

RESEARCH TO ACTION: ADVANCING URBAN SUSTAINABILITY

Agenda

12:30 pm

Registration and Coffee

1:00 pm

Welcome Remarks | BC Hydro Theatre

1:10 pm

Guest Speaker: Malcolm Shield | BC Hydro Theatre

“Blueprint for a Decarbonized World: Taking on the Challenge”

1:55 pm

Break

2:10 pm

Concurrent Panel Sessions

Emissions & Wastewater | Moderator: Rob Kemp, Metro Vancouver | Policy Lab A

Urban Resilience | Moderator: Diana Lopez, UBC | Policy Lab B

Dealing with Dirt | Moderator: Bud Fraser, UBC | BC Hydro Theatre

Equity, Diversity & Justice | Moderator: April Sumter-Freitag, City of Vancouver | Wellbeing Design Lab

2:50 pm

Break

3:05 pm

Concurrent Panel Sessions

Green Buildings | Moderator: Zahra Teshnizi, UBC | Policy Lab A

Urban Resilience | Moderator: Joseph Tohill, City of Vancouver | Policy Lab B

Energy Alternatives | Moderator: John Madden, UBC | BC Hydro Theatre

Evaluation Our Food Systems | Moderator: Caitlin Dorward, City of Vancouver | Wellbeing Design Lab

3:55 pm

Break

4:10 pm

Concurrent Panel Sessions

Green Buildings | Moderator: Penny Martyn, UBC | Policy Lab A

Water, Air, Waste Diversion | Moderator: Ann Rowan, Metro Vancouver | Policy Lab B

Transportation Innovation | Moderator: Eve Hou, TransLink | BC Hydro Theatre

Better World: Informing Best Practices | Moderator: Natasha Moore, UBC | Wellbeing Design Lab

5:00 pm

Conference Ends

Panel Sessions: Detail View

| | Policy Lab A | Policy Lab B | BC Hydro Theatre | Wellbeing Design Lab |
|----------------------|---|--|--|---|
| | Emissions & Wastewater Moderator: Rob Kemp | Urban Resilience Moderator: Diana Lopez | Dealing with Dirt Moderator: Bud Fraser | Equity, Diversity & Justice Moderator: April Sumter-Freitag |
| 2:10 – 2:50 pm | <ul style="list-style-type: none"> Lower Fraser Valley Visual Air Quality Pilot Study (Bianca Ravani Cecato) Multi-Media Impacts of Cannabis Production in Metro Vancouver (Raahil Madhok) Research and Evaluate the Use of Wastewater Contaminant Fees (Varshini Baskar) | <ul style="list-style-type: none"> Health & Wellbeing Impacts of Parks Facilities in New West (Laura Chow) Resilient Neighbourhood Design: Exploring the relationship Between Built Form and Performance (Mark Poskitt) Understanding Resilience and its Applicability to the UBC Building Context (Rashmin Sorathiya) | <ul style="list-style-type: none"> Feasibility Study of Soil Repurposing Solutions (Bhushan Goyal) Assessment of an Online Marketplace for Construction & Demolition Material (Stephanie Daló) Benchmarking the Impacts and Effectiveness of COV Street Sweeping Programs (Timothy Luk) | <ul style="list-style-type: none"> Addressing Anti-Black Racism in Vancouver (Oludolapo Makinde) Indigenous Equity Data: Substance Use, Mental Health and Wellness (Rachel Wuttunee) Equity & Justice Transformations (Romina Tantalean) |
| Break 2:50 – 3:05 pm | | | | |
| | Green Buildings Moderator: Zahra Teshnizi | Urban Resilience Moderator: Joseph Tohill | Energy Alternatives Moderator: John Madden | Evaluating Our Food Systems Moderator: Caitlin Dorward |
| 3:05 – 3:55 pm | <ul style="list-style-type: none"> Research to support business model innovation to drive heat pump retrofits in Metro Vancouver (Aaron Nelson) Exploration Reference House Approach for Building Energy Performance Modelling (Helena Behnam) Energy Benchmarking Program for Metro Vancouver (Jiaxin Li) Calibrating the Zero Emissions Building Plan and BC Energy Step Code (Sarah Crosby) | <ul style="list-style-type: none"> A Neighbourhood-Scale Post-Occupancy Evaluation Framework for the Southeast False Creek Neighbourhood (Christine Nesbitt) Enhancing Tree Canopy & Green Equity in the DTES (Cindy (Zhaohua) Cheng) Small-Scale Neighbourhood Retail in Vancouver (Jacqueline Hunter) | <ul style="list-style-type: none"> Bioenergy Research & Demonstration Facility Research Program (Amanda Johnson) Low Carbon Options to Supply Emergency Electricity During Power Outages (Derek Oppedisano) Transitioning to Renewable Energy use in Commercial Kitchens (Solomon Atta) Assessment of Alternative Power Sources for Remote Water Infrastructure Sites (Narain Khera) | <ul style="list-style-type: none"> Measuring the Value of Vancouver's Circular Economy of Food (Dionissios Batistatos) Evaluating and Assessing Food System Indicators for the City of Vancouver (Shannon Lambie) Best Practices in Food Waste Avoidance & Rescue in the Commercial Sector (Andrea Byfluglien) |
| Break 3:55 – 4:10 pm | | | | |
| | Green Buildings Moderator: Penny Martyn | Water & Waste Diversion Moderator: Ann Rowan | Transportation Innovation Moderator: Eve Hou | Better World: Informing Best Practices Moderator: Natasha Moore |
| 4:10 – 5:00 pm | <ul style="list-style-type: none"> BC Energy Step Code Needs Assessment: Supporting Smaller Communities (Geneva Lloyd) Policy Assessment of Carbon-Focused LCA in Green Building Design (MacKenzie Walker) Decarbonization Policies and Programs around Surrey (Zeynya Alemayehu) Net-Zero Energy Ready Residential Buildings Resources (Daniel Eden) Innovations in Radical Building Envelope Remediation (Mohammed Abdelaziz) | <ul style="list-style-type: none"> Health Care Chemicals of Concern: Supporting Zero Waste & Toxicity (Brianne Della Savia) Data-Driven Baseline of Waste Diversion in Health Care (Yu Luo) Potential Effects of Climate Change on Forest Health in Metro Vancouver's Water Supply Area (Katherine Kitchens) Groundwater for Non-Potable Use in Vancouver (Nathalie Gomes) | <ul style="list-style-type: none"> Lifecycle Costing Tool for Selecting New Fleet Vehicles (Alsu Rakhimova) On-Street Electric Vehicle Charging from Light Poles (Andres Puentes) Blockchain for Transportation (Citlali Cruz Cruz) Remotely Piloted Aircraft Systems (RPAS) for Future Passenger & Freight Transportation (Shareen Chin) | <ul style="list-style-type: none"> Understanding Equity, Diversity, and Inclusion through Human Resources (Beatrice Zano) Equity, Diversity, and Inclusion Course Mapping & Analysis (Elydah Joyce) Community Resilience Framework Assessment (Naomi Reichstein) Framing Sustainability: Effective Communication Strategies to Promote Garden Tours (Shalini Nanayakkara) |

Panel Presenters

Mohammed Abdelaziz is completing a Masters of Engineering Leadership specialising in high performance buildings. He has experience in mechanical design and construction management. His passion for sustainable approaches inspired him to work with Capilano University to explore radical building envelope remediation

Zeynya Alemayehu is a second-year student in the Master of Public Policy and Global Affairs program. As a Sustainability Scholar, she worked with the City of Surrey to support the development of a decarbonization strategy for existing buildings. Her areas of interest include governance, energy, and sustainability issues.

Solomon Atta A second-year student pursuing a Master in Public Policy and Global Affairs at UBC, Solomon aspires to become a global policy analyst on greener city strategies. He has five years of professional experience with government agencies in Ghana and recently worked for the Vancouver City on an induction cooking project as Greenest City Scholar.

Varshini Baskar is pursuing a Master in Environmental Systems Engineering. Her research focuses on drinking water treatment for small-scale systems in rural and indigenous communities. Varshini's areas of interest include sustainable development, environmental management and energy systems.

Dionissios Batistatos recently completed the Master of Food and Resource Economics program at UBC. Over the summer, he researched two questions pertinent to the circular economy of food for the Vancouver Economic Commission: 1) Which indicators best track the valorization of waste? 2) What is the value of Vancouver's Circular Economy of Food?

Helena Behnam is a School of Architecture and Landscape Architecture graduate. She holds an MA in Urban Design and an MA in Architecture. Helena's commitment to sustainability is reflected in her thesis and articles exploring different aspects of sustainability with a focus on the social aspect.

Andrea Byfuglien is completing her Master in Resources, Environment and Sustainability. Her research focuses on behavioural interventions to motivate meaningful climate action. Andrea's project identifies best practices for food waste avoidance and rescue in the grocery retail sector, and how the City of Vancouver can engage and support adoption of best practices.

Cindy (Zhaohua) Cheng is a PhD student in the Faculty of Forestry, UBC. She has over 5 years of research experience in climate change and public engagement. Her PhD research focuses on exploring urban forest-based solutions for climate resilience in densifying cities across different parts of the world (especially in rapidly urbanizing regions like China).

Shareen Chin is a recent graduate from the School of Community and Regional Planning. She has worked in the not-for-profit youth engagement sector and in international post-secondary education. Shareen enjoys riding her bike, travelling the world (with her bike!), and working on new and exciting projects.

Laura Chow is a Master of Community and Regional Planning candidate interested in working on the intersections of urban planning and health. Her previous work experience with Vancouver Coastal Health involved bringing health and equity lenses to transportation, urban design, and climate change planning projects in the region.

Sarah Crosby is a PhD candidate in the Mechanical Engineering Department and a Research Assistant in the ETA Lab at the Centre for Interactive Research on Sustainability. She worked as a Greenest City Scholar for the Sustainability team at the City of Vancouver in summer 2019.

Citlali Cruz Cruz is completing her Master in Public Policy and Global Affairs. She has experience in antitrust and has studied the digital economy regulations in Mexico. She is interested in technology and its integration with public policies to achieve more sustainable development outcomes.

Stephanie Dalo is a professional engineer, with experience in the structural inspection and analysis of municipal and provincial infrastructure. She is a Master of Engineering Leadership candidate, focusing on urban systems. Her goal is to work towards mainstreaming sustainability principles in infrastructure project delivery.

Brianne Della Savia is completing her Master in Resources, Environment and Sustainability with a focus on environmental policy. Her research investigates municipal wastewater treatment strategies for managing chemicals of concern. Her project at Fraser Health explored chemical use in the health care industry and developed resources for stakeholders to reduce exposure.

Daniel Eden is a professional engineer focusing on greening our existing buildings. He is currently completing a Master of Engineering Leadership in High Performance Buildings. His past work includes seven years of consulting engineering, including energy and water audits, green building certifications, and property condition assessments.

Nathalie Gomes is completing a Masters of Civil Engineering with a specialization in hydrotechnical engineering. She has experience in environmental management and water pollution control in the oil and gas Industry. She is currently interested in collaborating on initiatives that are beneficial for the environment and society.

Bhushan Goyal is a graduate student specializing in Project and Construction Management. His work as a Greenest City Scholar with Solid Waste Strategic Services at the City of Vancouver helped to identify and evaluate beneficial opportunities to re-purpose excavated disposed soils.

Jacqueline Hunter is a recent SCARP graduate. For her Greenest City Project, she researched small-scale neighbourhood retail for the City of Vancouver's Making Room Team. This is her second year in the UBC Sustainability Scholars program. Last year, she completed a project on workplace childcare for the City of Vancouver's Social Policy and Projects department.

Amanda Johnson is a PhD candidate in the Faculty of Forestry at UBC. Her goal is to develop innovative materials from biomass to advance the bioeconomy. Her research focuses on designing nano-scale tiles from wood polymers. Outside of the lab, she writes and reports about issues related to sustainability.

Elydah Joyce a MA student in the Sociology department at UBC. She completed her BA in political and social theory at Hampshire College where she focused on the role of colonialism in global prison uniformity. Elydah's current thesis is a historical archival analysis of prisons in British Columbia, using local history to understand the colonial legacy in our modern incarceration system.

Narain Khera is a Materials Engineer and recent graduate of the Master of Engineering Leadership program in Clean Energy. She has 4 years of experience in the manufacturing industry working on energy efficiency and Lean Six Sigma projects as well as supervising daily operations and maintenance.

Katherine Kitchens is pursuing an MSc in Forestry in the Forest Insect Disturbance Ecology Lab (FIDEL). She studies the interactions between climate change, wildfire and bark beetles in British Columbia. She previously graduated from the University of St Andrews with a Bachelor of Science (Honors) in Earth and Environmental Science.

Shannon Lambie recently completed her Master of Community and Regional Planning. She holds a BA in Human Geography and an MA in International Studies. She is a Regional Planner at the Agricultural Land Commission, having previously worked at the UBC Farm and with the UBC Sustainability Initiative.

Jiixin Li recently completed a Masters in Public Policy and Global Affairs at UBC. Her passion for tackling climate change has led her to work in various fields. She was the community energy coordinator at UBC Campus and Community Planning, a policy researcher focusing on B.C.'s LNG, and a former sustainability scholar supporting the City of Surrey to decarbonize their existing building stock.

Geneva Lloyd is a recent graduate of the School of Community and Regional Planning. Geneva also holds a BA in Environmental Studies. Her passion lies at the intersection of social planning and environmental sustainability. When she's not at her desk, Geneva loves being outside on her bike, feet or skis.

Timothy H. Luk is completing his second year of the Master of Community and Regional Planning program. He has degrees in political science and law, practising civil litigation in Alberta and BC prior to starting the MCRP program. His area of study is healthy community building with a focus on issues of social equity.

Yu Luo is a PhD student in the Department of Psychology. His work focuses on using behavioural interventions based on psychological insights to address environmental problems. He has collaborated with Ocean Wise, Fraser Health, and BC Hydro on projects to reduce waste and energy consumption.

Raahil Madhok is a PhD student in the Faculty of Land and Food Systems and holds an MA and BA in Economics. His work with Metro Vancouver assessing the environmental impacts of the B.C. cannabis industry fit nicely into his doctoral research on the environmental and ecological impacts of industrialization.

Dolapo Makinde is a PhD student at the Allard School of Law, UBC. Prior to commencing graduate studies, Dolapo worked as an Associate Lawyer in Nigeria. As a Healthy City Scholar, she worked with the City of Vancouver to identify key actions necessary to address anti-Black racism in Vancouver.

Shalini Nanayakkara is completing her MA in English. Her research investigates environmental thinking in British literature during the Industrial Revolution (1760-1870) and how it fashioned contemporary environmental movements. Shalini is also working on a Science Fiction novel exploring the magic—and the hardships—of young people tackling climate change.

Aaron Nelson recently completed his Master in Public Policy and Global Affairs at UBC. Previously, he had an 11-year career as a commercial real estate consultant and appraiser. He is interested in Indigenous relations, renewable energy and energy efficiency, and economic development. He enjoys Muay Thai, trail running, hiking, and paddle-boarding.

Christine Nesbitt is currently pursuing a Master of Arts in Planning (MAP) in SCARP at UBC. Her thesis looks at the Vancouver, London and Turin Olympic Villages; specifically, the social and affordable housing legacies these cities have pursued. She is also interested in urban design, resiliency and long-term neighbourhood planning.

Derek Oppedisano is a mechanical engineering graduate currently completing a Masters in Engineering Leadership in Clean Energy. He has worked in the solar panel manufacturing industry for 5 years as a project manager and looks forward to continuing to be part of the clean energy transition.

Mark Poskitt is completing a Master of Community and Regional Planning, with a concentration in urban design. His primary research interest is the intersections between urban planning and public health, and finding ways in which urban design interventions can be used to positively impact human wellbeing.

Andres Puentes has experience in the planning and design of electrical engineering projects mainly for the Oil & Gas and Petrochemical industries. He is completing a Master of Engineering Leadership in Clean Energy Engineering. He is interested in working on projects that generate positive environmental, social and economic impact while achieving sustainable development.

Alsu Rakhimova recently completed her MA in Economics at the Vancouver School of Economics (UBC). She has worked as a consultant and an auditor, participating in market and financial analyses, and strategy preparation. Alsu is pursuing a career in data analysis. Her hobbies include visual art history and mountain skiing.

Bianca Cecato is a PhD student in Food and Resource Economics at UBC. Her research focuses on the impact of air pollution on productivity and internal migration, as well as on academic performance. She is interested in the economic impacts of air pollution and climate change.

Naomi Reichstein recently earned her Master of Community & Regional Planning (MCRP) degree at UBC. Her areas of specialty are public space and parks, affordable housing and social wellbeing. With a background in communications, she's the editor of the Goodman Report apartment newsletter and former editor-in-chief of Business in Vancouver (BIV) Magazines.

Rashmin Sorathiya is pursuing a Master of Advanced Studies in Architecture at the School of Architecture and Landscape Architecture. Rashmin is passionate about the research-based practice of architecture. She is interested in understanding different perspectives of sustainable and resilient architecture and aims to bring them to her architectural practice.

Romina Tantalean is completing a Master in Gender, Race, Sexuality and Social Justice. She is a human rights lawyer and a policymaker by training from Peru. Her Healthy City Scholar project included developing a high-level equity approach to inform the forthcoming City of Vancouver's Equity Framework. She is passionate about equity, social justice, and policy.

MacKenzie Walker (MCRP) is an infrastructure planner and engineer specializing in municipal systems. His studies focused on leveraging engagement processes to enhance governmental and community decision-making on issues of infrastructure planning and implementation to lead to more equitable and sustainable outcomes.

Kesigatic Sagastas Saali (Rachel Wuttunee) is a recent graduate from the School of Community and Regional Planning at UBC. She has worked across Canada with emerging leaders and youth-at-risk in capacity building and sharing life promotion teachings. Her mother had a vision that she would walk proudly with many young people, carrying sacred bundles filled with Ancestral and Western knowledge.

Beatrice Zano is a graduate student in the MPPGA program with a focus on development and social policy. Prior to her studies, she worked in emergency relief and community services. Her most recent work has been with UBC Human Resources in their Equity and Inclusion office as a Sustainability Scholar.

Moderators & Speakers

Caitlin Dorward is a Social Planner at the City of Vancouver working in the areas of food policy and childcare planning. She was previously a Planner at the Provincial Agricultural Land Commission and Senior Research Associate at KPU's Institute for Sustainable Food Systems. She is a graduate of UBC's Faculty of Land and Food Systems.

Bud Fraser is the Planning & Sustainability Engineer within Campus & Community Planning at the University of BC. Bud's main priorities are to work with business units and stakeholders across UBC to develop and implement sustainability and resource conservation plans such as the Zero Waste Action Plan and the Climate Action Plan.

Eve Hou is a project manager responsible for TransLink's Open Innovation Call, which engages the private sector for new ideas and innovation, TransLink's New Mobility Forum, an annual convening of industry and government on new mobility issues, and coordinating a regional response to the arrival of ride-hailing to Metro Vancouver. With an extensive background in electric vehicle policy and strategy, she now adds shared, connected and autonomous mobility to her portfolio.

Rob Kemp is a Senior Project Engineer with Metro Vancouver. He has degrees in Chemical and Environmental Engineering from the University of Alberta and the University of Calgary. He has worked for federal, provincial, municipal and, most recently, regional governments for over 20 years and consulted for over 15 years.

A Research Project Coordinator at the UBC Sustainability Initiative, **Diana Lopez** supports multiple interdisciplinary research and educational projects focused on sustainable buildings and urban development on the UBC campus. She currently coordinates research for the Campus as a Living Lab initiative. Diana holds a Masters of Applied Science in Civil Engineering from UBC.

John Madden directs the activities of the Sustainability and Engineering unit within Campus and Community Planning at UBC. The unit is responsible for setting policies on resource and green infrastructure management plans. John oversees operational sustainability planning and reporting, the green building programs, and the provision of engineering services for transportation planning.

Penny Martyn is the Green Building Manager at UBC and a registered architect. Her work covers campus academic buildings and residential projects in the neighbourhood residential areas. She was instrumental in the development of UBC's Green Building Action Plan—and its vision that campus buildings contribute to human and natural systems—and is now supporting its implementation.

Natasha Moore is a Planning and Evaluation Advisor with UBC Wellbeing. UBC Wellbeing engages the institution in conversations about the value and impact of an embedded approach to wellbeing in all aspects of our work. Natasha provides strategic planning, facilitation, and evaluation support to the VP, Students portfolio and across the institution on wellbeing priority areas.

Ann Rowan's work journey has taken many turns beginning as a bank examiner to now Manager of Collaboration and Engagement, in External Relations, for Metro Vancouver. Ann has worked on a variety of initiatives including a regional food system, ecological health plan, corporate strategies, zero waste and regional prosperity.

Malcolm Shield is a Professional Engineer and Project Management Professional with over 15 years of experience in carbon management and low carbon technology. He completed his undergraduate in mechanical engineering at Imperial College London, before completing his PhD in natural gas combustion at UBC. For six years, Malcolm was the lead advisor to Mayor and Council and the senior management team at the City of Vancouver on all matters related to greenhouse gases and emissions reduction. In 2016, Malcolm joined C40 where he Malcolm supported some of the world's most politically challenging cities, including Istanbul, Karachi, Manila and Jakarta to develop evidence-based carbon reduction targets and climate action plans. Malcolm recently joined Associated Engineering to bring his global experience back to Canada and enable the development of infrastructure projects that actively tackle our changing climate.

Dave Shorthouse is the Executive Director of Academic Initiatives in the Provost's office at UBC. He leads a group of strategy and decisions support professionals and is part of a team that develops the UBC budget. He is responsible for supporting UBC Faculties and for implementation of the UBC strategic plan.

April Sumter-Freitag is a Social Planner in the Social Policy Department at the City of Vancouver.

Karen Taylor is the Program Manager at the UBC Sustainability Initiative where she runs the UBC Sustainability Scholars Program. A UBC graduate with a BA in English and an MA in Children's Literature, Karen has an extensive and varied background in program management, project management, marketing, research, and editing.

Zahra Teshnizi is a Research Manager at the UBC Sustainability Initiative. She works with external partners, such as the Zero Emissions Building Exchange (ZEBx) to identify and develop applied research projects focused on zero emissions buildings. Zahra has a diverse background in sustainable building research, multi-stakeholder outreach, and project management.

Joseph Tohill is a Planner on the Research and Data team in City-Wide and Regional Planning at the City of Vancouver. He is especially interested in the use of technology and GIS to tell stories, engage the public, and visualize urban challenges. He has previously worked at the City of Calgary, UBC and the Ontario Ministry of Municipal Affairs.

You can find copies of all current and past UBC Sustainability Scholars projects online:

<http://sustain.ubc.ca/scholarslibrary>