

**Climate Change Pilot Grant Application: Establishing Proof-of-Concept  
Autumn 2023 Cover Sheet**

**Project Information**

Please provide the following information.

<b>Project Title</b>	Taking the Pulse of the Community: A Survey of Public Perceptions on Wastewater Reuse in Three Western Washington Communities
<b>Budget Request from Initiative</b>	\$50,000
<b>Budget Match (if applicable)</b>	\$35,035 (request made to CSDE)
<b>Total Project Budget</b>	\$85,035

**Applicant Information**

Please provide the following information for each member of the project team:

Lead PI

- Heidi Gough, Associate Professor
- College of the Environment, School of Environmental and Forest Sciences (SEFS)
- [hgough@uw.edu](mailto:hgough@uw.edu)
  
- Yen-Chu Weng, Lecturer
- College of the Environment, Program on the Environment (POE)
- [yweng@uw.edu](mailto:yweng@uw.edu)

A lead UW co-investigator will need to be designated for administration purposes. Please include the name and email address of the finance point-of-contact for that investigator’s department.

- Finance point-of-contact (SEFS): Jenn Weiss, [jenweiss@uw.edu](mailto:jenweiss@uw.edu)

**Abstract**

Please provide a description of your project appropriate for a lay reader. Limit your description to no more than 250 words.

Reliable access to clean water is essential to human health. Communities in Western Washington face increased water scarcity due to longer and drier summers, sea water intrusion and population increases. To conserve water resources, water districts are implementing plans to reuse wastewater – sometimes with public pushback. Existing research on the public’s perceptions of wastewater reuse (or “recycled water”) predominantly comes from dry regions. No research has addressed what influences public perceptions on recycled water in Western Washington, where the general public may be unaware of the looming water crisis. Our project aims to survey residents of three communities in Western Washington (Silverdale, Friday Harbor, and Forks) on their perceptions on recycled water.

Our proposed hypotheses are: (1) Greater knowledge and awareness of water resources issues will increase acceptance of recycled water; (2) Higher acceptance of recycled water use for non-potable,

non-human contact purposes; (3) Greater trust of recycled water projects where the public is well informed and involved in the planning process; (4) Prior experience with water scarcity or residents who have lived in the region longer are more likely to regard water stress as a pressing issue in Western Washington.

Our project will engage with local communities and water resource managers and share information about water resources issues and current plans to expand recycled water use in Western Washington. Understanding the public's perceptions is critical for the success of recycled water projects. Findings from our project will also expand the understanding of this topic beyond the dry regions.

**Project Budget** (add additional pages if funding is matched by more than three entities)

	<b>Requested from Initiative</b>	<b>Funding Match by:</b> <u>      CSDE      </u>	<b>Funding Match by:</b> _____	<b>Funding Match by:</b> _____
<b>Salaries</b>				
Faculty	27,600			
Staff				
Student (RA)		17,689		
Student (Hourly Undergraduate Research Assistant)	4,120			
<b>Benefits</b>				
Fringe Benefits Based on Payroll Load Rate In Effect	\$7,525	\$3,219		
<b>Supplies and Materials</b>				
Supplies, Equipment Under \$2,000, etc.	\$6,400	\$3,200		
<b>Equipment</b>				
Equipment Over \$2,000				
<b>Travel</b>				
Per Diem Lodging/Meals/Expenses, Air Fare, Mileage, Car Rental	\$3,255			
<b>Tuition</b>				
For graduate students		\$8,077		
<b>Other</b>				
	\$1,100	\$2,850		
<b>Total Direct Costs</b>	<b>\$50,000</b>	<b>\$35,035</b>		

### **Budget Justification**

Salaries: Funds cover ~1 month of summer salary for Dr. Gough (PI) for administration of the project and for participation during field trips and meetings. Funds cover ~2 months of summer salary for Dr. Weng (coPI) for oversight of survey distribution (including coordination with IRB), work with survey consultants, management/mentoring of student activities, and coordination of field trips.

An hourly undergraduate research assistant will be funded for the summer and fall quarters. Funds will cover approximately 10 hours per week for 2 quarters. The hourly student will assist with data collection, compilation, and processing. They will additionally assist with preparation of materials for data sharing with partners during field visits.

Benefits: Benefits were calculated at a rate of 24.1% for faculty salaries, and 18.2% for student salaries.

Supplies and Materials: \$6400 is requested to cover costs for postage and postcards for recruiting participants (\$0.60 each for 4000 pieces = \$2400) and for survey participant gift cards (\$20 each for 200 cards = \$4000). These costs allow recruitment of ~33% of the households in the study communities.

Travel: Funds are requested for 2 site visit trips including 3 UW personnel to each of 3 partner sites. anticipated to include the Silverdale Water District (80 miles at \$0.655 per mile, \$52.5 ferry crossing, and breakfast/lunch per diem at \$28 each person = \$189 for each visit), City of Forks (274 mile, \$52.5 ferry crossing, and overnight lodging and meal per diem at \$107 and \$59 respectively for each person = \$730 per visit), and Friday Harbor Wastewater Treatment Plant (194 miles, \$90 ferry crossing, and overnight lodging and meal per diem at \$107 and \$59 respectively for each person = \$715 per visit).

Other: \$1,100 is requested to engage the resources and services of UW Surveys, operated through the Office of Educational Assessment (<https://www.washington.edu/surveys/>). Based on a quote provided by the UW Survey team, these funds will cover ~11.5 hours of assistance to the project.

### *Explanation of Matching Funds.*

Matching funds have been requested through CSDE as follows:

Salary/Benefits/Tuition: Two quarters of RA support expanding the scope of the project. Matching funds cover two quarters (6 months) of Graduate Research Assistant salary and 2 quarters of GSRA tuition (1 summer quarter and 1 academic quarter). The graduate student will assist with data collection, compilation, and processing. They will additionally assist with data sharing with partners during the fall quarter field visits.

UW Survey Center: \$2850 – for an additional 30 hours of Center support to the project.

Supplies and Materials: \$1,200 additional postage and \$2000 for gift cards to expand recruitment to represent a total of ~50% of the households in the study communities.

### Explanation of Other Resources:

Additional undergraduate student participation is anticipated in this project. The project will be advertised to students majoring in Environmental Studies (PoE) and Environmental Science and Terrestrial Resource Management (ESRM in SEFS) as a capstone opportunity. We anticipate supporting 1-3 capstone students. Though capstone students are not funded by a research grant, they would contribute by assisting with literature review, data compilation and results presentation as it relates to the capstone project that they define with their faculty mentor(s).