

Summer 2022 Sustainability Scholars Program Internship Opportunity

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 sustainability across the region.

- Visit the [Sustainability Scholars Program website](#) to learn [how the program works](#) and to [apply](#).
- Be sure to review the [application guide](#) to confirm your eligibility before applying.

Applications close at midnight on Sunday January 30, 2022.

>> This is a Collective Impact (CI) Project >>

Collective Impact (CI) projects involve multiple Scholars working in collaboration on one larger project. Some CI projects require Scholars with similar skills while some require Scholars with different skills. If you are a strong communicator and like the idea of achieving high impact through collaboration, this project might be for you. Read on for more details.

Project Title: Towards a regional plan for climate change adaptation, mitigation and biodiversity conservation in indigenous, rural, and urban landscapes of the Comox Valley (Sustainability and Climate Geospatial Analysis)

Total Number of Scholars Required: 5

Positions collaborating on this project

- 2022-005A: Towards a regional plan for climate change adaptation, mitigation and biodiversity conservation in indigenous, rural, and urban landscapes of the Comox Valley (Research and policy recommendations)
- 2022-005B: Towards a regional plan for climate change adaptation, mitigation and biodiversity conservation in indigenous, rural, and urban landscapes of the Comox Valley (Carbon Modelling and Climate Mitigation Solutions)
- 2022-005C: Towards a regional plan for climate change adaptation, mitigation and biodiversity conservation in indigenous, rural, and urban landscapes of the Comox Valley (Forest Fire Risk and Community Adaptation)
- 2022-005D: Towards a regional plan for climate change adaptation, mitigation and biodiversity conservation in indigenous, rural, and urban landscapes of the Comox Valley (Ecological Services and Sustainability)
- 2022-005E: Towards a regional plan for climate change adaptation, mitigation and biodiversity conservation in indigenous, rural, and urban landscapes of the Comox Valley (Sustainability and Climate Geospatial Analysis)

Project Background & Overview:

The Comox Valley in east central Vancouver Island is a unique region both biogeographically, and in terms of its social, cultural, and economic history. The effects of colonization and resource extraction have left indelible marks on the land, the sea, and marginalized communities. Over the past decade the Comox Valley Conservation Partnership (CVCP) has worked tirelessly to stitch together altered ecological and societal landscapes. We have achieved some notable successes and our trajectory towards creating a thriving, sustainable and resilient community is promising. However, emerging challenges are on the horizon, and our community needs to refocus its efforts to ensure that future generations will continue to benefit from K'omoks, the "Land of Plenty".

In 2008 the CVCP created the first regional conservation plan for the Comox Valley called [Nature Without Borders](#). This was one of the first plans of its kind in BC and has been looked to as a blueprint for how to achieve community sustainability objectives.

Acceptance of an urgent need to mitigate and adapt to climate change has penetrated local government policy with all four local governments declaring a "state of climate emergency" in 2019. Similarly, the *Declaration on the Rights of Indigenous Peoples Act* (RSBC 2019) and growing public awareness of the rights of indigenous people has set the stage for a paradigm shift in public policy at the local government level. In addition, ageing infrastructure relating to rainwater management, sewers and drinking water has awoken a "sleeping dragon" of cost that communities will need to address in order to achieve sustainable municipal service delivery in both economic and environmental terms.

Now is the time to build on the successful foundation of sustainability-related policy, strategy and practices established by the CVCP by updating [Nature Without Borders](#) to directly incorporate climate adaptation and mitigation and the rights of indigenous people, and to accentuate the significance of ecological goods and services/natural asset management to achieve sustainable municipal service delivery.

Project description

This project is intended to provide scientific, evidence-based information to inform public policy relating to

- a) climate adaptation and mitigation;
- b) protection of sensitive ecosystems including biodiversity conservation;
- c) identification, protection and enhancement of natural assets which support sustainable local government service delivery; and
- d) highlighting indigenous values on the landscape

These four outcomes work synergistically to ensure that the Comox Valley remains a thriving and resilient community that is inclusive with particular relevance to indigenous equity and justice.

In the Comox Valley, as with other jurisdictions on southeast Vancouver Island, the Sensitive Ecosystem Inventory (SEI) is a foundational data-layer that is relied upon heavily by local government planners, and is well understood by the development community, local ENGOs and informed residents. It remains one of the most relevant landcover data sets in the region guiding land use decision-making. While updates to the spatial polygons are planned for 2022-2023, the CVCP would like to explore adding additional attribute-data to these polygons relating to climate change adaptation and mitigation, ecological services and indigenous values so that this keystone data layer will evolve to remain relevant and provide additional value to current and future land use policy decision-making.

SUSTAINABILITY SCHOLARS PROGRAM

Further, the key principles, goals and objectives of Nature Without Borders will also be modernized to include these emerging priorities. Innovative local government policy and structures will be explored based on best practices from other jurisdictions and compared to a scan of current local government policies in the Comox Valley. Specific recommendations will be made that, if adopted, will propel local governments in the region forwards towards a leadership position relating to climate mitigation and adaptation, ecological services (including drinking water resources), biodiversity conservation and indigenous reconciliation.

Project scope

Each of the five Scholars involved in the project will have a specialized role, but the common objective is to update Nature Without Borders such that it significantly advances climate mitigation and adaptation, biodiversity conservation, natural asset management and indigenous rights.

This Scholar will play a supporting role to the others in relation to GIS and remote sensing. While the other Scholars will likely have some exposure or experience with GIS to various degrees, the heavy reliance on spatial outputs desired through this project warrants specific capacity in this area. As most of the Scholars will be working with common datasets such as SEI layers and other landcover data, efficiencies will be gained for project implementation if this aspect is the purview of a specifically dedicated resource.

Activities:

- Depending on the demands and workflow of the project as it unfolds, the creation of other base maps for the updated Nature Without Borders report will be desirable.
- If possible given time constraints, this Scholar will also work towards using remotely sensed data to flag areas of forest that were too young during the last 3 iterations of SEI data capture and analysis to be included in the Mature Second Growth SEI category. Particularly given that the first iteration of SEI was based on 1992 air photo analysis (nearly 30 years ago), there is a sense that significant areas of forest may have recruited into mature forest status (~>80 years old). If so, these areas are not currently afforded the protection that is sometimes associated with SEI polygons in local government policy representing a gap in the protection of biodiversity on the landscape.
- Work in collaboration with the other Scholars involved in this project to produce the final deliverables

Deliverables

- An interim presentation to the CVCP Steering Committee and other invited individuals.
- A final report (updated Nature Without Borders) containing a summary of the research analysis and recommendations completed (including tables, graphs and maps as may be desirable) a references section, and appendices.
- A final report for the online public-facing [Scholars Project Library](#).

Time Commitment

- Each position is for 270 hours.
- This project must be completed between May 2 and August 12, 2022
- The scholars are to complete hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.

SUSTAINABILITY SCHOLARS PROGRAM

Required/preferred Skills and Background

- ☒ Excellent research and writing skills
- ☒ Demonstrated interest in sustainability
- ☒ Statistical analysis
- ☒ Community engagement experience
- ☒ Strong analytical skills
- ☒ Ability to work independently
- ☒ Deadline oriented
- ☒ Project management and organizational skills
- ☒ Programming skills
- ☒ Familiarity with WordPress, Drupal, or other website content tools
- ☒ Demonstrated experience with GIS, remote sensing and cartography experience, including experience with iMap tools
- ☒ Demonstrated experience working with ArcGIS
- ☒ Experience with the ecosystems of coastal BC
- ☒ Design and layout skills
- ☒ The GIS position will be involved with data and need access to ArcGIS and a computer that can handle the work

Applications close **midnight Sunday January 30, 2022**

Apply here: [Click here to apply](#)

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

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 19. [Click here for details and to register.](#) 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>