Summer 2023 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 on the Apply page to confirm your eligibility before applying.

Applications close at midnight on Sunday January 29, 2023.

> This is a Fraser Estuary Research Collaborative Project <

The Fraser Estuary Research Collaborative (FERC) is focussed on advancing efforts to protect the Fraser River estuary in collaboration with key NGO and Indigenous partners. If you are interested in producing new knowledge and supporting Fraser estuary protection through scientific, technical, governance and policy innovations, the following project might be for you. Read on for more details.

Project title: Research engagement best practices, and develop graphics for climate resilient flood infrastructure for a technical audience

Project Background & Overview:
At the beginning of one of the most important and prolific salmon rivers in the world, the lower Fraser watershed (Richmond to Hope) contains over 1,500 kilometers of important floodplain habitat inaccessible to salmon due to over 150 pieces of aging flood control infrastructure (including floodgates, pumpstations, and dikes) many of which are in poor and failing condition. These floodplains also serve as critical agricultural land under increasing development pressure for other land uses, all of which are vulnerable to increasing flood impacts caused by climate change. First Nations along the Lower Fraser are also disproportionately impacted by flood and loss of salmon, with many of these communities' reserve lands at risk of flooding in any given year. For all these reasons flood infrastructure requires much more thoughtful planning and innovative multi-benefit solutions to prepare communities for climate change impacts with very limited funding and coordination to do so. Our hope is that by engaging with and informing our cross-sector network about better flood infrastructure design and operational practices we will improve community, salmon, and ecosystem resilience to flooding and climate change more broadly.

Project description

With the flooding events of November 2021, it has become well understood that BC and the Lower Mainland are suffering from a lack of information sharing around designing and constructing modern and proactive flood infrastructure. Building on prior research we have already compiled we are looking to develop engaging communication tools to advance best practices for more ecological and climate resilient flood infrastructure. To help inform these efforts further we will be hosting a series of workshops to encourage information sharing and innovation around place-based flood infrastructure best practices which will run spring and summer of 2023. These workshops will invite local government staff, consultants, First Nations, academia, and other experts from across disciplines primarily from civil and geotechnical engineering and environment to share their experiences and innovate new best practices together.

These best practices workshops will revolve around four main issue areas:

1. Floodgates
2. Pump Stations
3. Dike and dike alternatives
4. Integrated Floodplain Management

The best practices will investigate various procedural dimensions for each of the above subjects including:

- Design
- Permitting
- Manufacturing
- Construction
- Operations
- Monitoring
- Maintenance

We are seeking a student that would help to capture and translate workshop results and associated research into engaging multimedia formats and communications tools to encourage their proliferation and adoption. The student will ideally be able to attend the workshops to aid their understanding, and possibly helping to facilitate or take notes for a breakout group conversation. The student will also be provided with results of the workshops, other existing research, and will be asked to seek other relevant research to fill any gaps required. Results will likely primarily be qualitative in nature, not quantitative data. If deemed helpful, the student may also develop a survey for the workshop audience to support this research. Based on all of the above the student will prepare engaging communication tools to share with our cross-sector network to encourage adoption of the best practices.

Project scope

The student will primarily be responsible for:

- Reviewing existing research (literature reviews and case studies) prepared by Resilient Waters on flood infrastructure
- Support workshop development and attend workshops as a note-taker/table facilitator
- Time permitting: Summarize results and key messages of the workshops for a report back to our cross-sector network and workshop participants

- Seek additional research to fill any gaps in information not captured by prior research and workshops. This could include development of a survey for workshop invitees if deemed helpful.
- Research best practices for creating engaging best practices multimedia for a target technical audience
- Translate workshop results and research into audience appropriate multimedia formats that will help to advance best practices. We will assist the student in determining what key best practices are, and work with them to determine the appropriate multimedia format (with the available time and skills of the student in mind). Multimedia formats could include, but not be restricted to, videos, animations, infographics, or reports.

Deliverables

- Report on individual workshop results
- Multimedia outputs relating to best practices
- A final report outlining objectives, multimedia outputs, and associated rationale for their selection
- A final report for the online public-facing Scholars Project Library.

Time Commitment

- This project will take 260 hours to complete: 250 hours to be allocated to the research, and 10 hours to be allocated to participating in meetings and collaboration opportunities with the rest of the FERC cohort
- This project must be completed between May 1 to August 15, 2023
- The Scholar is to complete hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.
- The Scholar must live in the lower mainland in order to be available to attend FERC meetings and events in person.

Required/preferred Skills and Background

☒ Excellent research and writing skills
☒ Demonstrated interest in sustainability
☒ Experience conducting stakeholder engagement events, including facilitation skills, is an asset
☒ Community engagement experience
☒ Strong analytical skills
☒ Ability to work independently
☒ Deadline oriented
☒ Project management and organizational skills
☒ Familiarity with WordPress, Drupal, or other website content tools
☒ Strong technical and drafting skills
☒ Demonstrated experience in some aspect of multimedia (videos, animation, infographics, autocad or other landscape design modeling)
☒ Design and layout skills

Applications close **midnight Sunday January 29, 2023**
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 23, 2023. 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