

Title of Research Project:

Monitoring the Impacts of Climate Change on the Forests of the Regional Watersheds

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

- Drinking Water Management Plan (DWMP)– 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

2. 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.

3. Outline the scope of project and 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 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 report detailing the literature and dataset review with a strong emphasis on monitoring and adaptation recommendations. Presentation of findings to MV staff.
- Final report or executive summary for the UBC Sustainability Scholars Program online project library.

Metro Vancouver
SUSTAINABLE REGION SCHOLARS
UBC Sustainability Scholars Program
Summer 2018

5. Time Commitment

- This project will take **250** hours to complete.
- This project must be completed between **01 May 2018** and **10 August 2018**
- The scholar is expected to complete approximately **15 to 20** hours of work per week.
Scholar to be available, either in person or by telephone as agreed, for project start-up meeting, periodic status updates and draft and final report presentations.

The project is expected to be primarily office-based in drawing off of existing datasets and literature (with field visits as required for verification).

6. Describe the required/preferred skill set and knowledge base for a Scholar

- Expertise in BC coastal forest ecology and biogeoclimatic ecosystem classification.
- Familiarity the BC coastal forest ecology as it relates to factors including local adaptation to climate in tree populations, the capacity of forests to adapt to new climates, and resistance and resilience to biotic and abiotic disturbances.
- Strong working knowledge in ESRI GIS software packages as required.
- Baseline understanding of Metro Vancouver water supply objectives would be an asset.
- Excellent research and writing skills.
- Strong analytical skills
- Ability to work independently
- Demonstrated time management skills
- Deadline oriented
- Strong working knowledge of GIS
- Comfortable delivering oral presentations on technical information
- Experience creating and working with databases

7. Identify specific requirements required for completing this project (if any)

Strong working knowledge of GIS.

Submit applications here: <http://bit.ly/2DC2jpP>