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 Practices for Implementing Green Rainwater Infrastructure in Parks: Funding, Land Acquisition, & Maintenance Models

Project Background & Overview:
Green Rainwater Infrastructure (GRI) is essential for urban sustainability as it addresses rainwater management, urban flooding (that will only increase with climate change), and biodiversity enhancement. The City of Vancouver is currently developing two major policy documents that reimagine the role of parks to transform sections of them into utility facilities. This new utility use involves repurposing areas within parks, traditionally used for habitat or recreation, into "large green facilities" designed to function as rainwater treatment systems. This utility focused initiative was first introduced in the Rain City Strategy (2019), the City's pioneering policy document that explored how GRI can meet various regional environmental obligations whilst furthering other City policies.

Unfortunately, the implementation of GRI within parks is not a straightforward process as it involves a multi-departmental level of coordination between the Park Board and the City's Engineering Department. Both departments agree that further actions are needed to protect the environment by reducing the large volumes of unfiltered rainwater and combined sewer overflow events that play a fundamental role in beach closures and aquatic ecosystem degradation in the Burrard Inlet, English Bay, False Creek, and the Fraser River. However, barriers such as capital funding sources, maintenance agreements, competing park uses, and land acquisition funding challenges are some of the complex items that need to be resolved to have a successful and sustainable implementation program.

Ahead of finding a definitive GRI in Parks model, the City has already implemented a few large scale GRI facilities in Parks. Projects such as Hinge Park (2009) have already been operating for over a decade. More sites have been added recently because of the City receiving funds from the Federal National Infrastructure Fund (NIF). This one-time funding source is helping the City and Parks deliver new GRI projects in parks such as Tatlow Creek Restoration and Gibby's Field Park in 2024. In 2025, The City has 3 more projects planned for delivery while the funding

remains available (source: https://www.shapeyourcity.ca/rupert-renfrew-station-area-plan/news_feed/green-rainwater-infrastructure-projects-are-coming-to-the-still-creek-watershed).

By examining the funding and maintenance aspects of successful implementation programs from other jurisdictions with similar conditions as found in Vancouver, this sustainability scholar project seeks to find and recommend a model. This model will enable the City and Park Board to establish a foundation for increasing GRI implementation in parks, managing right of way runoff in a financially and operationally sustainable manner. The efforts undertaken for this project align with various City action plans, including the Climate Change Adaptation Strategy, Rain City Strategy, Biodiversity Strategy.

This study will achieve its objectives by conducting a comprehensive literature review and interviews to identify effective models from other jurisdictions for funding, implementing, and maintaining green rainwater infrastructure (GRI) in parks. The available literature consists of publicly available policy documents, official municipal announcements, industry presentations, journal articles, among other resources. The scholar may further the literature review by conducting staff interviews that will help fill the gaps identified during the desktop study.

Project description

In Vancouver, high land values and limited space present unique challenges for GRI implementation. This study aims to identify effective models for funding, implementing, and maintaining green rainwater infrastructure (GRI) in parks through a literature review and interviews. Insights from this study will guide the City and Park Board on how to establish a more robust, sustainable capital and operational model to implement and maintain GRI assets in Parks that provide a utility service for the City. The findings will be actionable upon completion of the study by providing a roadmap for future GRI projects beyond 2025 and give the Healthy Waters Plan (in progress) a tool to help them forecast future funding needs.

Project scope

The primary activities for this project include:

1. Literature review.
    a. The scholar is expected to conduct a desktop study that reviews various publicly available policy documents, official municipal announcements, industry presentations, journal articles, among other resources.
    b. The scholar will identify a minimum of 3 cities that are the most relatable and applicable to Vancouver's unique conditions: land values, maturity state of GRI program, park space for GRI implementation, similar city values with respect to equity and climate change, weather, among others.
    c. Potential Cities may include these American municipality utilities and parks contacts in Seattle, Atlanta, Boston, and Pittsbugh (https://www.greatergreener.org/session/solving-multiple-policy-goals-with-green-stormwater-infrastructure-in-parks/)

2. Staff interviews. The scholar may further the literature review by conducting staff interviews that will help fill the gaps identified in the literature review.
    a. The scholar may interview a couple of individuals in the City of Vancouver Engineering and Park Board to understand the current state.
    b. The external staff to be interviewed will be individuals that work at those Cities that can provide further context to the publicly available document.
3. Information presentation in report. The scholar will explain their research method and summarize the information collected and present it in the form of case studies in the report.
4. Recommendations. In the report, the scholar will provide the city with an assessment of the case studies and provide a model recommendation that will either imitate an existing model, a mix of models or propose a new one if they identify a better opportunity that would be more applicable to Vancouver.
5. Final presentation. The scholar will present the findings to the City Engineering (GI) and Park Board Departments.

Deliverables

- A final report containing a summary of the work completed, includingcase studies and a proposed a model that could be implemented in collaboration between the City and Park Board.
- A final report for the online public-facing Scholars Project Library.
- A presentation summarizing the case studies and the recommendations from the report to the City Engineering Department (GI) and Vancouver Park Board.

Time Commitment

- This project will take 250 hours to complete.
- This project must be completed between May 1 to August 15.
- The Scholar is to complete hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.
- Scholar can have access to our offices at the Stanley Park Park Board Office or 14th Floor at Marine Gateway

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
☒ Project management and organizational skills
☒ Familiarity with benchmarking methods and tools
☒ Comfortable interacting with strangers to conduct public/in person surveys
☒ Familiarity preparing feasibility studies

☒ Experience with financial modelling and analysis
☒ Interest or familiarity with GRI principles
☒ Comfortable reaching out to other public employees that may be local or in other areas of Canada, United States and potentially Europe.

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