

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: September 30, 2022
TO: Chairman and Members, Northern Nevada Water Planning Commission (NNWPC)
FROM: Kimberly Rigdon, Water Resources Program Manager
SUBJECT: Presentation on the Nevada Water Innovations Institute (NWII) “Enhanced Source Control for Regional Water Reuse and Resource Protection” Phase 1 Report

SUMMARY

The University of Nevada, Reno NWII has completed the “Enhanced Source Control for Regional Water Reuse and Resource Protection Final Report (Report).” The Report includes an enhanced source control framework for each of the five (5) regional water reclamation facilities, focusing on the water quality and wastewater resource monitoring needs of the facilities. The wastewater source control frameworks for each regional water reclamation facility reflect current and anticipated effluent management/water recycling practices and existing and planned treatment unit processes.

BACKGROUND

At the recommendation of the NNWPC, on May 19, 2021, the Western Regional Water Commission (WRWC) approved the NWII scope of work and funding from the Regional Water Management Fund to develop an enhanced source control framework for each of the five (5) regional water reclamation facilities. Wastewater effluent management strategies, ranging from environmental discharges to potable reuse systems, have very specific water quality objectives and regulatory requirements that are met through treatment processes and operational protocols. Improving the quality of the wastewater being received at a treatment facility is an effective and efficient strategy to manage the facility’s effluent water quality. This water quality enhancement method is referred to as “wastewater source control.”

Source water control strategies, including reducing nonpoint water pollution sources, are often utilized to help meet effluent receiving water quality objectives, protect drinking water supply sources, and enhance local ecosystems. Through the wastewater source control development process, key water quality constituents of concern or interest are identified and may range from trace organics to bulk parameters such as salinity.

The NWII scope of work presented (2) project phases. **Phase 1** is the initial focus and is planned as a single joint regional project initiative. **Phase 1** was approved for funding under the current agreement. NWII and individual agencies will plan and implement the facility-specific tasks related to **Phase 2**.

Phase 1 scope of work included:

Task 1 - Project Management

Task 2 - Regulatory Review

Task 3 - Related Program Review

Task 4 - Wastewater Source Control Framework Development

Phase 2 is based on each facility's specific needs, and will include:

Task 5 - Wastewater Source Water Quality Sampling Plan Implementation

Task 6 - Wastewater Source Control Strategy Development

When implemented, the wastewater source control strategies will complement established agency environmental control policies, regulations, and protocols protecting effluent water quality.

KR:BW:jp

Attachments: University of Nevada, Reno "Enhanced Source Control for Regional Water Reuse and Resource Protection Final Report"