

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: February 28, 2019

TO: Chairman and Members, Northern Nevada Water Planning Commission (“NNWPC”)

FROM: Jim Smitherman, Water Resources Program Manager, Western Regional Water Commission (“WRWC”)

SUBJECT: Report on activities of the Nevada Water Innovations Institute (“NWII”), including projects concerning the Regional Category A+ Reclaimed Water Feasibility Study (“OneWater Nevada”); and possible direction to staff.

SUMMARY

OneWater Nevada is a high-priority regional collaborative effort among the University of Nevada, Reno (“UNR”) through the NWII, the Truckee Meadows Water Authority (“TMWA”), the City of Reno, the City of Sparks, Washoe County, the WRWC / NNWPC, and the Regional Effluent Management Team (“REMT”), an informal working group comprised of staff from those entities. The effort consists of a number of interrelated field-scale demonstration projects focused on evaluating treatment technologies and determining if Category A+ reclaimed water can provide long-term benefits to the Truckee Meadows region.

The Advanced Water Treatment Technologies Demonstration Project, which helped to inspire the creation of the NWII, was initiated in 2016 on recommendation of the NNWPC and funded by the Regional Water Management Fund. The project followed shortly after the 2016 adoption of new state regulations that make potable reuse possible in Nevada.

UNR’s role in the project is to develop the technological justification for selecting the advanced water treatment systems; establish the field scale demonstration project design basis and testing plan; assist in the acquisition of water treatment equipment; assist with the installation of the demonstration project; conduct startup of the treatment facility and optimize the treatment unit processes; perform monitoring and testing of the operating strategies, process control, and performance parameters during steady state operations; analyze data; and, prepare a final report. The four-year project scope of work is divided into the specific tasks listed below:

1. Project Rationale and Justification for Advanced Treated Recycled Water in the Truckee Meadows
2. Critical Review of Technologies that can meet State Regulations/ Requirements
3. Basis of Design for the Demonstration Project
4. Demonstration System Testing Plan
5. Demonstration System Equipment Procurement and Installation
6. Treatment System Shakedown and Startup

7. Steady State Operation of the Treatment Train and Data Collection
8. Reporting
9. Workshops and Meetings

The UNR core project team consists of the Principal Investigator, Dr. Krishna Pagilla, P.E., three to five PhD students, a Staff Research Associate, and an undergraduate student assistant. The project team has completed tasks 1 through 4. Task 5 is nearing completion with most of the treatment system equipment purchased and delivered. Task 6 activities are scheduled to take place in May and June 2019. Final meetings and reports are expected during the first half of 2020.

Dr. Pagilla will provide the NNWPC with a status report on the Advanced Water Treatment Technologies Demonstration Project and other activities of the NWII concerning OneWater Nevada.

FISCAL IMPACT

None

RECOMMENDATION

Staff recommends that the NNWPC accept the report and provide appropriate direction to staff, if any.

JS:jp