

Water Committee Meeting
Wednesday, December 27, 2023 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. Well Permit Program

2.A.1.a. Well Permits Approved

The total number of approved permits for 2023 is 40

Location of Approved Well Permits for 2023

County	Irrigation - New	Irrigation - Replacement	Stock
Butler	2	7	
Colfax	1	4	
Dodge	2	0	
Boone	3	1	
Madison	0	1	
Platte	0	1	
Saunders	11	6	
Total	19	20	

2.A.2. GROUNDWATER MANAGEMENT PLAN

Notices were put in local newspaper and the NRD website asking firms for proposals to update the 1995 groundwater management plan. The deadline was

Wednesday, December 27, 2023, with the committee reviewing the proposals to determine which firms to interview the week of January 1, 2024.

The Lower Platte North NRD received 4 proposals to update the Groundwater Management Plan.

- HDR
- JEO
- LRE
- Olsson

The RFQ is attached which explains the requirements needed by State Statues. The plan is to interview either January 3rd or 4th with a Board motion on January 8 to approve a firm.

Interviews were conducted with JEO, LRE and Olsson on January 3rd with Committee representatives Bob Hilger, Joe Birkel and Tom McKnight. NRD staff sitting in on the interviews were Eric Gotttschalk, Ryan Chapman and Daryl Andersen. All the firms were qualified with each one having their own strengths and weaknesses.

The Interview Sub-Committee recommends negotiating a contract with LRE to update the Groundwater Management Plan, with the contract not to exceed \$54,000. (Motion needed)

2.A.3. Special Quantity Subareas

A meeting for SQS#2 individuals is scheduled for the Community Center in Humphrey on Thursday, January 18, starting at 2 pm. This meeting will give an update on the data that has been collected in this area, including AEM flights, data loggers and water use information.

2.A.4. Cost Share Programs

2.A.5. LPNNRD Operator Certification

One of the requirements of the LPN Groundwater Rules and Regulations is that all producers that irrigate or apply nitrogen are required every 4 years to attend a NRD Operator Certification class.

Classes being held in 2024:

January 16 - Fremont Extension Office

February 1 - ENREEC Mead

February 8 - Lindsay Village Hall

February 16- Ag Park Columbus

February 22 - David City Butler County Event Center

March 14- ENREEC Mead

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

The technical group met on Tuesday, December 19 to review the database for handling the depletion in the Basin. The group discovered some issues which will be corrected, and then the data will be uploaded again. The group discussed the IMP reports, drought scenarios and acres not being accounted for prior to 2016.

2.A.7. Richland - Schuyler Nitrogen Management Area

Shown are the Phase 4 rules with discussion bullets for the Committee to review or consider:

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.

- **A map is attached for boundaries to consider, with uranium as a non-point source contaminate.**
- **The Committee decided to proceed with the map presented which includes the sections with higher 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.

- **Reporting dates for dual reporting**
- **April 1 to make recommendation**
- **December 15 for year-end report**
- **Consideration for a January 15 deadline for groundwater rule change**
- **Consider a one on one discussion with all producers when moving into a Phase Two Management Area.**
- **The Committee recommends a 2-step reporting process with March 15th for soil samples and District nitrogen recommendations and December 15th 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.

- **Application of manure on fields is allowed before this date.**
- **The Committee recommends proceeding with rule 3 as presented with manure emphasized as a 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.

- **Following LPN formula for nitrogen recommendations**
- **Reasonable yield goal will be the main criteria in the calculation.**
 - 2022 Yield Information:
 - Irrigated Corn Fields Richland-Schuyler Area - 253
 - 93 fields were 10% or more off yield goals (37%)
 - 160 fields were under 10% off yield goals (63%)
- **NRD staff will take averages from the last 2 - 10 years to calculate this yield goal and allow a maximum of a 5% increase.**
- **Soil sampling correctly will be emphasized as staff have seen samples showing 0-8 and 0-36 inches on the same field.**
- **The Committee directed staff to work closely with producers on correct soil sampling protocols and determine an acceptable yield goal when determining nitrogen recommendations.**

Rule 5 Well Metering

Flow meters are required on all high capacity wells.

- **Meters on irrigation wells only or include livestock and other wells.**
- **The Committee recommends requiring flow meters only on high capacity irrigation wells.**

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.

- **This is a water quality area and not quantity.**
- **Allocation for 3 or 4 years**
- **Allocation amount for 3 years 30, 33, 36.**
- **Allocation amount for 4 years 40, 44, 48.**
- **Different amounts for irrigation types or soils.**
- **The Committee recommends no allocation and evaluating this rule after obtaining water use information for 3 years.**

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.

- **Nutrient/Irrigation Plan Agreement**
- **3-year plan where producers agree to a minimum on one of the best management practices**
- **Practices could include yield goal reduction, cover crops, soil moisture sensors, split application of nitrogen more than 2 times, variable rate nitrogen, variable rate irrigation, gravity conversion, updating irrigation nozzles, grid sampling, taking manure credit for 3 years.**
- **After 3 years, a new agreement can be signed and to confirm if practices were implemented.**
- **The Committee recommends staff to develop the best management agreement for producers to pledge to adopt a new best management practice.**

The Committee directed staff to make the changes discussed into a working document and present them at the next Water Committee Meeting. The Committee will review the updated changes and boundaries for a potential

public meeting in the first part of February and possibly a hearing in the latter part of March with an implementation date of November 1, 2024. This can still allow for the boundary to be adjusted when additional data is collected and analyzed.

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

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
Osantowski Bros	Irrigation	1122.29	butler

3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

3.B.1. Phase Area Update

Received invoices for 4 water flow meters to be paid for Kracl Implement Inc and Jerold Kracl for \$4,000.

Applications received and will be approved upon NRCS approval:
Erin Peterson - Two gravity to pivot/SDI for \$20,000

Dan Wachal - One gravity to pivot/SDI for \$10,000.
Erin applied for soil moisture sensor incentives and flow meters for both fields for an additional \$3,500.
Dan applied for soil moisture sensors and a flow meter for \$1,750.
Additional applications for flow meters have been sent out to producers with more interest in gravity to pivot/SDI conversions.

Current Budget for the following 2 cost-share items:
Flow Meters - Budgeted \$170,000
Paid 9 invoices for \$9,000
Approved application 65 for \$65,000

Gravity to Pivot/SDI - Budgeted \$100,000
Paid 2 invoices for \$20,000
Approved applications 2 for \$20,000
3 applications waiting for NRCS approval for \$30,000.

2023 Phase Report Entry:
Reports submitted/approved: 289
Reports started: 95
384 reports either done or started
Missing ~150 reports

Staff will be sending reminder emails/calls this week.

3.B.2. January Water Committee Agenda Item

At the January 31, 2024 water committee meeting, an update will be given by Joe Luck on the variable nitrogen applications results on sites within the District. Shane Ohlde from VariMax will also discuss their "Crop Based Nitrogen and Irrigation Management."

3.C. NEW MONITORING WELLS

Equipment cables that will be repaired by In-Situ has been delivered to Fort Collins.

4. SURFACE WATER PROGRAMS

5. OTHER

5.A. COMMENTS FROM THE PUBLIC

**Request for Qualifications
Lower Platte North Natural Resources District
Groundwater Management Plan Update**

Proposals Must Be Received by: 10:00 am on December 27, 2023.

The Lower Platte North Natural Resources District (LPNNRD) is requesting qualifications from firms specializing in the technical writing of a Groundwater Management Plan. The plan should meet all the requirements outlined by Nebraska State Statues 46-709 as shown:

- (1) Ground water supplies within the district including transmissivity, saturated thickness maps, and other ground water reservoir information, if available;
- (2) Local recharge characteristics and rates from any sources, if available;
- (3) Average annual precipitation and the variations within the district;
- (4) Crop water needs within the district;
- (5) Current ground water data-collection programs;
- (6) Past, present, and potential ground water use within the district;
- (7) Ground water quality concerns within the district;
- (8) Proposed water conservation and supply augmentation programs for the district;
- (9) The availability of supplemental water supplies, including the opportunity for ground water recharge;
- (10) The opportunity to integrate and coordinate the use of water from different sources of supply;
- (11) Ground water management objectives, including a proposed ground water reservoir life goal for the district. For management plans adopted or revised after July 19, 1996, the ground water management objectives may include any proposed integrated management objectives for hydrologically connected ground water and surface water supplies but a management plan does not have to be revised prior to the adoption or implementation of an integrated management plan pursuant to section [46-718](#) or [46-719](#);
- (12) Existing subirrigation uses within the district;
- (13) The relative economic value of different uses of ground water proposed or existing within the district; and
- (14) The geographic and stratigraphic boundaries of any proposed management area.

Each district's ground water management plan shall also identify, to the extent possible, the levels and sources of ground water contamination within the district, ground water quality goals, long-term solutions necessary to prevent the levels of ground water contaminants from becoming too high and to reduce high levels sufficiently to eliminate health hazards, and practices recommended to stabilize, reduce, and prevent the occurrence, increase, or spread of ground water contamination.

The LPNNRD's first plan was approved in 1985 and most recently updated in 1995. Since 1995 the NRD has collected additional geologic, groundwater quality, and quantity data. Maps and reports created with this data are available at the LPNNRD office in Wahoo. The LPNNRD's goal is to create a new Groundwater Management Plan that is concise, easily readable by the public, adaptable, and meets statutory requirements. Additional topics of focus in the plan shall include:

- The availability of supplemental water supplies;
- Public health concerns;
- Contamination triggers;
- Rural and urban best management practices;
- Organic and inorganic nitrogen;
- References to additional interactive maps for public viewing currently being developed by the LPNNRD; and
- Other recommendations that arise during the process of updating the plan.

Minimum Project Requirements:

1. Exemplary communication and a robust public participation process, including:
 - a. One in-person kickoff meeting at LPNNRD office with District personnel;
 - b. Two in-person public meetings and six stakeholder meetings;
 - i. The NRD will take care of invites, notices, facilities, and printing of information with general guidance from contractor;
 - c. Two in-person meetings with LPNNRD water committee;
 - d. One in-person meeting/presentation to LPNNRD board of directors; and
 - e. Virtual and/or in-person meetings with staff as needed.
2. Final state approved groundwater management plan, which shall include:
 - a. One round of revisions requested from NeDNR and other applicable reviewing agencies; and
 - b. Adobe PDF format and the editable documents including all links used to produce the final PDF (Adobe InDesign, Microsoft Word, or other software package as agreed to).

If interested, the following information should be submitted:

1. A letter of interest not to exceed two (2) 8 ½ x 11 pages. Include the firm name, address, telephone number and email address, the year the firm was established, any previous names for the firm and a list of the types of services for which the firm is qualified.
2. The body of the proposal not to exceed five (5) 8 ½ x 11 pages and three (3) 11 x 17 pages. General overview of firm's understanding of the project(s) and approach to the project(s).
3. A description of the project organization not to exceed two (2) 8 ½ x 11 pages. Including the names of the principals of the firm, the names of the personnel expected to be utilized including any sub-consultant personnel and the specific project contact person.
4. A list of similar projects completed by the firm within the last 5 years. Please list key personnel involved in each project. Each project description shall be limited to one (1) 8 ½ x 11 page (maximum of 4 pages).
5. Resumes of key personnel. Resumes shall include their workplace location, a description of their relevant experience, length of time with the firm, applicable licensures and

registrations, and their proposed role in the project. Resumes shall be limited to one (1) 8 ½ x 11 page per resume (maximum of 10 pages).

6. Proposed schedule of completion not to exceed one (1) 11 x 17 page.
7. Proof of professional liability insurance in the amount of \$1,000,000 not to exceed one 8 ½ x 11 page.

Selection factors for the project will include the following:

1. Project understanding and approach;
2. The project organization, adequacy of available staff, location of personnel relative to the project location;
3. Ability to meet schedule of completion;
4. Similar projects completed by the firm; and
5. Qualifications of the professional personnel and staff members.

Project Fee:

Estimated fees should be submitted for all aspects of this project.

General guidelines:

This RFP for consulting services is a qualifications-based selection process, however, an estimate of probable costs for services are requested with the proposal as outlined above. The final price for consulting services will be negotiated with the selected firm during the scoping process. All consultant firms submitting proposals must be available to initiate work upon notice to proceed.

Final selection of the firm to perform such services may require an in-person interview that will be scheduled after receipts of the project proposals. If selected for an interview, firm must be available the first week of January (January 3rd, 4th, or 5th) to present to the LPNNRD's selection committee. The LPNNRD intends to negotiate a contract with the recommended firm and approve a contract at the January 8, 2024 Board meeting.

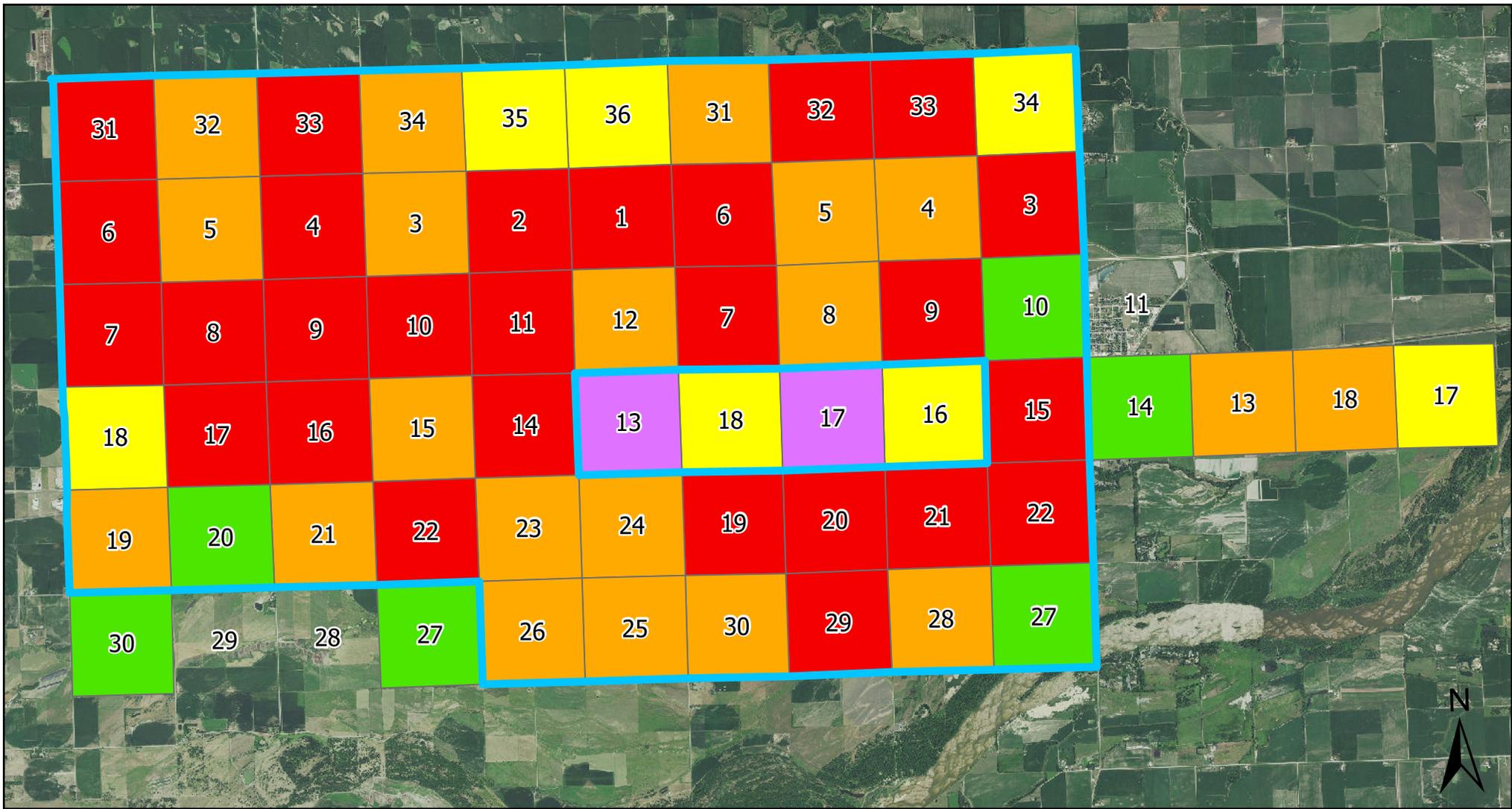
One hard copy and an electronic copy of your qualifications/proposals must be provided to: Lower Platte North NRD, Box 126, 511 Commercial Park Road, Wahoo, NE 68066, no later than 10:00 AM on Wednesday December 27th, 2023.

Questions regarding the RFQ/RFP and hiring process can be addressed to Daryl Andersen, LPNNRD (phone: 402-443-4675; e-mail address: dandersen@lpnnrd.org).

Your interest in submitting a project proposal is appreciated.

Attachment available on the District's website (lpnnrd.org):

1. GW Management Plan 1995



 Phase 4 Alternate Option

2019, 2020, 2023

Mean Nitrates

-  0 - 8
-  8.01 - 10
-  10.01 - 15
-  > 15.01

Uranium > 30 ppb

-  Uranium > 30 ppb

Phase 4 Alternate Option with 3 Year Mean

Phase area mean % calculated from 188 samples

2019: 20/47 = 43% > 15.01

2020: 29/59 = 49% > 15.01

2023: 48/82 = 59% > 15.01

The Environmental Protection Agency (EPA) has set the maximum contaminant level (MCL) for nitrate in drinking water at 10 parts per million. This is due to health risks associated with consuming water with high nitrate levels.



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