

# Groundwater Monitoring Council Meeting

## April 16, 2024

### Agency Updates

#### **Lower Platte North NRD** **Ryan Chapman**

- Plan to move from phase 3 to phase 4 in Schuyler/Richland area for Nitrate & Uranium
- Have a contract with LRE to lead the process of updating our Groundwater Management Plan
- Lower Platte Tribs model is being updated in partnership with Papio, LPS, and NeDNR. Expected completion in 2025/2026.
- This summer, staff will be focusing on collecting samples in the Shell Creek watershed
- Working with Platte Center and Newman Grove on SWP grant project and conducting a vulnerability analysis throughout the Shell Creek watershed
- Developing a contract with JEO to lead the development of a drought plan
- Age dating project with LL and USGS is wrapping up
- Gearing up to have the capacity to decommission wells in the future: licensing, equipment
- In partnership with NRCS, we are hiring a three year position to focus on SWP districtwide and Wahoo Creek NWQI. Hoping to have someone onboard July 1<sup>st</sup> 2024.

#### **Nebraska Groundwater Quality Clearinghouse** **Colleen Steele**

Enhancements in functionality of the Nebraska Groundwater Quality Clearinghouse are in progress. The enhancements will include the ability to add multiple new wells to the clearinghouse within one form.

The Data Coordinator is reaching out and working with collaborators one-by-one to ensure that the processes of submitting new wells and water quality results goes as smoothly as possible. The Data Coordinator has met with some collaborators to discuss how to incorporate their data into the clearinghouse and how to navigate the submission process. The Data Coordinator will continue with outreach over the coming months.

The new application has approximately 1.7 million water quality results. Over 500,000 are from the old Quality-Assessed database.

#### **USGS** **Dave Rus**

1. Water quality – GW - data collection:
  1. Ongoing GW sampling for Papio Missouri NRD and LWS
  2. NWQN sampling of 2 supply wells in eastern Neb
  3. Soil nitrate sampling support to LLNRD

4. GW age for LLNRD and LPNNRD
2. GW quality reports in progress
  1. Arsenic characterization in the Lower Platte River and alluvial aquifer – Matt Moser POC
  2. Development of a Hydrogeologic Visualization Model for Western Sarpy County, Nebraska – Nathan Schaepe
  3. Source code to visualize UBBNRD groundwater-quality results – Ben Dietsch
  4. Compilation of Hydrogeologic and geochemical data for the Winnebago Tribe – Cory Kavan
3. Upcoming changes when accessing USGS sample data
  1. [Accessing discrete water quality and sample data on WDFN | Water Data For The Nation Blog \(usgs.gov\)](https://www.usgs.gov/water-data-for-the-nation)
  2. Data are still available in our old system, but are not being updated. Eventually the old system will be turned off

Some recent water-quality reports of potential interest – not all USGS

*Tesoriero, A.J., Erickson, M.L., Conaway, C.H., Tomaszewski, E.J., and Green, C.T., eds., 2024, Knowledge gaps and opportunities for understanding water-quality processes affecting water availability for beneficial uses: U.S. Geological Survey Open-File Report 2023–1086, 81 p., <https://doi.org/10.3133/ofr20231086>*

*Atkinson, J. (2023). Evaluation and Interpretation of Legacy Major-Ion Chemistry for the Niobrara River Watershed, Northwestern and Northcentral Nebraska, USA. Adv Envi Waste Man Rec, 6(3), 472-489*

*Evaluating Youth-Led Citizen Science for Improved Monitoring of Domestic Well Water Quality in Nebraska, Christopher A. Olson, Arindam Malakar, Matteo D'Alessio, Nicole Schumacher, Chittaranjan Ray, and Daniel D. Snow, ACS EST Water 2024, 4, 2, 601–609, <https://doi.org/10.1021/acsestwater.3c00640>*

## **NARD** **Jennifer Swanson**

The NARD, along with 17 NRDs, the Nebraska Corn Board, NRCS, Corteva, Central Valley Ag, and the Nebraska Cooperative Council, is engaged in a joint venture known as Producer Connect. This initiative involves the development of a nitrogen dashboard with the goal of raising awareness, promoting adoption, educating producers, and advancing sustainable nitrogen management practices in agriculture. At present, the steering committee is conducting alpha testing for the project, with a tentative launch date set for June 2024.

In June, the NARD will be hosting a basin tour in conjunction with the Republican Basin NRDs. We will spend a day touring NRD projects across the Upper, Middle and Lower Republican NRDs and Tribasin NRD.

## **NDEE – Ground Water Section**

### **Dave Miesbach**

The Free Nitrate Sampling Program received approximately 5,000 requests for the nitrate sampling kits after sending out 29,000 postcards to people with registered private drinking wells. There are approximately 1,200 kits that have not been returned. The requests came from across the state, and it's surprising how many requests came from people with unregistered wells. The average concentration is about 4 mg/L with 500 samples over 10 mg/L.

The Reverse Osmosis (RO) rebate program is going until September 30 with applications due by June 30. People can get up to \$4,000 per system. Fortunately the program is not expected to run out of money.

## **Lower Loup NRD**

### **Jason Moudry**

- Cleaning up the definitions of Phase 1 and 2 areas in the district. Each sub-area may be subject to water quality controls in two Phases:
  - 1. Phase I areas are set with median nitrate nitrogen levels of 0 to 6.5 mg/l (milligrams per liter).
  - 2. Phase II areas are set with median nitrate nitrogen levels greater than 6.5 mg/l over a continuous four (4) year period.
- The nitrate vulnerability model looks at the fields located in our higher water quality phase areas to see which ones have the most potential to remain high as far as nitrate vulnerability. This doesn't look at just soil and leaching though. It also looks at past history including the irrigation water sample (nitrate ppm), soil nitrate, irrigation pumping history, manure, and organic matter. If fields have a high score, staff visits with these producers to work on a nutrient management plan going forward. It provides another way to directly talk with producers.
- Drought Management Plan - water quantity concerns leading to metering is two new areas