

# PROGRAM AND STUDENT RESEARCH UPDATES: THE RESOURCE AND ENVIRONMENTAL PLANNING PROGRAM AT SIMON FRASER UNIVERSITY

Dr. Andréanne Doyon, RPP MCIP  
and PIBC Student Members Alexis Coutu-Marcott & Andrew Palmer



The School of Resource and Environmental Management (REM) at Simon Fraser University (SFU) is an interdisciplinary program that develops knowledge and trains students in sustainable natural resource management. REM accomplishes this through research in a variety of fields, including policy, ecology, and economics, with the express goal of equipping students with the tools necessary to impact change within various institutions and systems pertaining to natural resource management and environmental planning in Canada. REM is unique in this sense and hosts a one-of-a-kind planning program for students keen on specializing in environmental and natural asset planning. Through applied and community-oriented projects, students develop professional deliverables and recommendations for real-world planning challenges. From these experiential learnings, students contribute to societal problems through their capstone and thesis projects, which can be grouped under four contemporary themes: Equity, Climate Change, Food Systems, and Indigenous Partnerships. Other areas of research include hazard risk mitigation (Anneliese Neweduk with the SFU Avalanche Research Program) and rural resilience and municipal entrepreneurship (Alexis Coutu-Marcotte with the Community Development Lab).

### Climate Change

Climate change is a wicked problem that REM seeks to address through multiple research lenses. As an interdisciplinary program, our students learn how to prepare and plan for a better future, what a changing climate means for communities

and ecosystems across Canada, and the science behind our changing climate. REM's diverse body of student-led climate scholarship includes:

**Laura Beattie** Laura's research examines over 1,000 local governments across Canada to determine how resilience is included in their long-range plans (e.g., Official Community Plans) to better understand what meaningful implementation of resilience looks like.

**Abby McCarthy** Abby's research looks to better understand the carbon dynamics of salt marshes in BC to inform the management of coastal wetland systems and their role in meeting climate emissions targets.

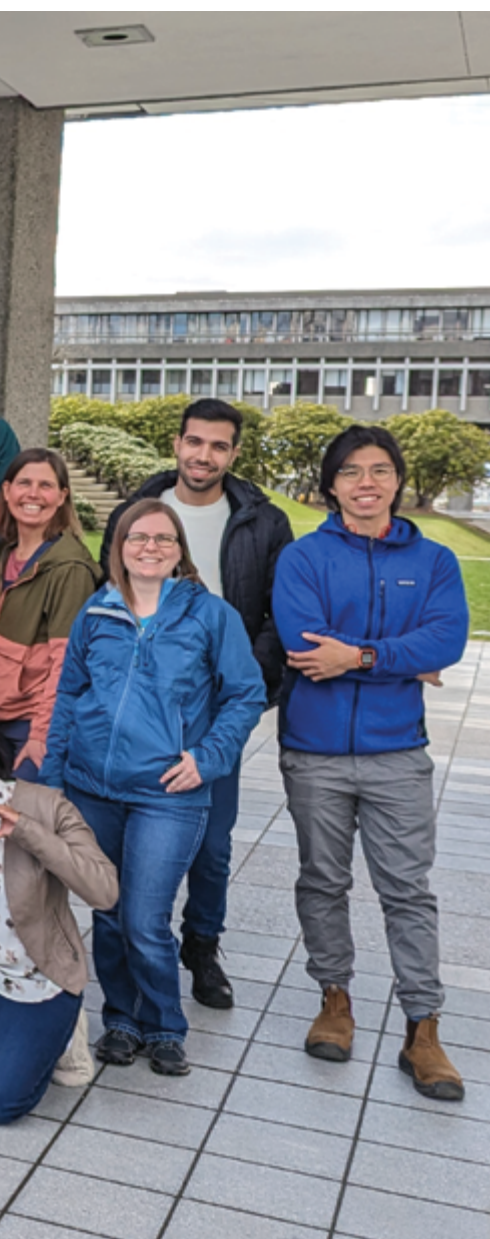
**Chelsea Mathieson** Chelsea's research identifies strengths, weaknesses, and possible gaps in Canada's recent 2030 Emissions Reduction Plan (ERP) and provides recommendations on how it can be improved. The ERP must be an effective, comprehensive, just, and socially equitable climate plan that includes goals with measurable targets, programs, and initiatives that incorporate monitoring and adaptive management and embrace leadership and accountability.

**Heather Chambers** Following disasters resulting from extreme climate events, communities are tasked with rebuilding under a complex regulatory landscape with limited funding and capacity. Heather's research seeks to understand the regulatory, financial, and insurance landscape as it either hinders or supports post-wildfire resilient rebuilding in rural communities across BC.

### Equity

Planning students within REM engage with social equity through a variety of different avenues. Through coursework on sustainable and equitable planning, class projects working directly with First Nations and local municipalities in British Columbia, and student-directed research projects, REM planning students actively unpack and contribute to what it means to plan with, and for, equity.

**Tira Okamoto** Tira's research expands on current usages of equity



School of Resource and Environmental Management (REM) class photo. Photo Hafsa Salihue



and justice in coastal adaptation planning and proposes an evaluative framework for assessing equity and justice within adaptation planning processes.

**Jackson Fitzgerald** The Automaker Consumer Model (AUM) simulates consumer and automaker responses to various zero-emissions vehicle (ZEV) policies, such as ZEV-mandates or carbon taxes. Jackson's research aims to expand this model to better consider how the implementation of vehicle charging infrastructure can affect consumers' choices regarding the vehicles they choose to drive.

**Sean McBain** Using the AUM, Sean's research is focused on exploring equity as it relates to zero-emission vehicle (ZEV) affordability and adoption. Specifically, his research aims to introduce an addition to the model that better incorporates income considerations into policy analysis aimed at achieving ZEV adoption targets.

### Food Systems

Planning research in REM supports growing movements to determine how food shapes healthy communities, with a specific interest in how planners can be more involved in food systems planning. Recently, the COVID-19 pandemic drew attention to many food system issues in Canada and increased the urgency to create more resilient and equitable food systems and communities. The following three research projects have specifically looked at opportunities and challenges in rendering our food systems more resilient, specifically focusing on the case of the Farm to School program in BC and supporting the development of Canada's first national school food policy.

**Dina Sadeghi** Many K-12 students rely on food or meals provided through programs such as those offered by Farm to School BC. However, the COVID-19 pandemic posed challenges to the continuance of school food programming, particularly when schools were closed or had to limit operations. Dina's research looks to understand these challenges and opportunities to prepare for future emergencies and improve both food security and food systems resiliency.

**Hafsa Salihue** Hafsa's research applies a social innovation lab approach to identify the gaps and opportunities for integrating

local food in school food programs across British Columbia. The findings inform recommendations for systems change by scaling up impact through policy and governance, scaling out impact through investment in the local food economy and infrastructure, and scaling deep through education and place-based cultural practices.

**Elina Blomley** Beyond just farmland preservation, Elina's research aims to determine what tools are available to planners in the province to strengthen place-based food systems. This includes understanding the role planners have in leveraging the purchasing power of schools to purchase from local food growers in response to the federal government's national school food policy.

### Indigenous Partnerships

In REM, we consider how settler-colonial and Indigenous relationships affect environmental management. This includes coursework focusing on socio-ecological systems, cultural ecological perspectives, Indigenous worldviews and planning practices, settler-colonialism, and co-governance approaches to environmental problems. Throughout the program, REM students are challenged to both understand their positionalities and recognize their responsibilities to uphold and support Indigenous rights and self-determination. The following four research projects strengthen REM's commitment to

allyship in research.

**Anwen Rees** Nature-based solutions (NbS) are multifunctional strategies that address the climate crisis and biodiversity crisis in tandem through a place-based and co-created process. However, because NbS originated in western, international forums, some critics argue that NbS can be harmful to Indigenous Peoples. Anwen's research considers how NbS and colonialism are interlinked and how settler NbS practitioners and researchers can support the co-creation of NbS in settler-colonial and Indigenous contexts.

**Andrew Palmer** Andrew's research aims to support the Okanagan Lake Responsibility Action Plan, a Syilx-led planning process delivered through the Okanagan Nation Alliance, to examine how the implications of climate change will impact its holistic management and innovative governance outcomes. This will include a determination of the potential for co-created, adaptable, and place-based NbS to enhance resiliency in a changing climate.

**Mary Kelly** Mary's research supports a larger project in Xwe'etay/Lasqueti Island in the Salish Sea, which is looking at how to better honour and protect First Nations heritage through community-engaged research and planning. Her work focuses on how First Nations are exerting self-determination through heritage policies and related stewardship initiatives, as well as the responses from local municipalities.



Photo Meg Holden

**Katarina Helm** Katarina's research is in partnership with the Nuu-chah-nulth Tribal Council and the Skidegate Band Council. These remote coastal communities rely heavily on marine transportation and recognize the necessity to move away from fossil fuel-powered vessels in order to reach their net-zero targets. This research will provide a roadmap for a just and equitable transition to clean marine propulsion systems, as well as policy pathways in support of these efforts.

#### REPSA Updates

The REM planning program has its own volunteer student planning organization, the Resource and Environmental Planning Student Association (REPSA), which empowers students to engage with the broader planning community at a professional level through the facilitation of planning-related events throughout the academic year. This year's roster included a

wide variety of offerings, such as professional speaker panels centering on alumni re-engagement, land use planning in a development context, and the Okanagan Bioregional Strategy. In addition, REPSA hosted a PIBC networking event to connect students with practicing planners, as well as various on-campus social gatherings to interface with faculty and facilitate collaboration across cohorts. The Resource and Environmental Management Student Union (REMSU) also represents planning students through their role as an overarching student organization for REM. In partnership with REPSA, REMSU will be co-hosting a panel event centering on the role of biodiversity in environmental management and planning, which is scheduled for Fall 2023.

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*With contributions from REM students:*

#### *Climate Change*

Laura Beattie, Abby McCarthy, Chelsea Mathieson, Heather Chambers

#### *Equity*

Tira Okamoto

#### *Systems*

Dina Sadeghi, Hafsa Salihue, Elina Blomley

#### *Indigenous Partnerships*

Anwen Rees, Andrew Palmer

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