## Summer 2025 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Hub is pleased to offer current UBC graduate students the opportunity to work on sustainability internship projects. Successful candidates work under the guidance of a mentor from the partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region. The pay rate for the summer 2025 program is \$31.25/hour or \$7,812.50 for a 250-hour project.

- Visit the <u>Sustainability Scholars Program website</u> to learn <u>how the program works</u> and to <u>apply</u>.
- Be sure to review the application guide on the Apply page to confirm your eligibility before applying.

#### Applications close at 11:59 pm on Sunday January 26, 2025.

# Project title: Graphic visualizations of urban ecological corridors in decommissioned local roads

#### **Project Background & Overview:**

The 2022 Vancouver Plan lays out an "ecological vision" to create a connected network of habitat throughout the city. Making room for urban ecological corridors has many benefits including providing people with access to nature, supporting climate adaptation through shade and cooling, and mitigating biodiversity loss. It is also a complex undertaking—as Canada's most densely populated city, most native ecosystems have already been paved over.

Achieving the ecological vision will require creative thinking about restoration potential in highly urban spaces. Repurposing or "de-paving"<sup>1</sup> local roads is one such opportunity the City is exploring. The City is already striving to reduce its total amount of paved area for many practical reasons including reducing maintenance and renewal costs, improving rainwater infiltration, reducing pollution in receiving waters, and reducing urban heat. In some areas, these regular asset decommissioning and renewal decisions may free up rare urban spaces where nature can be restored and stewarded.

#### **Project description**

**Purpose:** The purpose of the project will be to graphically demonstrate what functional habitat could be planned for the space left behind by a de-commissioned local road.

**Actionable:** The products of this project will support City staff to communicate pathways for implementing the ecological vision. They may also inform future work to develop a typology of design criteria for urban ecological corridors. Having visually rich communication materials

<sup>&</sup>lt;sup>1</sup> For more info and inspiring examples of de-paving projects elsewhere, check out these links:

<sup>• &</sup>lt;u>https://reepgreen.ca/depave/</u>

 <sup>&</sup>lt;u>https://www.oala.ca/ground-60-depave-paradise</u>

<sup>•</sup> https://www.bbc.com/future/article/20240222-depaving-the-cities-replacing-concrete-with-earth-and-plants

helps staff to explain the opportunities to colleagues, decision makers, and the public, and can serve as inspiration for future capital projects. For instance, findings could help inform the design of future linear parks, greenways, roadside bioswales, pedestrian routes and other assets to enhance their ecological value.

**Value:** Habitat fragmentation drives biodiversity loss by separating and shrinking populations until they are no longer viable. Ecological corridors can be one piece of the puzzle in preventing and reversing local biodiversity loss. Beyond the benefits to wildlife, these green corridors will also deliver many ecosystem services and co-benefits across City objectives, including providing shade and urban cooling (Climate Change Adaptation Strategy), sequestering carbon (Climate Emergency Action Plan), supporting rainwater infiltration (Rain City Strategy, Healthy Waters Plan), and providing access to nature for residents (VanPlay, Vancouver Plan, Healthy City Strategy).

#### **Project scope**

#### Phase 1: Orientation and case studies

The first ~4 weeks of project time will be spent getting to know road reallocation and de-paving work in Vancouver and more generally. The scholar will:

- **Orientation:** Participate in 2-3 internal meetings with City of Vancouver staff who work on road reallocation, public space, and the ecological network to understand each department's general objectives.
- Literature review: Research and write a 3-5 page literature review summarizing the key benefits and considerations associated with ecological restoration in de-paved sites.
- **Case studies:** Identify no more than 2 precedent case studies from other municipalities where de-paving has been used to restore or create habitat.
  - Write a short (1-2 page) summary of the work, including descriptions of what kind of habitat was created, its limitations or challenges, and the socialecological benefits of the project.
  - (Optional) If the scholar is interested and making good time, they can identify a key person who was involved in implementing the precedent project(s), and invite them to share 'lessons learned' via phone, e-mail, or one virtual meeting.
- **Part 1 of final report:** Create or edit the Sustainability Scholars final report template, and plug the Phase 1 deliverables into it.

#### Phase 2: Iterative design

The next ~7 weeks of project time will be spent 'designing' an ecological corridor habitat for the chosen site. This will involve:

- **Design brief:** Developing a written 'design brief' (2-4 pages) summarizing:
  - The key site considerations (e.g., physical constraints, adjacent land uses, ecological connectivity)
  - Key habitat elements (e.g., coniferous trees, multi-level vegetation) and rationale for their inclusion/arrangement (e.g., to imitate a reference ecosystem; to provide urban cooling; etc.)

• **Drawings:** Developing 2-3 conceptual landscape drawings. These may be developed using SketchUp, Autodesk, Adobe Creative Cloud, another digital drawing software, or traditional media depending on the scholar's preferences and access to licenses.

#### Phase 3: Editing and finalizing report

The final ~4 weeks of project time will be reserved for review, editing, and formatting of the final report.

#### Deliverables

#### Internal / interim deliverables:

Note: These interim deliverables represent sections of the final project report. They have been broken down here as smaller interim deliverables to encourage regular submission and review of written work as the project progresses, rather than waiting until the end to compile the report.

- Phase 1:
  - o Outline / template for final report
  - Summary of literature on ecological restoration of de-paved roads (3-5 pages)
  - Summary of 2-3 precedent case studies (1-2 pages)
- Phase 2:
  - Design brief (2-4 pages)
  - Graphic renderings (2-3 images)
- Phase 3:
  - o Complete final report (formatted compilation of above deliverables)

#### Final deliverables:

- A final report (including graphic renderings) for the online public-facing <u>Scholars Project</u> <u>Library</u>.
- A 30-minute virtual presentation to staff at the conclusion of the project.

#### **Time Commitment**

- This project will take 250 hours to complete.
- This project must be completed between May 1 to August 15.
- The Scholar is to complete hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.

#### Required/preferred Skills and Background

- Demonstrated interest in sustainability
- Strong research and analytical skills
- I Ability to communicate effectively and concisely through written and graphic work
- Strong organizational skills and ability to work independently
- $oxed{intermatrix}$  Deadline oriented
- Strong landscape design and illustration skills (portfolio examples will be requested)

# SUSTAINABILITY SCHOLARS PROGRAM

Background in landscape architecture, ecological restoration, environmental design, or a related field

☑ Prior subject matter knowledge or applied experience with ecological restoration, green infrastructure, or public space design is considered an asset.

☑ If the successful candidate does not have access to a license for a digital art/landscape design software they can use competently and a computer that can run the software, then demonstrated ability to draw using traditional methods will be required.

Applications close **at 11:59 pm Sunday January 26, 2025** Apply here: <u>Click here to apply</u> Contact Karen Taylor at <u>sustainability.scholars@ubc.ca</u> if you have questions

### **Useful Resources**

We are holding a special **resume preparation workshop for prospective Scholars** on January 21, 2025. <u>Click here for details and to register.</u>

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