

GREENEST CITY SCHOLARS PROGRAM
UBC Sustainability Scholars Program, Summer 2018

Research project title

How can landscape along city streets be more resilient in the face of climate change?

Research supports the following policies -

- Greenest City Action Plan
Specific goal area (s): Access to Nature _____
- 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

Plantings along streets are subject to harsh conditions including heat, air pollution, road salt and low soil volumes. The effects of climate change will worsen conditions for plants. The City has a limited budget for maintenance and replacement of these plants. This project will help to identify ways to improve existing horticulture assets and plan for success of future street construction to improve citizens' access to nature.

Scope of work:

- Review and build on previous Greenest City Scholar projects including the following: *Green Stormwater Infrastructure on City Streets (2016)*; *How can multiple Greenest City Action Plan strategies be incorporated to increase connections to nature in the city within the design of characteristic urban landscapes? (2014)*; *How can the City landscaping increase habitat values in our parks and along our streets for urban songbirds and other wildlife? (2013)*; and *How will we achieve our target to plant 150,000 new trees by 2020? (2012)*.
- Undertake a literature review of the effects of climate change on plants in the region's biogeoclimatic/plant hardiness zones with specific focus to street plantings.
- Undertake a precedent review of existing street horticulture practices and approaches in other municipalities related to adapting to climate change.
- Review existing street planting assets to form a baseline for recommendations.
- Help develop a toolkit of design and maintenance best practices including a recommended plant list.

How the work will be actionable:

- The information collected may be used in a variety of city initiatives including design for plantings along streets, revising maintenance practices, and establishing an asset management strategy for street horticulture assets.

Deliverables

- Summary of literature review and precedent studies
- Summary of recommendations including plant list, maintenance practices, design considerations, etc.

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

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- Final report or executive summary for the UBC Sustainability Scholars online project library.

Time Commitment

- This project will take **250** hours to complete.
- This project must be completed between ***(April 27th to August 10th, 2018)***
- The scholar is to complete hours between ***(9am and 5pm, Monday to Friday)***, approximately **20 to 30** hours per week.

Skill set/background required/preferred

- Excellent research and writing skills.
- Demonstrated interest in horticulture, urban design and landscape design.
- Strong technical writing skills
- Familiarity with research methodologies and survey techniques
- Strong analytical skills
- Ability to work independently
- Demonstrated time management skills
- Deadline oriented
- Project management and organizational skills
- Familiarity with specific software: Adobe, CAD, GIS familiarity is an asset.
- Strong technical and drafting skills
- GIS training or experience.
- Familiarity with benchmarking methods and tools
- Familiarity with qualitative research methodologies and implementation
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- Experience and/or interest in horticulture is critical.

Additional Project Needs

- **Transportation arrangements must meet operational requirements of the role. Independent site visits may be required.**

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