

PROJECT PROPOSAL

Principal Investigator: Krishna Pagilla, Ph.D., P.E.

Project Number:

- 1. Project Title:** **Regional Category A+ Reclaimed Water Program Coordination**

- 2. Principal Investigator:** **Krishna Pagilla, Ph.D., P.E., Professor**
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- 3. Project Manager:** **Dwayne Smith, P.E.**
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- 3. Scope of Work:** See Page 2

- 4. Duration of the Project:** June 11, 2019 to March 31, 2022

- 5. Specified Deliverable Items:**

As described in the Scope of Work

- 6. Equipment:** None

- 7. Budget:** See Scope of Work

3. Scope of Work

Nevada Water Innovation Institute Regional A+ Reclaimed Water Program Coordination

BACKGROUND

UNR's ***Nevada Water Innovation Institute ("NWII")*** is currently assisting the regional entities with several key initiatives: developing the treatment technologies to produce Category A+ reclaimed water suitable for groundwater recharge; developing a triple-bottom-line analysis for considering the benefits of developing Category A+ reclaimed water; developing regional effluent management master plan-level strategies; developing nitrogen control strategies for the Truckee Meadows Water Reclamation Facility ("TMWRF"); and developing storm water management programs with the Nevada Department of Transportation ("NDOT"), in conjunction with other Northern Nevada agencies.

The continued strength of these efforts and regional success can be enhanced by ensuring continuity of leadership as senior-level staff retire from employment at the regional entities. NWII, and its participating agencies and local governing bodies have expressed a desire to obtain professional services from a qualified consultant to continue providing leadership, strategic direction, agency coordination, outreach, and project management services for the regional efforts in the following:

- ***Regional Category A+ Reclaimed Water Feasibility Study Leadership and Development, and other critical issues, such as efforts supporting nitrogen control, stormwater management, and managed aquifer recharge.***

PROPOSAL AND BUDGET

NWII requests that local governing bodies (Western Regional Water Commission (WRWC), Truckee Meadows Water Authority (TMWA), City of Reno, Washoe County) each consider providing funding for obtaining professional services from a qualified consultant for the above purposes, for a period of three years. The required funding would be provided by local/regional governing bodies, and possibly private sector participants. The principal focus of this effort will be on Regional A+ Reclaimed Water Program Coordination. As one of the local bodies involved in this effort, Washoe County has agreed to provide part funding for this effort as shown in the Table below for the duration of 3 years.

Item	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Regional A+ Reclaimed Water Program Coordination (SERVICES)	8,612	\$27,029	\$29,209	\$19,959
UNR Facilities & Administration Costs (26%)	2,239	\$7,028	\$7,594	\$5,189
Annual Funds Requested from Washoe County	\$10,851	\$34,057	\$36,803	\$25,148

Total Funds Requested from Washoe County = \$106,859

Task Description: Regional A+ Reclaimed Water Coordination Development and Program Management

Task Objectives

- Leadership position to guide regional A+ development and success. This is particularly crucial as the current A+ feasibility study is progressing from “technology pilot studies” to field scale demonstration projects.
- Enhance the regional team’s leadership, credibility, legitimacy, inspiration, and project/program management capacities.
- Act as one of the A+ leaders and general program spokespersons as directed by regional agencies.
- Provide **OneWater Nevada** sector recognition, through engagement with professional organizations such as the Water Environment Federation, The Water Research Foundation, and WaterReuse Association.
- Pursue outside funding on behalf of UNR and the regional participants from sources such as Bureau of Reclamation Construction Grants Program, The Water Research Foundation, National Science Foundation, and State of Nevada.
- Provide project management ensuring regional efforts are well coordinated, communicated, and documented. This includes development of communication plans, schedules, budgets, contract coordination, staff resource sharing agreements, and external communications.
- Assist agencies procure, construct, coordinate, operate, test, monitor, and report results for the field scale A+ demonstration projects.
- Under direction, represent agencies relative to A+ development with Nevada Division of Environmental Protection (“NDEP”), Health District and other regulatory agencies.
- Create a fully developed action plan and “A+ engineering report” for approval of NDEP.

Task Direction

- Direction and management of consultant on the performance of tasks will be provided by TMWA (Mr. John Enloe or designee of TMWA) because of its increasing role and responsibility in field scale A+ demonstration projects. Periodic updates will be provided to representatives of the local/regional governing bodies at Effluent Management Team meetings.

The agreements for funding by Washoe County and other regional/local governing bodies shall contain the above condition.

Task Deliverables

- The service provider will update the Technical Project Manager (Mr. John Enloe) as per the direction of the Project Manager and communicate the updates to UNR simultaneously.

Task Scope Examples

- Project Management
 - Monthly
 - Attend Regional Effluent Team Meetings (provide written updates, establish coordination, briefing on schedule, etc.).
 - Meet each regional agency staff for specific coordination and communication planning. Provide meeting agendas and written action items/responses.
 - Provide agencies with updated schedules, budgets, communication plans, and presentation calendars.
 - Provide a brief narrative on each major feasibility study task element (e.g. communications, regulatory, demonstrations, etc.). Prepare agendas, presentations, follow-up as needed.
 - Quarterly
 - Attend Regional “Effluent Directors Briefing”. Prepare agendas, presentations, follow-up as needed.
 - Provide agencies with updated schedules, budgets, communication plans, and presentation calendars.
 - Provide a brief narrative on each major feasibility study task element (e.g. communications, regulatory, demonstrations, etc.)
 - Every 4-6 months
 - In collaboration with agency staff, prepare and deliver A+ feasibility study presentations at regional agency councils, commissions, citizen/neighborhood boards, etc.
 - In collaboration with agency staff, update Washoe County Health District and NDEP staff. Prepare agendas, presentations, follow-up as needed.
- Technical Support

- Assist agencies plan, specify, procure, set-up, test, monitor, and operate demonstration scale tests. Develop staffing plans for pilot and demonstration scale tests.
- Assist City of Reno staff to plan and operate the RSWRF 2019 demonstration project.
- Develop testing and monitoring plans with regional agencies, NDEP, Health District, agency/private laboratories, and UNR.
- Assist agencies and UNR in developing staffing plans for demonstration-scale projects.
- Support agencies in conceptual A+ implementation plans, for example, American Flat and Cold Springs.
- Communications Support
 - Assist Data Instincts and regional staff develop effective and timely external communication materials.
 - Assist regional agencies deliver key updates to public agencies and citizen groups.
- Regulatory Support
 - Organize, prepare materials, participate, and produce follow-up material and correspondence for Independent Expert Panel participation. Note: These will likely be needed about every 6 months as the regional agencies develop the field trials at RSWRF and CSWRF.
- Funding Support
 - Develop 2-3 external funding strategies coordinated with agencies. Examples include Water Commission, The Water Research Foundation, Bureau of Reclamation, NSF, etc.
 - Coordinate with local agencies for shared-resources plans including staffing and direct financial support.
 - Include funding strategies in project management reporting.
- Project Rationale Support
 - Assist agencies and UNR with continuous development of project rational and opportunity statements.
 - Example: currently there is recognition that **OneWater Nevada**, in addition to the A+ focus, could provide more examples of other sustainable water practices in the Truckee Meadows, including excellence of TMWRF operation and positive economic/environmental/regional impact.

PROJECT START AND END DATES

Project Start Date: June 11, 2019

Project End Date: March 31, 2022

BILLING

Washoe County will be billed periodically by UNR, but no more than once a month, for the expenses incurred under this project. The source of funding for this research effort is NOT from the federal government.