WSF 2019 Annual Report # 5193

PROJECT: Characterize the Western Sarpy County Aquifer Using GeoScene 3D –WSF Application #5193 (awarded January 2018)

DATE: APRIL 2, 2019 (FIRST ANNUAL REPORT DUE ON OR BEFORE APRIL 1, 2019)

See Application 5193 For Project Scope Summary and Timeline

PROJECT PROGRESS APRIL 2018 TO APRIL 2019:

The US Geological Survey (USGS) in cooperation with the Papio-Missouri River Natural Resources District, has started compiling geologic and chemical data for the aquifer systems in Western Sarpy County. Geologic data has been collected from the Nebraska Department of Natural Resources, the University of Nebraska Conservation and Survey Division, and individual well-drillers that operate in the area. Categorizing well logs into uniform characteristics is ongoing. Once well-log characterization is complete, the logs will be imported into a GeoScene project to develop the 3D geologic framework.

Historic nutrient data has been collected for the study area. This data will be utilized in the GeoScene project to visualize nutrient concentrations within the aquifer.

ANTICIPATED ACTIVITIES FROM NOW UNTIL NEXT ANNUAL REPORT DUE APRIL 1, 2020

The GeoScene project is expected to be built by December 2019, and will include registered well locations of all domestic wells in the study area to help managers visualize which aquifer areas are most utilized. Two publications are planned for this project – one being a data release of the top and bottom of the Dakota Aquifer in western Sarpy County, and the other being a report discussing the construction and purpose of the GeoScene model. Report writing will be started and continuing at the time of the next annual report.

ANTICIPATED CASH FLOW FOR REMAINDER OF THE PROJECT:

Reimbursement Claims #1 (60% of USGS invoices) will be compiled after USGS's April invoices and submitted in May 2019.

LIKELIHOOD THAT BENEFITS PROJECTED IN APPLICATION 4164 WILL BE REALIZED:

Based on discussion with the USGS, the project is on target for achieving the benefits as described in the application.