

## WSF 2024 FINAL Report # 5311

**PROJECT:** Lower Platte South Natural Resources District Three-Dimensional Hydrogeologic Framework #5311 (awarded December 2021)

**DATE:** AUGUST 14, 2024

**See Application 5311 for Project Scope Summary and Timeline; See 2022, 2023, and 2024 Annual Reports for Activities through March 2024**

### PROJECT PROGRESS SINCE MARCH 2024 ANNUAL REPORT:

In 2022, LPSNRD contracted with LRE Water to supply services for the project. In mid-2022, LRE began work on the project and has accomplished essentially all major items through March 2024. Since the March 2024 Annual Report, the following additional items have been accomplished:

- Submitted final reimbursement request for \$95,849.89. With the initial reimbursement request of \$122,058.92, this brought the total reimbursement for the project to \$217,908.81. This left \$29,591.19 which will go back into the Water Sustainability Fund.
- Received final report of recommendations from LRE Water regarding possible future activities using the products generated by this project.

### ANTICIPATED ACTIVITIES FROM NOW UNTIL END OF PROJECT ORIGINALLY SCHEDULED DECEMBER 31, 2023:

This status report is the final closeout report for WSF #5311. Continued use of the products of this project are anticipated as noted below.

### ANTICIPATED CASH FLOW FOR REMAINDER OF THE PROJECT:

**\$0.00.** As noted above, to date LPSNRD has paid LRE \$363,181.35 and has been reimbursed for 60% or \$217,908.81, leaving \$29,591.19 of the original grant amount of \$247,500.00 to be rolled back into the WSF.

### LIKELIHOOD THAT BENEFITS PROJECTED IN APPLICATION 5311 WILL BE REALIZED:

As described in previous annual reports, the project yielded several major products including development of a three-dimensional hydrogeologic framework for the entire LPSNRD, publication of a map book which summarizes the project and data and has been utilized by LPSNRD Board members and the public, training of LPSNRD staff on using the Leapfrog visualization model for viewing and further analyzing project data, and converting/standardizing products for upload to the Nebraska GeoCloud. As described in the project documents, the contractor, LRE Water, also provided a list of recommended future actions to best utilize the results of the project as follows:

- Aquifer testing at various locations around LPSNRD using the Framework as a detailed guide
- Furtherance of LPSNRD's geologic test hole drilling/borehole geophysics program, again using the Framework as a detailed guide
- Utilizing this analysis, expansion of LPSNRD's monitoring well network
- Additional geophysical data gathering (airborne and/or ground-based) to improve detail and resolution and/or fill in gaps in current data
- Detailed groundwater modeling, especially for sensitive areas such as Wellhead Protection Areas or regional aquifers, again utilizing the data products from this project as primary inputs
- Ongoing community outreach using the products from this project to help water suppliers, elected officials, and the general public better understand the nature, occurrence, and availability of ground water supplies in LPSNRD

LPSNRD is budgeting for several of these activities, and anticipates that the results of this project will provide extensive benefits for ground water management for many years to come.