allocation, in 3-year increments, will be put into place by the District and will be based on the aquifer subarea, crop planted, irrigation distribution system, percent decline of the aquifer, water use of the aquifer, climatic conditions, net corn crop requirements, and discretionary factors.

- **The District will collect 3 years of water use information from all of the producers within the Phase 4 area and then consider if an allocation should be implemented.**

Rule 7 Staff Assistance

NRD Staff will work directly with individuals on Best Management Practices. Staff may spot check fields before May 1 by collecting a soil sample to monitor Rule 3.

- **Staff will work with producers to implement a Nutrient/Irrigation Agreement or Nitrogen Reduction Incentive**



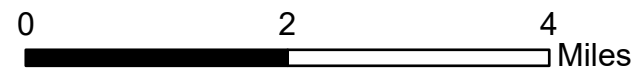
- Proposed Phase 4
- Phase 4 Uranium*
- Phase 3
- Sections
- City Boundaries

Proposed Phase 4 Management Area

*Average uranium concentration in 4 sections is 40.7 ppb (6 samples).

Nitrate samples in proposed phase 4 area

Year	Above 15.01	Samples	> 15.01	Avg
2019	20	47	43%	14.1
2020	29	58	50%	16.7
2023	48	80	60%	17.4



Created January 2024 by LPNNRD
 NAD 1983 StatePlane Nebraska FIPS 2600 (US Feet)
 Data: LPNNRD Imagery: NRCS



Schuyler-Richland Phase 4 Best Management Agreement

THIS AGREEMENT is made this ____ day of _____, 2024, by and between the Lower Platte North Natural Resources District, a political subdivision of the State of Nebraska (hereafter referred to as "NRD"), and producer _____.

WHEREAS, the purpose of the agreement is to implement practices that could potentially curb the leaching of nitrates into the groundwater from practices that have been shown in certain situations to reduce nitrate leaching. The NRD is requesting the producer to implement at least one best management practice that has not already been implemented in the producer's field. A 3-year period starting period for implementation will begin with the date of the producer signature. (Documentation required)

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree to one or more of the following practices:

1. _____ Split Application of nitrogen more than 2 times
2. _____ Variable Application of Nitrogen by analysis
3. _____ Variable Rate of Irrigation
4. _____ Cover Crops
5. _____ Soil Moisture Sensors for Irrigation Management
6. _____ Yield Goal Reduction
7. _____ Grid Soil Sampling
8. _____ Gravity to Pivot/SDI Conversion
9. _____ Updating Irrigation Nozzles
10. _____ Applying the Manure Credit for 3 years
11. _____ Tissue Sampling for Nitrogen
12. _____ Other Practice _____

**LOWER PLATTE NORTH NRD, a
Nebraska Political Subdivision**

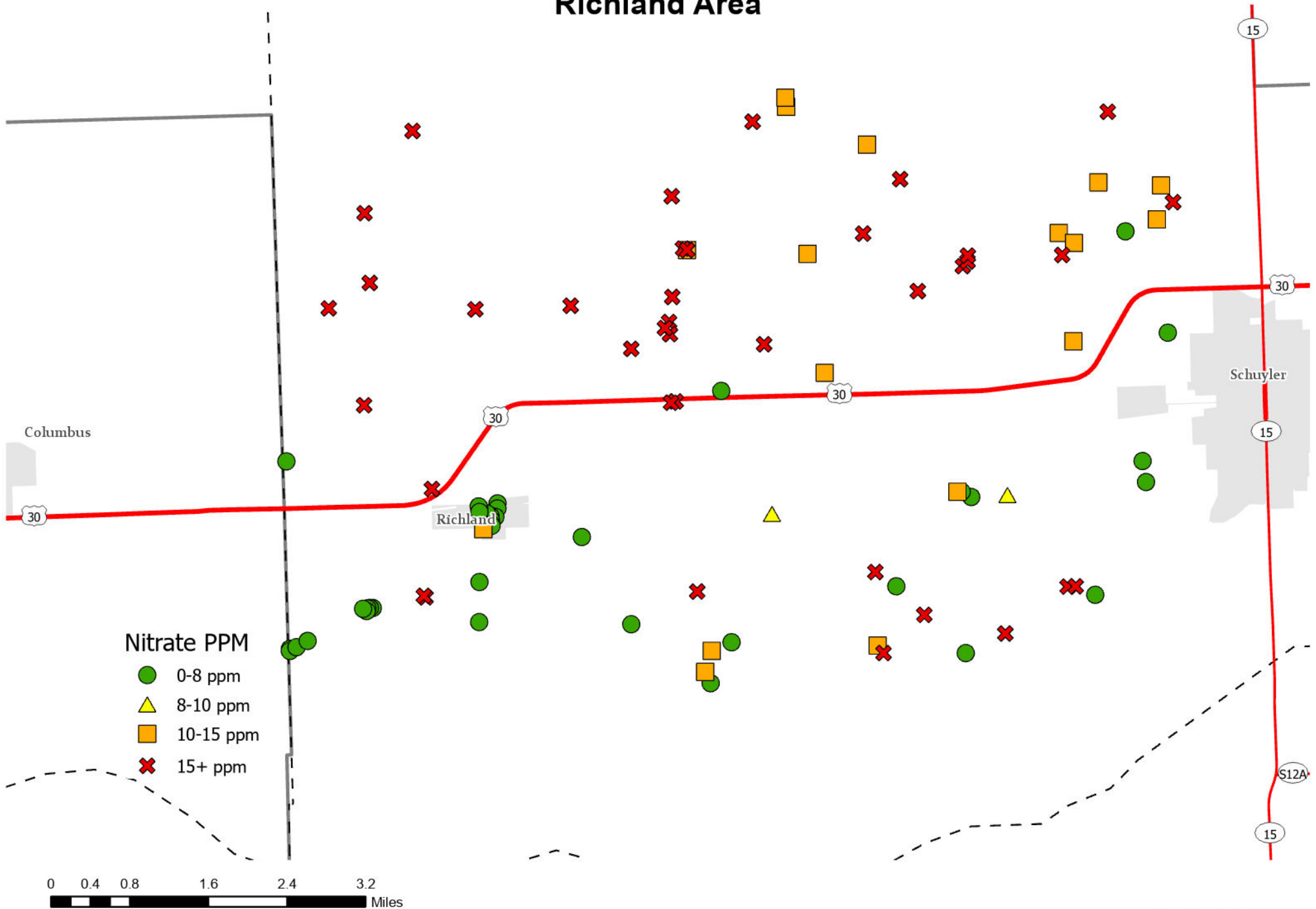
By: _____

Producer Signature

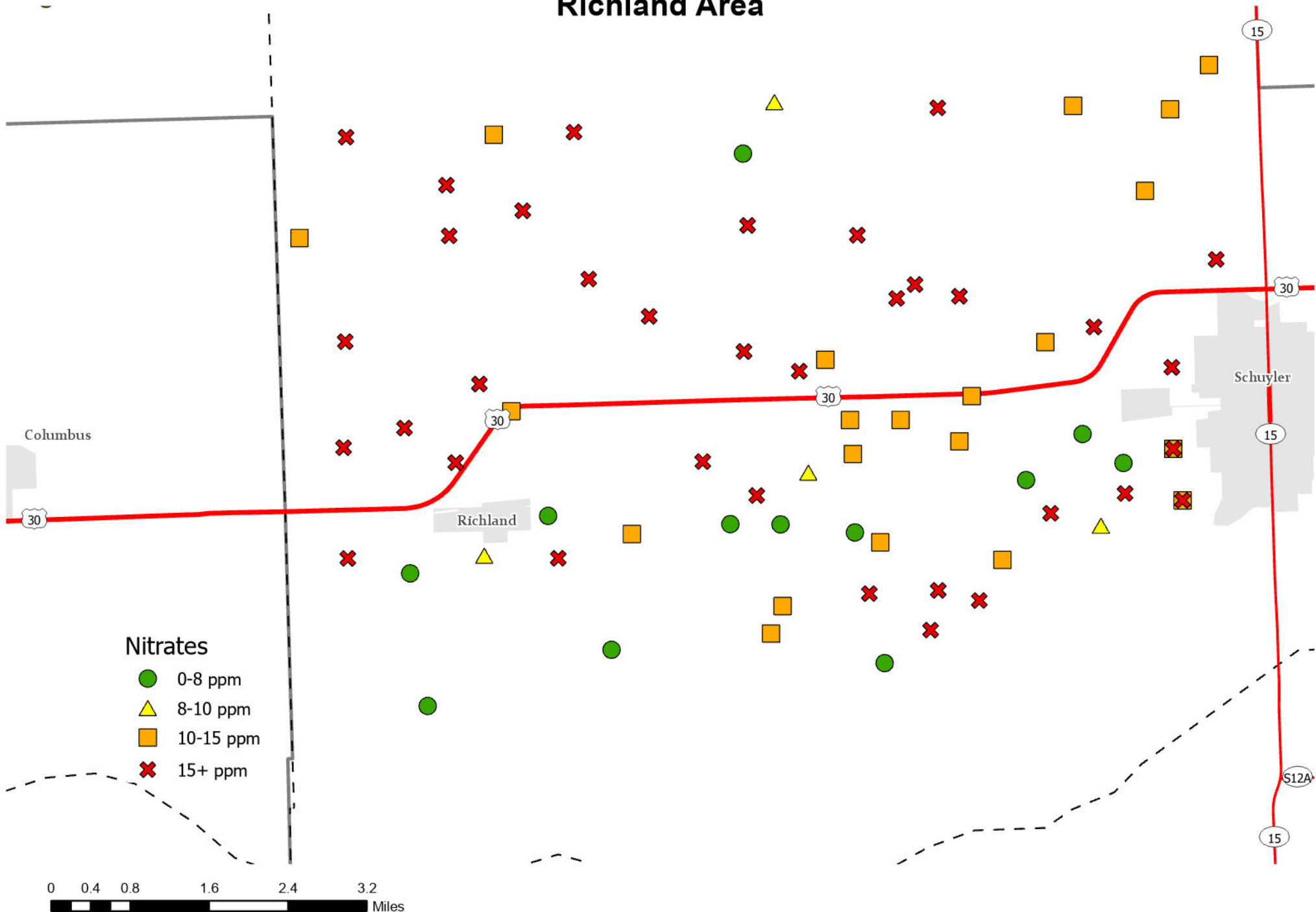
By: _____

Date _____

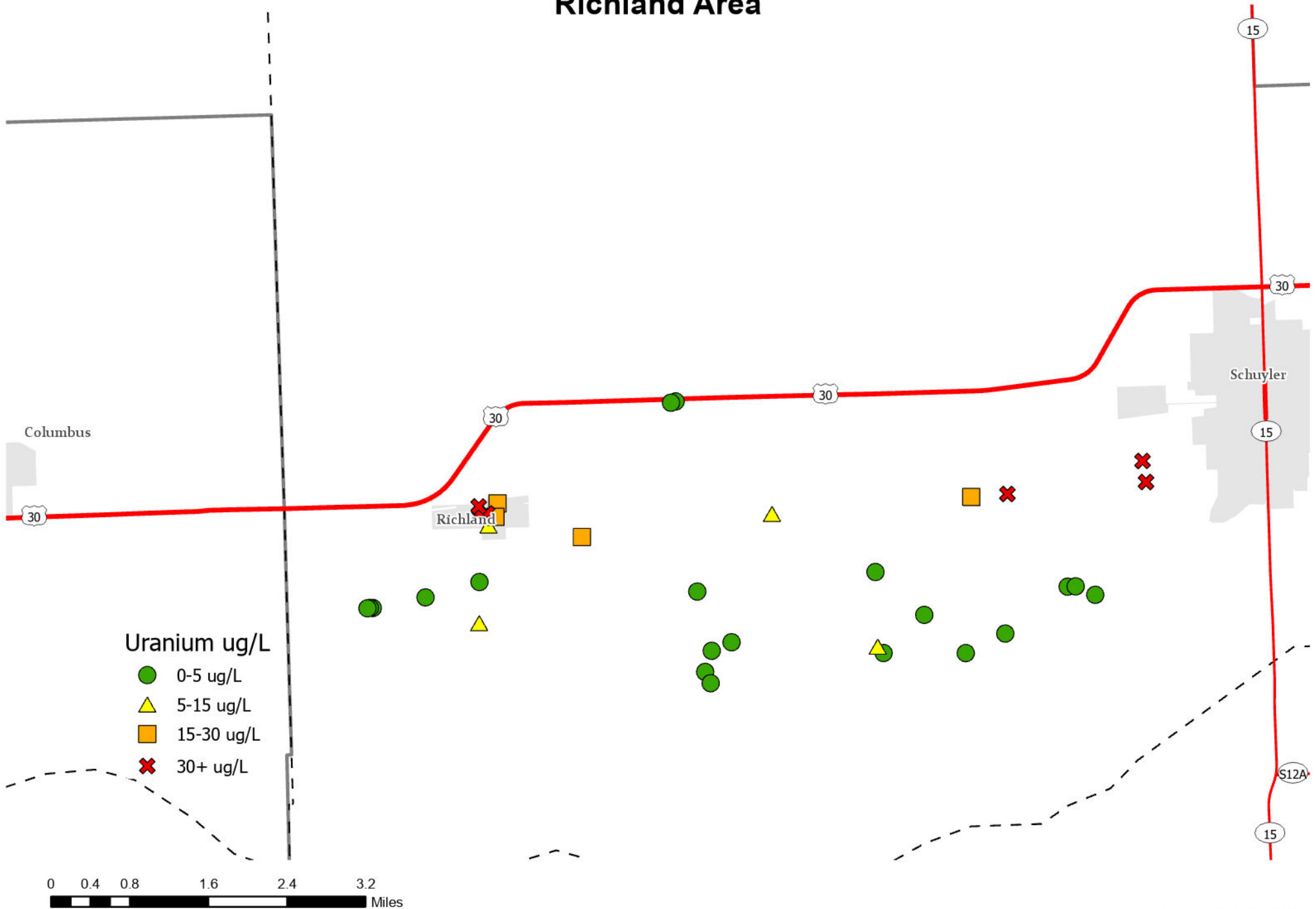
2024 Domestic Well Nitrate Sampling Richland Area



2024 Irrigation Well Nitrate Sampling Richland Area



2024 Domestic Well Uranium Sampling Richland Area





September 18, 2024
 Invoice No: 27601

Invoice Total:	\$1,773.00
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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.: 5036LPN04
 Project Name: LPNNRD Nitrate Assessment Project

Professional Services through August 25, 2024

Task 02 USC Groundwater Model

Professional Personnel

	Hours	Rate	Amount
Bauer, Jacob	6.00	225.00	1,350.00
Fullmer, Tucker	3.00	141.00	423.00
Totals	9.00		1,773.00
Total Labor			\$1,773.00

Total this Task \$1,773.00

Total this Invoice \$1,773.00

Outstanding Invoices

Number	Date	Balance
27392	8/21/2024	10,702.75
Total		\$10,702.75

Total Now Due \$12,475.75



September 18, 2024
 Invoice No: 27600

Invoice Total:	\$12,800.37
-----------------------	--------------------

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 August 25, 2024

Task 02 Stakeholder Involvement

Professional Personnel

	Hours	Rate	Amount	
Mohr, Jonathan	15.00	195.00	2,925.00	
Totals	15.00		2,925.00	
Total Labor				\$2,925.00

Reimbursable Expenses

Mohr, Jonathan			148.62	
Total Reimbursables			148.62	\$148.62

Total this Task \$3,073.62

Task 03 Plan Development

Professional Personnel

	Hours	Rate	Amount	
Hume, David	.50	245.00	122.50	
Mohr, Jonathan	16.00	195.00	3,120.00	
Totals	16.50		3,242.50	
Total Labor				\$3,242.50

Total this Task \$3,242.50

Task 05 Review & Refine Subarea Delineations

Professional Personnel

	Hours	Rate	Amount	
Hume, David	2.00	245.00	490.00	
Mohr, Jonathan	3.50	195.00	682.50	
Sopiwnik, Roscoe	23.00	200.00	4,600.00	
Totals	28.50		5,772.50	
Total Labor				\$5,772.50
		Total this Task		\$5,772.50

Task 06 Review Spring/Fall Wells

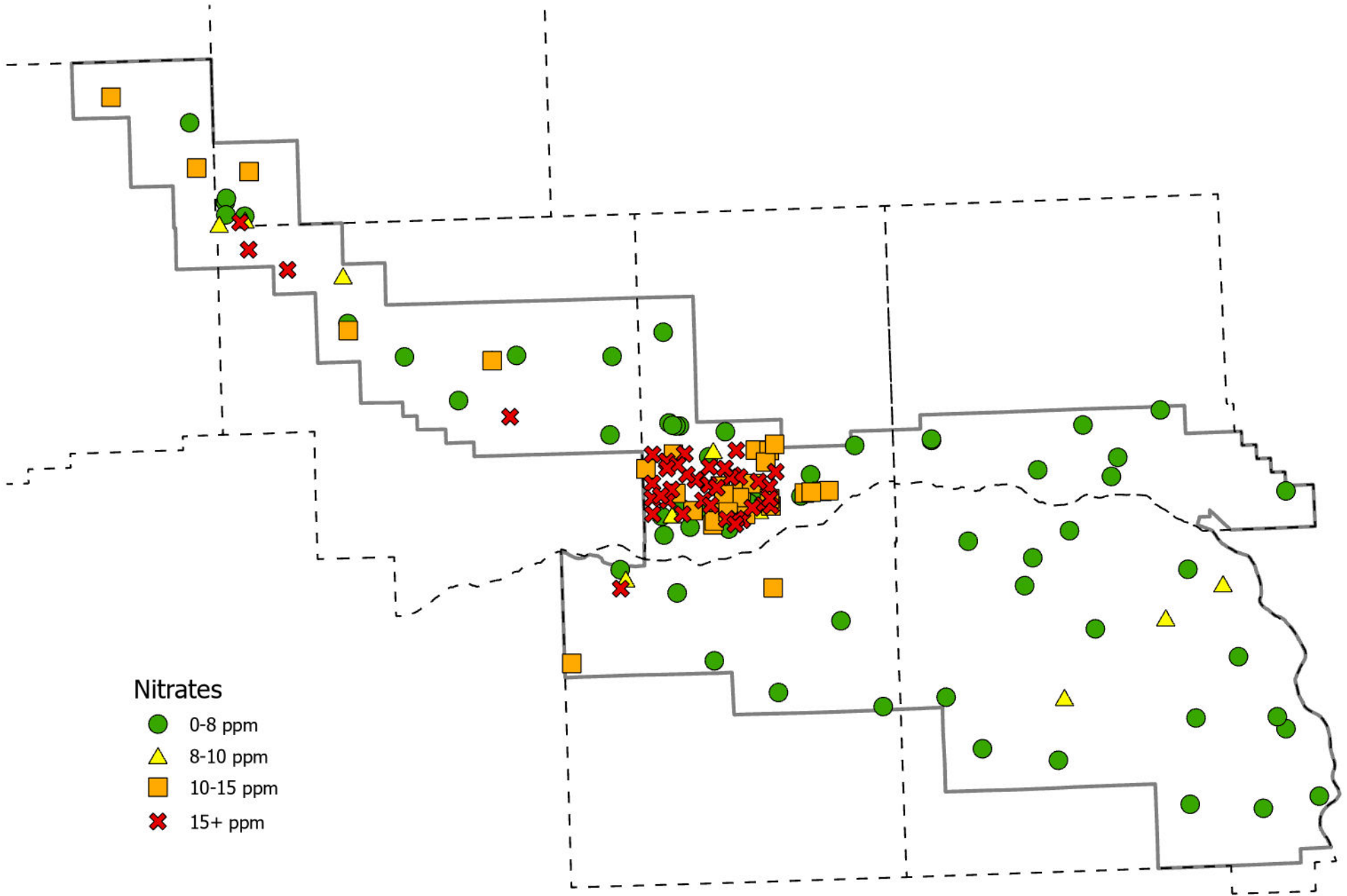
Professional Personnel

	Hours	Rate	Amount	
Libra, Jon	2.25	143.00	321.75	
Mohr, Jonathan	2.00	195.00	390.00	
Totals	4.25		711.75	
Total Labor				\$711.75
		Total this Task		\$711.75
		Total this Invoice		\$12,800.37

Feedback from the Groundwater Management Stakeholder meetings in Platte Center and Wahoo.

- Use more cover crops
- Ban Atrazine
- Can Hemp be a solution?
 - Replace gmo-corn and use for ethanol
 - Look at comfrey as a natural fertilizer
- Please remove chemicals that harm health
- What is being done to reduce the drop in water levels when high ag use is in place
- Limit the number of wells
- Too high of nitrate levels in drinking water wells
 - Need to reduce the amount
- Cost a lot of funds to manage to meet compliance
- Meter the chicken farms
 - Allocate the amount of usage
- Chicken operations should be required to contain and recycle their wastewater
 - Be permitted to not allow it to runoff of their farms.
- Stricter enforcement of pivot end guns running outside their fields.
 - Too many repeat offenders
- All pivot wells be metered and monitored to eliminate unnecessary waste.
- DNR program to encourage people to register their wells
- Find a mechanism for reporting of potential point source contamination of surface waters and testing by citizens
- Define healthy water
- Provide HHS input into other contaminants in well water.
- Allow owners to request flow meters for their wells
 - Would help in cases of suspected interference.

2024 Irrigation Nitrate Sampling

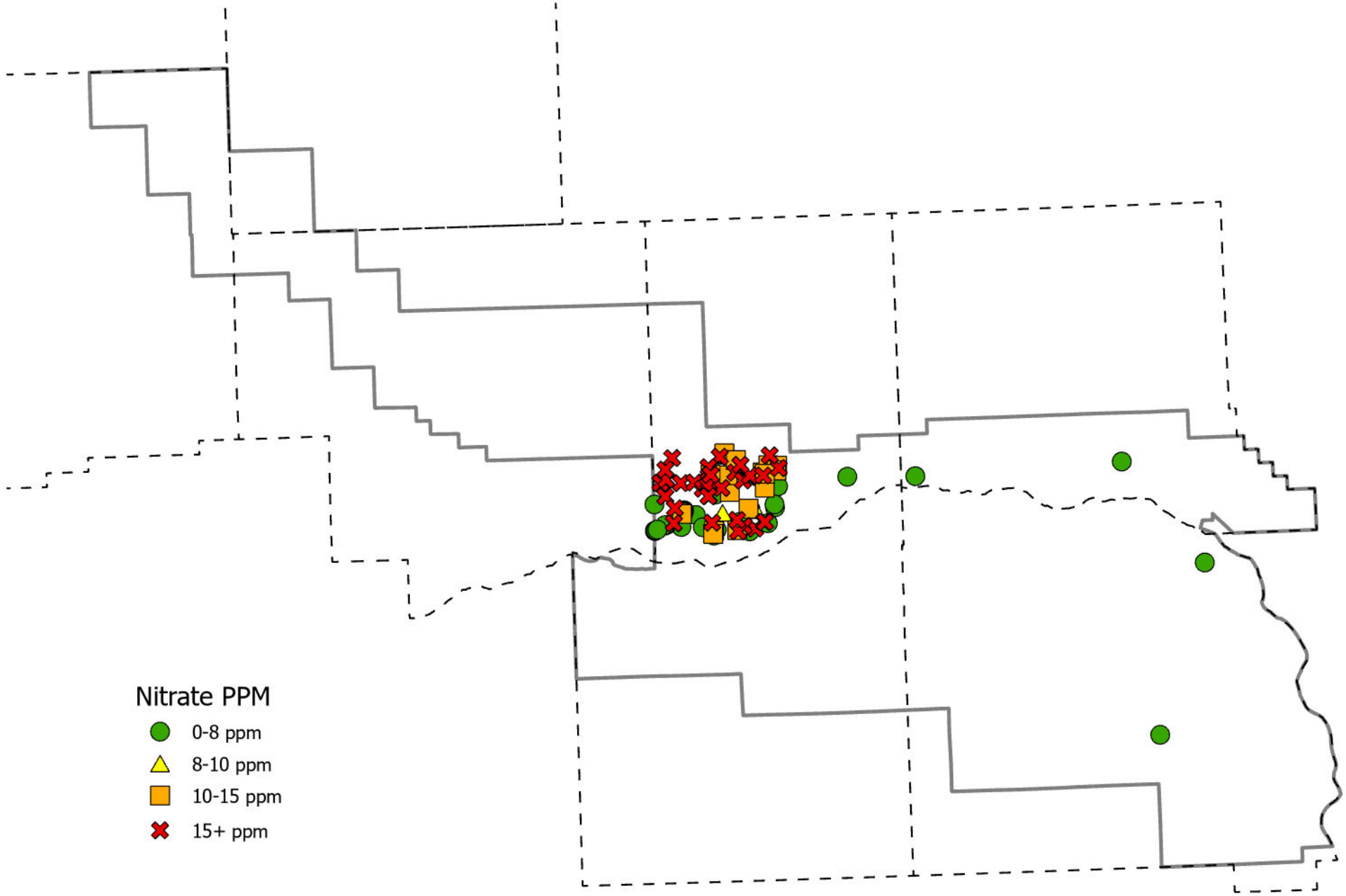


Nitrates

- 0-8 ppm
- ▲ 8-10 ppm
- 10-15 ppm
- ✕ 15+ ppm

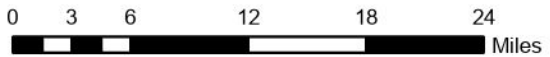


2024 Domestic Well Nitrate Sampling



Nitrate PPM

- 0-8 ppm
- ▲ 8-10 ppm
- 10-15 ppm
- ✕ 15+ ppm



Nitrogen Reduction Incentive Act

Background

LB 1368 (2024) established the Nitrogen Reduction Incentive Act (NiRIA), Neb. Rev. Stat. §§ 2-411 to 2-417, a state program to provide incentives to producers for reducing the use of commercial fertilizers. The requirements of NiRIA are that producers verify a reduction in nitrogen fertilizer application rates as the lesser of 40 pounds per acre or 15% of their baseline application rate.

The Department of Natural Resources (Department) in partnership with local Natural Resources Districts (NRDs) and input from producers and commercial entities have developed this guidance document to define target areas and criteria for this new program. This guidance document will be reviewed annually to determine if program modifications are necessary.

NiRIA will be operative beginning with the 2025 growing season and is scheduled to terminate on December 31, 2029. Total funding currently available for the program is capped at \$1 million.

Priority Areas and Incentive Payments

The Department and NRDs have determined the program will operate under three priority areas (Figure 1) and **will be offered to corn, sugar beet, and potato producers**. **Priority A Area** will be wellhead protection areas and phase II, or higher phase areas established by an NRD, for purposes of water quality management. **Priority B Area** will be areas throughout the state that have been certified to irrigate crops. **Priority C Areas** will be all other areas of the state, including dryland. **Contact your local NRD to know which Priority Area you are in.** *Figure 1 data is supplied by NeDNR permitted irrigated lands, wellhead protection areas, and NRD phase areas as of June 28, 2024.*

Priority A Areas: Priority A Areas represent areas of elevated nitrate levels with enhanced management including wellhead protection areas and irrigated lands in phase II or higher areas. Most of these areas currently require establishment of a producer's baseline information and data reporting to NRDs, including nitrogen application rates. NRD crop report data will be used to establish baseline nitrogen application rates for producers in these areas.

Incentive payments in Priority A Areas will be set at \$15 per acre for producers that can demonstrate a reduction in nitrogen fertilizer application rates of the lesser of 40 pounds per acre or 15% of their baseline application rate. **Under no circumstance can**

other nitrogen sources (manure, wastewater, etc.) replace the reduced commercial fertilizer.

Priority B Areas: Priority B Areas represent areas that are not in the Priority A Areas and have acres that are certified to irrigate. To be eligible for participation in NiRIA, producers in Priority B Areas will be required to establish a baseline level of nitrogen application, as established by the NRD, through one or both of the options outlined below.

Option One: Submit all the reporting data required on local NRD phase II or greater locations for the prior 3 growing seasons,

or

Option Two: Complete soil sampling, as established by the NRD, prior to the cropping season for which the incentive payment is requested.

Incentive payments in Priority B Areas will be set at \$12 per acre for producers that can demonstrate a reduction in nitrogen fertilizer application rates of the lesser of 40 pounds per acre or 15% of their baseline application rate. **Under no circumstance can other nitrogen sources (manure, wastewater, etc.) replace the reduced commercial fertilizer.**

Priority C Areas: Priority C Areas encompass all other areas of the state not captured in Priority A or B Area designations. To be eligible for participation in NiRIA producers in these areas will be required to establish a baseline level of nitrogen application, as established by the NRD, through one, or both, of options unlined in Priority B:

Incentive payments in Priority C Areas will be set at \$10 per acre for producers that can demonstrate a reduction in nitrogen fertilizer application rates of the lesser of 40 pounds per acre or 15% of their baseline application rate. **Under no circumstance can other nitrogen sources (manure, wastewater, etc.) replace the reduced commercial fertilizer.**

Approved Product(s) and Practice(s) for Program Enrollment

The method, product, or practice to achieve the nitrogen fertilizer application reduction is at the discretion of the producer, but incentive payments will not be distributed until proper documentation has been submitted, and approved, to the NRD demonstrating the necessary reduction in application rate before January 15 of the following program

year. **Producers must have completed the application process and have been approved for program participation by their local NRD to be eligible for reimbursement.**

Application and Payment

Producers participating in NiRIA must be in good standing with the local NRD rules and regulations. Producers participating will be required to file one application per field. Applications must be filed with the local NRD and receive notification that their application has been approved to be eligible to receive incentive payments. Applications are available at: <https://dnr.nebraska.gov/lb-1368-nitrogen-reduction-incentive-program> and must be submitted to your local NRD prior to January 15 of each year (or the next business day if January 15 falls on a weekend day). Contact your local NRD for submission details.

Each NRD will review and prioritize the applications based on available funding. Methods for application prioritization will be established by each NRD with applicants notified no later than March 15th whether their application has been approved or denied. A higher application ranking will be given to producers who incorporate the new innovative technology into their reduction practices. Those producers implementing new technologies must supply additional information to their NRD including the amount applied and the approved rate.

Documentation to establish the producer's baseline nitrogen application rate, practices that are planned to be used to achieve the application rate reduction, and the current year's nitrogen application rate are required on the application. Incentive payments will be made to participating producers after submitting the necessary documentation to support the decrease in nitrogen application that reflects the lesser of 40 pounds per acre or 15% of their baseline application rate to the NRD. If the producer does not provide documentation on reduction to the NRD by January 15th of the following program year, producer forfeits payment.

Steps to be eligible for NiRIA:

1. Submission of completed application for each field of interest to local NRD prior to January 15th of each program year including:
 - a. Necessary documentation to local NRD, as established by NRD, prior to planting establishing each field's baseline nitrogen application rate:
 - i. Priority A Areas will use previously reported NRD or crop report data.
 - ii. Priority B Areas will need data required on local NRD phase II or greater reports for the prior 3 growing seasons, or complete soil sampling, as established by the NRD, prior to the cropping season for which the incentive payment is requested.

- iii. Priority C Areas will need one, or both, of options unlined in Priority B Areas.
- b. Practices that are planned to be used to achieve the application rate reduction.
 2. NRD notification to producer that application has been approved or denied by March 15th of current program year and clarify needed field documentation.
 3. Prior to January 15th (or next business day if January 15th falls on a holiday or weekend) of next program year, producers must submit all necessary documentation showing the reduction of application on fields, or producer forfeits payments.
 4. If the nitrogen application rate reduction achieves the program goals (reduction equivalent to the lesser of 40 pounds or 15%), payment will be made to the producer by the NRD before January 15th of the following program year.

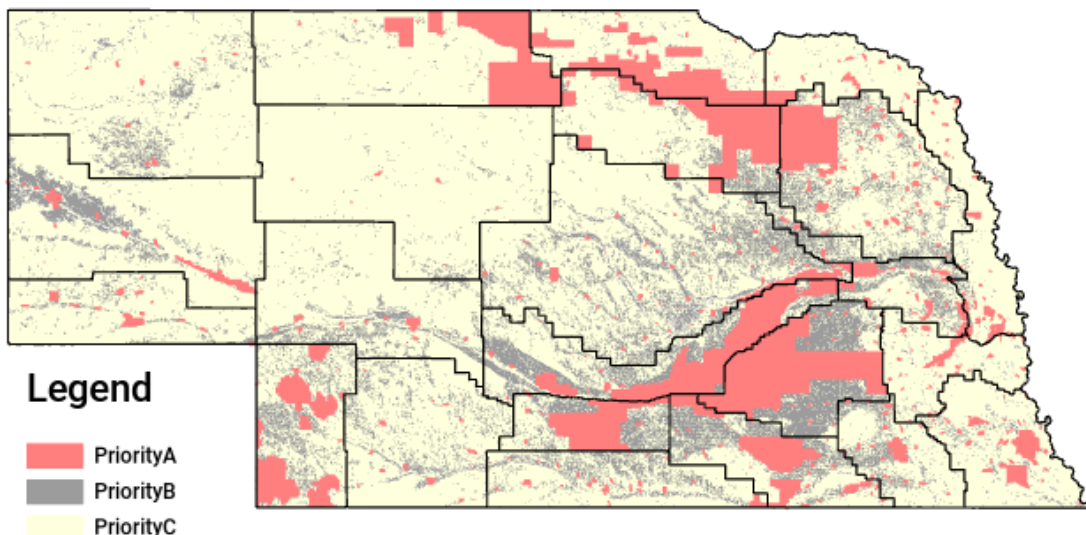


Figure 1. For general purposes only, the current distribution of Priority A, Priority B, and Priority C areas. Priority areas may be updated by each NRD through their rules and regulations. Contact your NRD for questions on which Priority Area you are in.

DRAFT AGREEMENT BETWEEN
THE STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES AND
LOWER REPUBLICAN NATURAL RESOURCES DISTRICT

This Agreement (“Agreement”) is entered into by and between the Nebraska Department of Natural Resources (“Department”) and the Lower Republican Natural Resources District (“District”), sometimes individually referred to as “Party” and collectively referred to as “Parties.”

WHEREAS, pursuant to the Nitrogen Reduction Incentive Act (“Act”), Neb. Rev. Stat. §§ 2-411 to 2-417 (LB 1368, 2024) the Department is charged with the responsibility of administering the nitrogen reduction incentive program (“Program”); and

WHEREAS, pursuant to the Act, the Department may collaborate with Natural Resources Districts to administer the Program; and

WHEREAS, pursuant to the Act, the Department shall provide a one-time payment for a per-acre incentive, to the District, for any producer who verifies through approved documentation that nitrogen commercial fertilizer rates were reduced by the lesser of forty pounds per acre or fifteen percent; and

WHEREAS, the Legislature has appropriated money from the Nitrogen Reduction Incentive Cash Fund (“Fund”); and

WHEREAS, the District seeks funding for disbursement throughout the District to producers in priority areas who comply with the provisions of Act and other requirements as expressed in the Guidance Document for the Act (“Guidance Document”) located at [INSERT LINK](#), Attachment A, hereby incorporated by reference into this Agreement; and

WHEREAS, the Department determined that the District, as set forth herein, is eligible for such funding under the terms of the Act as expressed in the Guidance Document; and

WHEREAS, the Department awards the District a grant for up to Thirty-Three Thousand Nine Hundred Sixty-Two Dollars and Six Cents (\$33,962.06) to disburse to producers contingent upon compliance with the Program, and continued merit and eligibility for the funding.

NOW, THEREFORE, the Department and the District mutually agree as follows:

1. Term. This Agreement shall be for a term commencing upon its execution and continuing thereafter until March 15, 2026 unless all eligible reimbursements are made prior to that time, or unless the Agreement is:
 - A. Terminated with cause in the event either Party defaults on any of its material obligations or representations under this Agreement. The non-defaulting Party shall notify the other Party in writing, specify in detail the nature and extent of such

breach. If within thirty (30) calendar days after written notice of such default, the defaulting Party fails to remedy the default, this Agreement will terminate.

B. Terminated by the Department, in whole or in part, in the event funding is no longer available. If funding is revoked by the Legislature, the Department may terminate any portions of the Agreement for which funds have become unavailable. The Department will give the District notice of such revocation as soon as possible.

C. Amended by written amendment signed by both Parties.

2. Scope of Agreement.

A. The District shall, through its own efforts, enter into separate agreements for reimbursement with producers in priority areas who comply with the provisions of Program and other requirements as expressed in the Guidance Document, Attachment A, and ensure that that state and federal compliance, accountability, and reporting obligations are met. Such agreements must be entered by March 15, 2025 in order to be eligible for reimbursement from the Department.

B. Reimbursable components are limited to those set forth in the Guidance Document, Attachment A.

C. The District will provide the Department with full access to any data that is collected as a result of, or in conjunction with reimbursements.

D. Nothing in this Agreement, including the receipt of data, creates any additional legal duties, obligations, or liabilities upon the Department, with respect to the operation, monitoring, inspection, and reporting of conditions affecting the safety of dams.

3. Reimbursement.

A. The District agrees to only submit for reimbursement those eligible expenses, as defined in the Guidance Document, Attachment A, that are incurred after March 15, 2025 and in performance of activities necessary to carry out the Act during the term of this Agreement.

B. As a condition for reimbursement under this Agreement, the District must provide to the Department in writing, the following information for each producer agreement, subject to approval by the Department:

1. Contract Number
2. Producer Name

3. Legal Description
4. Acres
5. Crop Type
6. Priority Area
7. Practice/Product
8. Baseline Application (Lbs)
9. Current Application (Lbs)

- C. The total reimbursement amount and payments may not exceed Thirty-Three Thousand Nine Hundred Sixty-Two Dollars and Six Cents (\$33,962.06), and reimbursements shall be limited to amounts approved by the Department. If the District does not enter into individual producer agreements equal to Thirty-Three Thousand Nine Hundred Sixty-Two Dollars and Six Cents (\$33,962.06), the Department may reallocate unobligated funds to other natural resources districts within the Program in order to carry out the Act.
- D. Reimbursement payments shall be made by the Department to the District in the form of a lump sum payment based upon the reimbursement request submission provided to the Department that complies with the terms of this Agreement.
- E. Expense records shall be subject to inspection by the Department and any other agency of the State of Nebraska with responsibility for monitoring progress or auditing records pursuant to this Agreement. The Department shall have the right to audit billings both before and after payment, and payment under this Agreement shall not foreclose the right of the Department to recover excessive or improper payments.
- F. The District, upon payment of the amounts due under this Agreement, releases the Department, its officers and employees, and the State of Nebraska from all liabilities, claims and obligations whatsoever arising from or under this Agreement.

4. Contract Managers.

- A. The Department's Contract Manager is Jesse Bradley. His contact information is:
Jesse Bradley
Nebraska Department of Natural Resources
245 Fallbrook Blvd., Suite 201
Lincoln, NE 68521
Email: jesse.bradley@nebraska.gov
Direct phone: 402-219-1357
- B. The District's Contract Manager is Todd Siel. Their contact information is:
Todd Siel

Lower Republican Natural Resources District
30 North John Street
Alma, NE 68920
Email: tsiel@lnrd.org
Direct Phone: **PHONE NUMBER**

- C. Communications shall be through the respective Contract Managers.
 - D. The District may change its Contract Manager only after receiving written approval from the Department.
5. Independent Contractor.
- A. It is agreed that nothing contained in this Agreement is intended to be or should be construed in any manner as creating or establishing the relationship of partners between the Department and the District, or contractors of the District.
 - B. All claims on behalf of any person arising out of employment or alleged employment (including but not limited to claims of discrimination against the District, its officers or its agents) shall in no way be the responsibility of the Department or the State. The District will hold the Department and the State harmless from any and all such claims. The District personnel and all other persons acting for the District shall not require nor be entitled to any reimbursement, rights or benefits from the Department or the State including but not limited to tenure rights, medical and hospital care, sick and vacation leave, severance pay or retirement benefits.
6. Notices. All notices, requests, demands and other communications hereunder shall be in writing and delivered or mailed, with postage prepaid, to the Contract Managers at the addresses set forth in Section 4 of this Agreement.
7. Binding. This Agreement shall inure to and bind the successors, assigns, and representatives of the Parties, provided, however, this Agreement may not be assigned by either Party without the prior written consent of the other. Neither the Department nor the District intends anyone to be a third-party beneficiary of this Agreement.
8. Entire Agreement/Severability/Waiver. This Agreement is the entire agreement between the Parties hereto; no representations, inducements, promises or agreements, oral or other, between the Parties not embodied herein shall be of any force or effect. In the event any provision of this Agreement shall be held invalid and unenforceable, the remaining provisions shall be valid and binding upon the Parties. One or more waivers by either Party of any provision, term, condition, or covenant shall not be construed by the other Party as a waiver of a subsequent breach of the same by the other Party.

9. Amendment of Agreement. This Agreement may be amended only by a written instrument signed by the Department and the District.
10. Attachments. If there are any terms and conditions contained in any Attachment hereto which are inconsistent with the terms and conditions contained in this Agreement, the terms and conditions of the Attachments shall be construed to conform to the terms of this Agreement unless specifically expressed in a writing signed by the Parties.
11. Prevailing Law. This Agreement is governed by the laws of the State of Nebraska including the State Contract Claims Act, Neb. Rev. Stat. §§ 81-8,302 through 81-8,306.
12. Indemnification. Neither the Department nor the State of Nebraska shall be liable for any damage or compensation payable with respect to or in consequence of any accident or injury to any workman or other person in the employment of the District that would be covered by worker's compensation insurance, liability insurance, or otherwise, save and except an accident or injury resulting from an intentional act of the Department. The District shall indemnify, defend, and hold harmless the Department and the State of Nebraska against all such damages, compensation, and against all claims, proceedings, costs, charges, attorney's fees, and expenses whatsoever in respect thereof or in relation thereof. The District shall indemnify the Department and the State of Nebraska for any damages, claims or liability to the extent caused by the Recipient's negligent acts, errors or omissions arising out of the performance of professional services under this Agreement. The District expressly waives all statutory or common law defenses, including but not limited to those under Workers' Compensation, Contribution, Comparative Fault or similar statutes or legal principles to the extent said defenses are inconsistent with or would defeat the purpose of the indemnification under this section.
13. Drug Free Workplace Policy. The District certifies that it maintains a drug free workplace environment to ensure workers safety and workplace integrity and agrees to provide a copy of its drug free workplace policy at any time upon request by the Department.
14. Technology Access. The District agrees to ensure compliance with Nebraska Access Technology Standards. See website at: <http://nitc.nebraska.gov/standards/2-101.pdf>. In the event that the State's technology access standards change during the term of the Contract, the Department may create an amendment to the Agreement to ensure that it complies with the changed standard. If the amendment causes any changes in costs to the District, the costs must be mutually agreed on by both Parties in order for such costs to be binding upon the parties.
15. Fair Employment Practices. The District agrees to ensure compliance with the Nebraska Fair Employment Practice Act which prohibits contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for

employment, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin, Neb. Rev. Stat. §§ 48-1101 through 48-1125.

16. Worker Eligibility Status Requirements. The District is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of any new employees paid with proceeds of this Agreement that are physically performing services within the State of Nebraska. The District understands and agrees that lawful presence in the United States is required for such employment and that it may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. § 4-108. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.
17. Compliance with All Laws and Ordinances. The District covenants that it does and shall at all times pertinent to this Agreement comply with all state, federal, and local laws, ordinances, and regulations including but not limited to corporate registrations, payment of taxes and registration required for payment of taxes, acquisition and payment for permits, licenses and approvals necessary for this Agreement.
18. Audit Requirements. All District's books, records, and documents relating to work performed or monies received under the Agreement shall be subject to audit at any reasonable time after reasonable notice by the Department. The District shall maintain all these records for a period of five (5) full years from the date of final payment, or until all issues related to an audit, litigation or other action are resolved, whichever is longer. All records shall be maintained in accordance with generally accepted accounting principles.
19. Audit by Office of State Auditor. Any public or private non-profit entity or political subdivision of the state serving as the recipient or sub-recipient of funds under this Agreement, except for an individual person, is subject to audit by the Office of State Auditor and must comply with requests for any information or records within three business days after the actual receipt of the request pursuant to Neb. Rev. Stat. §§ 84-304(4)(a) and 50-1213(2).

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date last stated below.

Lower Republican Natural Resources District

By: Todd Siel, General Manager
Lower Republican Natural Resources District
30 North John Street
Alma, NE 68920

_____ Date _____

Nebraska Department of Natural Resources

By: Jesse Bradley, P.G., Interim Director
Department of Natural Resources
245 Fallbrook Boulevard, Suite 201
Lincoln, NE 68521

_____ Date _____

DRAFT

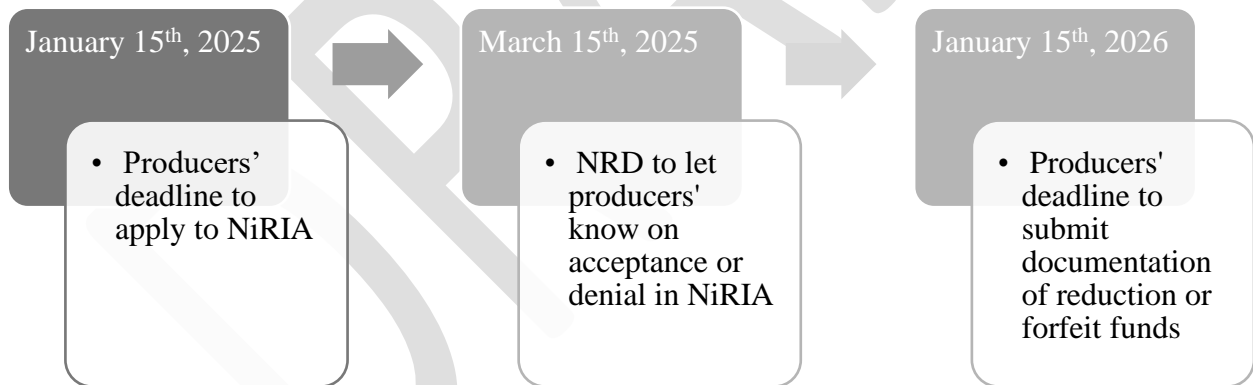
Additional NiRIA Information for NRDs

9/18/2024

NRD Information to be provided to NeDNR for incentive payment located in an Excel:

- NRD Name
- Date
- Contract Number * (*as established by NRD*)
- Producer Name
- Legal Description
- Acres
- Crop Type
- Priority Area
- Practice/Product
- Baseline Application (Lbs.)
- Current Application (Lbs.)

Important Dates:



Money for NRDs:

NRD	PriorityAB_Land	50Percent_Land	NRD Total
Lower Republican	12,222.93	21,739.13	\$ 33,962.06
Tri-Basin	26,979.99	21,739.13	\$ 48,719.12
Little Blue	34,331.81	21,739.13	\$ 56,070.94
Lower Big Blue	9,415.70	21,739.13	\$ 31,154.83
Nemaha	8,796.39	21,739.13	\$ 30,535.52
Middle Republican	10,317.47	21,739.13	\$ 32,056.60
Upper Republican	27,275.89	21,739.13	\$ 49,015.02
Lower Platte South	4,350.51	21,739.13	\$ 26,089.64
Upper Big Blue	73,392.44	21,739.13	\$ 95,131.57
Central Platte	54,752.66	21,739.13	\$ 76,491.79
South Platte	6,222.34	21,739.13	\$ 27,961.47
Twin Platte	11,234.87	21,739.13	\$ 32,974.00
Lower Platte North	16,319.60	21,739.13	\$ 38,058.73
Lower Loup	42,236.27	21,739.13	\$ 63,975.40
North Platte	17,829.23	21,739.13	\$ 39,568.36
Upper Loup	2,555.89	21,739.13	\$ 24,295.02
Papio-Missouri River	4,277.88	21,739.13	\$ 26,017.01
Lower Elkhorn	34,890.45	21,739.13	\$ 56,629.58
Upper Elkhorn	34,114.77	21,739.13	\$ 55,853.90
Lewis & Clark	9,430.24	21,739.13	\$ 31,169.37
Lower Niobrara	24,916.36	21,739.13	\$ 46,655.49
Middle Niobrara	24,845.89	21,739.13	\$ 46,585.02
Upper Niobrara-White	9,290.44	21,739.13	\$ 31,029.57
Total	\$ 500,000.00	\$ 499,999.99	\$ 999,999.99

Total funding currently available for the program is capped at \$1 million. Each NRD will currently receive half the \$1 million and then a separated allotted amount on top of that based on Priority A and B Areas. This table was created and reviewed with feedback from the NRD Managers Water Resources Subcommittee. Funding not utilized by NRD will be reallocated to a pool for those NRDs with unmet applications.

Nitrogen Reduction Incentive Act (NiRIA) Program Application

Name of Producer: _____

Primary Contact: _____

Primary Contact Phone Number: _____

Primary Contact Email (if available): _____

Name of Natural Resources District (NRD): _____

Are you already enrolled in a federal nutrient management plan? No Yes

If yes, list what program(s) _____

Type of Crop: Corn Sugar Beet Potato

Legal Description (Submit one application per field): _____

Total Acres to Be Enrolled in this field (Limit of 280 acres): _____ Average Yield:

Crop Year: _____

Will you apply manure or lagoon water to this field? Yes No

If yes, attach documentation with the known amount of nitrogen in manure or lagoon water.

Do you apply nitrogen in the fall? Yes No

Identify the practice(s)/ product(s) you plan to implement to achieve the 40lbs or 15% reduction of commercial fertilizer by checking a box below. *Note that the below options do not represent a ranked list and practices/products are subject to individual NRD approval.

- Reduction in Nitrogen Application
- Implementation of Biological Nutrition (Example: *Proven40*)
- Implementation of a Nitrogen Use Efficiency Technology (Example: *N-Time*)
- Implementation of a Nitrogen Stabilizer (Example: *Agrotain*)
- Other Please Describe _____

Select type of documentation that will be used to determine baseline and to evaluate nitrogen reduction:

- NRD or producer crop reports (Priority A Areas)
- Submit all data required on local NRD phase reports for the prior 3 growing seasons (Priority B or C Areas)
- Complete soil sampling, as established by the NRD, prior to the cropping season (Priority B or C Areas)

*Please note that individual NRDs may require additional information.

Applicant Signature (Receiving 1099): _____ Date: _____

NRD Signature: _____ Date: _____



Nebraska's Groundwater Irrigated Acres – 2024

State Statute 46-702 states:

The Legislature finds that ownership of water is held by the state for the benefit of its citizens, that ground water is one of the most valuable natural resources in the state, and that an adequate supply of ground water is essential to the general welfare of the citizens of this state and to the present and future development of agriculture in the state. The Legislature recognizes its duty to define broad policy goals concerning the utilization and management of ground water and to ensure local implementation of those goals. The Legislature also finds that natural resources districts have the legal authority to regulate certain activities and, except as otherwise specifically provided by statute, as local entities are the preferred regulators of activities which may contribute to ground water depletion.

As part of the management scheme; Natural Resources Districts (NRDs) are required to prepare, for approval, a plan that spells out groundwater management objectives to address both quantity and quality. Plans will identify thresholds, that if met will result in regulatory or other action. Said thresholds are codified in NRD rules and regulations. Per state statute 46-739 actions may include;

- Allocation of amount of groundwater that may be withdrawn
- Adoption of a rotation system of groundwater use
- Well spacing requirements
- Required measurement devices (i.e. flow meters)
- A reduction in irrigated acres
- Limit or prevent the expansion of irrigated acres
- A moratorium on new wells or uses

It should be noted, the above list represents some of the regulatory actions that may be taken. Each NRD retains the option to adopt any other reasonable rules and regulations, as needed to address local conditions.

Groundwater supplies and use vary across the state as does the climate and these factors impact how groundwater is utilized. Each NRD has developed the Groundwater Management Plan, monitoring plan and accompanying rules and regulation to specifically address the local conditions.

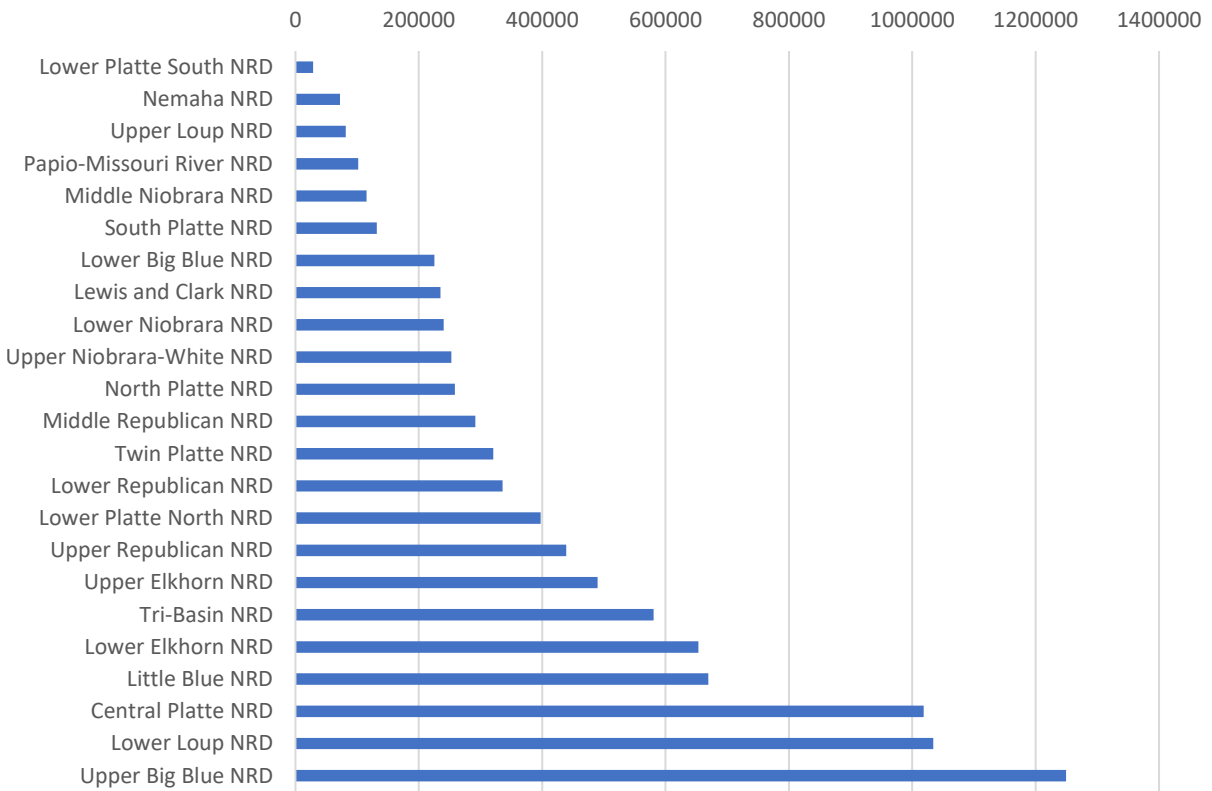
The following is a summary of groundwater irrigated acres in Nebraska along with some of the management actions that have been implemented. The purpose of this document is to provide a general overview of the groundwater irrigated acres in Nebraska. Information on local rules, regulations and information can be obtained from individual NRDs. To find an NRD go to <https://www.nrdnet.org/nrds/find-your-nrd>.

Groundwater Irrigated Acres in the State of Nebraska-2024

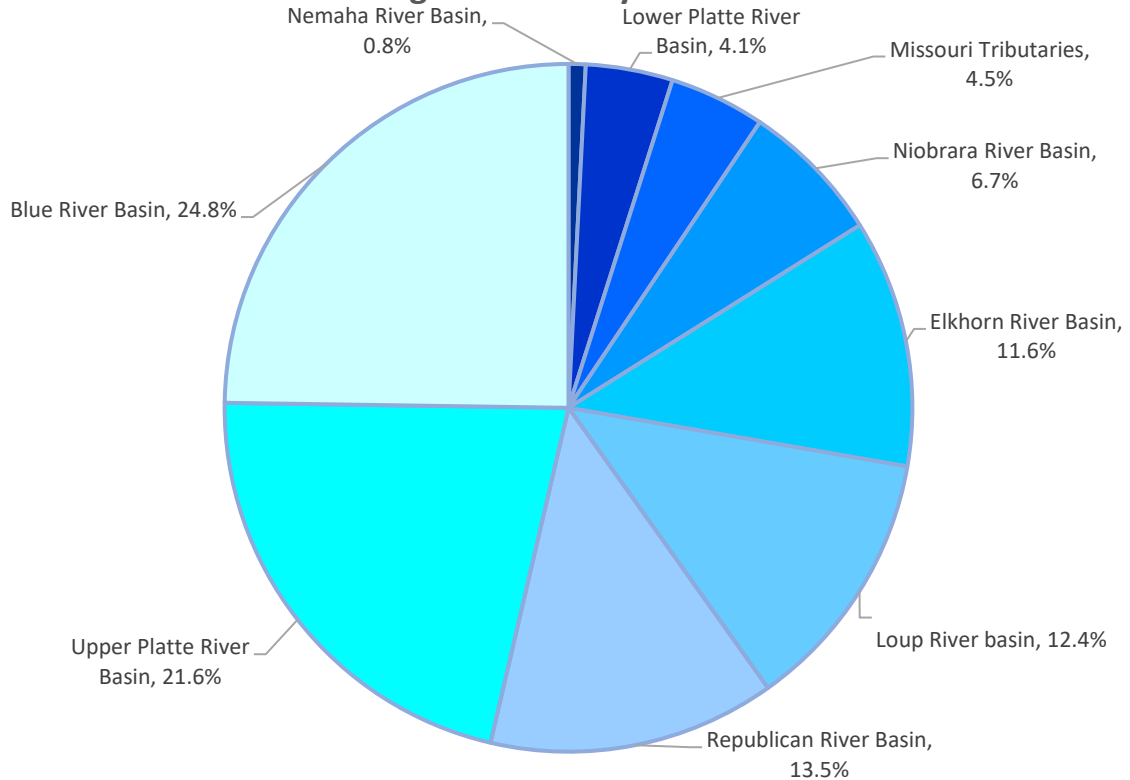
Data submitted from Nebraska's 23 Natural Resources Districts

	Percent of total GW Irrigated	
<i>By NRD</i>	Acres	Acres
Lower Platte South NRD	28532	0.3%
Nemaha NRD	72104	0.8%
Upper Loup NRD	81432	0.9%
Papio-Missouri River NRD	101612	1.1%
Middle Niobrara NRD	115271	1.3%
South Platte NRD	131818	1.4%
Lower Big Blue NRD	225280	2.4%
Lewis and Clark NRD	235106	2.5%
Lower Niobrara NRD	240231	2.6%
Upper Niobrara-White NRD	252477	2.7%
North Platte NRD	258288	2.8%
Middle Republican NRD	291599	3.2%
Twin Platte NRD	320826	3.5%
Lower Republican NRD	335552	3.6%
Lower Platte North NRD	397602	4.3%
Upper Republican NRD	439055	4.8%
Upper Elkhorn NRD	489970	5.3%
Tri-Basin NRD	580520	6.3%
Lower Elkhorn NRD	653424	7.1%
Little Blue NRD	669215	7.3%
Central Platte NRD	1018263	11.0%
Lower Loup NRD	1034032	11.2%
Upper Big Blue NRD	1249195	13.5%
Total	9,221,403	
<i>Groundwater Irrigated Acres by River Basin</i>		
Nemaha River Basin	73956	0.8%
Lower Platte River Basin	377344	4.1%
Missouri Tributaries	414936	4.5%
Niobrara River Basin	617325	6.7%
Elkhorn River Basin	1073285	11.6%
Loup River basin	1145969	12.4%
Republican River Basin	1243989	13.5%
Upper Platte River Basin	1990591	21.6%
Blue River basin	2284008	24.8%
Total	9,221,403	
<i>By Management Action</i>		
Over Appropriate Area of Nebraska	807,323	8.8%
Fully Appropriated Area of Nebraska	2,785,240	30.2%
Groundwater Allocations in Place	1,690,472	18.3%
Acres Retired or Banked	54,498	0.6%
Total Managed/Restricted Acres	5,337,533	

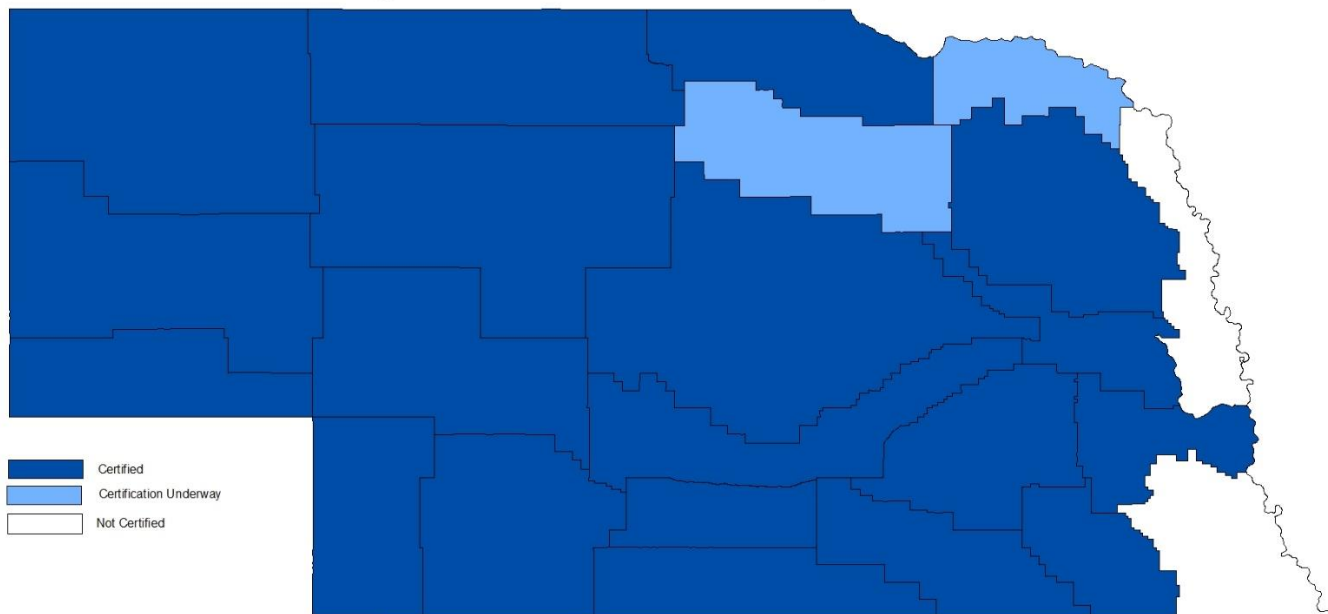
Groundwater Irrigated Acres by Natural Resources District 2024



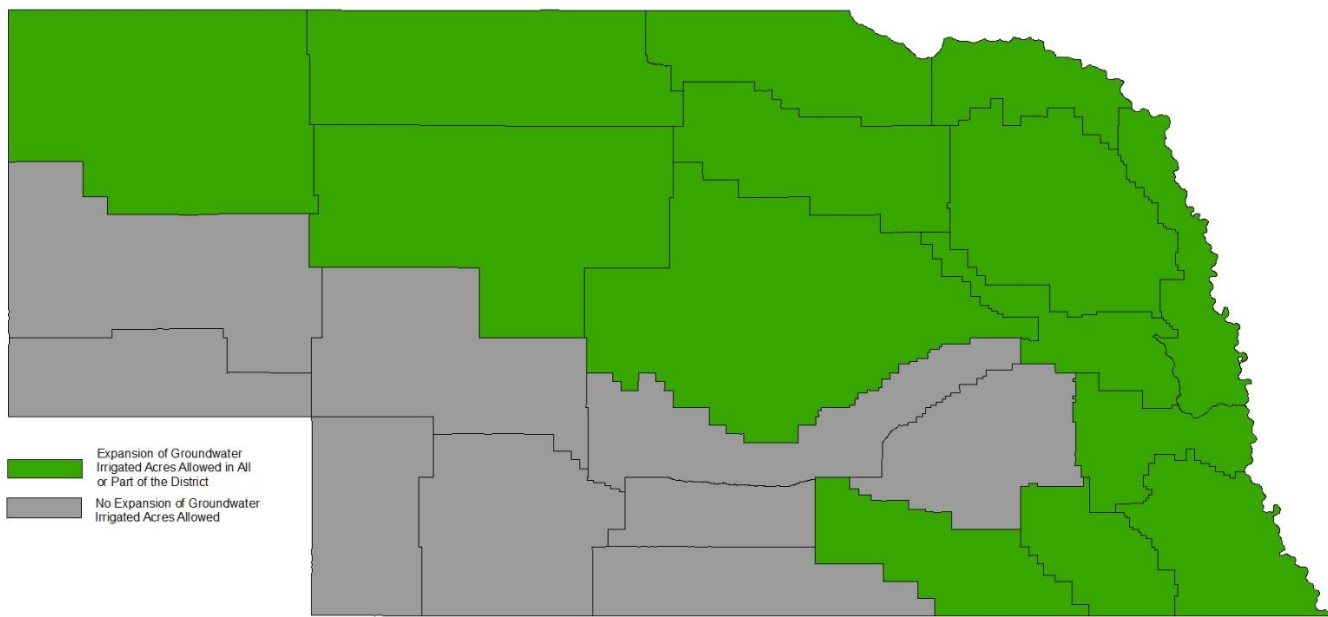
Groundwater Irrigated Acres by River Basin - 2024



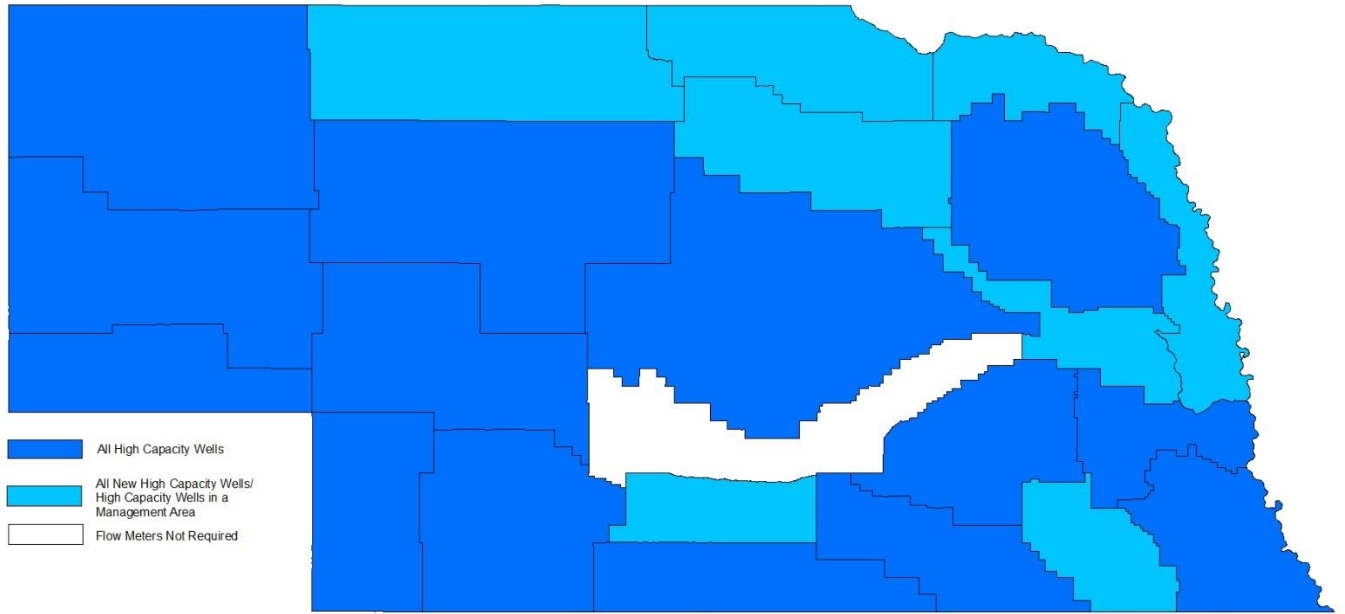
Groundwater Irrigated Acre Certification Status by NRD - 2024



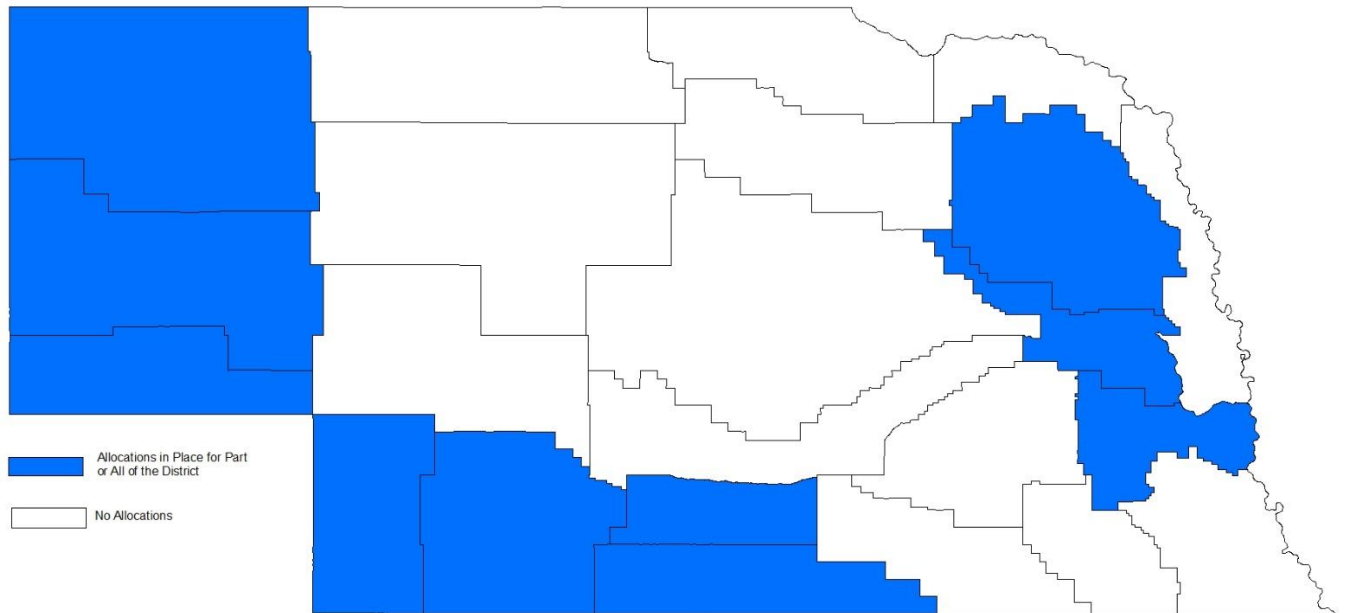
Groundwater Irrigated Acre Expansion Status by NRD - 2024



Groundwater Irrigated Acre Flow Meter Status by NRD - 2024



Groundwater Irrigated Acre Allocation Status by NRD - 2024



NE Nitrate in drinking Water Study Update – Bridger Corkill, NDEE

The Nebraska Department of Environment and Energy has been conducting a vast study of the state's drinking water for nitrate contamination. NDEE is the enforcer of the Safe Drinking Water Act, which only applies to public systems, not private domestic wells. They have been sending out free sample test kits to private domestic well owners that would want to voluntarily take part in their study. With this data, they are making a Nitrate Decision Tool and a Private Domestic Well Owner GIS Risk Assessment Tool. There is also a Reverse Osmosis System Tax Credit Act at play right now that could help assist well owners with installing an RO machine. This act considers nitrates, uranium, and PFAs.

A Year-Round Systems Approach to Water and nitrogen Management: Insights from Central Nebraska Farmer Irrigation Practices – Steve Melvin, UNL Extension

UNL extension combined data from 6 years of managing nitrogen and irrigation within the Upper Big Blue NRD. Their studies found that improper use of either nitrogen or irrigation reduced crop yields, whether it being applying too much of either or not enough. The goal is to figure out how much is too much for reducing the environmental harm. The big focus was the tendency of farmers to over-irrigate in the late season. Many farmers put a lot more water on their fields at the end of the year than needed, resulting in nitrogen flushing into the groundwater while cutting yields.

Daryl's Comments: This study showed 13 inches of water were received from September – April. The Silty loam soils can only hold 5.5 inches of water in the top 3 feet. Managing the water nutrients during the offseason is a concern, which cover crops could be beneficial.

Storms, Stats, and Calibration: What's the Big Deal? – Houston Engineering

Hydrology and hydraulics modeling is a crucial part of managing flooding within NRD districts. It's easy to get lost in the numbers and to not seek out the actual application of the model with real events in the past, present, or the future. There are many different means of calibrating models, but the best form of calibration is by testing the model against previous and current events of storms. Go out into the watershed and do infiltration tests. Go to locals within the watershed and ask them about flooding events and how high the water actually got.

Fertigation Field Trials: What's New? – Jackson Stansell, Sentinel Fertigation

Sentinel Fertigation founded a software called N-Time that uses satellite imagery and sensors to detect early nitrogen demand. This can be used to give producers real time fertigation or Y-drop prescriptions that spoon feed the crop nitrogen when it's needed. This ensures that crops get enough nitrogen while minimizing the nitrogen that is left over. Ultimately, this will decrease nitrogen leaching. N-Time software has results of getting fields down to 0.5-0.7 lbs N/bu corn yield. You can't argue with those results.

Bridging Ecology and Engineering: Glacier Creek Project – Amanda Grint: PMRNRD

The Pappia Missouri River NRD has been seeking to follow the wetland and stream replacement guidelines within their district. Whenever development destroys a given amount of stream and wetland ecosystems, the same amount needs to be replaced. The Glacier Creek watershed was an agricultural watershed that has been seeing a lot of development move into the area. The PMRNRD and UNO bought some of the land within this watershed and did a land, stream, and wetland restoration. Education and research are now conducted within this rec area. The PMRNRD also sells wetland and stream credits to developers to offset the streams and wetlands they destroy.

Daryl's Sessions

Sustainable Solutions for CAFOs – Russ Vering, Vironment, Inc

This session explained a demonstration on managing swine manure more efficiently. They have found out that flushing manure every 7-10 days then heating the manure, collected the dry material and recycle the water made these units 97% efficient. If the unit is flushed regularly instead of every 6-12 months the fertility is higher for crop use.

Updates on the Resilient Soil Act and the Nitrogen Reduction Act – Alex Davis, NeDNR

Updates on how this program will operate.

Nebraska NRCS Soil Health Program & Scientific Approach to Addressing Woody Encroachment – Nathan Mueller and Britt Weiser

Nathan talked about soil health programs and Britt showed some projects on controlling cedar trees.