

Nebraska Water Sustainability Fund

Annual Report

Application No. 10012

March 31, 2023

On October 19, 2022, the Little Blue Natural Resources District (District) entered into an agreement with the Nebraska Natural Resources Department (Department) to help fund a \$143,000 project involving an update of the District's Hydrogeologic Assessment Report that was completed in 2011. The District is eligible to receive reimbursement for project expenses in the amount of 60% of costs not to exceed \$85,800.

On November 22, 2022, the District hired LRE Water (LRE) at a not-to-exceed cost of \$143,000 to assist with updating the report. On January 31, 2023 the District and LRD met and held an in-person project kickoff meeting and discussed various items ranging from Scope of Services, Work Completed to Date, Data Needs & Project Schedule. Included with this report is the Kickoff Meeting Agenda listing these items.

During December of 2022 through January 2023, the District worked to locate and provide necessary data needed for the report update. LRE incorporated data into a database and updated the geologic framework. LRE also downloaded and obtained Department and KSC well logs within a 5-mile buffer outside of existing District boundaries.

On February 9, 2023, the District received and paid an invoice from LRE for services to date in the amount of \$21,403.50.

During the remainder of February 2023, LRE completed the following work.

- Created geologic cross-sections involving twenty-six municipal supply well locations
- Incorporated new well log information
- Updated the digital elevation model

Submitted by:



Scott D. Nelson
General Manager



KICKOFF MEETING AGENDA

Project: Little Blue NRD Hydrogeologic Assessment Update
Project Number: 6001LTB02
Meeting Location: LBNRD Office, Davenport and via Google Meets
Meeting Date/Time: Tuesday, January 31, 2023, 10:00 AM

1. Introductions

2. Scope of Services

- a. Review scope dated November 23, 2022

3. Work Completed Thus Far

- a. Utilized water level, nitrate, and similar datasets on hand from LBVWS model
- b. Downloaded all NE Registered Well logs, including PWS well information, from NeDNR
- c. Downloaded all CSD TH logs, and confirmed with CSD that there are not any additional logs to obtain directly from CSD
- d. Reviewed existing datasets and data formats from 2011 Study
- e. Retrieval of KSG well logs within 5-mile buffer
- f. Began incorporating all geologic log data into formats for inclusion in the geologic Framework.

4. Data Needs, Clarifications, Preferences

- a. All monitoring well (MW) network water levels vs. using MW water levels AND static install levels to create reference water level surface (other NRDs are using a hybrid approach)
 - i. Preferred year? Use most recent from MW network? Average?
- b. Inform cross section transect locations – Let LRE know of any specific areas across the District where you would like to see cross sections run (**priority task as this comes next in our workflow**)

5. Discussion

- a. Risk map – how to define boundary of final risk map
- b. Potential areas for future well development
- c. Potential groundwater recharge areas
- d. How to include NeDNR?
- e. Water Quality
 - i. Nitrate concern areas
 - ii. What was the past approach, and current approach, to obtaining WQ data
 - iii. Do you regularly collect WQ data at all dedicated observation wells?



6. Existing Observation Network Review Approach

- a. Screening method
- b. Separate deliverable from the report/maps
- c. Program-level recommendations to water quality monitoring

7. Project Schedule

- a. Agreement Signed – November 2022
- b. Internal Kickoff – January 5, 2023
- c. Virtual Progress Meetings – As Needed
- d. Board Presentation/Completion – December 2023