

Graduate Internship Opportunity

Summer 2025

PROJECT TITLE

Designing a Circular Economy Waste Audit Methodology for the University of Victoria

ORGANIZATION

Office of Campus Planning & Sustainability, UVic

Project Background

Universities play a crucial role in advancing sustainability and mitigating climate change impacts. The campus environment generates significant waste and with many universities committing to sustainability and circular economy principles, effective waste management practices are essential. Current waste audit methodologies may not fully capture the complexities of campus waste streams or support circular economy initiatives, leading to missed opportunities for improvement.

This project addresses the need for a tailored waste audit methodology, informed by a review of past audit reports and waste data. By enhancing data collection processes and integrating findings into waste hauler contracts, this initiative contributes to climate action and supports the university's sustainability goals, particularly in understanding and reducing Scope 3 emissions, while promoting resource efficiency and material recovery.

Project Description

This project aims to analyze historical waste audit reports and current waste data to design a new waste audit methodology that aligns with circular economy principles for the university campus as well as review existing waste hauler contracts to ensure they support effective data collection and reporting practices aligned with circular economy goals. The purpose is to develop a robust framework that accurately reflects waste generation and composition, facilitating better decision-making for waste management and resource recovery.

If time and data allow, the project will include an updated emissions assessment of UVic's solid waste emissions generated from operations.

This initiative is valuable as it enhances the university's ability to monitor waste flows, engage stakeholders, and implement data-driven strategies that promote sustainability and the responsible use of resources.

Scope of Work

The project will explore key material flows across campus, focusing on high-impact categories such as paper, plastic and food waste.

Key questions include:

- What are the main types of waste generated on campus, and how have these changed over time?
- What gaps exist in current waste audit methodologies regarding material recovery and waste reduction?
- How can the new waste audit methodology be structured to better reflect circular economy principles and support Scope 3 emissions assessments?
- What specific data collection processes are currently employed by waste haulers, and how can these be improved?
- What best practices from other institutions or industries can inform the development of our waste audit methodology?
- What opportunities exist (policy, programs, technology, grants) that can support this work?

The project scope includes several key activities:

- **Analysis of Past Audit Reports and Waste Data:**
 - Review and analyze historical waste audit reports to identify trends and gaps in data collection, particularly in relation to circular economy metrics.
 - Assess current waste data to inform the development of a new methodology that emphasizes material recovery and waste reduction.
- **Development of a New Waste Audit Methodology:**
 - Design a comprehensive and tailored waste audit methodology that captures the specific needs of the campus environment while identifying opportunities to implement circular economy principles.
 - The methodology shall establish a consistent and repeatable approach for the collection, analysis and reporting of waste audit data via biennial reporting (or otherwise recommended).
 - The audit methodology should be consistent with data/reporting needs for Scope 3 waste-related emissions, including emissions from the transportation of waste.

- **Stakeholder Engagement:**
 - Engage with key operational departments to gather insights and feedback on current practices and procurement integration.
- **Review of Waste Hauler Contracts:**
 - Evaluate existing contracts with waste haulers to identify opportunities for improved data collection and reporting mechanisms that support circular economy objectives.
 - Provide recommendations for contract modifications that align with the new audit methodology.
- **Circular Economy and Procurement Analysis:**
 - Identify opportunities for implementing circular economy principles
 - Analyze procurement practices for waste reduction potential
 - Recommend strategies for sustainable material management
- **Calculation of Solid Waste Emissions Generated from Operations (if time allows):**
 - Utilize the data collected to calculate the Scope 3 emissions associated with solid waste generation on campus (i.e. GHG Protocol)
 - Compute total emissions from waste generated
- **Report Writing and Presentation:**
 - Compile findings and recommendations
 - Prepare a comprehensive report and presentation

Key Deliverables

Apart from a final report outlining the project objectives, background, research findings, analysis and recommendations, the primary deliverable will be an associated guide (or operating procedures) outlining the new methodology and how to implement it.

If time permits, a third deliverable would include an updated emissions assessment of UVic's solid waste emissions generated from operations.

Time Commitment

- **May 1 - May 15:** Collect and review historical waste audit reports and current waste data.
- **May 16 - June 15:** Develop and refine the new circular economy waste audit methodology based on findings.
- **June 16 - July 15:** Calculate Scope 3 emissions related to waste generation and review waste hauler contracts.
- **July 16 - August 1:** Draft the final report outlining the methodology, emission calculations, and recommendations.

- **August 2 - August 15:** Finalize the report

Preferred Skills & Background

- Demonstrated interest in sustainability
- Experience conducting stakeholder engagement events, including facilitation skills, is an asset
- Familiarity with research methodologies and survey techniques
- Statistical analysis
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Project management and organizational skills
- Strong technical and drafting skills
- Familiarity with benchmarking methods and tools
- Familiarity preparing feasibility studies
- Experience with financial modelling and analysis
- Criminal Record Check required *[note that the project partner is responsible for reimbursing the successful candidate's reasonable expenses to get a criminal record check done]*

Program Information

Dates: May 1—August 15, 2025

Compensation: Scholars are paid approximately \$31.80/hr for 250 hours of work (based on UVic Research Assistant pay rate)

Application Deadline: January 31, 2025

Contact: Laurel Currie (sustainability-scholars@uvic.ca)

[Visit our website](#) to learn more about eligibility and application requirements.