

Nebraska Water Sustainability Fund

Annual Report (Final Report)

Application No. 10012

March 29, 2024

This past January, work concluded on this project and the final hydrogeological assessment update and report were received from Leonard Rice Engineering (LRE). Included is a memo from LRE summarizing the update and recommendations to consider regarding future hydrogeologic work. The following is a summary of the memo:

Monitoring Well Network

- Analysis of the Little Blue Natural Resources District (District) dedicated monitoring well network revealed that the number and spatial distribution of the 130 monitoring wells are valid and that they provide information that represents aquifer conditions.
- Recommended locations for future dedicated monitoring wells were provided.
- Recommendations on the construction of future monitoring wells were provided.
- Recommendations for future funding sources for the construction of future monitoring wells were provided.

Well Sampling Program

- LRE reviewed and provided recommendations to enhance the District's existing well sampling program. Recommendations involved the following:
 - Minimum number of sample collections.
 - Rotational sampling to ensure adequate spatial distribution.
 - Specialty sampling for focus such as sub-area water quality areas and wellhead protection areas.
- Standard Operation Procedures (SOP) involving sampling supplies, sampling schedule, types of samples and physical water parameters.

AEM Flight Recommendations

- The addition of AEM flights could provide a rapid and efficient way to remotely gather hydrogeologic data using geophysical methodology.
- LRE provided a map with recommended locations to consider AEM flights.

Included with this final report are the following:

1. Electronic copy of the completed hydrogeologic assessment update and report.
2. Copy of the hydrogeologic update deliverable summary.

A Final WSF reimbursement request in the amount of \$12,467.44 is currently being processed.

Respectfully submitted,

Scott D. Nelson
General Manager

Enclosures