

Summer 2026 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 [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 11:59 pm on Sunday February 1, 2026.

Project title: Research to inform a geospatial forecasting tool to support climate-resilient redevelopment planning in Surrey

Project Background

Surrey is one of the fastest-growing cities in Metro Vancouver, with its population expected to surpass one million residents within the next two decades. Managing this rapid urban growth in a sustainable and climate-resilient manner remains a central challenge for the City. While citywide forecasts from BC Stats provide overall population and employment trends, they do not capture how growth will vary across Surrey's diverse neighbourhoods or reflect parcel-level redevelopment dynamics and local demand.

Surrey's existing forecasting approach estimates development capacity based on land use designations. However, recent provincial housing legislation has significantly increased minimum permitted densities in many urban centres. As a result, capacity-based models now overestimate long-term build-out potential and offer limited insight into where redevelopment is occurring or in what timeframe.

A more detailed, geospatial understanding of redevelopment patterns is essential for advancing Surrey's climate and sustainability objectives. Improved modelling of how and where growth may materialize will support planning for compact, transit-oriented communities, coordinating infrastructure upgrades, aligning with BC Hydro's distribution planning, and advancing low-carbon urban development through the creation of 15-minute neighbourhoods. It also supports equitable climate adaptation by anticipating redevelopment pressures and identifying opportunities for sustainable infill.

Developing methods to estimate parcel-level redevelopment potential is a foundational next step in refining Surrey's long-term forecasting framework. This project will focus on exploring, testing, and evaluating several feasible approaches, drawing on best practices and the data available within Surrey. By applying selected methods to historical datasets, the Scholar will

assess how well each approach reflects actual redevelopment trends and identify key assumptions or limitations that influence their performance.

Rather than producing a finalized model, this work emphasizes learning and reflection. The results will highlight the strengths and weaknesses of each tested approach, outline data needs and practical considerations, and identify which methods warrant further refinement in future phases.

Project description

The purpose of this project is to explore and test approaches for estimating parcel-level redevelopment potential as part of Surrey's evolving geospatial growth forecasting model. Understanding where redevelopment is likely to occur will help the City better anticipate future population, housing, and employment growth, and plan for compact, low-carbon development.

The Scholar will begin with an environmental scan and literature review of best practices in redevelopment likelihood and urban growth modelling. This review will identify methods used in other jurisdictions or documented in academic research, as well as the data inputs typically required. Surrey staff will provide access to available datasets and assist with data preparation.

Drawing from the findings, the Scholar will select two methods and then apply them to Surrey parcels as prototype tests. Rather than aiming to produce a definitive model, the Scholar will evaluate how well each approach performs when applied to local data, what patterns they capture, and where limitations or data gaps emerge. For example, the Scholar may compare forecasts based on 2020 parcel conditions to redevelopment observed by 2025 to gauge overall model behaviour.

The Scholar will document insights from testing, practical considerations for implementation, and recommendations for future model development. The project is designed to be iterative and adaptable. If data constraints arise, the final product may focus more on summarizing viable approaches, data needs, and trade-offs identified through the research. The results will also be made publicly available to help inform similar work in other municipalities.

Project scope

The Scholar will undertake a series of applied research and analytical activities to explore and test approaches for estimating parcel-level redevelopment potential, along with preparing an accompanying report. Key activities include:

- 1) Literature Review and Best Practice Scan
 - a) Research current methods and tools used by municipalities and regional agencies for spatial growth forecasting, redevelopment likelihood modelling, and land-use capacity analysis, including what data inputs these methods typically require.
 - b) Review Surrey's planning context and available data to determine which methods are most feasible to test.

SUSTAINABILITY SCHOLARS PROGRAM

- c) Identify transferable approaches that can be applied in prototype form to evaluate how well they work for Surrey.

Note: If required data used in other jurisdictions are readily accessible, Surrey staff will provide them so the Scholar can build and test a redevelopment potential model. If data are not available, the Scholar may identify suitable alternative data sources or produce a policy-oriented analysis summarizing method options, data requirements, and associated acquisition costs.

2) Data Review and Preparation

- a) Review City datasets (e.g., building permits, development applications, BC Assessment, zoning, and land-use designations) to identify variables relevant to redevelopment potential.
- b) Assess data quality and suitability for testing prototype methods.

3) Prototype Method Testing

- a) Select two methods identified through the literature review and apply them to Surrey's parcel data as exploratory tests.
- b) Use historical comparisons to assess how each approach performs and what trends it captures.

4) Analysis and Findings

- a) Summarize test results, key assumptions, and insights on the strengths and limitations of each method.
- b) Identify data gaps, practical challenges, and considerations for refining or expanding redevelopment potential modelling in future phases.

5) Reporting and Knowledge Sharing

- a) Prepare a final report documenting methods tested, data sources reviewed, results, and reflections.
- b) Present findings to City staff and support discussions on how these insights can inform future growth forecasting, sustainability planning, and climate-related analysis

Deliverables

- A final report containing a summary of the work completed.
- A presentation on work completed to City staff.
- A final report for the online public-facing [Scholars Project Library](#).
- A prototype redevelopment potential module for a geospatial growth forecasting model.

Time Commitment

- This project will take 250 hours to complete
- This project must be completed between May 1 to August 14.

SUSTAINABILITY SCHOLARS PROGRAM

- The Scholars is to complete their hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.

Required/preferred Skills and Background

- ☒ Excellent research and writing skills
- ☒ Statistical analysis required
- ☒ Strong analytical skills
- ☒ Ability to work independently
- ☒ Strong technical competency
- ☒ GIS training or experience required
- ☒ Experience with developing a geospatial model or prototype an asset
- ☒ Comfortable working with and cleaning big and disparate data bases

Applications close at **11:59 pm Sunday February 1, 2026**

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, 2026.
[Click here for details and to register.](#)

Below are some links to useful resources to help you with your resume, cover letter and preparing for an interview (there are many more online).

<https://students.ubc.ca/career/career-resources/>

<https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services>