

Summer 2025 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Hub is pleased to offer current UBC graduate students the opportunity to work on sustainability internship projects. Successful candidates work under the guidance of a mentor from the partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region. The pay rate for the summer 2025 program is \$31.25/hour or \$7,812.50 for a 250-hour project.

- Visit the [Sustainability Scholars Program website](#) to learn [how the program works](#) and to [apply](#).
- Be sure to review the application guide on the Apply page to confirm your eligibility before applying.

Applications close at 11:59 pm on Sunday January 26, 2025.

Project title: Best practice research on drinking water disinfection protocols and emerging contaminants of concern

Project Background & Overview:

In order to deliver high quality drinking water to the 2.8 million residents of Metro Vancouver, continuous improvement must be explored and incorporated into Water Services operations; this includes reviewing and assessing current procedures. This project is focused on Standard Operating Procedures (SOPs) that will be evaluated in relation to any recent research or guidance documents.

This work includes developing a new water quality protocol pertaining to managing events of elevated Total Organic Carbon (TOC) and intake water temperatures in the source water. Evaluation of extensive monitoring data will be required. In addition, water main infrastructure requires routine maintenance; this work can result in the need for sections of water mains to be isolated and held for limited periods of time.

Existing disinfection and flushing protocols to manage this stagnant water are to be reviewed against North American standards and utility best practices from around the world.

Research into new and emerging contaminants is a continuing effort which supports Metro Vancouver's resilience to climate change and other factors contributing new risks to the water supply. Awareness of these contaminants and management techniques should be summarized as part of this project.

Project description

The scholar will research and develop a water quality protocol that will influence operational decisions when there is elevated total organic carbon (TOC) and source water temperatures.

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The scholar will research water main disinfection procedures and evaluate Metro Vancouver's current practices in relation to industry standards.

If time permits, the scholar will review existing research on emerging contaminants for risk factors pertaining to drinking water and develop Frequently Asked Questions (FAQ) summaries.

Project scope

1. Review water quality data (provided by Metro Vancouver) as it relates to free chlorine residuals measured in water transmission systems while TOC levels and water temperatures are elevated. Conduct a literature review of other water utility best practices, possible related research and conduct interviews with Metro Vancouver subject matter experts to understand current decision making so that disinfection SOPs can be updated to include decisions based on data results.
2. Conduct a literature review related to water main disinfection and system isolations of North American standards along with interviews (2-4) of other water utilities to understand industry best practices from North America to determine the validity of current operational procedures pertaining to water main isolation and disinfection practices. Evaluate the pros and cons of various practices and confirm applicability to local scenarios.
3. If time permits, conduct a literature review of emerging contaminants and methods to manage these risks and summarize finding into FAQ documents.

Resources will include but are not limited to the Canadian Water and Wastewater Association, American Water Works Association, and World Health Organization.

Deliverables

- A final report containing a summary of the work completed, including comprehensive findings and data.
- Revised disinfection standard operating procedures (if determined updates are required)
- Frequently Asked Questions (FAQs) documents relative to emerging contaminants (If work on emerging contaminants is conducted)
- Presentation to Metro Vancouver staff
- A final report for the online public-facing [Scholars Project Library](#).

Time Commitment

- This project will take 250 hours to complete
- This project must be completed between May 1 to August 15, 2025
- The Scholar is to complete their hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.
- The Scholar will meet with the project lead in Metro Vancouver's Water Services department and other relevant staff; a schedule of regular check-ins will be agreed upon at the start of the project.

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Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Familiarity with research methodologies and survey techniques
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Demonstrated research experience, an asset
- Technical writing experience, an asset
- Proficiency in data representation
- Interest in or familiarity with drinking water, water disinfection, contaminants of concern in drinking water, an asset
- Interest in the water industry and an understanding of how water systems generally operate, an asset.

Applications close at **11:59 pm Sunday January 26, 2025**

Apply here: [Click here to apply](#)

Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 21, 2025. [Click here for details and to register.](#)

Below are some links to useful resources to help you with your resume and cover letter (there are many more online). Some of these resources also provide information on preparing for your interview.

<https://students.ubc.ca/career/career-resources/resumes-cover-letters-curricula-vitae>

<https://www.grad.ubc.ca/current-students/graduate-pathways-success>

<https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services>