

WSF 2023 Status Report # 10020

PROJECT: Lower Loup NRD Buffalo County Area Groundwater Model
– WSF Application #10020 (awarded October 19, 2022)

DATE: MARCH 27, 2023
(FIRST ANNUAL REPORT DUE ON
OR BEFORE APRIL 1, 2023)

See Application 10020, Part 7 For Project Tasks Summary and Timeline

PROJECT PROGRESS UP TO APRIL 2023:

The Lower Loup Natural Resources District (LLNRD) is developing a request for proposals (RFP) to secure a contractor for a groundwater (GW) model for the Lower Loup NRD Buffalo County Area Groundwater Model project.

Aqua Geo Frameworks (AGF) was secured and completed work for the above referenced mapping project for the Buffalo County / South Loup Basin area. The airborne electromagnetics (AEM) flights were completed in October 2019; the final report and related data were delivered to the LLNRD in March 2020 and reported to the Water Sustainability Fund after. The model will be developed off of the data framework obtained by AEM Flights.

ANTICIPATED ACTIVITIES FROM NOW UNTIL NEXT ANNUAL REPORT DUE APRIL 1, 2024:

The LLNRD will secure a contractor for the GW model in spring of 2023. LLNRD will work with the contractor to build out a 3D Conceptual Framework over four months using AGF AEM reports and data from the 2019 flights. The Conceptual Model and Flow Model Construction are anticipated to take place over four months. Calibration of the GW model is expected to be completed in two months with deliverables to following. Deliverables will include a final report from the contractor and corresponding data. In total, these steps are expected to take 12 months to complete.

ANTICIPATED CASH FLOW FOR REMAINDER OF THE PROJECT:

The LLNRD paid \$3,993 to LRE Water (Inc) for WSF Grant Assistance Services including modeling figures from AGF AEM data.

\$275,000 – The LLNRD (\$110,000) and WSF (\$165,000) have funding obligations towards this project under grant #10020.

LIKELIHOOD THAT BENEFITS PROJECTED IN APPLICATION 10020 WILL BE REALIZED:

Based on the previous project results and LLNRD's experience with working through the WSF, the project is on target for achieving all benefits described in the original application.