

Water Committee Meeting
Thursday, April 30, 2026 9:30 AM
Lower Platte North NRD Office
1616 County Road 17
Wahoo, NE 68066

1. UNFINISHED BUSINESS

2. REGULATORY

2.A. GROUND WATER MANAGEMENT AREA

2.A.1. Well Permit Program

2.A.2. Well Permit Restricted Area

Keith Ziebenbein is applying for a well permit in LPNNRD restricted area (red) for SW SW 29-16-9E, Saunders County. He received conditional approval on his variance request from the Board in September 2025. To move forward on the request required him to drill 3 test holes before a well permit can be approved. The test holes information is attached.

Keith was present at the Committee meeting to explain his situation. The Committee was made aware of the conditions on previous approved wells in restricted areas, with Keith understanding that if local well interferences are occurring, his well could be shut off.

2.A.3. Groundwater Management Plan Updates

Spheros made a presentation at the Board meeting on a proposed groundwater model to assist in the ranking of variances and determine areas of concern. Attached is the presentation shown at the Board meeting where this model would decrease grid size for more accurate information.

This project is an extension of the plan to assist in the implementation of the plan and will be part of the scoring sheet that is under contract at the present time.

If the Committee wants to proceed with the groundwater modeling project with Spheros, a contract is attached for \$30,000.

Attachments

An invoice for \$2638.50 is attached from Spheros for the scoring sheet and water quantity contract.

2.A.4. Cost Share Programs

Mike Inselman - RO unit - \$505.92

2.A.5. LPNNRD Operator Certification

At the present time, 367 individuals have completed nitrogen certification for

2026.

In-person class — 228

Take Home Test — 21

On Line Test - 118

Items for the Committee to consider are that if an individual has let their certification lapse, staff can delay a replacement well application for 30 days after the application date, a new chemigation permit can be delayed for 14 days, and they will not be eligible for a variance for 1 year after coming into compliance.

2.A.6. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

The Coalition meeting was held April 15th in the NRD Board Room in Wahoo. The Board approved the coalition members' annual report and budget with dues staying at \$10,000, except DWEE. Jesse Bradley asked for a 2-year exception from the dues as they will be purchasing new servers to run the groundwater model for the Coalition. They reviewed the next 5-year increments' timetable and heard presentations from Jesse Bradley with a DWEE update and Jame Herrick from Sentinel irrigation.

2.A.7. Well Modification Forms

Staff has discussed with DWEE that if the NRD requests that all modification forms be approved by the NRD, they will work with us. The Committee still needs a procedure on how the process will work for approval or denials. Attached is a draft policy to discuss.

2.B. CHEMIGATION

For 2026, we have 279 renewals and 9 new permit applications for a current total of 288. Inspections for renewal permits have not started.

Attachment.

2.C. GROUND WATER ENERGY LEVELS

Spring 2026 water levels compared to Spring 2025 from 213 measured wells. A map is attached.

District wide — average water levels rose 1.28 feet with the median at 0.87 feet. 136 wells rose greater than 0.25 feet and 41 wells declined more than 0.25 feet.

Todd Valley — average water levels rose 0.83 feet with the median at 1.09 feet.

Uplands — average water levels rose 2.33 feet with the median at 1.78 feet.

Platte Valley — average water levels rose 0.41 feet with the median at 0.39 feet.

Shell Creek — average water levels rose 2.46 feet with the median at 2.02 feet.

2.D. GROUND WATER QUALITY SAMPLING

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
Marilee Polacek	Windmill (hand dug)	\$2,681.06	
Marilee Polacek	Stock	\$846.85	
Marilee Polacek	Stock	\$987.85	

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
Roger Nelson	I	\$874.95 (awaiting final invoice)	
Robert Meduna	I	\$1,392 (awaiting final invoice)	

3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

3.B.1. Phase Area Update

Dale Grotelueschen - 2 Flow Meters - \$2,000

3.B.2. GMDA Summer Conference

The conference is planned for July 21st through the 23rd in Lubbock, Texas.

3.C. NEW MONITORING WELLS

CSD is planning on drilling test holes at the Newman Grove site on May 12th, and potentially May 13th if extra time is needed.

3.D. SOURCE WATER PROTECTION

The data loggers, through our agreement with DWEE, have been ordered and should arrive within the next couple of weeks.

4. NAD Mead Cleanup Open House and Tour

An open house with bus tour will be held on Wednesday, May 13, starting at 4:30 pm with the bus loading at 5:15 pm. An email will be sent with details later.

5. SURFACE WATER PROGRAMS

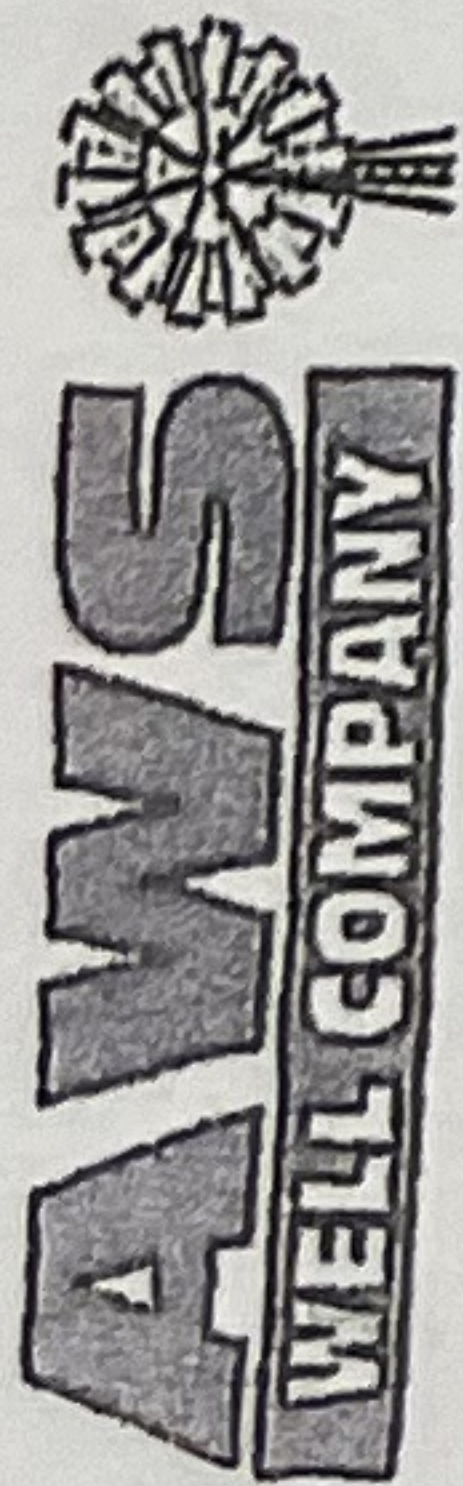
5.A. STATE LAKES, FOR THE WEEK OF

5.B. USGS STREAM FLOW GAUGING SITES

Quarterly invoices for \$4,344 and \$5,514 are attached for stream gauges and cameras which are contracted with USGS.

6. OTHER

6.A. COMMENTS FROM THE PUBLIC



DRILLING LOG

DATE: 4-8-26

NAME: Keith Ziegenbein

ADDRESS: Nxtr #1 Test Hole

LAT: 41 MIN: 3 SEC: 44.86

WELL LOCATION: 770 CRA Ashland, NE

LON: 96 MIN: 26 SEC: 23.92

PURPOSE OF WELL: _____

TEST HOLE DEPTH: 125' WELL DEPTH: _____

STATIC WATER LEVEL: _____

TEST HOLE DIA: 5 1/2" BORE HOLE DIA: _____

PUMPING WATER LEVEL: _____ AT _____ GPM

LOOP DEPTH: _____ #OF LOOPS: _____ SIZE: _____

ESTIMATED CAPACITY OF WELL: _____ GPM

CASING LENGTH: _____ CASING DIA _____

FROM: _____ TO: _____ OPEN HOLE

WALL THICKNESS: _____ MATERIAL: _____

FROM: _____ TO: _____ BETONITE SEAL

SCREEN LENGTH: _____ SCREEN DIA: _____

FROM: _____ TO: _____ GRAVEL

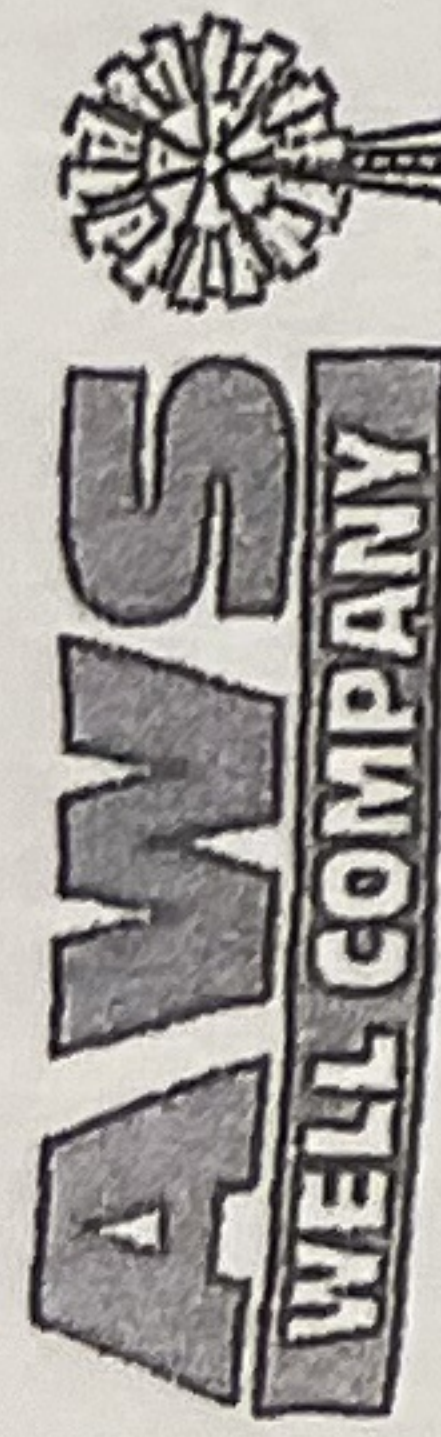
SLOT _____ TYPE _____

FROM: _____ TO: _____ BETONITE SEAL

TRADE NAME: _____

FROM: _____ TO: _____ PACK SAND

FROM	TO	MATERIAL/COLOR	HARDNESS
<u>0</u>	<u>25</u>	<u>TAN clay</u>	<u>SOFT</u>
<u>25</u>	<u>35</u>	<u>Brown clay</u>	<u>SOFT</u>
<u>35</u>	<u>40</u>	<u>med TAN SAND</u>	<u>loose</u>
<u>40</u>	<u>50</u>	<u>Coarse Brown SAND</u>	<u>Loose</u>
<u>50</u>	<u>52</u>	<u>TAN + yellow clay</u>	<u>STIFF</u>
<u>52</u>	<u>60</u>	<u>Fine TAN SANDSTONE</u>	<u>Cemented</u>
		<u>Strip of yellow clay</u>	
<u>60</u>	<u>100</u>	<u>TAN + orange SANDSTONE med</u>	<u>Cemented</u>
<u>100</u>	<u>105</u>	<u>Orange Coarse SANDSTONE</u>	<u>Cemented</u>
<u>105</u>	<u>120</u>	<u>med TAN SANDSTONE</u>	<u>Cemented</u>
<u>120</u>	<u>121</u>	<u>Loosing circulation</u>	
<u>121</u>	<u>125</u>	<u>very little circulation cavern?</u>	
<u>125</u>		<u>Limestone</u>	<u>Hard</u>



Looks The Best

DRILLING LOG

DATE: 4-8-26

TEST Hole SW Corner open Building

NAME: Keith Ziegenbein

ADDRESS: _____

LAT: 41 MIN: 3 SEC: 41.519

WELL LOCATION: 770 CRA Ashland, AL

LONG: 96 MIN: 26 SEC: 84.57

PURPOSE OF WELL: _____

TEST HOLE DEPTH: 158' WELL DEPTH: _____

STATIC WATER LEVEL: _____

TEST HOLE DIA: 5 1/2" BORE HOLE DIA: _____

PUMPING WATER LEVEL: _____ AT _____ GPM

LOOP DEPTH: _____ # OF LOOPS: _____ SIZE: _____

ESTIMATED CAPACITY OF WELL: _____ GPM

CASING LENGTH: _____ CASING DIA: _____

FROM: _____ TO: _____ OPEN HOLE

WALL THICKNESS: _____ MATERIAL: _____

FROM: _____ TO: _____ BETONITE SEAL

SCREEN LENGTH: _____ SCREEN DIA: _____

FROM: _____ TO: _____ GRAVEL

SLOT _____ TYPE _____

FROM: _____ TO: _____ BETONITE SEAL

TRADE NAME: _____

FROM: _____ TO: _____ PACK SAND

FROM	TO	MATERIAL/COLOR	HARDNESS
<u>0</u>	<u>30</u>	<u>TAN Clay</u>	<u>SOFT</u>
<u>30</u>	<u>40</u>	<u>Brown clay</u>	<u>SOFT</u>
<u>40</u>	<u>50</u>	<u>med to coarse TAN SAND</u>	<u>Loose</u>
<u>50</u>	<u>60</u>	<u>TAN + yellow clay</u>	<u>STIFF</u>
<u>60</u>	<u>95</u>	<u>Orange + TAN SANDSTONE</u>	<u>Cemented</u>
<u>95</u>	<u>100</u>	<u>Orange SANDSTONE med</u>	<u>Cemented</u>
<u>100</u>	<u>101</u>	<u>Hard layers Downpressure</u>	<u>Hard</u>
<u>101</u>	<u>125</u>	<u>Orange Coarse SANDSTONE</u>	<u>Cemented</u>
<u>125</u>	<u>140</u>	<u>Orange SANDSTONE with</u>	<u>Cemented</u>
		<u>Thin layers TAN clay layers</u>	
<u>140</u>	<u>151</u>	<u>TAN SANDSTONE med</u>	<u>Cemented</u>
<u>151</u>	<u>158</u>	<u>Grey shale</u>	<u>STIFF</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____



April 10, 2026

Invoice No: 33567

Invoice Total: \$2,638.50

Daryl Andersen
Lower Platte North NRD
511 Commercial Park Road
Wahoo, NE 68066-0126

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

Invoice Email: dandersen@lpnrd.org
Project No.: 536-LPN00-07
Project Name: LPNNRD Scoring Sheets Quantity Areas

Professional Services through March 28, 2026

Task	1	Scoring Sheets			
Professional Personnel					
			Hours	Rate	Amount
	Hume, David		7.50	265.00	1,987.50
	Totals		7.50		1,987.50
	Total Labor				\$1,987.50
				Total this Task	\$1,987.50

Task	2	Revised Criteria for Est. Quantity Mngmt			
Professional Personnel					
			Hours	Rate	Amount
	Mohr, Jonathan		1.50	217.00	325.50
	Totals		1.50		325.50
	Total Labor				\$325.50
				Total this Task	\$325.50

Task	3	GWMP Resubmission Report			
Professional Personnel					
			Hours	Rate	Amount
	Mohr, Jonathan		1.50	217.00	325.50
	Totals		1.50		325.50
	Total Labor				\$325.50
				Total this Task	\$325.50

Total this Invoice \$2,638.50

Outstanding Invoices

Number	Date	Balance
32923	3/10/2026	2,607.25
Total		\$2,607.25

Total Now Due **\$5,245.75**

Groundwater Modeling 101 & Platte-Colfax SQS GW Model Proposal

LPN Board Meeting 4/13/26

Jon Mohr – Sr. PM/Environmental Scientist



GROUNDWATER MODELS

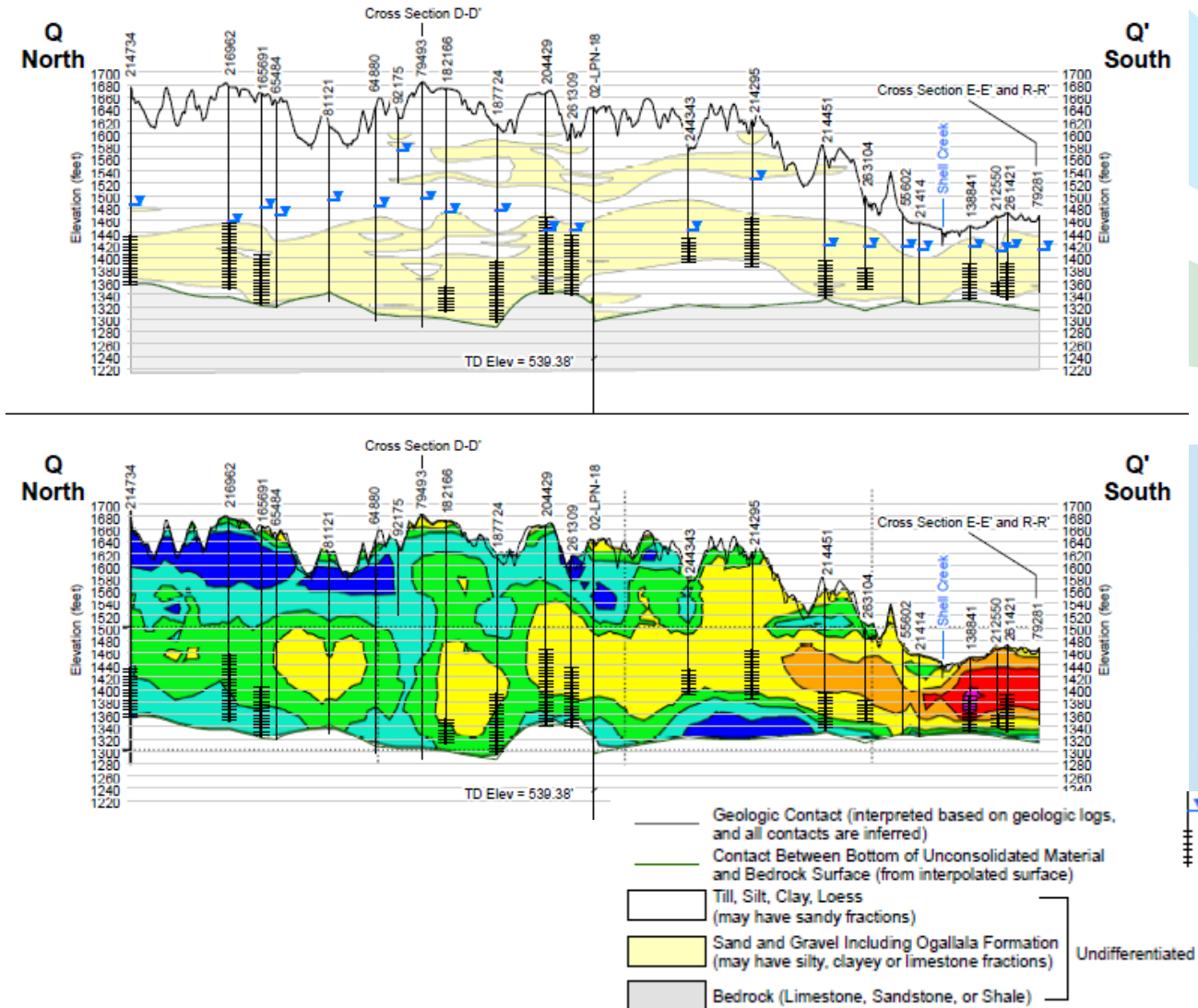
Major Types of Groundwater Models

- **Conceptual Model** – Defines the hydrogeologic setting: layers, boundaries, and expected flow paths
- **Analytical Model** – Applies simplified equations to estimate drawdown, capture, and system response
- **Numerical Flow Model** – Simulates groundwater movement in three dimensions using detailed inputs and boundary conditions

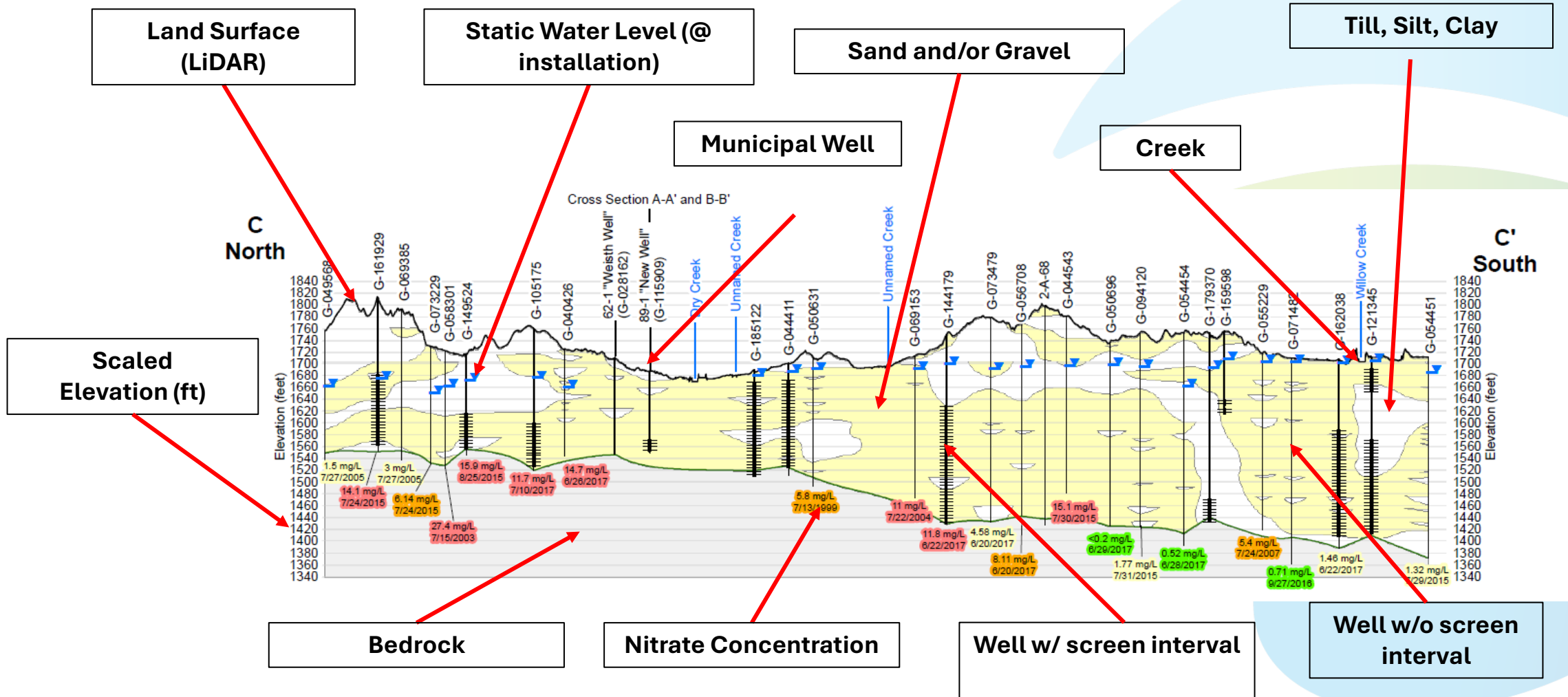
Conceptual Model

Conceptual Model:

- Defines the hydrogeologic framework
- Shows where water can and cannot move
- Identifies key boundaries and flow directions
- Places wells within the framework (screen depth, clay/sand/gravel, etc.)
- Establishes the foundation for all analytical and numerical modeling

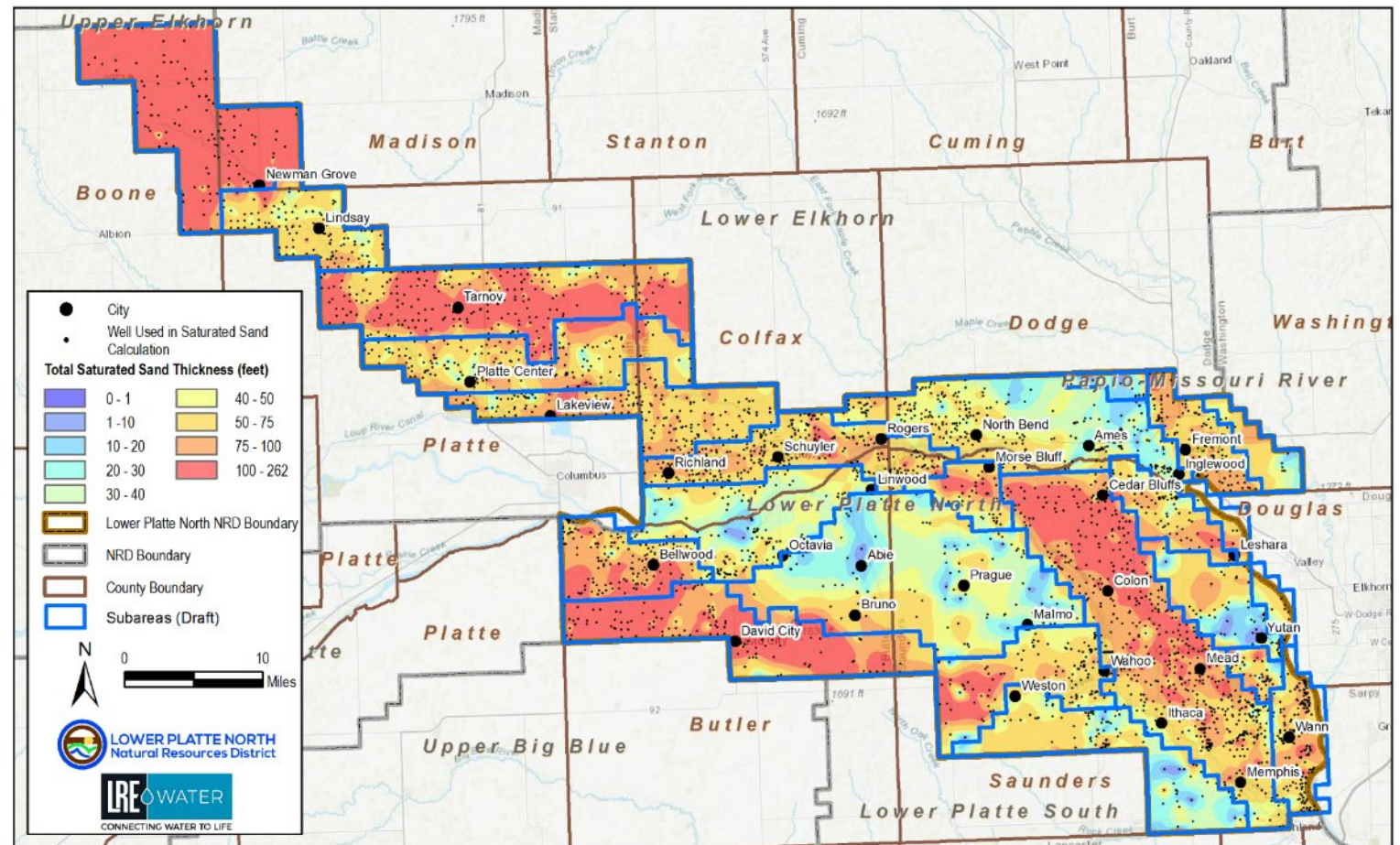


Conceptual Model



Conceptual Model

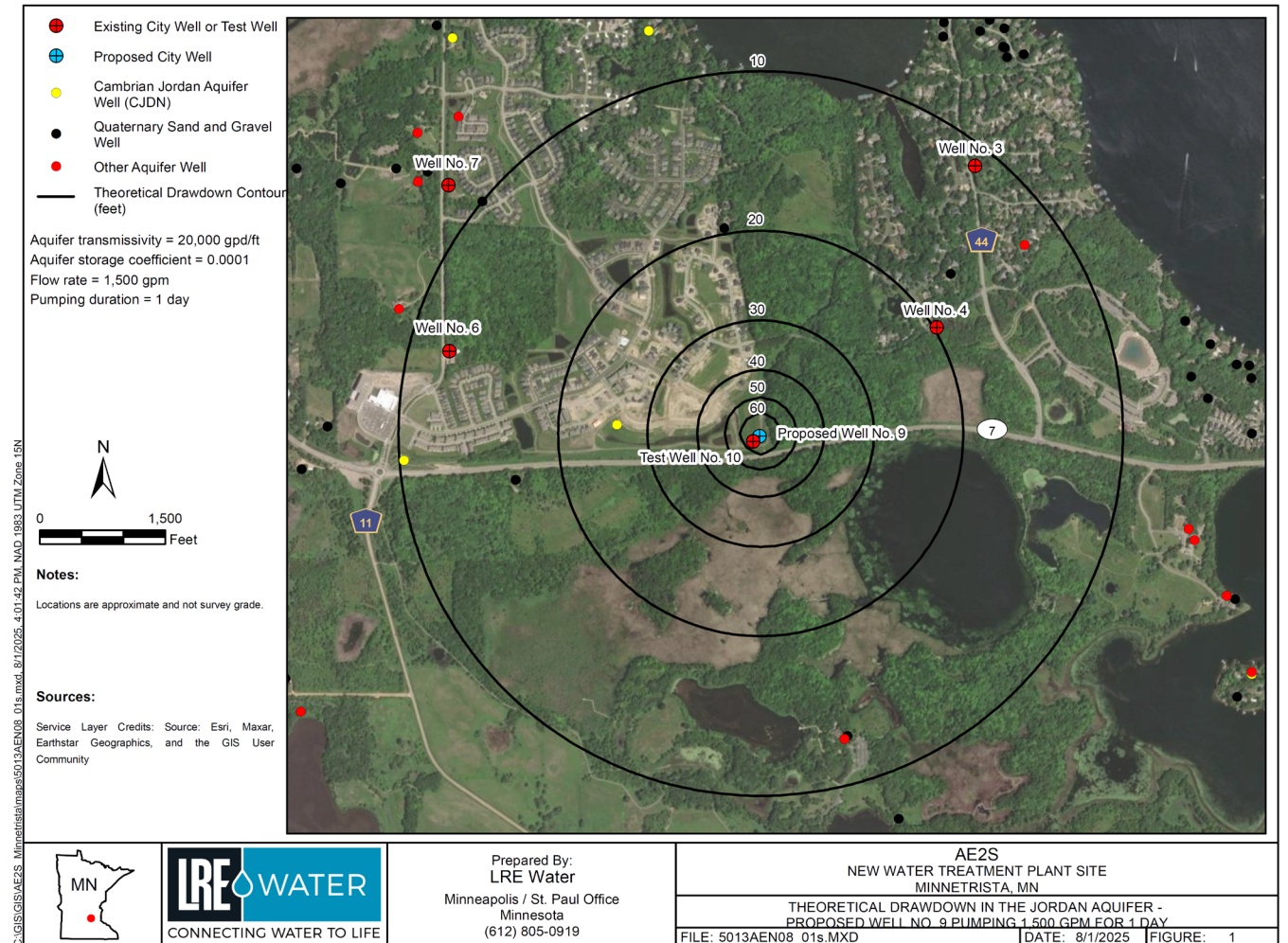
- Sub-areas were delineated based on consistent aquifer formations
- Saturated sand aquifer thickness
- Use of a ‘conceptual model’



Analytical Model

Analytical Model:

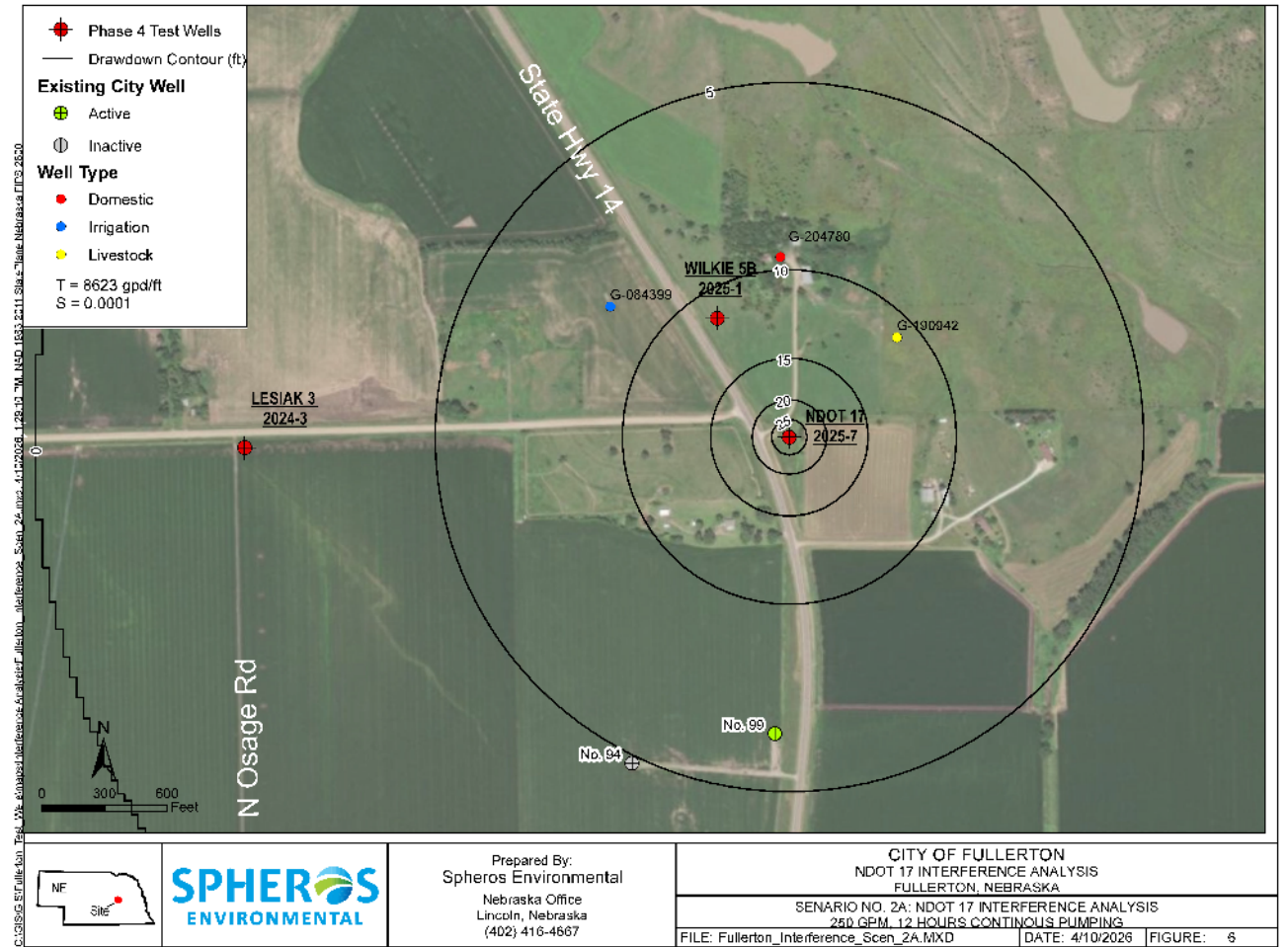
- Solves simple algebra equation
- Simplifies aquifer geometry
- Assumes aquifer is uniform and infinite and many other simplifying assumptions
- Gives a quick estimate



Analytical Model

Analytical Model:

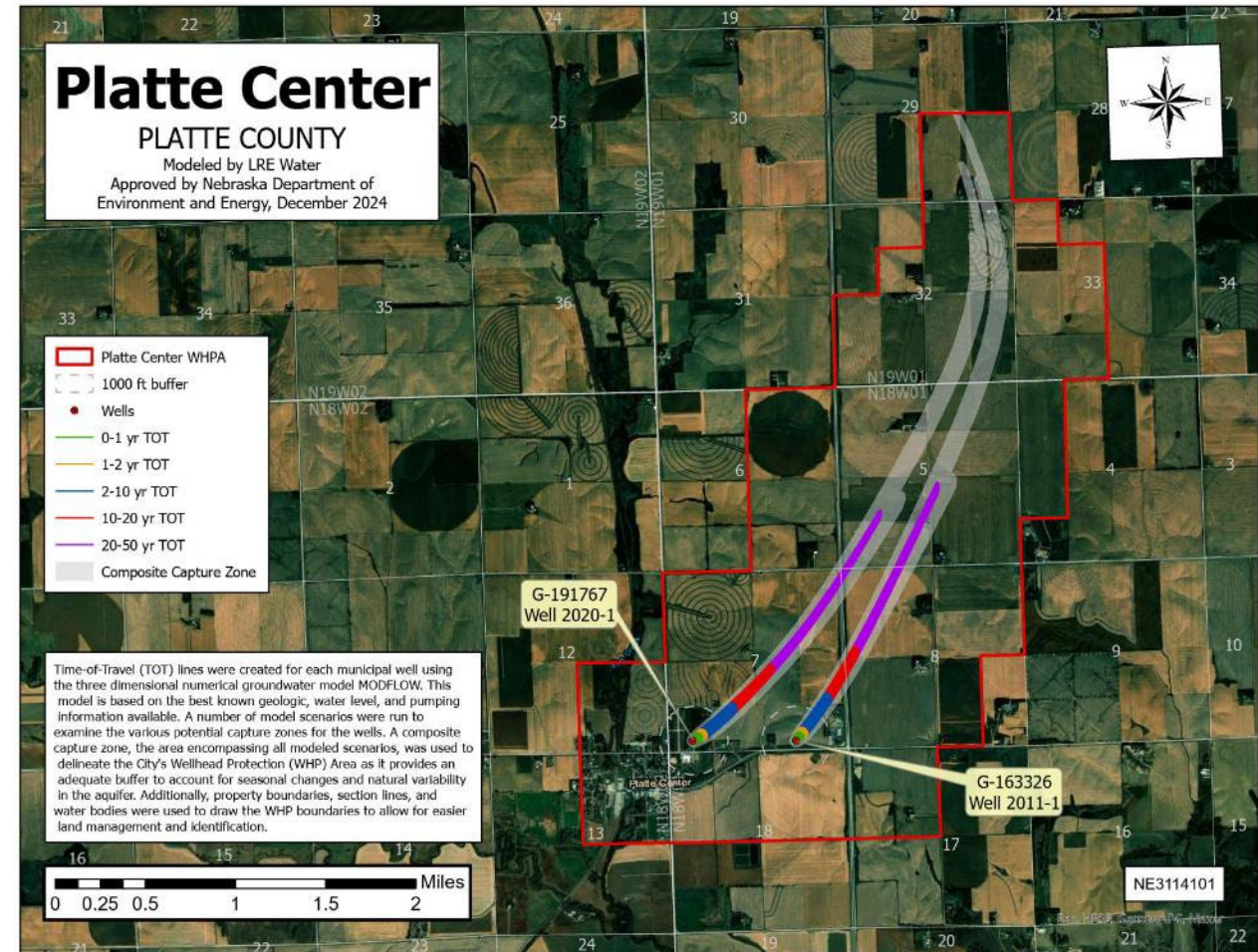
- Not suitable for complex “real-world” conditions
- Very limited when estimating influence from multiple pumping wells
- Cone of depression



Numerical Flow Model

Numerical Flow Model:

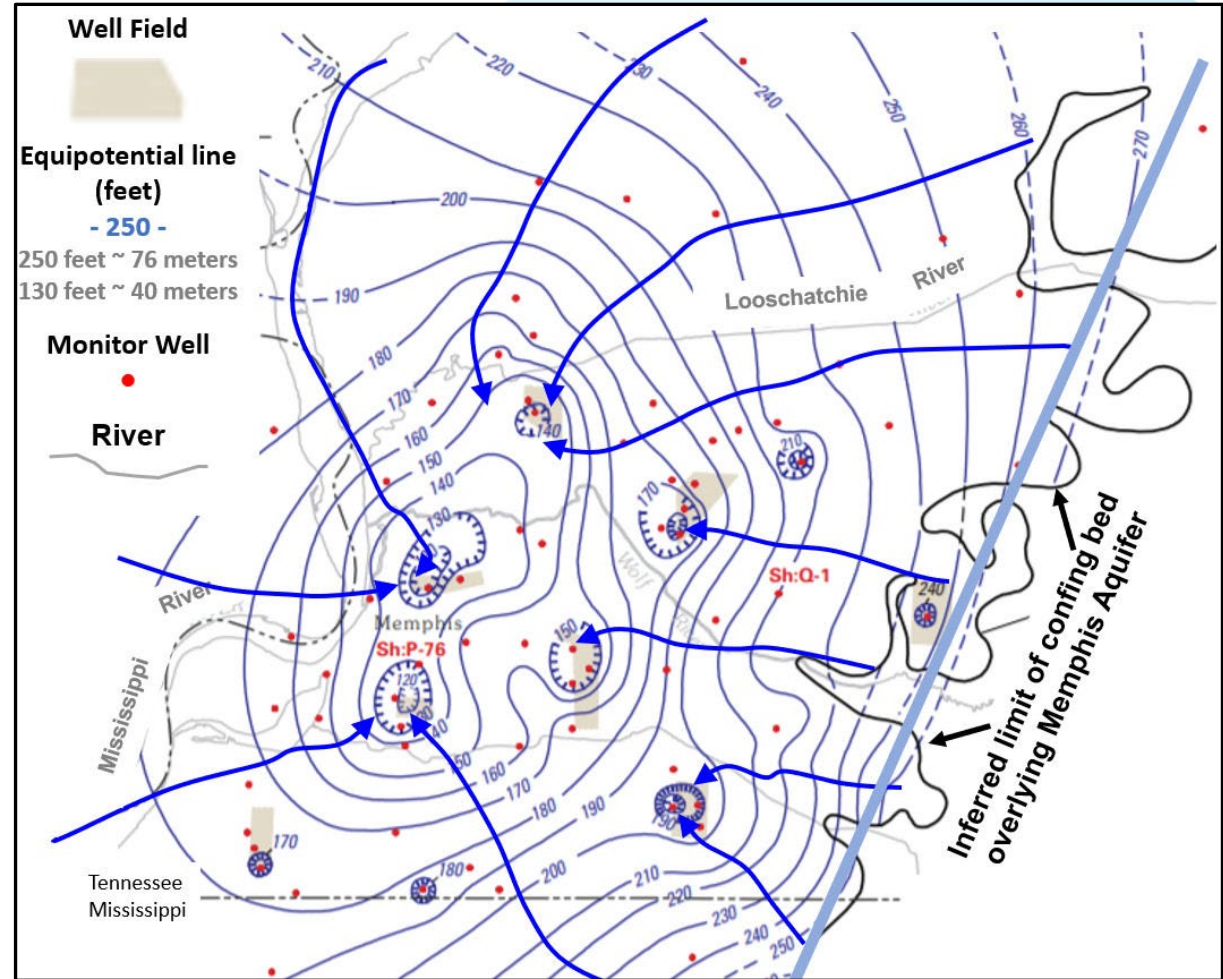
- Solve using algorithms and computers
- Highly flexible and realistic
- Accounts for complex geology, rivers, recharge, other boundary conditions
- Simulates flow gradients and directions



Numerical Flow Model

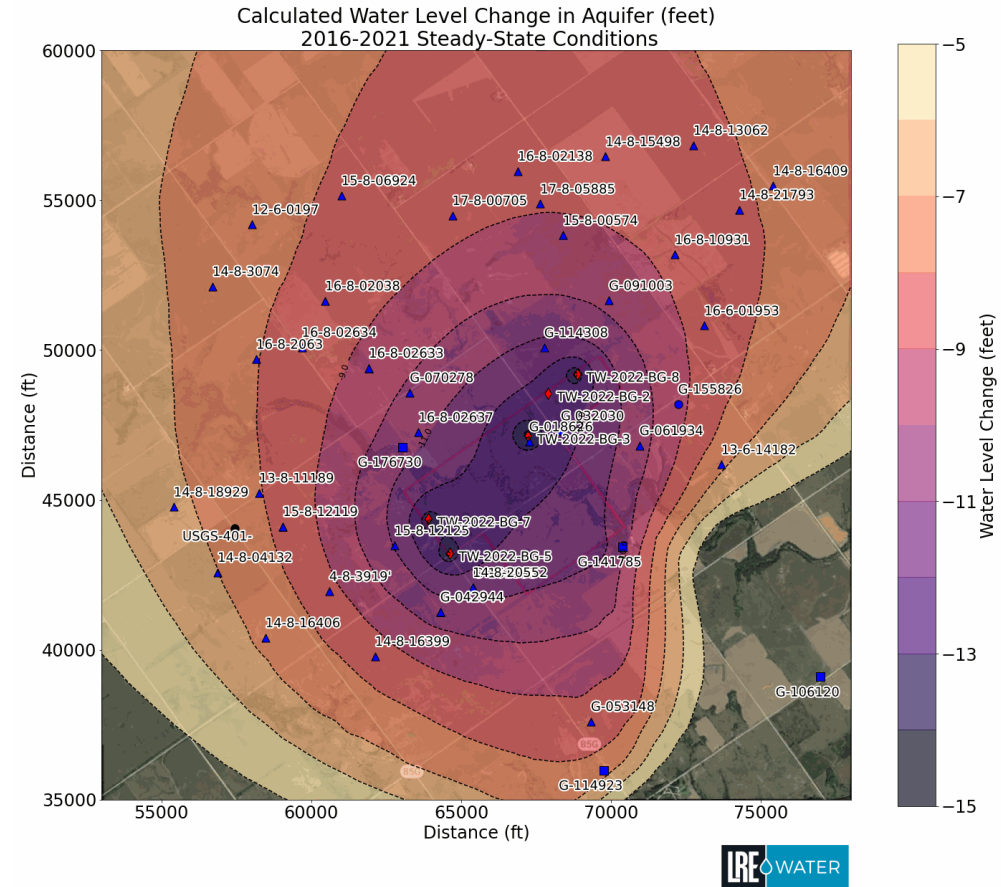
Numerical Flow Model:

- Simulates many wells pumping together and shared impacts
- Cyclical (on-off) pumping
- Helps see field-to-field impacts before approving variances
- Cones of depression



Numerical Flow Model - Steady State

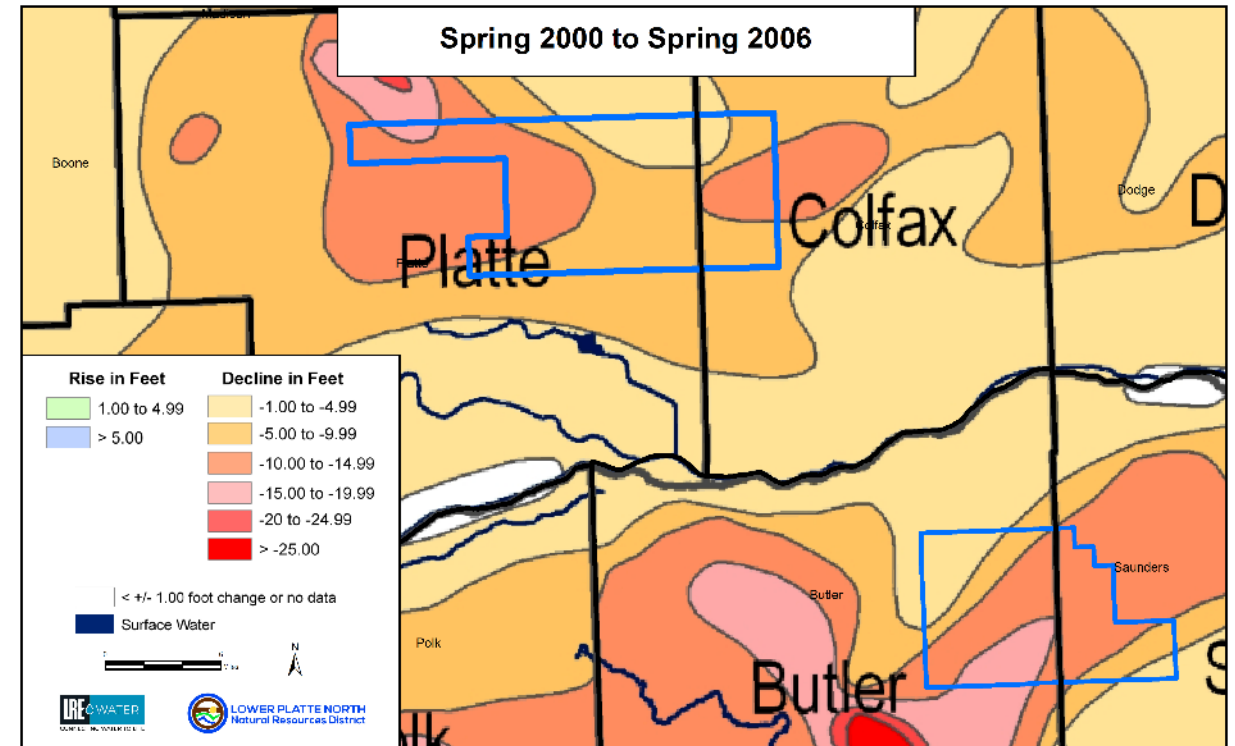
- Long-term average condition
- Stable water-table under fixed stresses
- Regional flow patterns, gradients, and boundary influences
- Baseline conditions and comparative scenarios



PLATTE-COLFAX SQS NUMERICAL FLOW MODEL

PC SQS GW Model - Purpose

- Create a dedicated PC SQS numerical groundwater flow model (PC SQS Model)
- Understand the response in groundwater as irrigated acres expand
 - Magnitude, timing, and spatial distribution of potential declines
- Incorporate drought conditions into pumping scenarios



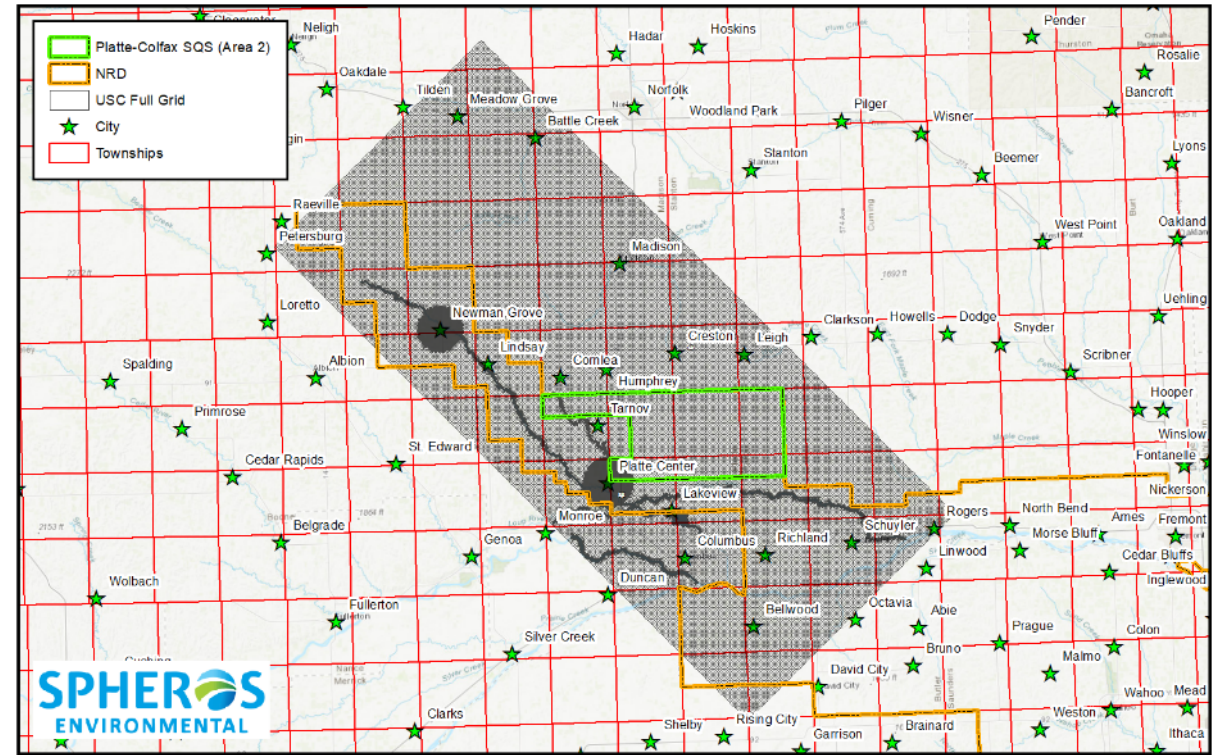
Existing NeDNR GW Models

- Lower Platte Missouri Tributaries (LPMT)
 - ½-mile base grid
 - 144 grids per Township
- Three District Model (ongoing)
 - ~950-foot base grid (20-acres)
 - ~1,150 grids per Township
- Intended to characterize broad groundwater-surface water interaction



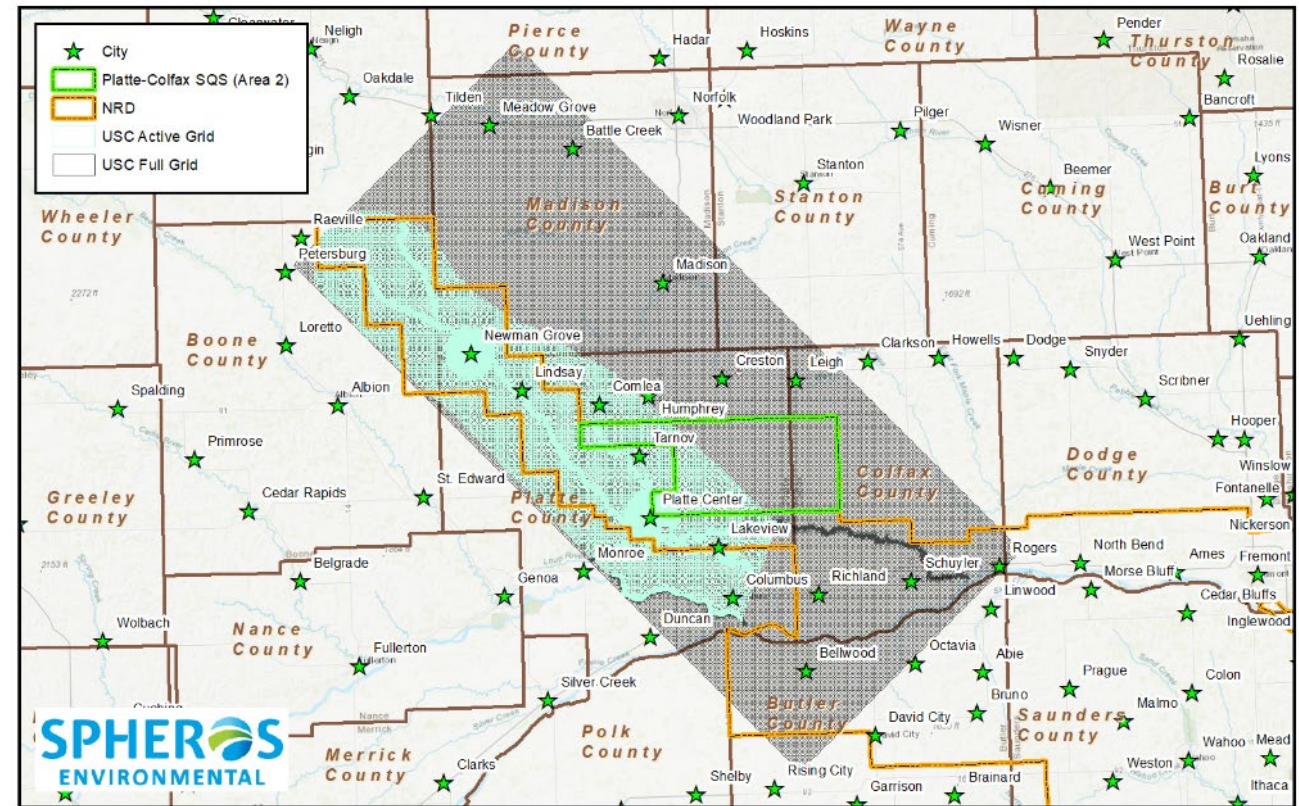
Upper Shell Creek GW Model

- Created by LPNNRD, Newman Grove, and Platte Center in 2024
- Delineation of new Wellhead Protection Areas
- Unstructured grid
 - Cells range from 1,000 ft to 300 ft
 - Using 300-ft grids = 11,000 grids/Township



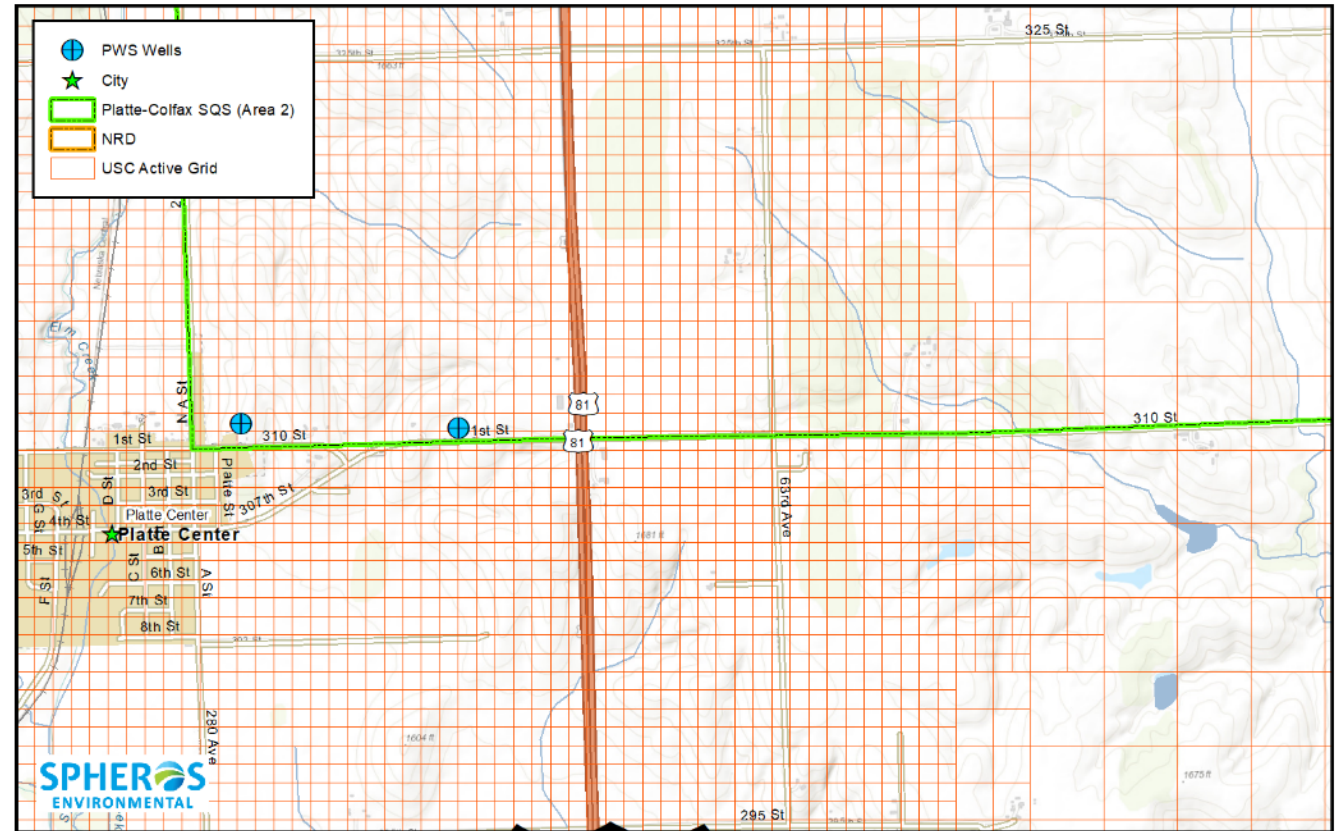
PC SQS GW Model

- Would be created from the foundation of the USC Model
 - Current grid covers PC SQS
- Active grid only covers one-third of SQS and would be updated
- Significant savings by using USC Model



PC SQS GW Model

- 'Zoom-In' Grid (Quadtree)
- Grid automatically get smaller in focus areas
- Don't waste computer power on areas that don't need fine resolution
- Area surrounding 'proposed wells' will be refined



PC SQS GW Model - Scenarios

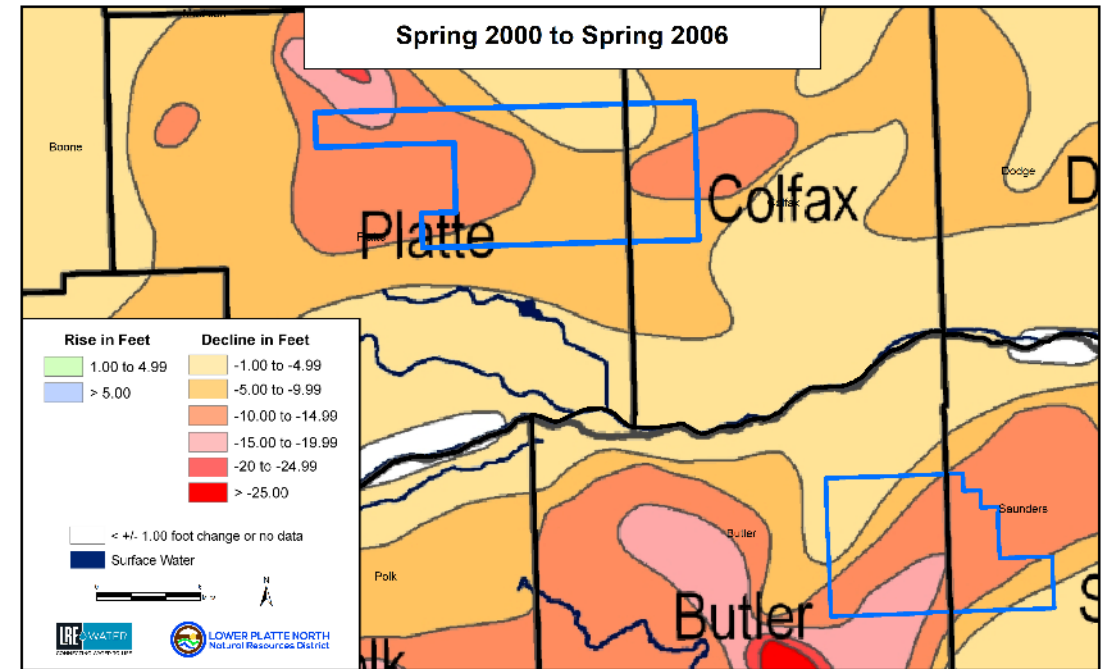
1) Future Pumping Demands

- 10, 20, 40
- Predicted locations and number of wells to be determined by staff

2) Demands under Drought Conditions

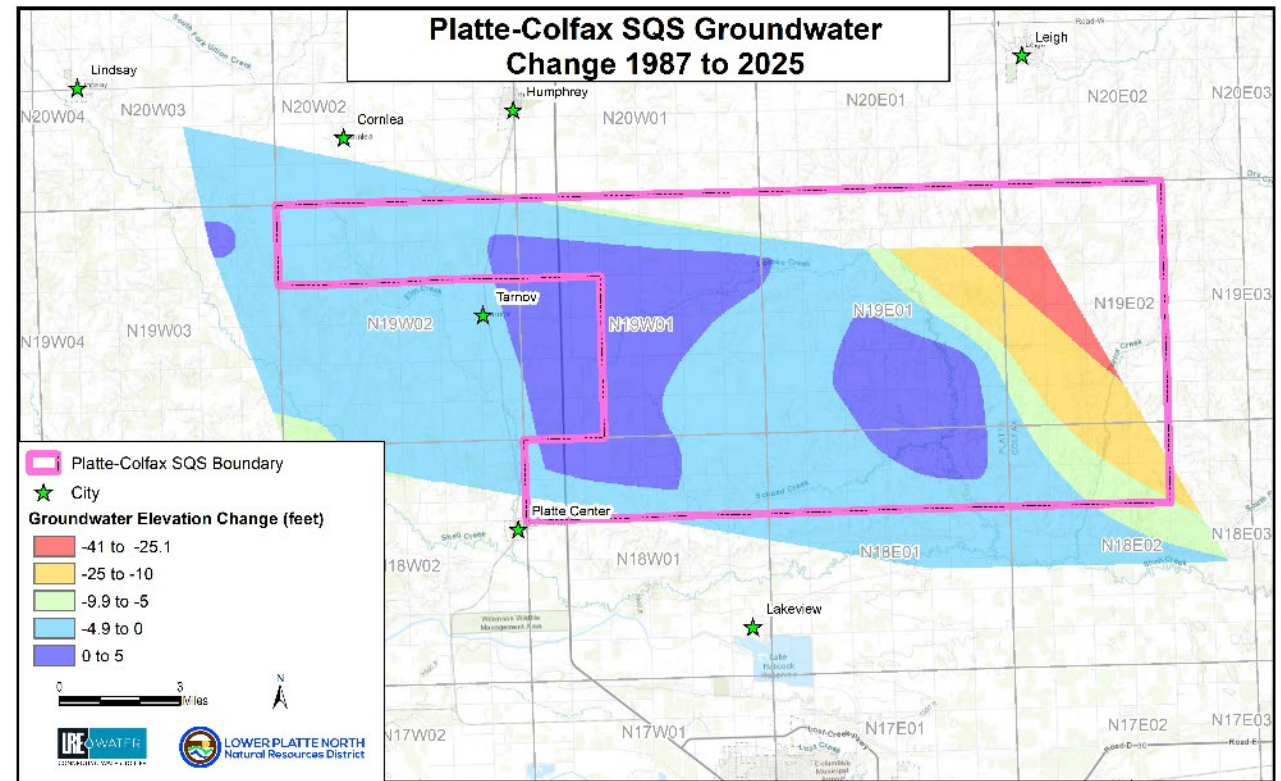
- Repeat pumping demands under drought conditions

3) Single well (variance request)



PC SQS GW Model

- Task 1 – Expand USC Model
- Task 2 – Model Calibration/Simulation Scenarios
 - Reporting
- Task 3 – Additional Model Runs
 - Case-by-case basis



PC SQS GW Model

- Task 1 – Expand USC Model
 - \$17,400
- Task 2 – Model Calibration/Simulation Scenarios
 - \$12,600
- Task 3 – Additional Model Runs
 - \$1,500 per variance request
 - Include analytical and numerical flow model run
- Schedule and Summary
 - \$30,000 to establish SQS Model
 - Six-month timeframe
 - Results presented at November Board Meeting
 - Task 3 as needed after December rule change consideration



Thank you!

Questions?



February 20, 2026

Proposal #P26-00072

Daryl Andersen
Lower Platte North NRD
1616 CR 17
Wahoo, NE 68066

RE: Platte-Colfax Special Quantity Subarea Groundwater Model
Lower Platte North Natural Resources District

Dear Daryl,

Planned modifications to the Platte–Colfax Special Quantity Subarea (PC SQS), scheduled to take effect in December 2026, have raised important questions about how groundwater conditions may respond once irrigated acres begin to expand. With the regulatory change already planned, the Lower Platte North Natural Resources District (LPNNRD) now has a critical window to understand the magnitude, timing, and spatial distribution of potential groundwater level declines from pumping (i.e., drawdown) before implementation. Developing a dedicated PC SQS numerical groundwater flow model, referred to herein as the PC SQS Groundwater Model (PC SQS Model) will provide the LPNNRD with a tool to evaluate the effects of increased pumping on groundwater levels and help staff prepare for future management needs (Project).

Spheros Environmental (Spheros), formerly LRE Water, is pleased to submit this Scope of Services and cost estimate to support the LPNNRD in developing the PC SQS Model. This recommendation reflects the LPNNRD’s proactive approach towards implementing actions listed in the 2026 Groundwater Management Plan. By investing in targeted analysis now ensures that the December 2026 changes are implemented with confidence, transparency, and a strong technical foundation.

PROJECT UNDERSTANDING

In 2024, LRE Water completed the Upper Shell Creek Groundwater Model (USC Model) for the LPNNRD to support wellhead protection for the communities of Newman Grove and Platte Center. Initial model simulations were finished in 2025, and the model now provides a strong technical foundation for broader groundwater management applications, including evaluating drawdown in the PC SQS. The USC Model was constructed with grid cells of approximately 1,000 feet and refined using a specialized method to refine the grid cells to as small as 250 feet around the two wellfields, allowing for detailed representation of local hydrogeologic conditions.

The Three District Model—currently being developed by the Papio-Missouri River NRD, Lower Platte South NRD, and LPNNRD in partnership with DWEE—is a valuable large-scale regional model intended to characterize broad groundwater–surface water interactions for

Lincoln, NE

www.spherosenvironmental.com

Innovative Environmental Solutions for a Sustainable Future

Integrated Management planning. However, the model is still under development, and even once complete, its coarse grid size and basin-wide design make it unsuitable for evaluating localized drawdown associated with individual well-variance requests in the PC SQS. In contrast, the USC Model—and the refined PC SQS expansion proposed here—uses local hydrogeologic data, a finer grid, and site-specific calibration, providing the level of detail necessary for more defensible, transparent and consistent well variance decisions. This refined approach ensures the LPNNRD has a tool tailored to its management needs rather than relying on a regional model built for a different purpose.

Because the USC Model’s unstructured grid already covers the full PC SQS, much of the foundational work for this Project is complete. The active grid would be expanded to cover the entire PC SCS and a 5-mile buffer, followed by a targeted update to the model domain and recalibration—an efficient and cost-effective approach compared to developing a new model from scratch.

After calibration, Spheros will run scenarios reflecting anticipated irrigation growth (e.g., 5, 10, or 20 new wells per year) and drought conditions. Results would be summarized in a concise technical report, with a formal presentation to LPNNRD staff and the Board of Directors ahead of the December 2026 implementation. Additionally, as noted above, the model will be available to support LPNNRD in evaluating individual well variance permit applications. However, the reliability of these site-specific simulations will depend on the availability and quality of localized data and may require additional data collection and analysis to improve accuracy and confidence.

1. SCOPE OF SERVICES

Spheros has prepared the following scope of services to support development of the PC SQS Model. Because the LPNNRD recently completed the USC Model, much of the foundational work is already in place.

Task 1: Expand the USC Model

- Expand the existing USC Model active grid to fully encompass the PC SQS plus a 5-mile buffer.
- Refine hydrostratigraphic layers, hydraulic properties, and boundary conditions within the expanded model domain to ensure accurate representation of local aquifer conditions and support a robust recalibration.
- Conduct routine project management and coordination, including virtual meetings, emails, and progress updates throughout the Project.

Cost: \$17,400

Task 2: Model Calibration and Simulation Scenarios – Average and Drought Conditions

- Obtain groundwater pumping estimates—both annual volumes and monthly pumping rates—to support analysis of the relationships among precipitation, baseflow, groundwater pumping, and the evaluation of new wells.

- Compile and evaluate available groundwater-level data from LPNNRD and surrounding NRDs, including water-table contour maps, to support calibration of the expanded model.
- Conduct sensitivity and uncertainty analyses to identify data gaps, outliers, and parameters that most influence model performance or contribute to uncertainty.
- Design and run three scenario simulations under both normal precipitation and drought conditions, totaling six runs, to evaluate changes in groundwater levels associated with the addition of new irrigation wells. LPNNRD staff will assist in identifying areas most likely to experience future irrigated acre expansion and help define model scenarios.
- Prepare a comprehensive report documenting the PC SQS Model, including model construction, calibration, scenario design, and results.
- Provide one formal presentation of the model results with either the LPNNRD Water Committee or the Board of Directors.

Cost: \$12,600

Task 3: Additional Model Simulation – Variance Requests

The additional model runs would be completed as well variance requests are received. The PC SQS Model will provide a more detailed review of potential impacts to nearby wells and groundwater levels immediately surrounding an area where irrigation expansion is proposed.

- Obtain the proposed well location, depth, screened interval, number of acres to be irrigated, pumping rate, and other key information from the LPNNRD.
- Input the information from the proposed well into the PC SQS Model, run, and process one new scenario as they are received.
- Provide simulated drawdown maps for average and drought conditions showing the difference in drawdown caused by the proposed well and a one-page memo describing the scenario and results.

Cost: \$1,500 per run

2. TIME REQUIRED

Spheros will be prepared to proceed with the Project immediately after notice to proceed. The Project is estimated to take up to six months. The report and presentation would be delivered in the fall of 2026. It is assumed that Spheros will receive authorization from the LPNNRD at its meeting in March 2026.

3. PAYMENT

The total estimated cost for the services to establish the PC SQS Model, as listed in Task 1 and 2, can be completed for \$30,000. Billing for Tasks 1 and 2 will be based on actual time

expended, in accordance with our standard hourly rates. The estimate includes costs associated with travel.

Additional model runs, as described in Task 3, would be billed a lump sum of \$1,500 per request. Task 3 would not be completed as part of the initial effort.

Acceptance of this Letter Contract (including the attached rates and General Terms and Conditions (Attachment A) and authorization to proceed with the services can be indicated by signing one copy and returning it to us for our files.

Please feel free to contact me at 402-416-4667 or jon.mohr@spherosenv.com to discuss this proposal in more detail.

Sincerely,



Jonathan Mohr
Senior Project Manager

Reviewed By:

Spheros Group Parent, Inc.

Lower Platte North NRD

By: _____

By: _____

Printed Name: Roscoe Sopiwnik, PG, GISP

Printed Name: _____

Title: Midwest Water Resources Manager

Title: _____

Date: _____

Date: _____



ATTACHMENT A - GENERAL TERMS AND CONDITIONS

I. APPLICABILITY. These terms and conditions for services (these "Terms") are the only terms that govern the provision of services by Spheros Group Parent, Inc. ("Spheros") to name of the customer ("Client" and together with Spheros, the "Parties" and each, a "Party") set forth on the accompanying order confirmation, letter, statement of work, or purchase order (the "Order Confirmation"). The Order Confirmation and these Terms (collectively, this "Agreement") comprise the entire agreement between the Parties, and supersede all prior or contemporaneous understandings, agreements, negotiations, representations and warranties, and communications, both written and oral. In the event of any conflict between these Terms and the Order Confirmation, these Terms shall govern, unless the Order Confirmation expressly states that the terms and conditions of the Order Confirmation shall control. These Terms prevail over any of Client's general terms and conditions regardless of whether or when Client has submitted its request for proposal, order, or such terms. Provision of services to Client does not constitute acceptance of any of Client's terms and conditions and does not serve to modify or amend these Terms. This Agreement may not be modified except by an amendment in writing, signed by both Parties.

II. SERVICES; PERFORMANCE DATES. Spheros shall provide the services to Client as described in the Order Confirmation (the "Services") in accordance with these Terms. Spheros shall use reasonable efforts to meet any performance dates specified in the Order Confirmation, and any such dates shall be estimates only.

III. CLIENT'S ACTS OR OMISSIONS. If Spheros's performance of its obligations is delayed or prevented by any act or omission of Client or its agents, subcontractors, consultants, or employees, Spheros shall not be deemed in breach of its obligations under this Agreement or otherwise liable for any costs, charges, or losses sustained by Client to the extent arising directly or indirectly from such prevention or delay.

IV. COMPENSATION. For the performance of the Services, Client agrees to pay, and Spheros agrees to accept, compensation set forth in the Order Confirmation. Spheros will be compensated in US dollars for its Services on a time-and-materials or fixed-price basis. Spheros's estimate of the cost for its Services is based on the information provided by Client, and rates, reimbursable expenses, and management fees made a part of the Agreement. Client shall be responsible for all sales, use, and

excises taxes, and any other similar taxes, duties, and charges of any kind imposed by any federal, state, or local governmental entity. Client agrees to reimburse Spheros for all reasonable travel and out-of-pocket expenses incurred by Spheros in connection with the performance of the Services. In the event that the Services occur over more than one (1) calendar year or the Services start date is delayed more than ninety (90) days due to factors outside of Spheros's sole control, Spheros may, without the approval of Client, increase its rates by the greater of: (a) five percent (5%) or (b) the United States Department of Labor, Bureau of Labor Statistics consumer price index. Spheros will provide reasonable advance notice to Client prior to any potential rate increase. Invoices are submitted routinely, but no more than monthly, for time and expenses incurred or in the event of a fixed price contract as determined by the scope of work and applicable milestone for the percent of work completed. Terms of payment are net thirty (30) days. Overdue accounts are subject to an interest charge of one and a half percent (1.5%) per month and services may stop whenever payment is overdue more than sixty (60) days. Either Party may, at any time and from time to time during the term of this Agreement, request a change to the Services (each, a "Change"). Upon receipt of a request for any Change from Client, Spheros shall prepare and deliver to Client a proposal regarding the effect that such Change would have on (i) the cost of the Services, (ii) the timing for performance of the Services; and (iii) any other material aspect of this Agreement. Client and Spheros shall agree in writing on the terms applicable to any Change (each, a "Change Order"). Spheros may charge for the time it spends assessing and documenting a change request from Client on a time and materials basis. Spheros shall not implement any Change, and shall not be entitled to compensation for Services performed in respect of any Change, unless a Change Order in respect of such Change has been executed by both Parties. In the event that Spheros seeks any change to the Services such that the cost, scope, or schedule is impacted, Spheros shall within seven (7) days, notify Client in writing of the Change and promptly prepare and deliver to Client a proposal regarding the effect that such Change would have on (1) the cost of the Services, (2) the timing for performance of the Services and (3) any other material aspect of this Agreement. Notwithstanding this Section IV, Spheros may change the Services without the consent of Client provided that such changes do not materially affect the nature or scope of the Services, or the fees or any performance dates.

V. OWNERSHIP OF DOCUMENTS. All intellectual property rights, including copyrights, patents, patent disclosures and inventions (whether patentable or not), trademarks, service marks, trade secrets, know-how and other confidential information, trade dress, trade names, logos, corporate names, and domain names, together with all of the goodwill associated therewith, derivative works and all other rights (collectively, "Intellectual Property Rights") in and to all documents, work product, and other materials that are delivered to Client under this Agreement or prepared by or on behalf of Spheros in the course of performing the Services, including any items identified as such in the Order Confirmation (collectively, the "Deliverables") except for any Confidential Information (as defined in Section VI) of Client or Client materials shall be owned by Spheros. Spheros hereby grants Client a license to use all Intellectual Property Rights free of additional charge and on a non-exclusive, worldwide, non-transferable, non-sublicensable, fully paid-up, royalty-free, and perpetual basis to the extent necessary to enable Client to make reasonable use of the Deliverables and the Services. The Client shall not re-use or make any modification to Spheros's designs, documents or work product without the prior written authorization of Spheros, and any such authorized use or modification shall be at the sole risk of Client with no liability to Spheros.

VI. CONFIDENTIALITY. From time to time during the term of this Agreement, either Party (as the "Disclosing Party") may disclose or make available to the other Party (as the "Receiving Party"), non-public, proprietary, and confidential information of Disclosing Party (whether or not marked, designated, or otherwise identified as "confidential") in connection with the Services ("Confidential Information"); provided, however, that Confidential Information does not include any information that: (a) is or becomes generally available to the public other than as a result of Receiving Party's breach of this Section VI; (b) is or becomes available to the Receiving Party on a non-confidential basis from a third-party source, provided that such third party is not and was not prohibited from disclosing such Confidential Information; (c) was in Receiving Party's possession prior to Disclosing Party's disclosure hereunder; or (d) was or is independently developed by Receiving Party without using any Confidential Information. Spheros's Confidential Information shall include the Services performed hereunder and the nature or results of the work performed hereunder. The Receiving Party shall: (i) protect and safeguard the confidentiality of the Disclosing Party's Confidential Information with at least the same degree of care as the Receiving Party would protect its own Confidential Information, but in no event with less than a commercially reasonable degree of care; (ii) not use the Disclosing Party's Confidential

Information, or permit it to be accessed or used, for any purpose other than to exercise its rights or perform its obligations under this Agreement; and (iii) not disclose any such Confidential Information to any person or entity, except to the Receiving Party's Group who need to know the Confidential Information to assist the Receiving Party, or act on its behalf, to exercise its rights or perform its obligations under this Agreement. The Receiving Party shall be responsible for any breach of the confidentiality and non-use obligations contained herein by the Receiving Party's Group. If the Receiving Party is required by applicable law or legal process to disclose any Confidential Information, it shall, prior to making such disclosure, use commercially reasonable efforts to notify Disclosing Party of such requirements to afford Disclosing Party the opportunity to seek, at Disclosing Party's sole cost and expense, a protective order or other remedy. For purposes of this Section VI only, "Receiving Party's Group" shall mean the Receiving Party's affiliates and its or their employees, officers, directors, shareholders, partners, members, managers, agents, independent contractors, service providers, sublicensees, subcontractors, attorneys, accountants, and financial advisors. The terms of this Section VI shall survive and remain in force after any termination or expiration of this Agreement.

VII. HEALTH AND SAFETY. Spheros has full responsibility for safety of its employees and agents, including providing appropriate safety equipment for its field personnel. In performance of the work, Spheros shall (a) comply with applicable federal, state and local statutes, regulations and ordinances regarding health and safety, and (b) prepare and comply with its own Health and Safety Plan, as well as any Health and Safety Plan prepared by Client and delivered to Spheros prior to commencement of the Services for the site.

VIII. SITE ENVIRONMENTAL CONDITIONS. Client shall furnish or make available to Spheros such documents and information that relate to the identity, location, quantity, nature, or characteristics of any petroleum products, hazardous materials or asbestos at, on, or under the site. If, at any time, evidence of the existence or possible existence of such substances is discovered, Spheros reserves the right to stop work and renegotiate any consulting agreement and, the fees for our services and our continued involvement in the project. Spheros will promptly notify Client of any unanticipated hazardous materials or suspected hazardous materials it discovers. In the event that Spheros removes any pre-existing materials, Spheros may, but not shall be required to, assist the Client in characterization and handle the pre-existing materials



in accordance with applicable federal, state and local laws, rules, regulations and ordinances. Client shall be responsible for signing any manifest that may be required to ship pre-existing hazardous materials off site. At no time whatsoever shall Spheros be considered or assume the responsibilities of a generator of any pre-existing petroleum, chemical or hazardous material located on or about the site where the work is performed. The discovery of hazardous materials or suspected hazardous materials may make it necessary for Spheros to take immediate measures to protect human health and safety and/or the environment. Client agrees to compensate Spheros for the cost of any and all measures that, in our professional onsite judgment are justified to preserve and protect the health and safety of our personnel, Client's employees and/or the public, and/or the environment. In addition, Client waives any claims against Spheros and, to the full extent permitted by law, agrees to indemnify, defend and hold Spheros harmless from any and all claims, damages and liability, including but not limited to cost of defense, in any way connected with petroleum products, hazardous materials or asbestos.

IX. CLIENT OBLIGATIONS AND SITE ACCESS.

Client shall at its cost and at such times as may be required by Spheros for the successful and timely completion of Services: (a) provide unimpeded and timely access to any site, including third party sites if required (b) provide an adequate area for Spheros's site office facilities, equipment storage, and employee parking; (c) furnish all construction utilities and utilities releases necessary for the Services; (d) provide the locations of all subsurface structures, including piping, tanks, cables, and utilities; (e) approve all locations for digging and drilling operations; (f) obtain all permits and licenses which are necessary and required to be taken out in Spheros's name for the Services; (g) cooperate with Spheros in all matters relating to Services; and (h) respond and provide promptly to any Spheros requests for information, material, authorizations, approvals, or other items reasonably necessary to provide or complete Services. Spheros will not be liable for damage or injury arising from damage to subsurface structures that are not disclosed in writing to Spheros in connection with its work.

X. COST ESTIMATES. If included in the Services, Spheros will provide cost estimates based upon Spheros's experience on similar projects, which are not intended for use by Client or any other party in developing firm budgets or financial models, or in making investment decisions. Such cost estimates represent only Spheros's judgment as a professional

and, if furnished, only for Client's general guidance and are not guaranteed as to accuracy.

XI. LIMITED WARRANTY AND REMEDIES.

Spheros represents and warrants to Client that it shall perform the Services with the standard of care, diligence and skill ordinarily exercised by firms providing similar services and in accordance with generally recognized industry standards. Spheros shall furnish all tools, labor, and supplies in such quantities and of the proper quality to professionally and timely perform the Services. Spheros shall not be liable for a breach of the warranty set forth in this Section XI unless Client gives written notice of the defective Services, reasonably described, to Spheros within thirty (30) days of the time when Client discovers or ought to have discovered that the Services were defective. Subject to the foregoing, Spheros shall, in its sole discretion, either (a) repair or re-perform such Services; or (b) credit or refund the price of such Services at the pro rata contract rate. THE REMEDIES SET FORTH IN THIS SECTION XI SHALL BE CLIENT'S SOLE AND EXCLUSIVE REMEDY AND SPHEROS'S ENTIRE LIABILITY FOR ANY BREACH OF THE LIMITED WARRANTY SET FORTH HEREIN.

XII. DISCLAIMER OF WARRANTIES. EXCEPT FOR THE WARRANTY SET FORTH IN SECTION XII ABOVE, Spheros MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE SERVICES, INCLUDING ANY (a) WARRANTY OF MERCHANTABILITY; (b) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; (c) WARRANTY OF TITLE; OR (d) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY; WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE, OR OTHERWISE.

XIII. INDEPENDENT CONTRACTOR. Spheros is an independent contractor, and is responsible for the means and methods of carrying out the scope of services and for the safety of its employees and agents. Spheros retains the right to require that the services provided by Spheros meet specific standards without regard to the manner and means of accomplishment thereof. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture or other form of joint enterprise, employment, or fiduciary relationship between the Parties, and neither Party shall have authority to contract for or bind the other Party in any manner whatsoever.

XIV. INDEMNIFICATION. Client agrees, to the fullest extent permitted by law, to defend, indemnify, and hold harmless Spheros and their respective officers, directors and employees against damages, liabilities or costs, including reasonable attorneys' fees



and defense costs, arising out of or resulting from (a) bodily injury, death of any person, or damage to real or tangible, personal property resulting from negligent or willful acts or omissions of Client and (b) Client's breach of any representation, warranty, or obligation of Client in this Agreement. This Section XIV shall survive the expiration or termination of this Agreement.

XV. LIMITATION OF LIABILITY. IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER PARTY OR TO ANY THIRD PARTY FOR ANY LOSS OF USE, REVENUE OR PROFIT OR LOSS OF DATA OR DIMINUTION IN VALUE, OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL, OR PUNITIVE DAMAGES WHETHER ARISING OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, REGARDLESS OF WHETHER SUCH DAMAGES WERE FORESEEABLE AND WHETHER OR NOT SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND NOTWITHSTANDING THE FAILURE OF ANY AGREED OR OTHER REMEDY OF ITS ESSENTIAL PURPOSE. IN NO EVENT SHALL Spheros'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EXCEED THE AGGREGATE AMOUNTS PAID OR PAYABLE TO Spheros PURSUANT TO THE APPLICABLE ORDER CONFIRMATION.

XVI. INSURANCE. Spheros shall procure and maintain the following insurance throughout the term of this Agreement: (a) Commercial General Liability; (b) Automobile Liability; (c) Workers' Compensation and Employer's Liability; and (d) Professional Liability.

XVII. FORCE MAJEURE. Neither Party shall be liable nor deemed to be in default for any delay or failure in performance under this Agreement resulting from the acts of God, civil or military authority, material change of law, acts of public enemy, war, accidents, fires, explosions, earthquakes, floods, failure of transportation, regional emergencies, strikes or other industrial interruptions by either Party's employees, or any similar or dissimilar cause beyond the reasonable control of either Party. The impacted Party shall resume the performance of its obligations as soon as reasonably practicable after the removal of the cause. In the event that the impacted Party's failure or delay remains uncured for a period of fifteen (15) consecutive days following written notice, either Party may thereafter terminate this Agreement upon twenty (20) days' written notice.

XVIII. NOTICE. Any notice to be given hereunder by either Party to the other, shall be in writing and

addressed to the Parties at the addresses set forth in the Order Confirmation or to such other address that may be designated by the receiving Party in writing. All notices shall be deemed given when delivered (a) in person, (b) by certified mail, return receipt requested, (c) by commercial courier that provides a receipt of delivery, or (d) by email when the receiving Party acknowledges receipt.

XIX. TERMINATION FOR CONVENIENCE. Either Party may terminate all or part of this Agreement for its convenience and without cause upon giving the other Party not less than thirty (30) days written notice. In such event, Spheros shall be compensated for the Services competently performed up to and including the date of termination.

XX. TERMINATION FOR DEFAULT. Either Party may terminate this Agreement for cause upon giving the other Party not less than ten (10) days written notice for any of the following reasons: (a) substantial failure by the other Party to perform in accordance with the terms of this Agreement and through no fault of the terminating Party, including lack of payment by Client; (b) assignment of this Agreement or transfer of the project by either Party to any other entity without prior written consent of the other Party; (c) suspension of the project or of the Services for more than ninety (90) days, consecutive or in the aggregate; (d) material changes in the conditions under which this Agreement was entered into, the Services or the nature of the project, and the failure of the Parties to reach agreement on the compensation; or (e) Client becomes insolvent or files a petition for bankruptcy. Either Party shall have a period of ten (10) business days from the notice of noncompliance and threatened termination to cure or correct the default. If this Agreement is terminated following default by Spheros, Client is relieved of any unpaid payment obligations owed Spheros for services performed after the default. If this Agreement is terminated following default by Client, Client shall be liable to Spheros for all unpaid compensation for Services, as well as any collection fees associated with the collection of said compensation including but not limited to, attorneys' fees, court costs, and other related expenses up to and including the termination date.

XXI. ASSIGNMENT. Client shall not assign this Agreement without the prior written consent of Spheros. Any purported assignment or delegation in violation of this Section XXI is null and void. No assignment or delegation relieves Client of any of its obligations under this Agreement.

XXII. ANTI-DISCRIMINATION. The Parties hereby incorporate the requirements of 41 C.F.R. § 60-1.4(a)



and 29 C.F.R. § 471, Appendix A to Subpart A, if applicable. Spheros and Client shall also abide by the requirements of 41 CFR 60-300.5(a) and 41 CFR 60-741.5(a), if applicable. These regulations prohibit discrimination against qualified protected veterans and qualified individuals with disabilities and require affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans and qualified individuals with disabilities.

XXIII. ENFORCEMENT AND WAIVER. The failure of either Party in any one or more instances to insist upon strict performance of any of the terms and provisions of this Agreement, shall not be construed as a waiver of the right to assert any such terms and provisions on any future occasion or of damages caused thereby.

XXIV. CHOICE OF LAW; JURISDICTION. This Agreement shall be administered and interpreted under the laws of the State of Colorado without giving effect to any choice or conflict of law provision. Subject to Section XXVIII, any legal suit, action, or proceeding arising out of or relating to this Agreement shall be instituted in the federal courts of the United States of America or the courts of the State of Colorado, and each Party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action, or proceeding.

XXV. SEVERABILITY. If any of the provisions of this Agreement shall be invalid or unenforceable, such invalidity or unenforceability shall not invalidate or render unenforceable the entire Agreement, but rather the entire Agreement shall be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligations of the Party shall be construed and enforced accordingly, to effectuate the essential intent and purposes of this Agreement.

XXVI. NONEXCLUSIVE NATURE. This Agreement is not exclusive. Spheros is free to provide similar services or deliverables to others. Client makes no representations or warranties as to a minimum or maximum procurement of services hereunder.

XXVII. SURVIVAL. Provisions of these Terms, which by their nature should apply beyond their terms, will

remain in force after any termination or expiration of this Agreement including, but not limited to, the following provisions: Confidentiality, Disputes, Compensation, Ownership of Documents, Insurance, and Survival.

XXVIII. DISPUTES. In an effort to resolve any conflicts that may arise, Client and Spheros agree to resolve any claims or disputes related to this Agreement, in an amicable, professional, and expeditious manner so as to avoid unnecessary disruptions and delays to the Services. For any claim or dispute the Parties shall first attempt to resolve such claim or dispute through discussions between Client's and Spheros's designated representatives. If any such claim or dispute is not resolved through such discussions, the responsible executive of each Party, who shall possess the authority to resolve such matter, shall attempt to resolve such claim or dispute. Either Party may initiate discussions by written notice to the other Party setting forth the subject of the claim or dispute and the resolution sought. The Party in receipt of such notice shall respond within five (5) business days with a written statement of its position on, and recommended solution to, the claim or dispute. If the claim or dispute is not resolved by this exchange of correspondence, then the responsible senior executives of each Party shall meet at a mutually agreeable time and place within ten (10) business days from the Party's response in an attempt to resolve the claim or dispute. Any claims or disputes between the Parties arising out of or relating to this Agreement, which have not been resolved in accordance with the procedures set forth in this Section XXVIII shall be submitted to nonbinding mediation unless the Parties mutually agree otherwise. Each Party shall pay for its own costs and one-half the cost of a mutually acceptable mediator. In the event mediation is not successful, the claims or disputes between the Parties shall subject to litigation in a court of competent jurisdiction in the State of Colorado. The Parties irrevocably consent to the personal jurisdiction of said courts and waive any and all defenses of forum non conveniens, improper venue, or lack of personal jurisdiction.

[***]

Submit to:
Department of Water, Energy and
Environment
245 Fallbrook Blvd., Suite 100
Lincoln, NE 68521-6729
Phone: (402) 471-2186

**STATE OF NEBRASKA
DEPARTMENT OF WATER,
ENERGY AND ENVIRONMENT
WATER WELL REGISTRATION MODIFICATION
OWNER USE ONLY**

FOR DEPARTMENT USE ONLY

Date Filed _____ Owner Code No. _____ Registration No. _____
_____-_____-MOD__() _____NRD
WELL ID

ALL ITEMS IN SECTION 1 AND SIGNATURE IN SECTION 3 ARE REQUIRED

SECTION 1: **Check here if:** This form is also to be used to change the ownership of this well.

A. Well Owner's First Name _____ Last Name _____

OR Company Name _____

Attention Name _____

Address _____

City _____ State _____ Zip _____ Telephone _____

Email _____

B. Well Registration No. _____ (Only one number per form)

C. State Reason for Change: _____

CORRECTIONS NEEDED

Complete only those items being modified

SECTION 2:

A. If location of well needs to be corrected, fully complete the Legal description of the well including GPS Coordinates (latitude and longitude). Footage may be provided. **(1 & 2 REQUIRED)**

1. Well location: _____ ¼ of the _____ ¼ of Section _____, Township _____ North, Range _____ East/West, _____ County.

2. Latitude Degree: _____ Minute: _____ Second: _____ Longitude Degree: _____ Minute: _____ Second: _____ (NAD 83)

3. The well is _____ feet from the (North or South) section line and _____ feet from the (East/West) section line.
(circle one) (circle one)

B. Location of water use (give complete legal description) _____

For Irrigation Wells: Number of acres irrigated: _____

If the location of use is different than what is currently registered, and/or the number of acres irrigated is more than what is currently registered, and you are located in an area that has stays or a moratorium on newly irrigated acres, you **MUST** obtain the written approval of the Natural Resources District **PRIOR TO FILING THIS FORM**. This approval can be the submission of a separate Natural Resources District Approval form by the NRD.

(Natural Resources District)

(Signature of NRD Staff)

(Date)

C. Pump information.

1. Pumping rate: _____ gallons per minute.

2. Drop Pipe diameter: _____ Inches. 3. Length of drop pipe: _____ feet.

4. Pumping equipment installed: (m) _____ / (d) _____ / (y) _____. 5. Brand/Type: _____

6. Static Water Level: _____ feet.

7. Pumping water level: _____ feet.

8. Amount of time pumped: _____.

D. Change of use, complete items 1, 2 and 3. Identify use from this Listing: Dewatering (over 90 days), Domestic, Ground Heat Exchanger, Ground Water Source Heat Pump, Industrial, Injection, Irrigation, Livestock, Monitoring, Observation, Public Water Supply (with spacing (46-638), Public Water Supply (without spacing), Recovery, Other(if well use falls in this category – add specific use).

1. Well was used for: _____
(if necessary, please provide updated pump information)
2. New well use is: _____
3. Date of Change: _____

E. Active to Inactive (please check A or B) with or without pump

On _____, 20____, the water well is ____a) altered from active to inactive by removing the _____ inch pump and pumping column and properly capping the water well according to state standards or ____b) no longer in use but pump still in place with a water tight seal according to state standards. (§46-1207.02)

F. I certify that the well has been modified according to information given in section 2 C, E, or J, such that it will pump 50 gallons per minute or less. Pumping Rate: _____

Change to use (Check one of the following): Livestock Monitoring Observation
 nonconsumptive or de minimus use approved by the applicable natural resources district. State use: _____

G. Wells in a Series.

1. Is this well a part of a series? _____ Yes.
2. How many total wells in the series? _____
3. If one or more of the wells in the series is currently registered, give all well registration numbers: _____

H. Well Construction Information.

1. Total well depth: _____ feet.
2. Static water level: _____ feet.
3. Pumping water level: _____ feet
4. Well Construction began: (m)____/(d)____/(y)_____
5. Well Construction completed: (m)____/(d)____/(y)_____
6. Bore hole diameter in inches: Top____ Bottom _____
7. Casing and Screen Joints are: Welded____, Glued____, Threaded____, Other _____
8. Total Estimate Capacity of Well _____ gallons per minute (to be used to determine sustainability of aquifer)

I. Replacement and decommissioned/modified well information.

Department of Water, Energy and Environment Decommission/Modification Certification form or Notice of Decommissioning form is Required for replacement wells

1. Is this well a replacement well? ____Yes ____No
2. Registration number of original well: _____ If original well is not registered, date well construction completed (m)____/(d)____/(y)____
3. Original well last operated (m)____/(d)____/(y)_____
4. Completion of original well decommission/modification on (m)____/(d)____/(y)_____
5. Complete location of water use of original well: _____

J. Well Construction Modification.

1. Total well depth: _____ feet.
2. Static water level: _____ feet.
3. Pumping water level: _____ feet
4. Well Modification began: (m)____/(d)____/(y)_____
5. Well Modification completed: (m)____/(d)____/(y)_____
6. Casing diameter in inches: Top____ Bottom _____
7. Casing and Screen Joints are: Welded____, Glued____, Threaded____, Other _____
8. Total Estimate Capacity of Well _____ gallons per minute (to be used to determine sustainability of aquifer)

SECTION 3:

I hereby certify that the information provided on this form is true and accurate to the best of my knowledge.

Water Well Owner's Signature

Date

The Department reserves the right to request verification of information provided.

Well Modification Policy for Change of Use

DRAFT 4_2_2026

1. A well permit was issued by the LPNNRD for a certain water use category i.e. irrigation well.
2. The well permit is valid, as long if the change of use of the well is the same.
3. A landowner wants to change the use of well (like a pond or fire well) then approval is needed by LPNNRD Board before approving the change.
4. Nebraska DWEE utilizes a Well modification form for change of use.
5. The Board has the authority to deny the change of use and require a new well permit.
6. The Board can require that the existing well must be decommissioned correctly before applying for new well permit for different uses.
7. The new well permit will be reviewed and need approval by the Board before proceeding.
8. If an irrigation well is found being used for anything else the Board can require the well to be decommissioned.
9. Exception can be given to livestock that are being grazed on stalks for less than 6 months for water usage.
10. Exception can be made to irrigation wells that are used temporarily for fire protection.

CHEMIGATION - April 2026

TOTAL CHEMIGATION APPLICATIONS IN 2025 (706)

NEW CHEMIGATION APPLICATIONS - 9

(2) Boone (0) Butler (0) Colfax (2) Dodge (0) Madison (0) Platte (5) Saunders

RENEWALS: 279

BOONE COUNTY - 30
BUTLER COUNTY - 19
COLFAX COUNTY - 21
DODGE COUNTY - 46
MADISON COUNTY - 6
PLATTE COUNTY - 50
SAUNDERS COUNTY - 107

RENEWAL INSPECTIONS: 0

(0) Boone (0) Butler (0) Colfax (0) Dodge (0) Madison (0) Platte (0) Saunders

NEW INSPECTIONS: 0

(0) Boone (0) Butler (0) Colfax (0) Dodge (0) Madison (0) Platte (0) Saunders

NEW CANCELLATIONS: 4

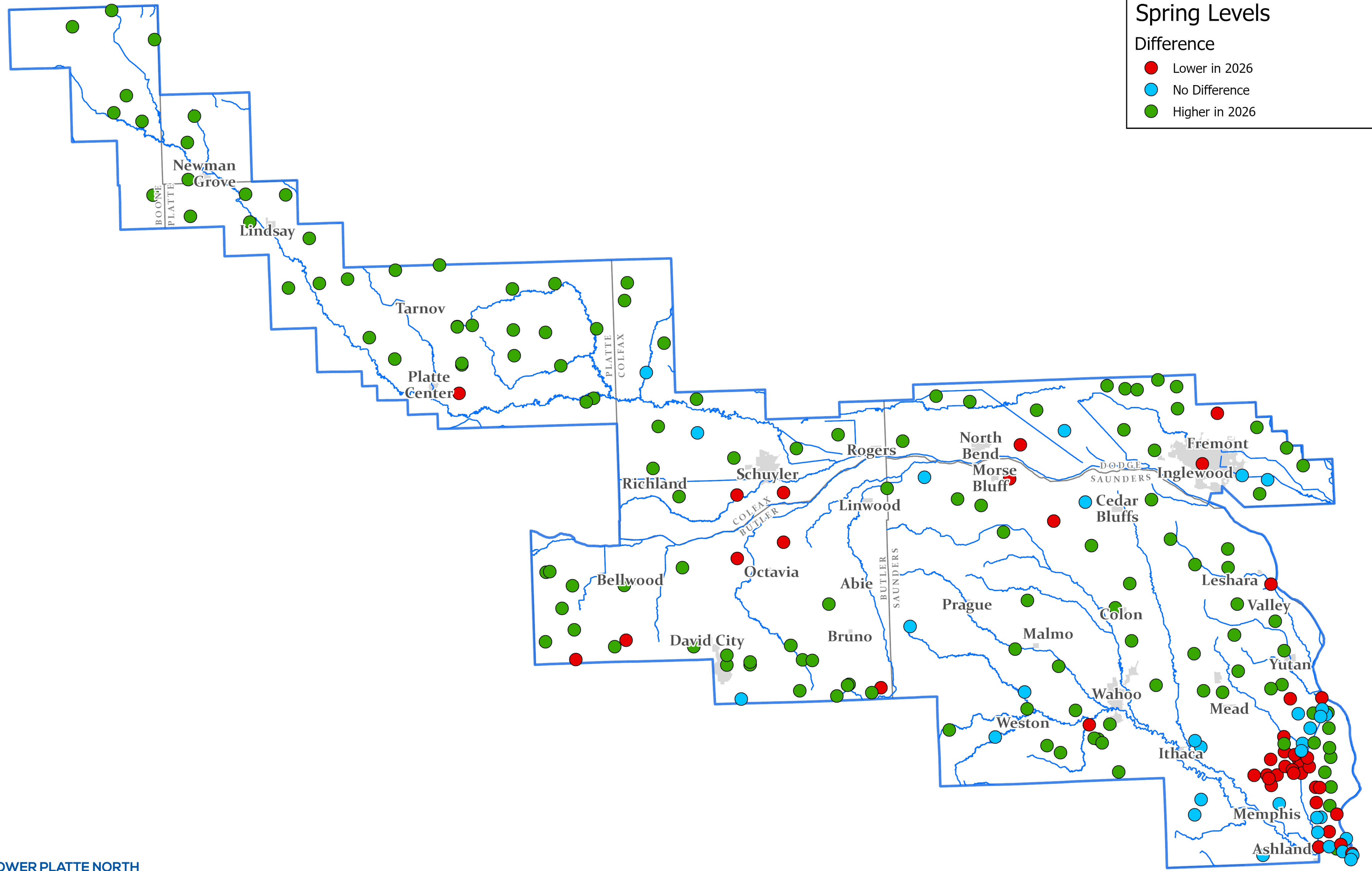
(0) Boone (0) Butler (1) Colfax (0) Dodge (0) Madison (2) Platte (1) Saunders

EMERGENCY: 0

LPNNRD Water Quantity Spring Levels

Difference

- Lower in 2026
- No Difference
- Higher in 2026

















UNITED STATES DEPARTMENT OF THE INTERIOR
DOWN PAYMENT (BILL) REQUEST

Make Remittance Payable To: U.S. Geological Survey
Billing Contact: Amanda Flynn, Budget Analyst Phone: 402-328-4144,
aflynn@usgs.gov

Bill #: 90176114
Customer: 6000000136
Date: 04/27/2026
Due Date: 06/26/2026

Remit Payment To: United States Geological Survey

Payer: LOWER PLATTE NORTH NRD
P.O. BOX 126
WAHOO NE 68066

<https://www.pay.gov/public/form/start/33192486>

Checks must be made payable to U.S. Geological Survey. Please detach the top portion or include bill number on all remittances.

Amount of Payment: \$ _____

Date	Description	Qty	Unit Price		Amount
			Cost	Per	
04/27/2026	The streamgages at Shell Creek near Columbus and Wahoo Creek at Ashland, as agreed to in Joint Funding Agreement 25NRJFA00170 between the US Geological Survey and the Lower Platte North NRD JFA 25NRJFA00170 25NRJFA00170	1	4,344.00	1	4,344.00

Amount Due this Bill: 4,344.00

Accounting Classification:
Sales Order: 143669
Sales Office: GESE
Customer: 6000000136
Accounting #: 11667172

TIN: *****2716

UNITED STATES DEPARTMENT OF THE INTERIOR
DOWN PAYMENT (BILL) REQUEST

Make Remittance Payable To: U.S. Geological Survey
Billing Contact: Amanda Flynn, Budget Analyst Phone: 402-328-4144,
aflynn@usgs.gov

Bill #: 90174648
Customer: 6000000136
Date: 04/09/2026
Due Date: 06/08/2026

Remit Payment To: United States Geological Survey

Payer: LOWER PLATTE NORTH NRD
P.O. BOX 126
WAHOO NE 68066

<https://www.pay.gov/public/form/start/33192486>

Checks must be made payable to
U.S. Geological Survey. Please detach the top portion
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Amount of Payment: \$ _____

Date	Description	Qty	Unit Price		Amount
			Cost	Per	
04/09/2026	The operation of stage-only streamgages and gage cameras as agreed to in Joint Funding Agreement 25NRJFA00010 between the US Geological Survey and the Lower Platte North Natural Resources District. JFA 25NRJFA00010 25NRJFA00010	1	5,514.00	1	5,514.00

Amount Due this Bill: 5,514.00

Accounting Classification:
Sales Order: 144602
Sales Office: GESE
Customer: 6000000136
Accounting #: 11665709

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SNR Alumni: Jake Pittman helps public and environment in water resources job



Jake Pittman installs a surface water data logger at Lake Wanahoo north of Wahoo, Neb., on March 5, 2026. The data logger provides continuous water level measurements for the lake.

By Ronica Stromberg

Jake Pittman began university classes during the 2020 Covid lockdown, uncertain about the future but certain he wanted to help people somehow.

"I just knew that I wanted to make a change and help people, and I thought that environmental sciences was the way to do that," the 2024 Nebraska alumnus said.

Two months after graduating with an environmental science degree and emphasis in water science, Pittman landed a water technician position with the Lower Platte North Natural Resources District. He worked there six months and received a promotion to a water resources specialist position.

Now working primarily with groundwater, he samples it from dedicated monitoring wells and irrigation wells to check for contaminants. Nitrates, chemicals formed from nitrogen and oxygen, are the main concern in Nebraska, he said. They can cause health problems like cancer and blue baby syndrome, in which a baby's red blood cells fail to carry enough oxygen, which can lead to death. Nitrates can get into drinking water from natural sources or

from human activities like using fertilizers. Runoff from fields can worsen the quality of surface water and harm animals living in it.

In summer, Pittman samples water and may help with chemigation inspections, water-level measurements and maintaining weather stations. In winter, he spends more time working on data collected in the field, well permits and other office work. He helps extension educators hold nitrogen certification classes that farmers need to take every four years to apply fertilizer in the district.

The district maintains the water supply lines from Wahoo to Colon and from David City to Bruno, and Pittman may help with that work. When he first started, he helped out with the district's tree planting program and the Spring Conservation Sensation, an outdoor educational event for schoolchildren.

"Every day is different, which is one of the things I love about the job," Pittman said. "So, there could be a day where you're sitting in the office for eight hours or there could be a day where you're out in the field all day."

Follow the rest of Jake's story at <https://snr.unl.edu/aboutus/what/newstory.aspx?fid=1333>

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