

WSF 2022 Status Report # 5195

PROJECT: LLNRD Columbus Area Recharge Project –
WSF Application #5195 (awarded November 28, 2017)

DATE: MARCH 28, 2022
(FIFTH ANNUAL REPORT DUE ON
OR BEFORE APRIL 1, 2022)

See Application 5195 Section D #2 For Project Tasks Summary and Timeline

PROJECT PROGRESS APRIL 2021 TO APRIL 2022:

This is the fifth annual report. The LLNRD has continued to work with the City of Columbus, Platte County, the Christopher's Cove Homeowners Association, and Archer Daniels Midland Company (ADM) to develop the Columbus Recharge Project. As discussed in the application, the project will offset groundwater depletions by utilizing water from the Loup Public Power Tailrace Canal and conveying it to the remnant Lost Creek channel. Additionally, water will be conveyed into Christopher's Cove to help provide added recharge.

The LLNRD Board of Director's selected Rutjens Construction, Inc as the contractor to complete project construction. The project contract was finalized in April 2021, and work began in May 2021. The contractor began installation of underground water pipeline in June 2021 and was largely finished by September 2021. The surface water intake structure was under construction from August 2021 through March 2022. The auxiliary well was drilled and developed during September 2021. A majority of the project was complete by the end of 2021 but disruptions in the supply chain caused by the COVID-19 Pandemic delayed delivery of various components necessary for project completion. The remainder of the components are expected to be delivered in the spring of 2022.

ANTICIPATED ACTIVITIES FROM NOW UNTIL PROJECT COMPLETION:

The project construction is anticipated to be complete in the summer of 2022. The LLNRD will continue to coordinate with the project group and monitor contractors to ensure a successful project completion.

ANTICIPATED CASH FLOW FOR REMAINDER OF THE PROJECT:

Reimbursement Claim #1 for \$137,935.46 (60% of eligible costs) was submitted on August 6, 2019. The LLNRD and its partners and WSF have funding obligations towards this project (\$2,040,000 total project costs) under grant award #5195. The final Reimbursement Claim will be submitted after completion of construction on the project, which is anticipated in the summer of 2022.

LIKELIHOOD THAT BENEFITS PROJECTED IN APPLICATION 5195 WILL BE REALIZED:

From the 5195 WSF Application: Tangible benefits of the project include reduced pumping costs from area groundwater wells and avoided emissions, specifically criteria air contaminants (CAC) and greenhouse gas (GHG) emissions associated with the production of electricity used to power groundwater well pumps. The resulting benefits and energy calculations for each entity were calculated as follows: Irrigation pumping water levels were reduced by 10 feet from 65 feet to 55 feet, ADM pumping water levels were also reduced by 10 feet from 65 feet to 55 feet. The recharge project could save up to 223,580 kilowatt hours per year for a total savings of \$5.7 million over 50 years.

Additionally, this project could provide a minimum of 2,500 acre-feet per year of water recharge to the groundwater decline area southeast of Columbus that would have potential, positive impacts to flows at the confluence of the Loup and Platte Rivers.

The current drought conditions further justify the needs for the recharge project. It is likely that the demand on groundwater will be above average with the lack of rainfall and the recharge project will provide offset for such demands in the area.