

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: May 25, 2022
TO: Chairman and Members, Northern Nevada Water Planning Commission (“NNWPC”)
FROM: Kim Rigdon, Water Resources Program Manager
SUBJECT: Action, discussion, and possible recommendation to the Western Regional Water Commission (WRWC) for approval of a scope of work and funding not to exceed \$462,954 from the Regional Water Management Fund (RWMF) for an inter-local agreement with the University of Nevada Reno (UNR), Nevada Water Innovations Institute (NWII) for “Regional Water Management Coordination and Support.”

SUMMARY

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

UNR has submitted a proposal and scope of work in support of regional water management leadership and technical assistance from NWII and Warner and Associates, serving as an NWII sub-consultant. The scope of work includes technical assistance and coordination necessary to continue the next phase of advanced purified water treatment technology implementation at American Flat, continue investigations and demonstration projects in the region and to collaborate with regional partners to develop and manage a programmatic approach to address complex regional water challenges.

BACKGROUND

UNR continues to provide technical support, coordination, and leadership for the Advanced Water Treatment Technologies Demonstration Project, funded by the RWMF. The project followed shortly after the 2016 adoption of new state regulations that make potable reuse possible in Nevada. The WRWC provided funding for the project scheduled for completion June 30, 2022. The attached “Regional Water Management Coordination and Support” proposal and scope of work facilitates next steps for the OWN regional effort to continue with advanced purified water investigations and projects.

FISCAL IMPACT

Should the Agreement be approved, the Fiscal Year 2022/2023 Tentative Budget includes adequate budget in the professional services category to accommodate the proposed \$149,698 budget request for Fiscal Year 2023. The Fiscal Year 2024 budget request is for \$157,829 and the Fiscal Year 2025 budget request is for \$155,157 for a total agreement budget not to exceed \$462,954 over the three-year term. The

fiscal year 2024 and 2025 budget requests are contingent upon annual NNWPC priority setting and WRWC budget approval.

RECOMMENDATION

Staff proposes that the NNWPC forward a recommendation to the WRWC for approval of UNR's scope of work and funding not to exceed \$462,954 from the RWMF, in accordance with the following Fiscal Year funding cycle: \$149,968 for Fiscal Year 2023, \$157,829 for Fiscal Year 2024 and \$155,157 for Fiscal Year 2025, contingent upon NNWPC priority setting and WRWC budget approvals, with a project completion date of June 30, 2025.

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Attachment 11 Proposal for Regional Water Management Coordination and Support

PROJECT PROPOSAL

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

1. Project Title: **Regional Water Management Coordination and Support**

2. Principal Investigator: **Krishna Pagilla, Ph.D., P.E., Professor**
University of Nevada, Reno
Director, Nevada Water Innovation Institute
Department of Civil and Environmental Engineering
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3. Project Manager: **Kim Rigdon, Program Manager**
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3. Scope of Work: See Page 2

4. Duration of the Project: July 1, 2022 to June 30, 2025

5. Specified Deliverable Items:

As described in the Scope of Work

6. Equipment: None

7. Budget and Explanation: See Page 5

Regional Water Management Coordination and Support

University of Nevada, Reno

Scope of Work

Section 1. Background

Established in 2017 at the University of Nevada, Reno (UNR), the Nevada Water Innovation Institute (NWII) is a shared vision and effort of Truckee Meadows area agencies, the State of Nevada, and UNR. NWII's goals include developing and implementing integrated water solutions and demonstrating national water sector leadership.

NWII's research initiatives and technical focus areas include regional COVID-19 wastewater-based-epidemiology studies, advanced purified water pilot testing and demonstrations, [OneWater Nevada](#) program leadership and coordination, regional effluent management technical assistance, wastewater source control program development, environmental-social-financial examinations, and several innovative drinking water and wastewater treatment technology assessments, developments, and optimizations.

The Western Regional Water Commission (WRWC) desires continued regional water leadership and technical assistance from NWII and Warner and Associates, serving as an NWII sub-consultant.

The following scope of work intends to capture anticipated regional priority initiatives for a 3-year period beginning in July 2022. The scope of work identifies foundational technical themes and effort for contracting and budgetary purposes. NWII and WRWC will determine specific task sub-activities, staffing, schedules, and deliverables at least annually and before commencing specific task elements.

Section 2. Scope of Work

Task 1 Advanced Purified Water Program at American Flat Coordination

- Provide expert technical reviews and strategic input at various program implementation milestones, such as 30-percent design completion and value engineering workshops.
- Assist agencies to develop water quality regulatory compliance strategies and processes for the Nevada Division of Environmental Protection (NDEP) and the Washoe County Health District (WCHD).
- Manage the Independent Expert Advisory Panel's technical scope of work, deliverables, and schedule, etc.
- Support [OneWater Nevada's](#) communication, engagement, and outreach efforts.

Task 2 Technical Support

- Assist agencies to operate and monitor various advanced water treatment technology bench-scale experiments, pilot testing units, and field-scale demonstration projects including dissolved-air-flotation and filter studies for the Advanced Purified Water Program at American Flat (Program).

- Develop water quality testing and monitoring plans and provide technical staff assistance for the Program’s various commissioning sequences.

Task 3 Regional Initiatives

- In partnership with regional water leadership, develop and manage a programmatic approach to solve a complex regional water challenge requiring coordination of projects and programs. Specific programs include:
 - Lead collaboration and funding efforts to create a regional advanced purified water research center at the Advanced Purified Water Facility located adjacent to Reno-Stead WRF.
 - Under the leadership of the Western Regional Water Commission, and in collaboration with the regional agencies and consultants, complete the 2040 *Regional Effluent Management Guidance Document*.
 - Assist the regional agencies form water research collaborations, inter-agency and external partnerships, innovative regulatory frameworks, funding pursuits, stakeholder engagement, water-sector leadership, and stakeholder communications.
 - Provide technical and analytic staff support for current and future Regional Effluent Management Team (REMT) efforts.

Task 4 Truckee River Watershed Symposium

- Supporting regional agency needs, NWII will host an annual Truckee River water quality research symposium focused on UNR’s research studies in forest and rangeland management, wildland fires, and watershed protection.
 - Task includes reports and intelligence sharing from UNR-wide departments including, engineering, hydrogeology, economics, forestry, rangeland studies, biology, and natural sciences.
 - Symposium is UNR research-centric and includes regional stakeholders.

Section 3. Deliverables

Project Management

- Weekly
 - Attend REMT Meetings
 - Coordination meeting with WRWC’s Program Manager and regional agency leadership.
- Every 4-6 months
 - In collaboration with agency staff, and as requested, update WRWC, WCHD, and NDEP staff and boards. Prepare agendas, presentations, and follow-up as needed.
 - Provide narrative reports to WRWC on task updates and outcomes.
- Annually

- With WRWC and regional agency leadership, determine NWII specific focus areas based on WRWC's annual priorities.

Regulatory Support

- Every six to 12 months, organize, prepare materials, participate, and produce follow-up material and correspondence for engagement with the Independent Expert Advisory Panel.
- Primarily relating to the Advanced Purified Water Program, participate in a regularly scheduled regulatory briefing with NDEP and WCDH.
- Participate with other regulatory agencies if needed, such as the California Lahontan Regional Water Quality Control Board.

Technical Support

- Develop water quality testing and monitoring plans for each commissioning sequence for the Advance Purified Water Program at American Flat.
 - Task is conducted in FY24 and FY25.
- REMT technical resource including authoring regional water plan technical subsections, preparing excel files, and developing other technical analysis supporting regional initiatives, for example the regional effluent management guidance document.

Truckee River Watershed Symposium

- Prepare agendas, invitations, program, and report-out materials for each annual Truckee River Watershed Symposium.

Program Management Expertise

- Develop and provide program management reports, schedules, and budgets.
- Provide regular written reports and presentations regarding program effectiveness.
- Provide expert leadership developing and managing multiple program elements, such as program vision and objectives, workplan approaches, research collaborations, inter-agency and external partnerships, creating innovative regulatory frameworks, assist agencies pursue infrastructure funding, and participate in stakeholder engagements.

Section 4. Requested Budget

No	Item	Year 1, \$	Year 2, \$	Year 3, \$	Total, \$
A	Senior Personnel	22,000	22,660	23,340	68,000
B	Other Personnel Student Assistants	15,000	31,000	31,780	77,780
C	Fringe Benefits	8,923	10,958	11,286	31,167
D	Equipment	0	0	0	0
E	Travel Costs	1,000	1000	1000	3,000
F	Operating Costs	1,000	1000	1000	3,000
G	Tuition Costs	2000	4400	4600	11,000
H	SubAwards	66,500	55,500	50,000	172,000
I	Indirect Costs	33,545	31,311	32,151	97,007
	Total	149,968	157,829	155,157	462,954

Requested Budget Explanation:

The budget requested includes one senior person, Dr. Krishna Pagilla, who will serve as project manager and principal investigator (one month each year), one graduate student assistant in years 1 (0.25 FTE), 2 (0.5 FTE) and 3 (0.5 FTE), and undergraduate student assistant (total of 1000 hours) in all three years. The budget also includes subaward to Warner Associates including Mr. Rick Warner for continued regional water management coordination. Mr. Warner will be assisted by a staff engineer during all tasks. The budget requested for Warner and Associates for three years of the project is \$172,000 excluding UNR facilities and administration costs. The facilities and administration costs for the total project are calculated based on modified total direct costs (total direct costs minus tuition/fees and subawards over \$25,000) and amounts to \$97,006 out of the total budget of \$462,953.

The requested total budget: \$462,954

The budget is approximately allocated to the four tasks as follows:

Task	Year 1	Year 2	Year 3	Task Budget
Advanced Purified Water Program at American Flat Coordination	64,500	55,500	50,000	170,000
Technical Support	15,468	42,329	45,156	102,954
Regional Initiatives	60,000	50,000	50,000	160,000
Truckee River Watershed Symposium	10,000	10,000	10,000	30,000
Total Budget Allocated	149,968	157,829	155,157	462,954