

## Summer 2024 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. These opportunities are paid. The pay rate for the summer 2024 program is \$27.50/hour or \$6,875 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 midnight on Sunday January 28, 2024.**

---

### **Project title: Research on Initiatives that Utilize GRI to Address Urban Heat Reduction and Biodiversity Enhancement in the City of Vancouver**

#### **Project Background & Overview:**

The City of Vancouver is facing a number of challenges with respect to climate adaptation. Population growth, urban development practices, and climate change are increasing urban heat, reducing biodiversity, raising sea levels, and increasing the frequency and intensity of rainfall, which is straining the city's aging sewer system and leading to chronic water quality impacts on receiving waters such as False Creek and the Fraser River.

In response, the City of Vancouver's Climate Change Adaptation Strategy (CCAS, 2018) and other related initiatives seek to address adaptation challenges, including impacts from urban heat, sea level rise, extreme rainfall, drought, and biodiversity loss. As an example, the Rain City Strategy (RCS, 2019), which was developed in response to the CCAS action plan, calls for a shift to a more holistic and integrated approach for achieving the goals of improved water quality, increased resilience, and enhanced livability. This ambitious approach treats rainwater as a valuable resource and mimics the natural hydrologic cycle by capturing and treating rainwater where it lands using green rainwater infrastructure (GRI) such as green roof systems and ground infiltration systems. GRI tools also exhibit multifunctionality and have been proven to deliver other climate adaptation benefits. Consequently, they have been adopted by leading cities around the world. Other related examples of strategies and initiatives include the City of Vancouver Urban Forest Strategy, Biodiversity Strategy, and the UBC Scholar report (2023-065) Classifying and Mapping Urban Green Interventions.

Although progress continues at the City of Vancouver on implementing and realizing the rainwater-related benefits of GRI, further investigation is required to justify the use of GRI to address other climate adaptation-related challenges; namely, urban heat and biodiversity.

#### **Project description**

The purpose of this project is to better understand the role that GRI can play in addressing two specific adaptation challenges: urban heat reduction and biodiversity enhancement. Specifically,

# SUSTAINABILITY SCHOLARS PROGRAM

the project seeks to undertake best practices research, subject matter expert interviews, and case studies from other jurisdictions that currently use GRI to advance climate adaptation objectives in the areas of urban heat reduction, biodiversity enhancement, and rainwater management, and provide recommendations for the City of Vancouver to better justify and utilize GRI in their own climate adaptation objectives.

Projects that contribute toward advancement of GRI uptake to meet CCAS and RCS implementation goals will contribute to progress on sustainability, climate adaptation, and equity.

## Project scope

The scope of this project shall focus on:

1. To help the Scholar understand the City of Vancouver context and begin creating the final report:
  - a. Review and summarise the City of Vancouver's climate adaptation challenges, strategies and bylaws, with particular focus on urban heat and biodiversity, and,
  - b. Literature review and brief summary of major types of GRI systems.
2. Literature review and case study research on a minimum of 2 jurisdictions and a summary of findings that:
  - a. Demonstrate that GRI tools can contribute to urban heat reduction and biodiversity enhancement,
  - b. Demonstrate the role of GRI within adaptation strategies aimed at addressing urban heat reduction and biodiversity enhancement (including supporting studies, design modifications, equity objectives advanced), and,
  - c. Document adaptive management initiatives (including measurement of progress) and any other supporting programs or actions (bylaws, funding programs, tools, online maps, or other key lessons learned).
3. Based on the research provide a list of recommendations and actions the City can take to demonstrate:
  - a. How GRI tools can be further justified to contribute to urban heat reduction and biodiversity enhancement,
  - b. Improve implementation of GRI, and,
  - c. Improve adaptive management of GRI, including monitoring and reporting on GRI initiatives. Recommendations may include, as example: Supporting studies, Bylaw changes, supporting tool development (online maps, etc.), other.

## Deliverables

- A draft Report Table of Contents, Research Methodology
- A final report containing a summary of the work completed
- A final report for the online public-facing [Scholars Project Library](#).

## Time Commitment

- This project will take 250 hours to complete

# SUSTAINABILITY SCHOLARS PROGRAM

- This project must be completed between May 1 to August 15, 2024
- The Scholar is to complete hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.
- Regular check-in meetings (weekly as default, or as agreed upon), Scholar to be responsible for developing the agenda

## Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability, climate adaptation, biodiversity, and green rainwater infrastructure (GRI)
- Familiarity with developing research methodologies to guide research
- Ability to plan, coordinate, and implement case study interviews
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Project management and organizational skills
- GIS training or experience an asset but not required
- Comfortable interacting with strangers to conduct public/in person interviews
- Familiarity preparing feasibility studies
- Report design and layout skills are an asset

## Additional information:

A truncated schedule that ends Thu Aug 1, 2024 would be preferred but is not essential. If not possible, receipt of the final draft report on or prior to Thu July 25 to enable the return of edits to scholar prior to Aug 1 would be beneficial but is also not essential.

Applications close **midnight Sunday January 28, 2024**

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

Contact Karen Taylor at [sustainability.scholars@ubc.ca](mailto:sustainability.scholars@ubc.ca) if you have questions

## Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 23, 2024. [Click here for details and to register.](#)

# SUSTAINABILITY SCHOLARS PROGRAM

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>