

UBC Sustainability Scholars Program 2019

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 organizational sustainability goals.

For more information about the Sustainability Scholars Program and to apply to work on this project, please visit the [Student Opportunities](#) page.

Please review the application guide (PDF) before applying.

Applications close **midnight Sunday March 24, 2019**

Title of Research Project: Analyzing data to understand the impact of climate change on the forests around the drinking water supply areas

1. The purpose of the project is:

To determine long-term climate change impacts on watershed forests and associated implications for water quality and supply with an emphasis on providing monitoring and adaptation recommendations to Metro Vancouver.

2. How will this project make a contribution to regional sustainability?

- Drinking Water Management Plan – Manage watersheds to provide clean safe water & manage and protect watersheds as natural assets.
- Metro Vancouver Board Strategic Plan – Incorporate strategies and actions into all Metro Vancouver functions to mitigate and adapt to climate change; Coordinate the development of effective collaborative approaches to ensure that the region can adapt to changing conditions; and evaluate the vulnerabilities of the water system to climate change . . . understand and plan for impacts from climate change including those to the source reservoirs.

3. Outline the scope of project including how the scholar's work will be used by Metro Vancouver:

Comprehensive literature and dataset (incl. GIS) review and reporting of anticipated implications for watershed forests and linkages to water quality as a result of climate change.

The scholar's work will be used to contribute to a long-term monitoring and adaptation strategy for the watershed forests as they relate to such factors as: changes in species composition, land cover classification, local climate adaptation, and biotic and abiotic disturbance resistance and resilience.

The scholar's work should build on references utilized and the knowledge gained from previous scholar's research: *Drought, wildfire, and climate change in Metro Vancouver's water supply area* – Derek van der Kamp, 2016.

4. Project Deliverables:

- A draft final report detailing the literature and dataset review with a strong emphasis on monitoring and adaptation recommendations.
- Presentation of findings to MV staff.

- Final Report for Metro Vancouver's use.
- Final report or executive summary for the UBC Sustainability Scholars Program online project library.

5. Identify **the required/preferred skill set and knowledge base for the ideal Scholar.**

Required skills:

- Excellent research and writing skills
- Strong analytical skills
- Ability to work independently
- Demonstrated time management skills
- Deadline oriented
- Demonstrated experience in BC forest ecology.
- Experience using GIS software
- Project management skills
- A good understanding of BC coastal forest ecology and biogeoclimatic ecosystem classification.
- Educational background in forestry – conservation, pathology, fire management, etc.

6. **Should the potential Scholar submit a writing sample?**

- Yes
- No

Time Commitment

- This project will take **250** hours to complete.
- This project must be completed between April 29 and August 12

7. Identify **specific requirements required for completing this project**

- Comfortable delivering oral presentations on technical information.
- Experience creating and working with databases.
- Must be able to travel to Metro Vancouver's head office in Burnaby to complete a portion of the work.
- Access to own laptop and software [GIS].
- The project is expected to be primarily office-based in drawing off of existing datasets and literature (with field visits as required for verification).

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Apply here: <https://sustain.ubc.ca/student-opportunities>

To learn more about the program here:

<https://sustain.ubc.ca/ubc-sustainability-scholars-program>

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