

SUSTAINABILITY SCHOLARS PROGRAM

Summer 2020

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region.

- Visit the [Sustainability Scholars Program website](#) to learn [how the program works](#) and to [apply](#).
- Be sure to review the [application guide](#) to confirm your eligibility before applying.
- **Applications close at midnight on Sunday March 8, 2020.**

Research project title: Developing long-term forest monitoring strategies to address the impacts of climate change on Metro Vancouver's water supply areas

How will this project make a contribution to regional sustainability?

Continues to ensure that the long-term resilience of the regional drinking water system is able to withstand climate change and other significant disruptions by building and integrating on climate change adaptation strategies.

Project description

Building on the work of two previous Sustainability Scholars, Metro Vancouver Water Services would like to further understand the potential impacts and mitigation opportunities for the forested water supply lands as the impacts of climate change continue to develop. This project is to begin the development of a **specific and comprehensive terrestrial ecosystem monitoring program** that will scientifically inform land managers with ecosystem metrics to support decision-making in land management and any necessary, protective management interventions.

The purpose of the project is:

The key purpose of the project will be the integration of information for adaptation, which supports biodiverse and resilient forests, particularly as it relates to drinking water quality and the protection of natural assets for the 2.5 million residents of Metro Vancouver.

The focus will be on the development of long-term monitoring strategies that can be used to adapt to the anticipated climate changes so that Metro Vancouver is able to maintain - resilience in the regional drinking water supply.

Outline the scope of project, including how Metro Vancouver will use the Scholar's work:

The scholar will:

1. Review and collate Metro Vancouver's work on this subject to date.

2. Review and tabulate the approach of other organizations in B.C. and the Pacific Northwest (e.g. Parks Canada, BC Parks, BC Forest Service, Capital Regional District, Seattle Public Utilities, etc.) on how they are addressing climate change, and compare this with Metro Vancouver's approach to date.
3. Evaluate the climate change impacts and use the information from above to recommend a long term monitoring strategy. Include indicators that could be used to evaluate the effectiveness and efficiency of monitoring strategies

Project Deliverables:

A report with:

1. A table on goals, objectives, strategies, and indicators and actions on how relevant organizations are addressing these concerns.
2. A comparison of how the strategies and approaches of other organizations might be useful for Metro Vancouver in developing a long term monitoring strategy.
3. List of potential long term monitoring programs/strategies. This could include:
 - Effectiveness of ecological restoration projects on riparian areas (particular in areas that have been logged in the past) over the long term
 - Changes to Old Growth Forests, Young Forests, etc. and strategies to protect them
 - Effects of landslides on natural regeneration
 - Forest insect and disease (forest health) monitoring program
 - etc.
4. List of References
5. Presentation to Metro Vancouver Staff
6. A final report [or Executive Summary] for the UBC Sustainability Scholars online project library.

Time Commitment

- This project will take **250** hours to complete of which approximately 25 hours (10%) will be field time.
- This project must be completed between May 4 and August 14, 2020
- The Scholar is expected to work approximately 20 hours per week—schedule to be confirmed in discussion with the project lead. Most of these hours can be undertaken at a location other than Metro Vancouver Head Office, except for scheduled meetings.

Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Project management and organizational skills
- Familiarity with natural resources management and asset
- Experience working in the field or doing field research an asset
- Experience in forest ecosystem monitoring.



☒ Own method of transportation to get to Metro Vancouver watersheds for occasional fieldwork would be preferred but not absolutely necessary (the Scholar will be reimbursed for mileage), access to own laptop and software required.

Applications close **midnight Sunday March 8, 2020.**

Apply here: <http://sustain.ubc.ca/scholarsapply>

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

Useful Resources

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>

