2025 Annual Water Sustainability Fund Report for Project 10059

Robotic Camera Inspection System

Kyle Liebig Nebraska Public Power District April 1, 2025

Project Progress

This is the second annual report. The project has been delayed due to supply chain issues. NPPD received both cameras early in 2024 and are currently specking out an appropriate trailer to store and deploy the cameras from while inspecting. We have received the trailer and are currently outfitting it with the cabinets and camera system. We expect the trailer to be complete by the end of April.

We have done many inspections with the crawler camera already, with great success. NPPD has been able to inspect some hard-to-reach areas of our system. Several underdrains have been identified of needing repairs from the inspections so far, showing how valuable this tool is to the safety and reliability of our water system. Some drains could never be inspected by man without a tool like this. Technicians can't physically pass through the underdrains due to captured water or the drainpipe is just too small to enter. The maneuverability of the crawler and the high-definition camera make it possible to see points of interest in harsh conditions.

The underwater camera drone has proven to be quite valuable so far. It has been deployed in many short notice projects to inspect structures that have experienced malfunctions. By having this asset in house, we can verify conditions without contracting divers, getting our system back up and running sooner or having the repairs done faster.

Next steps include:

- Completion of the trailer.
- Project closeout.
- Reimbursement from WSF. We anticipate only one reimbursement request, expected by June 30, 2025.
- Project Closeout report to WSF as required.
- NPPD would like to provide a live demonstration to the Nebraska Natural Resources Commission at a mutually agreeable future NRC board meeting.

Project Costs

We expect the final cost to be more than the amount submitted in the application, which was \$ 136,487 (WSF portion \$ 81,892). NPPD expects the project to be over the funding budget. NPPD is prepared to make up the difference or seek additional funding from another source. The project completion and operation are not in jeopardy.

Project Benefits

At this time, we anticipate that the benefits in the application will be realized.