

GREENEST CITY SCHOLARS PROGRAM
UBC Sustainability Scholars Program, Summer 2018

Research project title

Understanding impacts of climate change on street tree health

Research supports the following policies -

- Greenest City Action Plan
Specific goal area (s): Access to Nature; characterizing impacts of climate change on the 150,000 trees being planted on streets
- Healthy City Strategy
Specific goal area (s): _____
- Renewable City Action Plan
- Green Operations
- Other: _____

Outline scope of project and why it is of value to City and describe how and when the scholar's work will be actionable

The Vancouver Park Board is working toward the Greenest City Action Plan goal of planting 150,000 trees by 2020. Since 2010, over 16,000 street trees have been planted. These new and existing trees are becoming increasingly susceptible to climate change, particularly dry summers and subsequent heavy rainstorms. The Park Board is seeking a student to analyse existing data on tree age and species, soil type and condition, watering protocols, cause of death and other parameters, and perform field observations of the condition of newly planted trees. The project will also include a literature review and field tests of best management practices for understanding tree health that might include hydrometric data, infrared photography, and mycorrhizal amendments. The desired outcomes of the project include a characterization of how much, how often and for how many years newly planted trees should be watered and monitored as well as recommendations for monitoring and improved management practices.

Deliverables

- Literature review of best management practices for monitoring tree health
- Analysis of existing tree-health data collected by Park Board staff
- Field observations for 2018 impacts of weather on young trees
- Recommendations for improved management practices of young street trees
- A public facing final report (or executive summary) for the UBC USI website

Time Commitment

- This project will take **250*** hours to complete.
- This project must be completed between **April 27 and August 31st**.
- The scholar is to complete hours between **Monday to Friday, 7:30 am to 3:30 pm**, approximately **10-15** hours per week.

Work location: Evans Yard and/or Sunset Yard

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

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Skill set/background required/preferred

- Excellent research and writing skills.
- Demonstrated interest in urban forestry.
- Strong technical writing skills
- Strong analytical skills
- Ability to work independently
- Demonstrated time management skills
- Deadline oriented
- Familiarity with quantitative research methodologies and implementation
- Other: Experience conducting field research

Additional Project Needs

- **Class 5 Driver's licence**
- **Willingness to work alone in public spaces**

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