

PLANNING INSTITUTE OF BRITISH COLUMBIA

PLANNING WEST

Fall 2024

*FORWARD THINKING
SHAPING COMMUNITIES*

**CLIMATE AND THE
ENVIRONMENT**



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The Planning Institute of British Columbia (PIBC) recognizes, acknowledges, and appreciates that we are able to live, work, and learn on the traditional territories of the First Nations and Indigenous peoples of BC and Yukon. Acknowledging the principles of truth and reconciliation, we recognize and respect the history, languages, and cultures of the First Nations, Metis, Inuit, and all Indigenous peoples of Canada whose presence continues to enrich our lives and our country.



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Opabin Plateau near Lake O'Hara, Yoho National Park, British Columbia, Canada



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President's Message



*Unreal City,
Under the brown fog of a winter dawn,
A crowd flowed over London Bridge, so many,
I had not thought death had undone so many."*

T.S. Eliot's bleak modernist poem *The Waste Land* was published in the wake of World War I. Painting a picture of modern cities as places of alienation, the poem was ground-breaking—a cautionary tale. When he was asked to turn the poem into a book a year later, Eliot reverse-engineered a series of footnotes to plump up the number of pages of text. Decades later, he called this process a "remarkable exposition of bogus scholarship." Ideas had percolated from many bright and dusty corners, and it was a difficult exercise for Eliot to be able to say, "this came from that."

Writers never write in a vacuum. Each one of us stands on the shoulders of giants.

So it is in our profession. Planning practitioners consciously—and conscientiously—keep our eyes peeled for the new and for the brave. We rely on novel ideas and approaches as we undertake each new plan, each new set of recommendations to decision-makers.

Rarely are these decision-makers seeking novelty. They're seeking positive change, yes, but they want something closer to the tried and true. As one Municipal Councillor I worked under put it, "We want the leading edge, not the bleeding edge." By necessity (and, often, by preference), we stand on the shoulders of colleagues and forebears.

The Planning Institute of British Columbia & Yukon works hard to ensure you can continue learning from others throughout your careers. We're committed to information sharing among professional planners. A few examples of the Institute's current work:

- Our flagship *Planning West* magazine continues to, in the words of a recent letter from a fan, "encourage others to learn from the past and continue to innovate in order to create more affordable housing" and to build complete communities;
- Our Continuous Professional Learning program, which seeks (quoted from the PIBC website) "to ensure that all practicing professional planners remain current with contemporary theory, methods, skills and knowledge within their profession";
- Our Peer Learning Network, which has as its purpose to "share knowledge, best practices and experiences [while] adjusting to new development approvals-related legislation";
- Our Planning Practice & Reconciliation Committee, which seeks, among other things, to uncover how the Institute can widen our professional recognition "tent" to recognize and learn from Indigenous knowledge and planning practice; and

- Our Policy & Public Affairs Committee, whose work, among other things, is to decipher how other professional regulatory bodies have maneuvered through British Columbia's relatively new Professional Governance Act, and what it might mean for the planning profession.

Crediting others for planning concepts and approaches is exceedingly rare outside of academia. There's good reason you won't see footnotes all over municipal staff reports or consultant reports, or in Official Community Plans and zoning bylaws. We read, we listen, we analyze, we synthesize, and then we make recommendations. In a sense, our recommendations stand on their own, no matter how many planners and plans have gone before us. However, as practitioners we aren't staying on our game if we're not looking out for what others are doing, if we're not letting new ideas and approaches percolate. Each of us actively adds to the bank of planning knowledge.

Beyond learning the "what to do," we always need to be on the lookout for "what not to do." Award-winning journalist Frances Bula suggests we question the "planning orthodoxies that exist in every era, that everyone buys into." We must never be complacent. Planners are dedicated to building communities that—far from being places of alienation—meet humanity's need to add meaning, coherence, equity, and a sense of belonging to our day-to-day lives.

Let's stand on each other's shoulders, together.

Emilie K. Adin RPP, MCIP

OUTLINES

What's Trending?... Member in Focus...



What's Trending?

by **Cindy Cheung** PIBC Communications & Marketing Specialist

In this issue, focused on climate and the environment, let's take a closer look at a local university spearheading a think tank dedicated to bringing the latest climate change knowledge and practical sustainability solutions to the forefront. We also shine the spotlight on an easy-to-access online toolkit that's connecting Indigenous Guardians across Canada.

SFU's Action on Climate Team (ACT)

@SFU_ACT

www.sfu.ca/act.html

Springing Forward to a Safer, Resilient and Sustainable Future

Simon Fraser University is embedding climate action throughout its academic operations, research, and community engagement. Its Action on Climate Team (ACT) is the first and only university-based think tank initiative in North America dedicated to moving forward research-to-practice solutions for climate change and sustainability challenges.

Stay Updated with PIBC e-News!

Keep up-to-date regularly with current Institute & local planning news, events and job opportunities with PIBC e-News! The Institute's electronic newsletter is emailed to members every other Wednesday. Haven't seen your PIBC e-News? Check your spam/junk email folder and be sure to add enews@pibc.bc.ca to your contacts.

ACT focuses on:

- Co-creating new practice within and across multiple sectors
- Advancing low carbon resilience and climate actions that multi-task
- Mobilizing equity in all decisions and solutions

Make Sure to Check out ACT Reports

ACT publishes research reports to build a bridge from theory to action in support of systemic climate action that advances resilience and sustainability. You can search reports via different related tags, including hot topics like energy, health risks and innovative governance.

<https://www.sfu.ca/act/reports.html>

The Indigenous Guardians Toolkit

<https://www.indigenousguardianstoolkit.ca/>

An Online Community to Connect and Support Stewards of Land and Waters.

The phrase “Indigenous Guardian” is a catchall phrase used to reference people who are the “eyes and ears” of their lands and waters. Others doing similar work may go by names like watchers, monitors, rangers, and more. Working in collaboration with Indigenous communities, Nature United (formerly TNC Canada) connected Indigenous Guardians across Canada to build The Indigenous Guardians Toolkit, an easy-to-access online information portal supporting the learning, sharing, and connecting of Indigenous Guardians across Canada to each other’s knowledge and experiences.

The idea of creating a single, interconnected online resource was inspired by Indigenous Guardians in different communities finding themselves working in isolation or starting programs from scratch only to learn others elsewhere had already done similar work. This online toolkit is the central repository for guardian knowledge, experiences, and resources and supports the authority of Indigenous peoples to steward and manage their lands and waters

Interactive Map of Programs

Use this interactive Map of Programs to find and learn from existing Indigenous Guardians and their programs and tools across Canada.

<https://www.indigenousguardianstoolkit.ca/program-map>

Planning West Call for Submissions

Winter 2025 Issue:

**2024 World Town Planning Day
& Celebrating the Profession**

Submission deadline: Dec 15, 2024

Spring 2025 Issue:

The Practitioner's Edition

Submission deadline: March 15, 2025

Articles should be 1000-1200 words in length in an unformatted MS Word document. Please note: not all articles may be accommodated based on editorial decisions and the number of submissions received.

What Membership Means to Me

Planners across British Columbia and Yukon join PIBC and value becoming Registered Professional Planners for a variety of reasons. We reached out to our members across BC, Yukon and beyond to learn why they value becoming an RPP and what membership means to them.



Jared Kassel RPP, MCIP, PMP

Planner, Project Management Professional
and incoming *Planning West* Editor

“Most readers to this magazine have a unique story of how they landed in their current career. My circumstances are unique in their own way and membership in PIBC has certainly become invaluable to me.

Born and raised in Prince George, and a 2003 graduate of the Planning program at the University of Northern British Columbia, my initial career plan was to stay rooted in BC and grow as a professional in this province. However, as Robert Burns famously quoted, “The best-laid plans of mice and men oft’ go awry,” and I soon found myself being transplanted across provincial borders and hired as a junior planner in Red Deer, Alberta. At the time, I believed my work experience outside of BC would be limited to a couple of years, but I soon found myself gaining rapid career growth and valuable professional experience in the boom economy of Alberta. It took me almost two decades (until 2022) and another opportunity in the Okanagan to transport myself (and my young family) back to BC.

Restoring my membership in PIBC has been a wonderful way for me to reconnect with my old contacts and gain new friends in my new (-ish) surroundings. For someone who had to quickly adjust to a new legislative environment, and understand the Province’s response to the housing crisis through its various initiatives, I also appreciate the support that PIBC provides through the Peer Learning Network (PLN). This program means that I can learn from shared knowledge, best practices, and experiences of planners from around the province. For me, membership in PIBC and participating in the organization through its various volunteer opportunities has expanded my passion for the planning profession, and helped me build quality connections with individuals and communities. ”

Member in Focus

Janae Enns RPP, MCIP, MCP

Community Planner & Associate Lawyer at Lidstone & Company



Janae at law school graduation with spouse Nikola Pavlovic & aunt, Cherie Enns RPP, MCIP.

Planners often wear more than one hat and, in this issue, we reached out to Janae Enns to talk about how her early interest in positively impacting people and their environments evolved from a career in community planning to a passion for planning law. Now with one more hat on (as a new parent), Janae shares why she is more inspired than ever to take on influential work that can have long-standing impacts for future generations.

What inspired you to become a planner? Was there a person or event that led you to explore planning as a profession?

I was first introduced to the planning profession by my aunt and planning mentor, Cherie Enns RPP, MCIP. After taking an elective human geography course in the first year of my post-secondary education at the University of the Fraser Valley, I was immediately drawn to the complex relationships that dictate how people interact with their environment. Cherie encouraged me to explore more planning-related courses and I became passionate about the critical role planners play in creating inviting environments to enhance communities.

From community planning to planning law, what was the biggest opportunity or challenge in pursuing this additional facet to your career?

Securing a summer legal position working at Lidstone & Company after my first year of law school proved to be the biggest opportunity in my transition from community planning to planning law. Lidstone & Company represents local governments across British Columbia on a wide-range of issues, including diverse planning matters. This introductory position ultimately led to me articling under Don Lidstone KC, and continuing my career as an associate at the firm with a planning law practice.

While studying law at Thompson Rivers University, you also worked in the University's Community Legal Clinic, which offers free legal services to lower income individuals. Are there aspects from this experience that influence the work you do today?

My work experience at the Thompson Rivers University Community Legal Clinic largely reinforced how socioeconomic circumstances and the political environment can create systemic barriers that hinder both access to justice and community development. This has directly influenced the approach I take to my legal practice. I apply a socioeconomic lens to my work to consider the broader social impact of a proposed policy or decision, with a particular focus on how it may impact those most vulnerable in a community.



Janae with her son, Theus, and her cat, Gary.

With the new provincial housing legislation, there has been a renewed focus on the legal aspects of planning. Has working with rapidly evolving legislation changed your approach to planning law?

In short, no, the rapidly evolving housing legislation has not changed my approach to planning law. Planners are bound by the constraints of the governing legislation, which will always be subject to changes and where planners have to continually adapt their practice accordingly.

I am optimistic that this renewed focus on the legal constraints of planning will also highlight the numerous legal tools available to elevate planning practices – including existing tools that can be leveraged to facilitate more housing!

Are there any areas of planning law that you are particularly excited about working on in the future?

I am excited to continue working with clients on implementing the housing legislative changes as it poses shared challenges and opportunities for all local governments. I am also particularly excited to work on broader Official Community Plans and Zoning Bylaw reviews. A legally sound OCP and Zoning Bylaw can avoid so many challenges downstream, so I always get excited to be involved in these processes early on.

What brings you joy or inspiration?

My son, Theus Johnson Pavlovic, born this year on May 6, is my newfound source of joy and inspiration. Entering this new chapter of motherhood has brought its own set of challenges, such as learning to appropriately balance my career and family life, but it has been a tremendously positive experience. He inspires me to always reflect on how my work may impact children and future generations, as even seemingly one-off planning decisions can have a longstanding impact on communities.

Update from the Climate Action Sub-Committee

Building on the earlier work of the Climate Action Task Force, PIBC established the Climate Action Sub-Committee in 2019. With oversight from the PIBC Board and PIBC's Policy and Public Affairs Committee, the Sub-Committee's role is to build strategic partnerships, conduct research, and advocate on matters related to climate change mitigation and adaptation. In 2022, the CASC developed the PIBC Climate Action Policy and continues to be involved with CPL webinar offerings and contribution of climate-focused articles to *Planning West* magazine.

Corrections

In the Summer 2024 issue, content was missing from the article "Nature-Based Solutions for Climate Resilient Cities." The end of the article should have read:

"It's high time to recognize that plants and animals are also upstanding, rightful residents of our cities, and the more we include them the more we all become richer, healthier, happier, and resilient."

Chris Osborne RPP, MCIP is Manager of Planning, Municipality of North Cowichan and Don Alexander, PhD is an adjunct professor, Department of Geography, Vancouver Island University.

Our apologies for the oversight. The updated digital copy of the Summer 2024 issue is available online.

Planning Podcasts

In this issue, the podcast hosts and guests explore and discuss with passion two important urban issues – supporting and connecting Indigenous Peoples in urban areas and facing the impacts and building solutions for climate-induced migration. Get ready to dive deep into these thought-provoking podcasts.

Got a podcast about planning you want to share? Contact us with your podcast summary at editor@pibc.bc.ca

**Please note: Podcast content and opinions are solely those of the podcast creators. PIBC does not endorse third party content and/or necessarily share the same views as expressed in these podcasts. Podcast links and content may change without notice and PIBC is not responsible for updates to content from podcast creators.*

*** Podcast links are available on the PIBC Planning Podcasts web page at www.pibc.bc.ca/planning-podcasts**

Urban Indigenous Peoples: Warrior Life Podcast

Run time 56:00 (March 2022)

Host: Dr. Pam Palmater, producer and host of the Warrior Life Podcast

Guest: Ginger Gosnell-Myers, Indigenous Fellow at SFU Morris J Wosk Centre for Dialogue and the Institute Fellow at Environics Institute

Podcast link (audio and video)

Audio: <https://soundcloud.com/pampalmater/ginger-gosnell-myers-on-urban-indigenous-peoples>

Video: https://youtu.be/PbwRVbx6gO8?si=2IZhKG_N-BYHIZJX

Podcast Summary

Host Dr. Pam Palmater interviews Ginger Gosnell-Myers about her work and challenges in sharing Indigenous knowledge, experiences and aspirations in urban planning. Pam taps into Ginger's journey as an Indigenous woman, educator and advocator leading with Indigenous knowledge and experience to connect and support Indigenous peoples living and working in cities and other urban areas.

Ginger is the first Indigenous Fellow at the SFU Morris J Wosk Centre for Dialogue focused on decolonization and urban Indigenous policy and planning. She was also the first Indigenous Relations Manager with the City of Vancouver, where she led the creation and implementation of the City of Reconciliation framework (<https://vancouver.ca/people-programs/city-of-reconciliation.aspx>). Ginger was also a critical part of the award-winning Urban Aboriginal Peoples Study with the Environics Institute. (https://uaps.ca/wp-content/uploads/2010/03/UAPS-Main-Report_Dec.pdf)

Why Planners Should Listen

In this podcast, Ginger Gosnell-Myers talks about the importance of urban Indigenous issues, culture and engagement in promoting reconciliation and self-determination. The conversation sheds light on frameworks for

PODCAST SUMMARIES

Steffi Sunny

PIBC Candidate & Communications Committee Member

decolonization and how they can be integrated into planning practices. Ginger elaborates on the importance of urban Indigenous voices, including youth engagement in policy making and the need for community-based approaches to urban Indigenous planning. Planners should listen to this podcast to understand urban Indigenous issues, the importance of cultural connection and how to effectively engage communities in decolonization efforts.

Housing Climate Migrants

(4 episodes)

Run time: 20:00 - 25:00 per episode (Dec 2023)

Host: Jeff Quirk, Graduate Student and Graduate Research Assistant, University of Alberta (Human Geography)

Guests: Dr. Robert McLeman, Professor, Geography & Environmental Studies at Wilfrid Laurier University and Dr. Greg Suttor, Independent Consultant and previously Senior Housing Researcher at Wellesley Institute

Podcast link (audio and video)

Audio: <https://www.iheart.com/podcast/269-housing-climate-migrants-136679967/>

Podcast Summary (Episode 1)

The host and guests in this mini-series podcast explore and dissect the intersections of the climate-induced migration and housing affordability crisis in Canada. This podcast was produced as partial fulfillment of Jeff Quirk's Master of Arts degree at the University of Alberta.

Episode 1: Brief introduction to climate change, forced migration and housing affordability crisis.

Episode 2: Investigation into the barriers that need to change within the housing system through the introduction of two theories: multi-level perspective and path dependency.

Episode 3: BC's housing difficulties and the challenges emergency housing plays on an already pressured housing system.

Episode 4: Potential solutions for the housing affordability and climate crisis by discussing technological innovations.

Why Planners Should Listen

In this series, the experts talk about the interconnected issues of climate change, migration and housing crises and the importance of understanding these complexities in order to create a more resilient urban environment. This podcast emphasizes the necessity for planners to recognize how climate change disproportionately impacts vulnerable populations and highlights the importance of engaging with affected communities during the planning process to create more inclusive policies that address the realities of climate migrants.





Barcelona: Planning for Beauty

Devon Harlos RPP, MCIP, Sara Jellicoe RPP, MCIP, Lindsay Allman RPP, MCIP

In May 2024, a group of 12 PIBC Members travelled to Spain for the inaugural Barcelona Field School; a 5-day immersive programme run by PIBC Member, Devon Harlos, and UBC Lecturer, Erick Villagomez. Throughout the trip, one theme continued to pervade in conversation: the role of beauty in urban planning.

Beauty in Private Spaces

“Look up!” A planner in our group is pointing to the underside of a balcony projecting from a late 19th century building on Passeig de Gràcia, a major pedestrian arterial and one of Alan Jacobs’ designated *Great Streets*. This small surface area was intricately cladded with pink and orange ceramic tiles. This detail could only be seen when standing on the street, directly beneath the second-floor balcony. While the building represented many of the ornamental characteristics of the time, such as stained glass, organic motifs, and elaborate metalworks, this detail was different. It was an intimate expression of beauty to any individual who happened to look up while stopping in front of the building for a rest. It was almost as if the architect was saying, “People of Barcelona, this is for you, too.”

The next day, my hand swirls and dips around my page as I sketch the shape of the building in front of me, with its twisted spire and spiky roofline covered in ceramic shards

arranged into a colourful motif. This style of mosaic art is called *trencadis*, another characteristic of Catalan Modernism you see all over Park Güell. The building I'm so drawn to is the Porter's Lodge, a high-end residential venture undertaken by Count Eusebi Güell with architects Antoni Gaudí and Josep Maria Jujol in the early 1900s. The project was a commercial failure that struggled to sell; however, its cultural value provided enough rationale for the City to purchase the site, designating it as a Park in 1922.

These moments are possible when the decision is made that these spaces have a greater cultural function and a reason to 'open up' and address the public. Barcelona manages to bridge the public-private divide not only by designing *Great Streets* for everyone, but by reinforcing a civic, as opposed to a singular private identity and reinforcing a distinctly Catalan cultural identity.

Beauty in Semi-Private Spaces

An inviting hammock sways beneath a solar-paneled overhang. It's hot but breezy on the rooftop of the 20-unit La Balma Co-op in the Poblenou neighbourhood. Three years after architectural magazines shared their misty photos, the space is looking loved.

Our group descends the single central staircase. The landing widens to an open-air exterior walkway, serving double-function as corridor and balconies. The suites fit snug in an efficient envelope – no double-loaded corridor. Unlike Catalan Modernism, the building isn't high-specification. Railings are plain metal grids. Screws are exposed. Components were pre-fabricated. Concrete block is unpainted.

The architecture is simple, but enables complex relationships. It includes mixed-use: a non-profit leases ground-floor offices. Plentiful shared spaces mean regular close encounters with neighbours. People exit La Balma directly into a park: no building setbacks.

Potted geraniums, succulents, and ivies line the facade. Strawberry red wooden shades are rolled up at each bay. No privacy of separate balconies – so often in BC merely storage for bicycles and spare parts. Three folding chairs angle toward each other, facing the sky.

Shared amenities are generous: computer room, fitness room, workshop, guest suites (allowing units to be smaller). In the large common room – filled with books, a piano, child-sized furniture – sun warms our faces from southwest-facing windows. Non-members regularly visit for workshops, including knowledge-sharing with other co-ops.

Like BC, Spain faces a fight to build communal spaces. Only 3% of Barcelona's housing

is affordable, similar to Canada's 3.5% social housing, both below OECD average 7%. In La Balma's model, all residents have never owned property before. They pay fees 20% below average market and a downpayment of €30,000 (\$45,000 CAD). For one home's downpayment, the Sostre Cívica co-op secured philanthropic funding. They won the 75-year City-owned land lease from a 2015-2020 program, and a parking waiver. Even so, our guide, a leader in the co-op, shares that, of many financial institutions, only one European bank would risk providing their €3M mortgage, described by our guide as an "ethical" bank.

In BC, we recognize the challenge of buy-in for social housing projects. Even if projects get capital funding, they're often value-engineered to austerity. Often they have inadequate access to operating funding. Seeing La Balma well-loved after years makes us think how design-driven spaces can help galvanize attentive maintenance, providing affordable units for longer.

As much as we'd like to stay, we should head onward. Our guide told us of an evening event happening: a monthly rooftop movie night for the public. We picture the stars as an extended backdrop of an epic science fiction drama. Not just residents, but the whole community are invited to this collective beauty.

Beauty in Public Spaces

Children laugh and several 20-somethings leisurely cycle by, headed to the beach. Wide sidewalks and shady squares are littered with seating, where Spanish abuelas share gossip while providing "eyes on the street." Instead of looking down at a bland sidewalk, there are beautiful custom street pavers with flower designs. Murals are plentiful, and the Catalan Modernist lamp posts lining the street are intricately designed with organic patterns, showcasing how everyday elements of a city can be public art.

Our group cozies up at a coffee shop to order our morning cafés. We meet our guides, a community activist and the former Chief Architect of the City of Barcelona, to learn about superblocks and green streets. Beside us, a lively playground has taken over part of the road (with fences, safety first for the wild toddler who runs without looking). The people-centric space we are in used to be a hostile environment, with cars rushing above the speed limit and few familiar faces walking around.

The activist spearheaded the idea of turning her neighbourhood into a superblock. Before anyone thinks "it's Spain, I'm sure it was no problem" – our guide says they were faced with

NIMBY-ism ("this isn't downtown") and fears of increased traffic. This argument sounds familiar! After years of activism, their team was successful in a "pilot project" (our favourite compromise in municipal government), and previously empty spaces are now filled with neighbours chatting over a café con leche.

The architect's goal is to beautify Barcelona with trees and provide much-needed shade to draw people into public spaces. Utilizing the lack of traffic during Covid-19, they transformed Carrer Consell de Cent. Previously car-centric, pedestrians have been invited to take over the space. London Plane trees provide shade and beautiful garden beds add colourful vibrance. Businesses initially voiced displeasure ("we will lose business without car parking!") but, so far, their fears have proven inaccurate and more people than ever wander down the relaxing streets that invite curiosity to explore.

The projects prove that designing spaces for people, not cars, fuels our desire to be outside and make connections. Some argue that the cost is not worthwhile, but according to our guides, Barcelonans are "pretentious about public space", and demand high quality. So why do we dismiss the importance of planning for beauty in our urban environment here in Canada?

Conclusion

Often our ideas of beauty in BC are confined to nature. But we can have an urban beauty matching Barcelona's if we value it in our planning. Beauty for the public is not a specific design aesthetic. Beauty is how the design functions, what it communicates, and how it accommodates the community. We can build places that are iconic, that have charisma and presence, that hold us close, and spur curiosity. We can have a future where the images on our "Beautiful British Columbia" license plates are not just bears, mountains, or lakes, but also of our communities.

Devon Harlos RPP, MCIP is a planner in the Lower Mainland. She co-organized the Barcelona Field School with Erick Villagomez. She is currently planning the 2025 Field School trip, so stay tuned and keep an eye on the e newsletter for more information! You can email her at devonaharlos@gmail.com for inquiries related to the program.

Sara Jellicoe RPP, MCIP is a Senior Housing Planner for the City of New Westminster.

Lindsay Allman RPP, MCIP is a Planner III for Westbank First Nation.

Community Climate Action in BC – Navigating 35 Years of Ups and Downs

Dale Littlejohn

An engineer, an activist turned advisor, and a management consultant walk into a room ... to train planners on community energy planning. It was around 2010 when Ron Macdonald, Alex Boston, and Dale Littlejohn delivered training to the local PIBC chapter. What led to this odd mix of non-planners delivering training on a planning topic to planners? What happened since and what is on the horizon for this new planning discipline? Think of this article as an executive summary of content that it would take a book to really begin to explore.

Community Energy Planning is the art and science of leveraging local government powers to improve energy efficiency and reduce greenhouse gas emissions across their jurisdictions. While local governments played important roles in running utilities and providing transit, few planned to leverage their powers to save energy and emissions in their communities. So, what led our 3 unlikely collaborators to that room? To answer that, we need to go back a bit.

It is the mid '90s. You might be listening to Madonna, Bon Jovi, or Brian Adams. You may have been part of the wave of increasing concern about climate change sweeping the world leading to the 1992 Rio Earth Summit and the 1997 Kyoto Protocol.

Amid this backdrop, some forward thinking British Columbians thought local governments could be part of the solution to climate change. In 1995, the Michael Harcourt government and Union of BC Municipalities signed a Memorandum of Understanding (MOU) to create the Energy Aware Committee, to accelerate local government action on energy efficiency (it was still a bit early to directly address climate change). This collaborative committee included representation from PIBC, utilities, transit providers, and others. As shown in the figure, this MOU marks the start of the first era of community climate action in BC.

Starting something is exciting and the enthusiasm is intoxicating. However, bringing a new planning discipline into existence takes time, patience, and relentless incrementalism. We can all thank the tireless forward thinkers of this era, like Mark Holland and Richard White, who nurtured the seeds that would grow, shift into harvest, and ultimately renew. These sowers of climate action seeds could be forgiven for giving up.

It was tough going. There was no mandate for local governments to address climate

change, limited grants or direction on what to do or how to do it, and a perception that energy was an issue for the province and utilities. Looking at the presentations these leaders delivered in the 1990s is both impressive and deflating. All the substantive technical answers were there, but it would take another 15 years of dedication for the political will to emerge.

They didn't give up. Climate planning innovators like Susan Haid, Kim Fowler, Anna Mathewson and Robyn Wark nurtured the climate planning sprouts. I was late to the party, starting in 2005 with presenting at many conferences with Emanuel Machado (then in Dawson Creek). We were trying to get across the idea that local governments have a role in community-wide emissions. We had fun and some success, but it was modest.

In 2008, the seeds that had been nurtured since 1995 started to sprout. US climate stars Al Gore and Arnold Schwarzenegger may have inspired then BC premier Gordon Campbell, who had an epiphany that climate change was real and that we should do something about it. 2008 kicked off the modern era of local government climate action in BC with an avalanche of climate action legislation.

Three things stand out as shaping community climate action in BC. Firstly, the announcement at a UBCM conference that all local governments would be required to have

climate targets and actions in their Official Community Plans was the first time that climate change was included as a local government responsibility. This ushered in an era of experimentation and innovation and an explosion of capacity and learning. It is here that our three non-planners from the beginning of the story deliver community energy planning training to planners who have a new responsibility no one prepared them for.

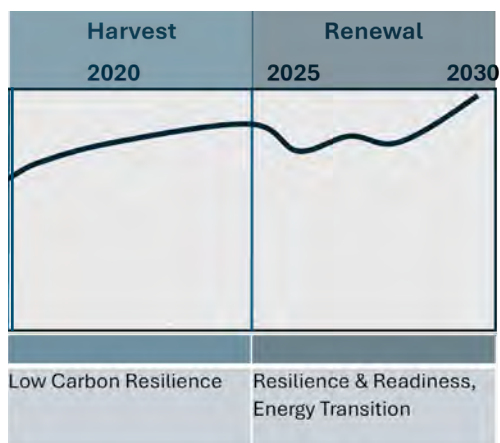
BC Hydro started co-funding local government climate action staff positions to partly address this capacity crunch. This capacity and associated network has been instrumental in advancing climate action in large and medium BC communities, with support for small communities delivered primarily through the Community Energy Association. Capacity was also supported by the Climate Action Revenue Incentive Program (CARIP), which was predictable, stackable, and usable for capacity, studies, and capital. The impact of this program, combined with the voluntary *Climate Action Charter* and CARIP, cannot be overstated ... they solidified political will across local governments and created capacity.

Even though the Christy Clark government backed off of climate action, one of the last regulations signed before the election was the Step Code. The Step Code enabled a fundamental shift in how local governments approached

Community Climate Action Momentum over 35 years



energy and emissions in new buildings, replacing the convoluted incentives of previous eras with clear regulatory authority. Part of the Step Code secret sauce that Wilma Leung and others cooked up was the deep, wide, and authentic engagement and collaboration that led to its design. Also, during this time, Richmond adopted an 'EV Ready' bylaw for new buildings which was also a game changer.



Major progress can be made, even in times of retrenching.

Our current era of harvesting the fruits of work of previous eras has seen high points with CleanBC, Zero Carbon Step Code, and the rapid growth of electric vehicle adoption. The CARIP program was cancelled but the Local Government Climate Action Program (LGCAP) program is 4 times larger than CARIP.

As communities made rapid road-space re-allocations during a pandemic, then recovered from historic floods and unprecedented wildfires, it became clear that the time for adaptation and resilience is now. As we wind down this era and look to the future, utilities are planning for 2050 and the Province is signalling energy planning in the next mandate. The outcomes of these process will set boundaries and strategies for climate action for decades to come.

Entering the next era in some ways feels like the going back to the future, with some local governments questioning their role in mitigation and shifting back from some of the carrots and sticks. Progress can still be made on regulation, particularly heating equipment

efficiency standards. The new era will be about adaptation, including the sticky challenges of managed retreat, financing infrastructure investments, and insurance transformation.

Provincial governments set the tone, but local governments make the music of climate action. This won't change regardless of changes in government, and major progress is always possible. Some fertile tilling techniques include relentless incrementalism, building broad and authentic coalitions across typical boundaries for progress, creative application of regulatory powers, and, perhaps most importantly, having a support network to keep going. This can be heavy work and if we want to stay, we need to connect with people to make it feel like play.

The seeds of climate action are bearing climate action fruit today and it is our responsibility to use this time of renewal to set up the next harvest for future generations of climate planners. Who will write the next chapters in community climate action...it could be you!

Dale Littlejohn is the Founder and CEO of Dale Littlejohn Energy Transition Services which he started after 18 years of leading Community Energy Association.

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Rooted Cities: Balancing Density and Community Health

Catherine Berris RPP, MCIP, RLA, Rossana Ho, and Rachel Rauser, PIBC Candidate Member

The new provincial legislation will increase the density of our communities. Bill 44, for Small-Scall Multi-Unit Housing (SSMUH), requires most BC municipalities to allow three to four housing units on single-family lots. Bill 47, for Transit-Oriented Development Areas (TOAs), requires greater densities around transit hubs. The City of Vancouver's new zoning bylaw allows six to eight-unit multiplexes on single-family lots.

Generally, when density increases, there is a decline in the urban forest. Tree canopy cover – the branches, stems, and leaves of trees that cover the ground when viewed from above – is an easy way to measure and compare the extent of the urban forest. The tree canopy in older, single-family neighbourhoods usually ranges from 23 to 35 per cent. In newer single-family neighbourhoods and those with multiple unit housing, the tree canopy is typically much lower.

The SSMUH Manual has minimal guidance related to the urban forest and the TOA Manual does not mention trees.

Urban Cooling is About Health

Urban cooling is about creating more comfortable and sustainable living environments by reducing the urban heat island. Imagine a city on a hot summer day as a giant oven. The buildings, roads, and other paved surfaces absorb heat and act like heating elements, making the inner city much hotter than surrounding rural and natural areas.

Equity is a key factor. In most larger cities, the tree canopy is low in higher density neighbourhoods with larger percentages of racialized and marginalized communities. This makes the urban heat island worse and deprives these populations of the many benefits offered by trees.

The Western Heat Dome in 2021 was the hottest and deadliest weather event in Canada to date. Many places hit record high temperatures, the highest being 45.6 degrees in Lytton, and there were 619 heat-related deaths in one week. Most of these deaths happened inside people's homes and the deaths were concentrated in deprived neighbourhoods without trees.

Current strategies of Indigenous, municipal,

and provincial governments for extreme heat events rely on access to power and requirements for air conditioning, or evacuation plans to community buildings with air conditioning. These strategies carry significant risks of failure, for example, if there was a power failure during an extreme heat event. Planning for urban cooling is the most effective solution for achieving healthy, resilient communities faced with extreme heat events.

Urban Forests are in Decline

Our urban forest is at risk. A Global Tree Assessment identified that, over the past 300 years, the global forest area has decreased by about 40 per cent and almost 30 per cent of the world's tree species are now considered threatened. The report notes that most of this loss is from human-caused land use change. Many other international studies demonstrate how the urban forest is a major contributor to climate resilience.

Metro Vancouver found that the tree canopy in the urban portions of its major municipalities was 32 per cent in 2019. Its regional growth strategy, *Metro 2050*, proposes increasing the urban tree canopy cover to 40 per cent by 2050. The City of Vancouver's goal is to increase its tree canopy from 23 per cent to 30 per cent by 2050. Most other communities with urban forest strategies similarly have targets to increase their tree canopy.

To reach the tree canopy targets, there will need to be more trees everywhere in our cities, and this is challenging. On private land, which usually supports the majority of the tree canopy, new buildings with larger footprints often displace trees. The tree replacements required by many municipalities are much smaller trees or there is no space for them, and many municipalities receive cash-in-lieu. Adding more trees along roads is difficult due to desires for parking, wider sidewalks, bike lanes, and utilities. Spaces for trees in parks are limited due to needs for sports fields, recreation facilities, and gathering places.

With densities increasing, there is an urgency to pay attention to the urban forest and to meet tree canopy targets. A key challenge is the frequent absence of an integrated process in municipal planning that values urban trees. The staff in municipalities who manage the urban forest are often in parks departments, working separately from planners who are drafting zoning bylaws and reviewing development applications.

Why is the Urban Forest Important?

Trees are a primary contributor to neighbourhood character. They add beauty and an experience of nature through seasonal changes and the birds and wildlife they support. They also remove air pollutants, manage rainwater, and provide cooling on hot days. Access to nature and trees improves mental health and well-being. Neighbourhoods with trees are often more desirable.



Benefits of Trees

Environmental Benefits

- Provide habitat and biodiversity
- Reduce urban heat island effects
- Lower pollution levels
- Manage rainwater
- Stabilize slopes
- Climate change mitigation and resilience

Social Benefits

- Improve mental and physical wellbeing
- Provide sense of place and identity
- Connect people with nature
- Create more comfortable and attractive settings
- Protect from UV rays (sun)

Economic Benefits

- Attract more people to retail settings
- Enhance tourism values
- Reduce energy needs and costs
- Save costs in stormwater management
- Increase property value

In the development process, there are many considerations that can be seen as competing. Unless municipal regulations require sufficient trees, and consider the surface and underground space required to support them, the default is insufficient space to grow trees that will become large and healthy.

Examples from SSMUH

The SSMUH Manual recognizes that new density can “reduce available open space for residents as well as retention or planting of trees” and notes that “flexibility in configurations of housing will help include considerations for topography, tree canopy, heritage, and environmental values.

There are two major opportunities to accommodate space for trees and increase permeability: allowing taller buildings and reducing on-site parking requirements. The sketches below show two different approaches to achieving four units of density on an 800m² property. The benefits of reduced building footprints and less surface parking are clear. These diagrams show an aspirational number of trees, which may not be achievable in all locations.

Advocating for Healthy Density

The Ministry of Housing had a workshop with the BC Society of Landscape Architects recently and expressed interest in improving policies associated with the new density regulations to support livable communities with healthy urban forests and permeable sites. In the meantime, planners can help to balance density and community health through the following measures:

- Consider the urban forest and permeability in your updates of OCP and zoning regulations, and coordinate with municipal staff in charge of the urban forest.
- Strive to meet tree canopy cover targets in communities where they exist.
- Consider trees on private and public land (parkland and public road rights-of-way) as both contribute to achieving tree canopy targets.
- Explore urban design solutions that maximize density while also achieving permeability and tree cover.

- Be flexible on height and parking requirements where possible.
- Support urban forestry staff in monitoring and measuring the tree canopy over time as a valuable metric of sustainable practices.

While the legislation promotes ‘complete, livable, and sustainable communities,’ this can only be achieved if we are protecting and increasing our tree canopy cover and permeable land.

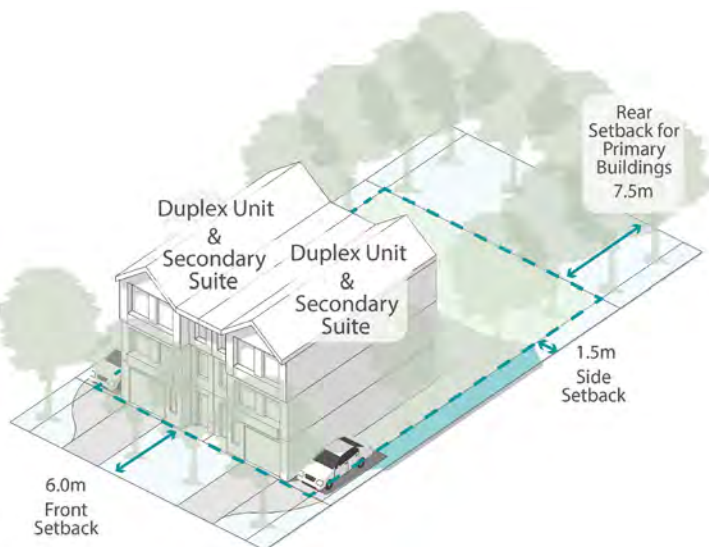
Catherine Berris RPP, MCIP, RLA is a registered planner and landscape architect at Urban Systems. She enjoys working on urban forest strategies and is currently president of the Canadian Society of Landscape Architects.

Rossana Ho is a landscape designer at Urban Systems. She currently serves as co-chair on the Advancing Equity & Diversity in Landscape Architecture working group for the BCSLA.

Rachel Rauser is an urban designer at Urban Systems. She integrates her background in planning and design on projects related to urban form, streetscape design, and public spaces.

Two Duplex Units with Secondary Suites

- Building height 11m for primary buildings
- parking spaces and 2 garage spaces
- 30% tree canopy
- 30% hard surfaces



Primary Dwelling with Secondary Suite & Two Additional Dwelling Units (ADUs)

- Building height 11m for primary buildings and 7.5m for additional dwellings
- 3 parking spaces and 1 garage space
- 20% tree canopy
- 55% hard surfaces

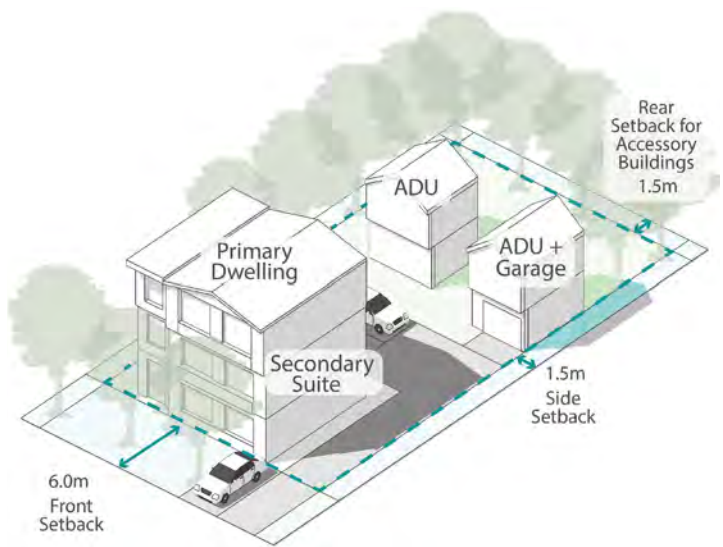


Image Credit:
Urban Systems (Rachel Rauser)

Advancing Climate Action and Improving Resilience through Land Use Planning in Metro Vancouver

Edward Nichol RPP, MCIP, Stefanie Ekeli, PIBC Candidate Member, Morgan Braglewicz, PIBC Candidate Member

The Metro Vancouver Regional District has committed to becoming a carbon neutral region by the year 2050. Metro Vancouver is the fastest growing region in BC, with over 50% of the province's population. The region is highly susceptible to natural hazards such as earthquakes, wildfires, landslides, and floods, as well as climate change impacts such as extreme heat and sea level rise. Surrounded by mountains, ocean, rivers, agricultural land, forests, steep slopes, and an international border, determining where and how the region grows and develops — while also meeting climate change and resilience objectives — has become increasingly complex and challenging.

Land use planning profoundly shapes the spatial arrangements of communities. It can influence greenhouse gas (GHG) emissions from sources such as buildings and transportation, support the protection of ecosystems

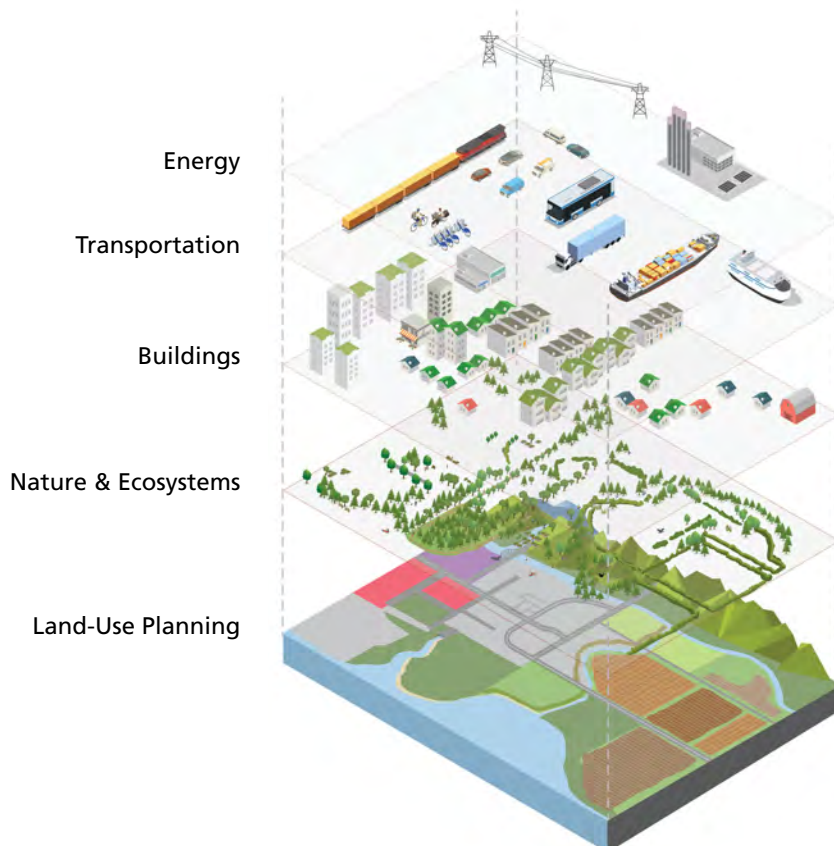
that sequester and store carbon (such as those in natural areas and agricultural lands), and determine the degree to which communities are exposed to climate change impacts and natural hazards. Addressing the challenges of climate change will require integrated land use planning paired with a range of other policies and actions.

Metro Vancouver has been collectively working to advance climate action through strategic and integrated land use planning. *Metro 2050*, the Regional Growth Strategy, is the region's vision for how growth will be managed over the next several decades, and the *Climate 2050* strategy guides climate change policy and action for Metro Vancouver over the next 30 years. Within *Climate 2050*, integrated land use planning underpins GHG emission reduction and resilience actions across various issue areas (e.g., transportation, buildings and

nature and ecosystems). Many of the actions are holistic in nature and rely on core land use planning practices to assess and respond to hazard, risk, and vulnerability.

GHG Emissions Reduction

There are two key pathways to reduce GHG emissions: using less energy, and transitioning from fossil fuels to low or zero emission energy sources such as electricity. Integrated land use planning is foundational to many *Metro 2050* and *Climate 2050* actions that aim to reduce GHG emissions at the community level, particularly those that reduce energy use. Though land use planning in and of itself is insufficient to achieve deep GHG emission reductions, thoughtful land use planning can enable GHG emission reductions from several sources and can be paired with other actions, such as the transition of energy uses away from fossil fuels.



Land use planning shapes the spatial arrangements of our communities, and influences both GHG emissions and resilience

source: Metro Vancouver



Smoky Air from Forest Fires

source: Metro Vancouver

Though transportation is the largest source of GHG emissions in Metro Vancouver, emission reduction efforts can be supported through land use planning; for instance, *Metro 2050* manages growth within an urban containment boundary, reduces sprawl by directing development to a network of transit-oriented Urban Centres and Frequent Transit Development Areas, and encourages the development of compact, complete communities that offer services and amenities close to home. Local governments can use Official Community Plans, zoning bylaws, and policies on road space and curb use to further shape communities and enable a shift from driving to low-emission and low-cost transportation modes such as walking, cycling, rolling, and transit. Paired with policies and actions to transition remaining trips in cars to electric vehicles, communities can achieve deep reductions in GHG emissions from

transportation sources.

Buildings are also a major source of GHG emissions due to the use of fossil gas for heating and hot water. High-density housing forms typically use less energy and have lower emissions than low-density forms due to their smaller floor and exterior wall areas. Additionally, high-density and mixed-use areas can support low carbon energy and thermal networks, such as district energy systems that leverage waste heat. Higher-density housing, mixed-use forms, and tools such as development permit areas can reduce GHG emissions from buildings.

Resilience

The term “natural disaster” is in some ways a misnomer – it implies that the outcomes from a hazard event are random and beyond our control, when in fact, land use decisions made about where growth and development

occurs, critical infrastructure is sited, and investments in hazard mitigation measures are made are well-within our collective control, and all of these decisions influence vulnerability.

Land use planning can be a powerful catalyst for enhancing resilience by ensuring that communities, property, infrastructure, and ecosystems are safeguarded from the worsening impacts of climate change and natural hazards. *Metro 2050* includes policy actions that protect the region’s natural areas and other important lands (essential for buffering communities from hazards and climate impacts), minimize risk in existing communities, discourage new growth in at-risk areas, and establish a role for Metro Vancouver to collaboratively develop and share information related to hazard, risk, and vulnerability. This policy direction spurred the development of regional multi-hazard mapping, which can

be integrated into regional and local land use planning analysis, projects and models. *Metro 2050* also includes policy actions that encourage integration between land use planning and emergency management.

Opportunities for Integration: Land Use Planning and Emergency Management

Collaboration between land use planners and emergency managers can be challenging. Each discipline may have different legislative requirements, backgrounds, roles, and mandates within an organization. Emergency managers have traditionally focused on response and recovery efforts, rather than efforts to prevent, mitigate, or prepare for hazards¹. Conversely, the planner's primary role tends to be focused on managing urban growth and development, with less emphasis on hazard mitigation efforts.

However, coordinated planning between the two disciplines can create mutually supportive outcomes. Zoning regulations, bylaws, and development permit areas can be implemented to limit development in hazardous areas, and hazard and risk assessments (and associated mapping) can help governments make informed choices about the future use of land, opportunities to avoid or reduce potential risks, and integration opportunities with emergency response plans. Public open spaces (e.g., parks) – which are important for community health and liveability – can also be used as evacuation points, shelters, or supply distribution centres in a disaster scenario². Planning mechanisms already in place to protect parks and greenspace also contribute to resilience, since ecosystems provide shading, cooling, floodwater absorption and other benefits. Planners are also capable of coordinating

'building back better' approaches after a hazard event occurs, given their knowledge of the communities they operate in and their proficiency engaging and communicating with stakeholders, managing long-term growth and development, integrating social equity concerns, and navigating legislation³.

Land use planning is a well-established, economical, and efficient tool for supporting both community GHG emission reduction efforts and efforts to reduce the risks associated with climate change and natural hazards. Planners are well-suited to advance these objectives by recognizing and championing the role of land use planning as a pillar for climate action, collaborating between departments, organizations, and professions to achieve mutually supportive outcomes, and leading the implementation of progressive plans and policies.



**Transit Oriented Development,
Metrotown Burnaby**

source: Metro Vancouver



Further Reading

Metro 2050:

<https://metrovanancouver.org/services/regional-planning/metro-2050-the-regional-growth-strategy>

Metro Vancouver's *Climate 2050* Roadmaps:

Buildings Roadmap:

<https://metrovanancouver.org/services/air-quality-climate-action/Documents/climate-2050-buildings-roadmap.pdf>

Transportation Roadmap:

<https://metrovanancouver.org/services/air-quality-climate-action/Documents/climate-2050-transportation-road-map.pdf>

Nature and Ecosystems Roadmap:

<https://metrovanancouver.org/services/air-quality-climate-action/Documents/climate-2050-nature-and-ecosystems-road-map.pdf>

Stefanie Ekeli, PIBC Candidate Member, is a Regional Planner for Metro Vancouver and is a PIBC Candidate Member. She is leading the development of Metro Vancouver's *Climate 2050 Land Use and Urban Form Roadmap* and brings experience from both local and regional governments with practice in land use and transportation planning.

Edward Nichol, RPP, MCIP is a Senior Planner for Metro Vancouver. Edward leads and supports a variety of regional planning initiatives related

to environmental protection, climate change, urban forestry, and natural hazards. Edward is the policy lead for climate change and natural hazards content in *Metro 2050* and is co-leading the implementation of the *Climate 2050 Nature and Ecosystems Roadmap*.

Morgan Braglewicz, PIBC Candidate Member, is an Air Quality Planner with Metro Vancouver's Air Quality and Climate Action Services team, working on region-wide climate action to reduce greenhouse gas emissions. She is leading the implementation of the *Climate 2050 Transportation Roadmap* and co-chairs the BC Electric Mobility Peer Network for local governments.

Storm Surge in the District of West Vancouver

source: District of West Vancouver

¹Ministers Responsible for Emergency Management. (2017). An emergency management framework for Canada (3rd ed). Available online: <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/2017-mrgnc-mngmnt-frmwrk/2017-mrgnc-mngmnt-frmwrk-en.pdf>

²Jayakody, R., Amarathunga, D., & Haigh, R. (2018). Integration of disaster management strategies with planning and designing public open spaces. *Procedia Engineering*, 212, 954-961. <https://doi.org/10.1016/j.proeng.2018.01.123>

³Kim, K., & Olshansky, R. B. (2014). The theory and practice of building back better. *Journal of the American Planning Association*, 80(4), 289-292. <https://doi.org/10.1080/01944363.2014.988597>

Air Quality and Climate Change in a Complex Airshed: Prince George Air Improvement Roundtable, Prince George, BC

Ahmad Jalil and Patience Rakochy RPF, MSc

Nestled at the confluence of the Nechako and Fraser Rivers, Prince George faces unique air quality challenges shaped by its geography, climate, and diverse emission sources. The city's location in a river valley creates a 'bowl' effect, trapping pollutants in some of the most densely populated areas. This, combined with light winds and winter inversions, leads to air pollutant accumulation, especially in colder months.

Air quality in BC is managed through a range of provincial acts and regulations, including federal laws. Regional and municipal governments also play important roles. The *Environmental Management Act* and the *Waste Discharge Regulation* are the principal pieces of legislation for air quality (and other environmental issues) in British Columbia. In communities like Prince George, where air quality is of great concern, local area groups often take the lead for continuous improvement through the development of airshed or air quality management plans. These groups are made up of volunteers who must seek their own funding and support to develop local airshed plans.

Since 1995, the Prince George Air Improvement Roundtable (PGAIR) has been actively involved in air quality management initiatives in this sensitive airshed. As a community-based, multi-stakeholder, non-profit society, PGAIR brings together representatives from all levels of government, industry, academia, and the public to raise awareness, promote education, and provide input on matters related to air quality. While PGAIR has no regulatory authority, it advocates for and works towards continuous improvement of air quality through collaborative efforts, providing recommendations on local development projects and to various stakeholders.

Key Air Quality Challenges

Prince George's air quality challenges stem from a diverse mix of emission sources:

- Industrial activities, including pulp and paper mills and petroleum refining.
- Residential heating, particularly wood burning in winter.
- Transportation emissions from both commercial and private vehicles.
- Increasing wildfire smoke linked to a changing climate.
- Seasonal road dust.

This complex blend of urban, industrial, and natural sources, combined with the area's unique topography and climate, creates a particularly challenging airshed to manage. Recent climate trends, including drier and hotter seasons, are exacerbating these issues, especially through more frequent and intense wildfires that significantly contribute to particulate matter levels.

Collaborative Air Quality Management

PGAIR coordinates programs and communication initiatives for continuous air quality improvement, maintaining proactive relationships with key stakeholders. This collaborative approach enables coordinated responses to air quality concerns and proposed industrial developments. However, it's important to note that PGAIR's efforts are currently carried out mainly by volunteers and spread across various entities. Through its membership, PGAIR is fortunate to have a strong representation of the overall community, but it is challenged with the limits of volunteer time and consistent progress.

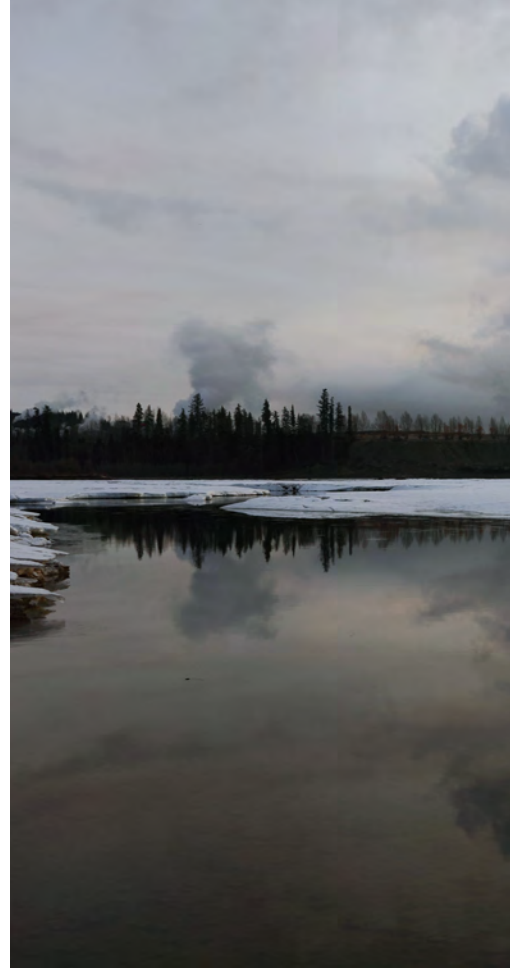
Prince George is also home to the Prince George Air Quality Monitoring Society (PGAQMS), which is a separate entity from PGAIR. Membership is comprised of PG-based emissions permit holders who, as part of their emissions permit, are required to participate on the PGAQMS. This society operates a comprehensive monitoring program, providing

crucial data to inform management strategies and support provincial air quality objectives. The data helps identify trends and areas of concern, guiding necessary program adjustments.

In addition to Federal and Provincial regulations, local regulatory measures, such as the City's Clean Air Bylaw, form the backbone of local air quality management. The bylaw regulates wood-burning appliances, outdoor burning, and dust control to reduce PM_{2.5} emissions at their source. PM_{2.5} refers to fine particulate matter that is 2.5 micrometers or smaller in diameter, which can penetrate deep into the lungs and pose significant health risks. PGAIR complements this by promoting public awareness about wood smoke impacts and working with industry to implement emission reduction best practices. Expert members are available to assist local government on an as needed basis to address air quality questions and concerns as they arise.

Climate Change and Air Quality: An Integrated Approach

In Prince George, the connection between a changing climate and air quality is evident in the increasing frequency and intensity of wildfires, and lengthier spring dust events, which introduce significant particulate matter into the airshed during spring, summer, and early fall months.





Emissions fill the air above a working pulp mill

disseminated widely, benefiting multiple airsheds and communities.

A Student's Perspective from Ahmad Jalil

As a UNBC student involved with PGAIR, I've gained valuable insights into the complex relationships between climate change, air quality, and urban planning. For example, a popular running route up University Hill revealed unexpected air quality concerns due to traffic and road dust - illustrating how urban design directly impacts environmental health. This experience underscores the importance of integrating air quality considerations into urban planning decisions.

I've also observed the critical role of local government in addressing these issues. When planners and officials prioritize air quality and climate in their decision-making, it leads to meaningful changes. Initiatives like green infrastructure, compact urban development, and improved public transportation can significantly contribute to better air quality and reduced emissions. These experiences highlight the need for holistic, forward-thinking approaches in urban planning to create healthier, more sustainable communities.

While the challenges are significant, Prince George's history of community-based environmental management provides a strong foundation for addressing these complex issues. By maintaining its commitment to collaboration, evidence-based decision making, and holistic environmental management, Prince George is well-positioned to create a healthier, more sustainable airshed for future generations. As a student and future professional, I'm excited to be part of this journey and to contribute to innovative planning solutions that address both air quality and climate change in our unique northern context.

Patience Rakochy is a registered professional forester (RPF) who works for the Fraser Basin Council as a program lead. She works with communities in the north to bring together experts and resources to address air quality as it relates to local airsheds and a changing climate as well as integrated resource management.

Ahmad Jalil is a student at the University of Northern British Columbia (UNBC) with a diverse background in health science, natural resource, and environmental studies. Deeply engaged in his university and community, he is committed to the development and well-being of Northern BC, fostering strong connections and contributing positively to its future.

Recognizing the interconnections between air quality and climate change, PGAIR works with local authorities to integrate thought processes and actions that consider both issues simultaneously. PGAIR is currently developing a new airshed management plan that will likely include ideas for determining whether a given climate change strategy will impact air quality – positively or negatively. For example, the switch to biomass burning as an alternative to fossil fuels will often increase Particulate Matter (PM) emissions to a local area. A co-benefit approach however offers several benefits:

- Cost-effectiveness through co-benefits.
- Enhanced public health outcomes.
- Improved policy coherence.
- Increased community resilience.

Looking to the Future

Moving forward, PGAIR will continue to advocate for policies and initiatives that not only improve local air quality but also contribute to climate resilience. This may include promoting cleaner technologies, supporting green infrastructure development, and enhancing public education on the links between individual actions, air quality, and climate change.

The future of air quality management in Prince George will likely involve more

sophisticated monitoring techniques, increased cross-sector collaboration, and adaptive strategies that can respond to changing environmental conditions. A crucial aspect of this future vision is the need for enhanced resource sharing between independent tables and airshed groups. By fostering a network of knowledge exchange and collaborative resource development, PGAIR and similar organizations can leverage collective expertise, avoid duplication of efforts, and implement more effective strategies across different regions facing similar challenges.

In recognition of the potential for volunteer burnout, and to enhance effectiveness of air quality management across BC, a shift to a more sustainable, centrally funded model may be needed in the future. A model where air quality standards are implemented by government staff through regional plans will support larger collaboration, improved oversight, and a more cohesive body to oversee air quality management across BC. This approach could provide the resources and structure necessary to move air quality initiatives forward more effectively and consistently without relying on local area volunteer groups.

This collaborative approach to resource sharing will not only improve the efficiency of air quality management efforts, but also ensure that best practices and innovative solutions are

Habitat Networks: The Importance of Planning for Connectivity Across Various Scales

Cassandra Cummings RPP, MCIP, Alison Kwan, Aubrey Butcher and Mike Coulthard

Each fall, migratory birds begin their annual trek south, leaving behind their northern breeding grounds in search of warmer climates to wait out the winter. Established migratory routes, such as the Pacific Flyway, see millions of birds make this trek year after year. BC's expansive and varied habitats, including wetlands, marshes, estuaries, and forests, provide respite for many of these birds while they make their journey. This vast corridor that extends along North America's coastline spans many jurisdictional boundaries, from countries, states and provinces down to regional districts, municipalities and neighbourhoods. This flyway illustrates the importance of scale when planning to protect connected habitats to support biodiversity.

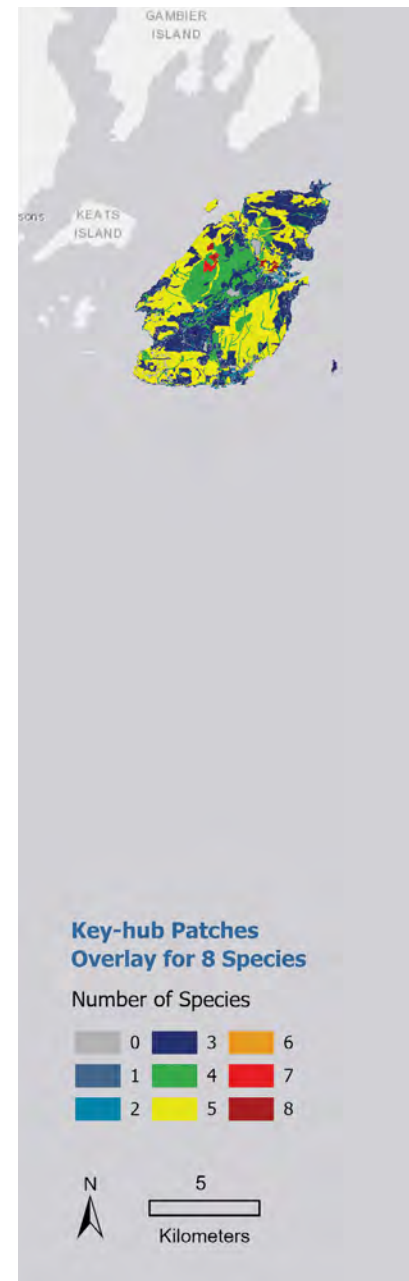
Wildlife does not acknowledge jurisdictional boundaries. Protecting their habitat requires coordinating efforts at various levels, from recognizing major international migratory routes to land use planning at the city scale to conserve local corridors that allow for safe movement between habitat areas. When planning to protect biodiversity and habitat connectivity, the available data and tools can vary significantly. This article examines a range of planning approaches applicable across different scales in a BC context, from regional districts to municipalities, encompassing both densely urbanized areas and rural landscapes.

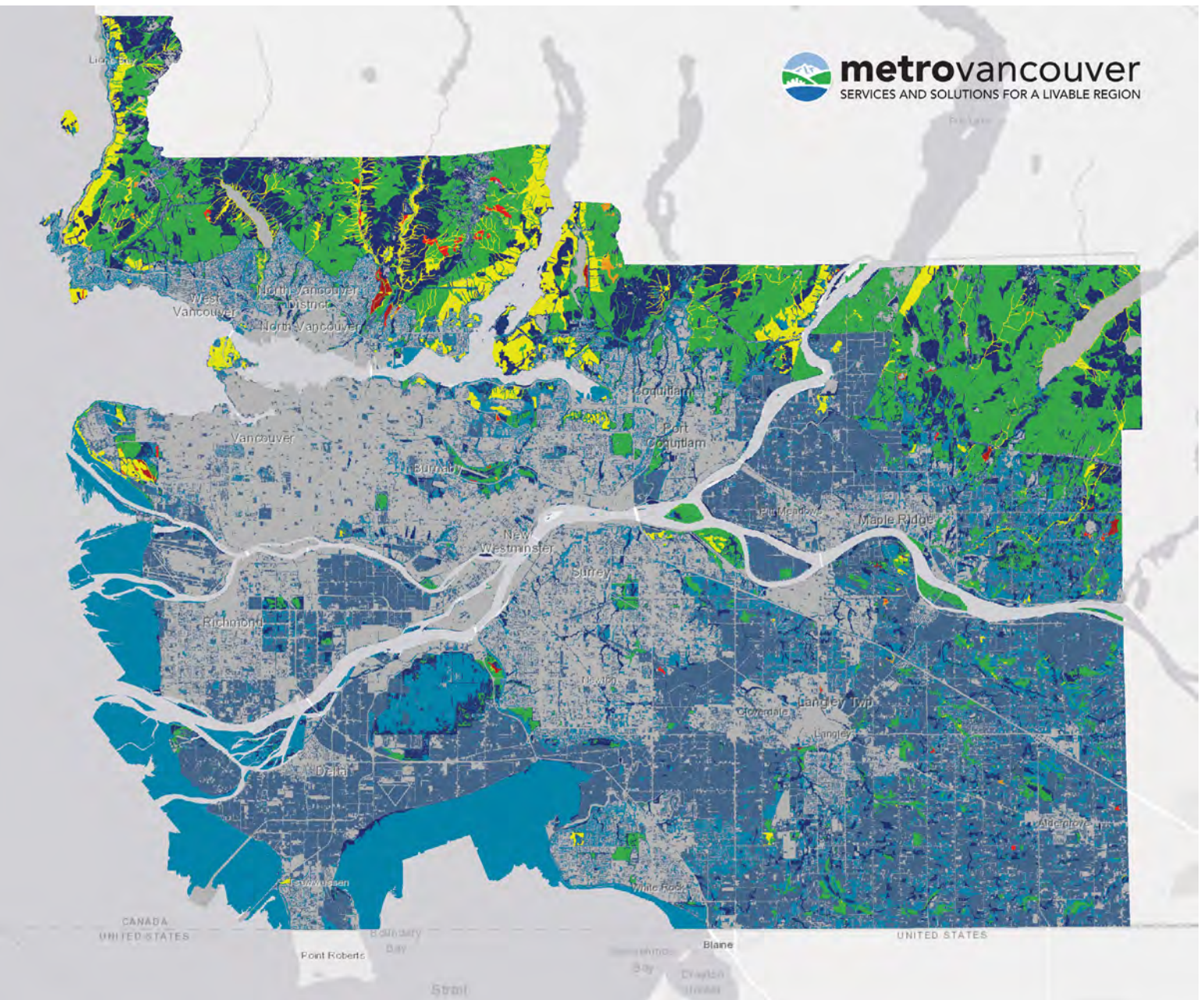
Biodiversity planning typically uses a ranking matrix to identify the habitat areas that offer the highest benefit for supporting multiple species. Protecting and enhancing these key habitat areas is essential not only for wildlife but also for climate resilience and social well-being. Biodiversity or habitat networks consist of critical habitat patches and the corridors that connect them together. It is crucial to maintain landscape connectivity for wildlife, as it allows them access to the habitats they need to survive and helps promote genetic diversity among populations. When populations become isolated, they can experience genetic issues that make them more susceptible to disease and other health problems. Disruptions to habitat connectivity can also disrupt predator-prey dynamics.

A typical biodiversity network consists of core habitat hubs, smaller habitat sites or stepping stones, and a variety of corridor types. Core habitat hubs are large, relatively undisturbed areas that provide refuge for species less tolerant of urbanization. Smaller habitat sites, while less protective, act as essential stepping-stones for species that can tolerate urban environments. Corridors connect these areas, supporting the movement of species, though their effectiveness varies based on width and the presence of barriers. Urban features such as private gardens and agricultural lands, while not as biodiverse, can also contribute to the overall habitat network by offering habitat for smaller species and those that are tolerant of urban environments.

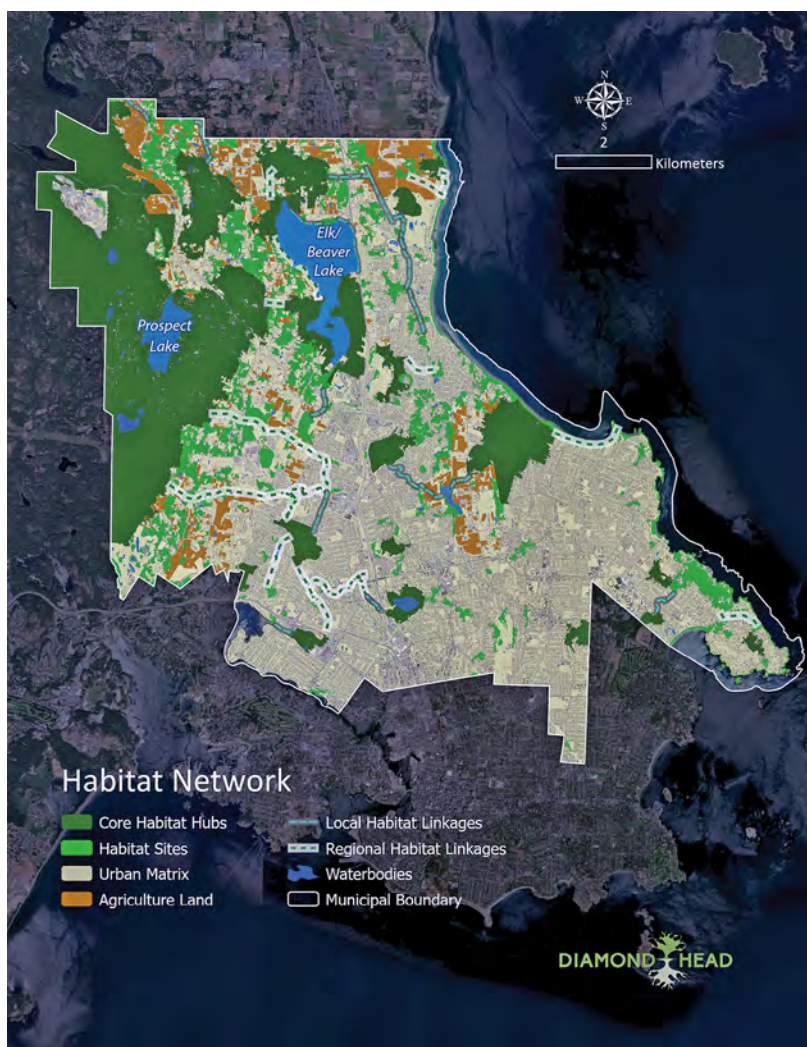
A regional-scale habitat network is complex due to its size. Spatial modeling can be used to identify important habitat hubs and the existing corridors that best connect those areas together. These models can help to identify habitats that are important to many species, as well as habitats with outsized importance to a smaller number of species. They require the input of large datasets that provide consistent information across the study area. If set up properly, these models reduce the amount of professional judgment or political pressure that can sometimes bias where habitat hubs and corridors are located. The models can be rerun using multi-year data sources, allowing for networks to be updated as areas change. This also allows for monitoring to understand if goals and objectives are being met.

Implementing these networks at a regional scale can be challenging as it requires coordination among multiple municipalities and stakeholders. These larger-scale projects do, however, offer opportunities that smaller-scale planning cannot. Specifically, large-scale projects can incorporate watersheds, identify regionally significant habitats that may be locally abundant, and consider the movement of animals with large home ranges. Additionally, regional-scale biodiversity planning promotes collaboration between municipalities to protect these extensive habitat areas.





Modeling outputs identifying habitat areas that support a high number of species guilds based on eight focal species across the Metro Vancouver Region.
 Metro Vancouver: An Evaluation of Ecosystem Connectivity 2021.



The District of Saanich approved its Biodiversity Conservation Strategy in June of 2024. The Strategy contains a Habitat Network that identifies core habitat hubs, smaller habitat sites, and connections between them. This includes regional habitat linkages that can be considered regionally significant and local habitat linkages providing smaller, more local corridors.

At the municipal level, biodiversity planning differs between highly urbanized cities and less developed municipalities. In rural municipalities with large, low-density, or undeveloped areas, there are many options for habitat patches and corridors. The habitat areas that provide the greatest diversity of high-quality features, and corridors that provide the best connection between them, are identified as a network to plan around. The most effective corridors are wide and naturalized, often following streams or marine foreshore areas.

In well-established urban areas, large, connected natural areas can be absent. Those that remain are usually protected as parks and corridors are associated with natural streams and

their riparian areas. Establishing and restoring new corridors through well established neighbourhoods can be challenging. New corridors are less natural and often support the movement of people as well as wildlife. Urban corridors focus on establishing a continuous aerial tree canopy, as well as a variety of features on the ground, including patches of shrubs, pollinator gardens, and bioswales.

A habitat or biodiversity network identifies key habitat areas and natural corridors across a landscape, providing a framework for land-use planning, conservation, and restoration efforts. While it is an important first step to identify these networks, biodiversity or environmentally sensitive area strategies support their

implementation. These strategies identify tools to protect the network, promote habitat protection on private lands, enhance education and stewardship, foster partnerships, and support funding and resources for implementation as well as long-term monitoring efforts.

Tools that are often used to implement and legally protect these networks include environmental development permit areas and zoning and regulatory bylaws to protect natural features such as trees and streams. Funding for land acquisition and restoration efforts can be secured through development cost charges or environmental taxes. Alternative forms of protection that can be used to protect smaller natural areas include voluntary land conveyances and restrictive covenants. However, these tools can be costly for the municipality, and resource planning is crucial for the long-term success of these strategies.

The protection and restoration of habitat networks is essential for supporting biodiversity and fostering climate resiliency across varying scales. From international migratory routes to local urban corridors, the connectivity of natural spaces ensures the survival of diverse species and the health of ecosystems. As municipalities develop and implement biodiversity strategies, collaboration, careful planning, and the use of innovative tools are crucial for establishing and maintaining these networks. By prioritizing habitat connectivity, we not only preserve vital ecosystems but also create healthier, more sustainable communities for the future

Cassandra Cummings (RPP, MCIP, RPBio) is the Biology Manager and an Environmental Planner with Diamond Head Consulting. Cassandra draws on her biology and planning background to protect and enhance the natural environment through development and municipal policy.

Alison Kwan (RPBio) is a Biologist with Diamond Head Consulting who strives to protect sensitive natural areas and restore and enhance impacted areas to build resiliency and preserve biodiversity for current and future generations.

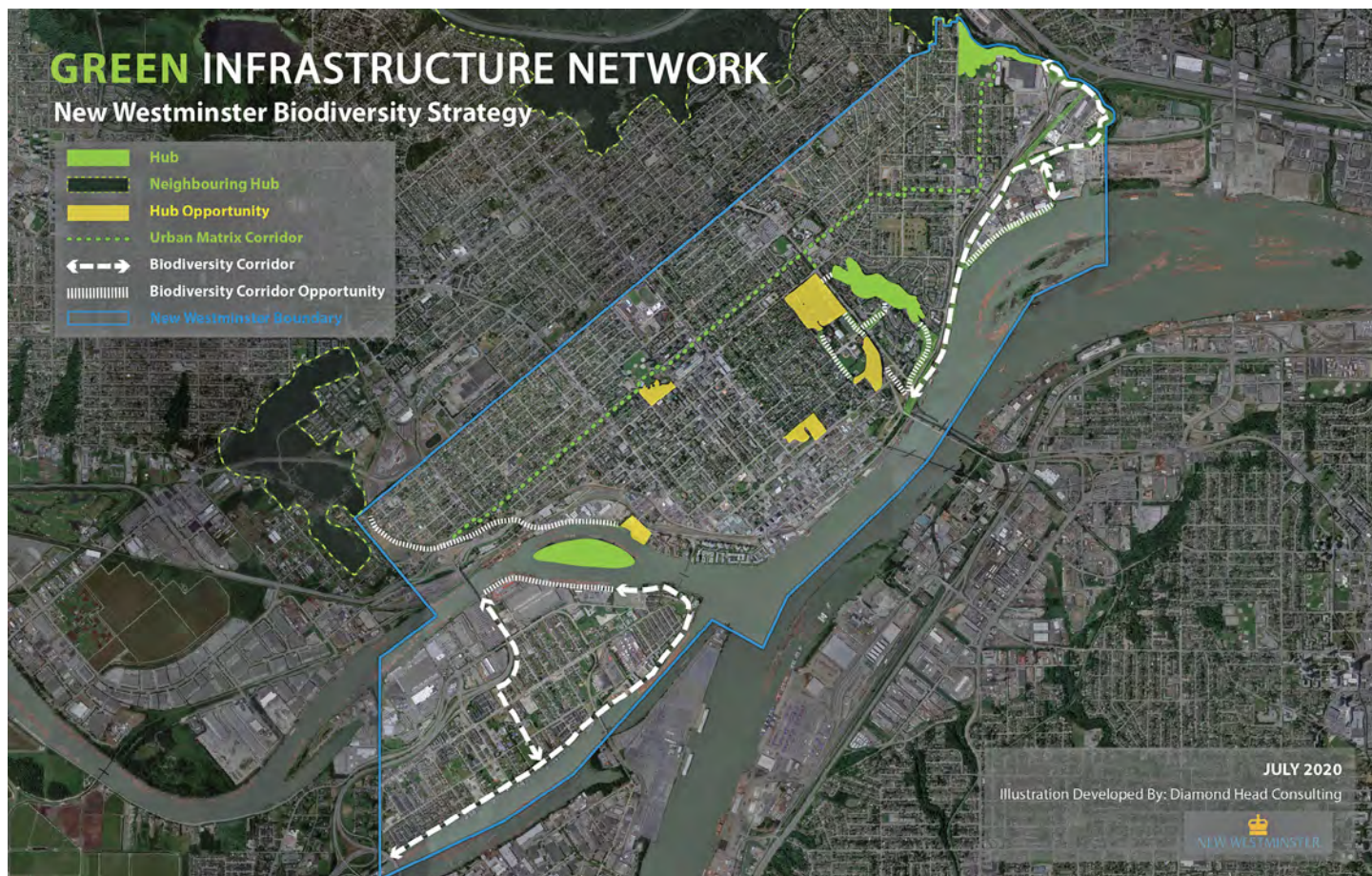
Aubrey Butcher (RPBio) is a Restoration Biologist who is passionate about protecting and improving our natural environment. Aubrey's goal is to protect existing natural areas and improve the interface between the urban and natural world.

Mike Coulthard (RPBio, RPF) is a founding partner of Diamond Head Consulting and has been working in the fields of forestry and biology for the past 33 years throughout British Columbia.



Left: The City of North Vancouver approved its Climate & Environment Strategy in June 2024. The Biodiversity and Natural Areas Report was developed as part of this process, and identified habitat hubs, sites, existing natural and urban corridors and potential future corridors.

Below: The City of New Westminster Biodiversity and Natural Areas Strategy was approved in the summer of 2022. It included the identification of a Green Infrastructure Network. This network prioritized the protection of the few remaining pockets of natural areas, while identifying key restoration opportunities that would most improve local ecosystem health and connectivity between these hubs.



Climate Resilience in Practice – Lessons from Barcelona

Increasing Extreme Heat Resilience Through Land Use Planning and Urban Design

Maya Korbynn MCRP, PIBC Student Member

Extreme heat poses an increasing risk to community health and safety. BC is already facing heat waves that exceed past predictions² and the 619 casualties of the 2021 Heat Dome emphasize the grave consequences of inaction. Governments in BC are deploying strategies to increase extreme heat resilience; however, many of these strategies – such as education initiatives and subsidies for cooling system installation – tackle the issue at the individual-level or on a temporary basis.

How can planners embed extreme heat resilience into the urban fabric of a community?

To explore this question I travelled to Barcelona, a city familiar with embedding extreme heat considerations into its planning efforts, to learn about more permanent, long-term, and passively oriented cooling measures.

Barcelona is an excellent city from which to draw lessons. The city has been contending with severe heat for the last decade (with as many as three major extreme heat events a year³) and has a history of being proactive and innovative with its climate resilience measures⁴. Some of Barcelona's most impactful extreme heat approaches take the form of creative land use planning and urban design interventions. While in Barcelona, I identified four approaches that help cool the city: Increased Density, Strategic Street Orientation, Urban (Re)Forestation and Pedestrianization, and Heat-Reflective Materials. Together these strategies create permanent, built-in cooling systems that benefit both the private and public realms and enhance community resilience to extreme heat.

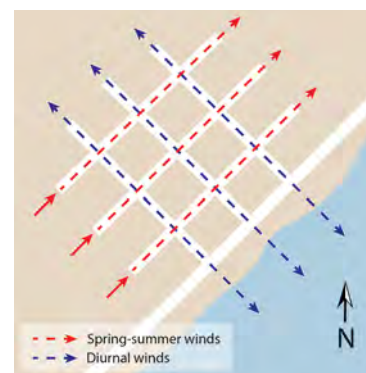
Increased Density

Barcelona is the tenth most densely populated city in Europe, with a typical building form (thanks to its form-based code) of 5-9 storey mid-rise buildings arranged in square blocks. Buildings in these blocks have no front set-back, and a streetwall height that is 80-100% of the building height. In the summer, these mid-rise blocks cast shadows across streets, sidewalks, and public squares, creating arteries of cooler spaces across the city when summer temperatures are at their peak. During the hottest times of day, many people seek refuge in these shaded areas, where it feels at

Climate resilience: The ability of a community to prepare for, adapt, and respond to climate impacts (such as extreme heat) so that it can maintain essential functions, identity, and structure, while also maintaining capacity for transformation.¹

least 5-10 degrees cooler than on sunny streets.

Barcelona demonstrates that increased density can benefit communities beyond providing housing – it can also act as an extreme heat adaptation measure by providing public-realm shading, a measure which has been shown to reduce heat stress more effectively than other outdoor cooling measures⁵. This suggests planners could think of summertime shading as a community benefit enabled by density and design. In BC, when planning for increased density on lots (Bill 44) and around transit-oriented areas (Bill 47), planners could consider creating form-based codes and design guidelines that capitalize on the positive impacts of density with regard to sun orientation, so that thoughtful density provides both housing and usable summertime outdoor shading. Making this density mixed-use can provide further cooling benefits by creating more local air-conditioned commercial and community spaces that residents and visitors can frequent on hot days.



Strategic Street Orientation

Barcelona's street grid orientation contributes to extreme heat resilience by taking advantage of natural atmospheric flows to provide passive ventilation, which further cools the city. Ildefons Cerdà, the planner behind much of modern Barcelona, conducted an extensive study of weather patterns that informed Barcelona's street grid design⁶. This grid runs parallel and perpendicular to the shoreline and is aligned with southwest spring-summer winds to create natural ventilation on streets parallel to the coastline. Streets that are perpendicular to the coastline are ventilated through coastal diurnal air exchange in the form of daytime onshore and night-time offshore breezes. Consequently, during the spring and summer months, many Barcelona streets experience a periodic light-medium breeze, which helps reduce the perceived temperature. I found this ventilation to be a welcome reprieve during my sunny field observation walks.

Applying these observations to the Canadian context, community and master plans should better consider street orientation to take advantage of summer airflow patterns and increase extreme heat resilience. Additionally, urban-canyon design guidelines that optimize the effects of building heights and street spacing on summertime winds could significantly enhance this form of natural ventilation.

Urban (Re)Forestation & Pedestrianization

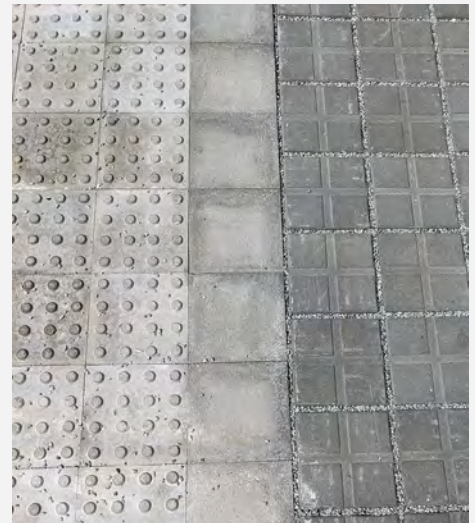
Barcelona has been aggressively increasing its urban forests through numerous initiatives, almost tripling the area of urban green space between 1980 and 2009⁷ and achieving 25% of its goal to add 1m² of urban green spaces per resident (160ha total) between 2013 and 2030⁸. Current urban reforestation plans centre on creating a green corridor network. This involves creating tree-lined green streets through the Superblock Barcelona programme, an initiative that reclaims select streets to prioritize pedestrian and public space uses by redesigning the streetscape to limit car use, enhance tree cover, and allow public furniture and garden installations⁹. This transformation provides outdoor shade and decreases indoor temperatures of adjacent buildings¹⁰. The Superblocks also mitigate greenhouse gas (GHG) emissions by removing automobile-centric spaces in coordination with transit route upgrades, offering residents alternative ways to travel to these previously car-accessible locations. Implementation of this network was initially launched as a trial program and is supported by detailed design guidelines¹¹.

The lesson for BC planners is that urban forestry coupled with pedestrianization, enhanced urban design, and transit planning interventions can increase resilience to extreme heat. These adaptations not only reduce temperatures by providing shade, but also reduce transportation-related GHG emissions and promote social resilience by creating free, pleasant public spaces for people to gather and connect.



Heat-Reflective Materials

Another creative approach to cooling adopted in Barcelona focuses on street surface materials. The City is replacing asphalt with lighter-coloured concrete and granite tiles, a switch that decreases summer road surface temperatures by up to 5°C. This builds on studies which show that building with heat-reflective materials can reduce the urban heat island effect¹². Barcelona is also experimenting with different concrete tile formulae that further reduce road surface temperatures. BC planners could likewise integrate lighter coloured, high-albedo material requirements into design guidelines to reduce road, roof, and building temperatures, thereby embedding passive cooling into the structure of the community.



Final Thoughts

Extreme heat events are getting more frequent in BC and planners can address this hazard through changes to the built environment. Looking to Barcelona can help us understand how to incorporate novel approaches – including increased density, strategic street orientation, urban (re)forestation, pedestrianization, and heat-reflective materials – in community planning efforts to increase a community's resilience to extreme heat.

Implementing these approaches through thoughtful bylaws and design guidelines could provide additional benefits, including improved social resilience, more active transportation use, reduced energy use, and enhanced equity through more distributed access to cool spaces (especially important for mobility challenged or unhoused community members).

As planners rethink the built form of our communities, it is imperative to consider how summer shading, improved ventilation, and other heat-reduction benefits could be embedded into our planning efforts. Creating passive cooling in the public realm meets multiple community goals, but most importantly is a crucial step towards achieving safer and more livable communities in a hotter climate.

Resources:

¹Definition adapted from: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf

²<https://climatereadybc.gov.bc.ca/pages/extreme-heat>

³<https://www.barcelona.cat/barcelona-pel-clima/en/how-does-climate-change-affect-us/future-projections>

⁴<https://mcr2030.undrr.org/news/barcelonas-top-tips-tackling-disaster-risk-inclusion-and-participation-heart-resilience>

⁵<https://www.sciencedirect.com/science/article/abs/pii/S0169204622002377>, <https://www.nature.com/articles/d41586-023-02311-3>

⁶<https://www.tandfonline.com/doi/abs/10.1080/02665433.2020.1816210>

⁷<https://ajuntament.barcelona.cat/ecologiaurbana/sites/default/files/Barcelona%20green%20infrastructure%20and%20biodiversity%20plan%202020.pdf>

⁸<https://climate-adapt.eea.europa.eu/en/meta-data/case-studies/barcelona-trees-temperatures-the-mediterranean-city-climate>

⁹<https://ajuntament.barcelona.cat/superilles/>

¹⁰<https://www.mdpi.com/2075-5309/13/10/2600>

¹¹<https://ajuntament.barcelona.cat/ecologiaurbana/en/what-we-do-and-why/green-city-and-biodiversity/greenery-biodiversity-charter>

¹²<https://www.nature.com/articles/s41467-021-23634-7>

Maya Korbynn MCRP, is a planner that works in the Lower Mainland on projects at the intersection of climate resilience, urban design, and community planning.

You Can Get There From Here, One Step at a Time – Regional Active Transportation Planning

Patricia Dehnel RPP, MCIP

“You can’t get there from here!” That is the punchline of a commercial I remember where a local was trying to give driving directions in a rural place. I always found that response humorous, until I started thinking about how the response relates to transportation options in rural areas and the larger picture of taking responsible climate action as we connect in our communities.

Taking climate action seems daunting and perhaps feels like we cannot get there. But maybe, one step at a time, there is a way to implement transportation choices so all people have an affordable and healthy way to move around to achieve their daily needs. Active transportation to connect rural areas is possible. We can have transportation choice, we can take climate action, and we can get there from here!

I write to you from my home and place of work in Nelson, BC and I honour the traditional lands of the Sinixt, Sylix, Ktunaxa, and First Nations peoples. I note that Nelson, in the Southeast corner of BC, on the shores of Kootenay Lake, is a place where people “did get here from there,” along the traditional pathways, portages, and river waterways. Settlements are founded in places that provide everything people need: a healthy environment (abundant food, fresh water, clean air, and a sustainable way to manage waste), shelter, and connection. The transportation history of the Kootenays involves connecting along the waterways and paths on the riverbanks, initially by the active transportation modes of canoe and foot. With settlers arriving and bringing technical innovation, those river paths became railroads and highways, and the ability to move ourselves through community became faster.

A fun fact about the settlement pattern in BC is that many Kootenay communities (i.e., Slocan, Nelson, Rossland) were subdivided into the grid pattern in the early 1890s, with subdivision pre-dating the automobile and the highways. At the time, pedestrians, bicycles,

and horse drawn carts accessed the parcels via the lanes and streets clearly noted on the plans. The first car is reported in Vancouver in 1899 and Highway 3, to access the Kootenays, was constructed in 1941. Private automobiles were retrofitted into our landscape.

By the 1950s, rural Canadian settlement was enamoured by the car. And, no doubt, the car is indeed convenient to those individuals lucky enough to own one. By the mid 20th Century, land use planning became about accommodating the car, with less importance placed on connection between the people.

The *Climate Action Charter* was introduced in 2007 to encourage communities to look at their environmental impact: to measure emissions, to take action, and to lead by example. To accelerate climate solutions, local governments have influence in three specific categories of human settlement and community planning: buildings, transportation, and waste management. The *Climate Action Charter* categories correlate well to human’s traditional needs for quality of life and a healthy population: shelter, connection, and a healthy environment.

In the realm of “transportation,” working to develop better connection and transportation choices provides alternatives to the use of single automobiles in our rural communities. The car has enabled communities to sprawl and for people to commute far distances with few choices to connect. The *Climate Action Charter* provided the framework for communities, and planners, to measure corporate emissions, create plans and programs to reduce community emissions, and build compact communities to reduce sprawl and concentrate infrastructure and resources.

The development of active transportation plans, infrastructure, and programs helps to provide alternatives to the private automobile, and to provide low carbon, healthy opportunities to connect. This reintroduces choice to get around, to change behaviour, and to reduce our need to fuel our movement with fossil fuels.

How do you move around your community?

- Perhaps you live in a compact community and are able to walk to your destination. A 30-minute walk is 2 kilometers. “Walking puts time in your day” is my mantra, and I recognize that I am privileged to have my health and ability to do most of my commutes on foot. Walking provides me the time to clear my head and enjoy my community. Time in my day to exercise, to think, and to reduce my carbon footprint.
- Ten kilometers of travel, given safe infrastructure off the busy highways, a bike or e-bike is a real possibility for many and allows one to commute a little further and a little faster.
- Some rural areas have reliable and convenient public transit that allows for a reasonable commute.
- Rural events and workplaces often support carpooling as a way to commute for employees. Kootenay carshare is available in our area.
- And then, those lucky enough to have a license (age and ability) and access (privilege) to their own car, are able to drive alone to reach their daily destination.

Developing active transportation routes provides alternative and affordable transportation modes so we all can reach our daily destinations. Currently, thanks to the Federal and Provincial Active Transportation Funding streams, there are several regional active transportation planning projects underway. The BC Cycling Coalition has been documenting these initiatives in the “BC Safe Routes Now” campaign.

Locally, we are pleased to announce the completion of the *Castlegar – Nelson Active Transportation Corridor Vision*, compiled by Regional District of Central Kootenay, West Kootenay Cycling Coalition and WATT Consulting Group. The study assesses the feasibility of developing a year-round, multi-use



Artwork by Solita Work
VP of the West Kootenay
Cycling Coalition.

path to connect Castlegar and Nelson. Once implemented, the corridor will be a 45km long active transportation route that encompasses all forms of mobility, including walking/rolling, cycling, transit, commuting to work, getting to school, recreation, socializing or running errands, with the benefit of supporting active lifestyles and reducing greenhouse gas emissions. The Vision provides options and preferences for a potential route between Castlegar and Nelson, linking the settlements along the trail, to provide a safe alternative for residents to access their daily needs along a route. The route follows the banks of the Kootenay River, sharing the space with the railway and the highway.

Taking climate action can be daunting but, remember, every trip starts and ends with a walk. It is one step at a time. The trip from the

front door to the parking stall or to the bus stop is just as important as the road to the destination. Society retrofitted for the car; can we retrofit to share the road for all users?

We can get there from here.

Patricia Dehnel RPP, MCIP, is Chair of the Climate Action Sub-Committee. Based in Nelson, BC, she is Principal of Dehnel Planning and volunteer Project Coordinator for the West Kootenay Cycling Coalition project, Castlegar-Nelson Active Transportation Corridor Vision.

Based on the talk: At the TEDxSelkirkCollege Countdown event, Professional Planner Patricia Dehnel delves into the significance of enhancing community connectivity and promoting active transportation as means of mitigating climate change on a regional level. Dehnel examines the historical context of

transportation and land development in the West Kootenay region of British Columbia and presents an alternative narrative that envisions a future emphasizing the interconnectedness of environment, shelter, and connectivity. This talk was given at a TEDx event using the TED conference format but independently organized by a local community. Learn more at <https://www.ted.com/tedx>

Resources:

BC Safe Routes Now Campaign:
<https://bccycling.ca/bc-safe-routes-now>

TEDxSelkirkCollege talk by Trish Dehnel:
<https://www.youtube.com/watch?v=JY6gYghrdls>

Castlegar - Nelson Active Transportation
Corridor Vision Project:
<https://westkootenaycycling.ca/projects>

Planners, the Climate Crisis & Ecological Overshoot

Professional Reliance, Ethics and Governance in an Unfolding Emergency

Terri Martin R.PBio, on behalf of the Directors of the Qualicum Institute (Figure 1).



Figure 1:
The Qualicum Institute is a society advocating a science-based approach to ecological, social, and economic survivability.

An Impossible Position

The science is clear – the climate crisis is inextricably linked to the expanding human enterprise. The 2014 Intergovernmental Panel on Climate Change (IPCC) report specifically identifies the primary drivers of emissions: “Globally, economic and population growth continue to be the most important drivers of increases in CO₂ emissions from fossil fuel combustionⁱ.” Despite many promises and

global climate change conferences (Figure 2), accelerating overheating is shaking up Earth systems. Johan Rockström, a preeminent climate scientist states, “...we are starting to see an acceleration of warming over the past 50 years...if we follow this path we will crash through two degrees Celsius within 20 years and hit three degrees Celsius by year 2100, a disastrous outcomeⁱⁱ.”

This puts Registered Professional Planners

Directors top row from left to right:
Susan Fisher,
Luisa Richardson,
Neil Dawe,
Richard Hampton;
seated left to right:
Gerry Addy
(Honorary Director),
Terri Martin.
Not shown:
Allan Hawryski.

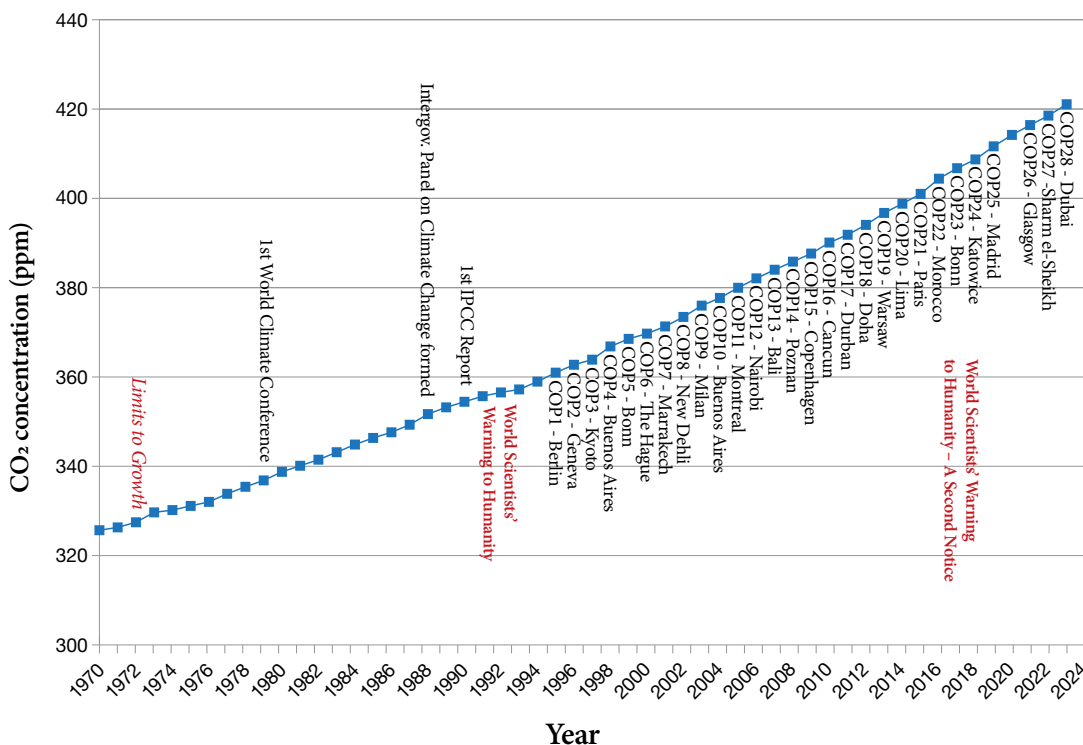


Figure 2:
Annual mean atmospheric CO₂ concentration levels from Mauna Loa Observatory, Hawaii, overlay with the various climate conferences, scientists' warnings and, in particular, the formal United Nations Framework Convention on Climate Change Conferences of the Parties (COP) and their 28 Climate Change Conferences.
Data courtesy of NOAA Global Monitoring Laboratory
https://gml.noaa.gov/webdata/ccgg/trends/co2/co2_annmean_mlo.txt

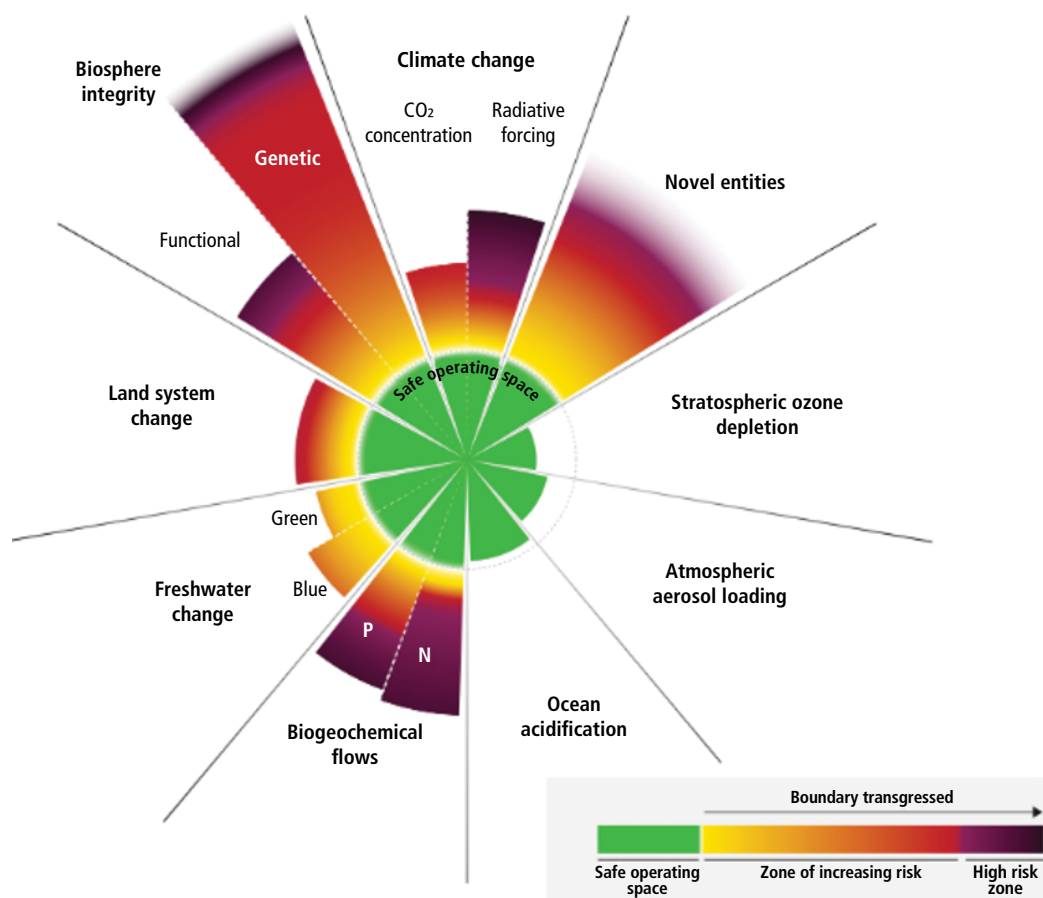


Figure 3:
Current status of
the nine planetary
boundaries.

in a troubling – if not impossible – position. Planners tell us that political and legal realities require them to plan for ever-increasing growth. If they are not prepared to do so, they should find another job, assuming they're not fired first. But growth is the enemy of true sustainability.

Climate is Only One of Six Crises

Adding to the complexity is the fact that growth is causing an unprecedented disruption to Earth's systems needed to stabilize and give resilience to the biosphere. Of the nine planetary boundaries that define a safe operating space for humanity, six of these—one of which is climate, another is biodiversity—have already been seriously transgressed (Figure 3)ⁱⁱⁱ. We are in ecological overshoot.

Growth is Not Sustainable

Whether it's the older *Smart Growth* movement, density infill, or the *15-minute City* concept, planning theory supports the claim that negative environmental impacts can be

mitigated or 'de-coupled'. But the scientific consensus is clear. For the following reasons, de-coupling is not possible:

- Economic growth is an exponential function.
- A 3% growth rate, the target rate of most governments, doubles the size of the economy, and thus resource and energy use, every 23.5 years.
- Physical and biological laws dictate that economic growth—and by extension community growth—can only occur by liquidating the natural world on which we depend; *absolute de-coupling* of resource use from GDP is a fantasy^{iv}.
- Scientific data show that exponential GDP growth is occurring in lockstep with exponential resource use and climate and biodiversity breakdown. In fact, GDP is actually a measure of environmental impact—our collective ecological footprint—and not a measure of our well-being^v.

Given these realities, even the most

comprehensive growth management techniques cannot address the climate crisis and ecological overshoot. The best that planners can do is slow the pace of decline. This isn't, and can never be, sustainable.

A Problem: It's Illegal to Plan for No-growth or De-growth

In 2013, the Qualicum Institute sought an opinion on whether the *Local Government Act* (LGA) permitted genuinely sustainable community planning through imposing limits to growth. We wrote to Bill Buholzer, an author and lecturer on British Columbia planning law and practice and a member of the College of Fellows of the Canadian Institute of Planners. In conversations with many Vancouver Island planners (from both public and private sectors) over the years, it was apparent that the planners felt their hands were legally tied by the LGA; they had to consider and therefore accommodate future growth. But Buholzer's opinion was that the LGA did not prohibit regional growth strategies from projecting stable or decreasing population, employment, or housing.^{vi} Similarly, for official community plans "...the legislation specifies no particular assumptions that must inform the local government's determination of "anticipated housing needs;" the local government may anticipate whatever magnitude of housing needs it deems appropriate in view of local and use management priorities (and the same applies to the other land use categories that must be addressed in an OCP). If it chooses to anticipate no housing needs at all above and beyond replacement of existing housing, a municipality may do so."

But in 2019, things changed. The first legislative requirements for Housing Needs Reports were established, requiring BC local governments to collect data, analyze trends, and present reports on anticipated housing needs in their communities. At this point, it did become illegal to move towards sustainability by planning for no-growth or de-growth scenarios if trends indicated a burgeoning population^{vii}. In 2024, these regulations were strengthened through the provincial government's suite of housing legislation aimed at delivering more homes more quickly in every part of BC^{viii}. With this legislation in place, even planners committed to no-growth or de-growth scenarios find themselves stymied. Even if they receive local political support for official community plans, regional growth strategies, and zoning bylaws to address limits to growth, the provincial legislation effectively makes it illegal to move towards sustainability. We seem to be following in the footsteps of American urban growth bias, where many states have passed

laws that mandate ongoing growth accommodation planning by local governments^{ix}.

The Rub - PIBC's Code of Ethics and Professional Conduct Requires Sustainable Planning

We understand that PIBC is currently reviewing its *Code of Ethics and Professional Conduct*. Like all professional organizations tasked with looking after the public interest and the environment, its job will be a tough one. Currently, the Code requires members to serve the profession, their employers, and the public. They must know the competencies for their area of practice and they must exercise their professional judgement independently and without bias. Specifically, section 14.2.1 of the Code states that members of the profession shall: "Practice sustainable planning that considers the use of society's resources and the needs of future generations."

In this time of accelerating ecological overshoot, sustainable planning requires us to address the limits to growth. But this has been made illegal.

Arguably many planners lack the necessary competencies for their areas of practice. They are not trained in ecology, earth systems, or ecological economics, yet without an understanding of these fields, it is impossible to grasp the need for or to carry out genuinely sustainable planning.

Truth in Advertising Matters – Intellectual Honesty and Responsibility

The climate crisis and ecological overshoot represent an unparalleled, unfolding human disaster. Turning around the growth accommodation paradigm requires a huge societal shift to rein in the human endeavour. Although there are many positive environmental harm reduction programs in local government, if growth is continually being pursued no one can claim that such growth impact mitigation programs are real solutions. Similarly, ecosystems are not being protected during development when habitat is in fact being fragmented, lost and subject to additional encroachment. The planning profession should wholeheartedly reject false sustainability claims—also known as sustain-a-babble—in favour of plain honest language. "...[W]hen things matter, people tend to want to understand what is actually going on in the world. Science delivers this understanding in torrents; it also offers an honest appraisal of its current limitations."^x Planners and their governing body, PIBC, have a responsibility to reject sustain-a-babble and to engage in an honest appraisal of the consequences of unchecked growth.

ⁱIPCC - Intergovernmental Panel on Climate Change and O. Edenhofer Eds. 2014. Climate change 2014: mitigation of climate change: Working Group III contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, New York, NY. Accessed 4 December 2018.

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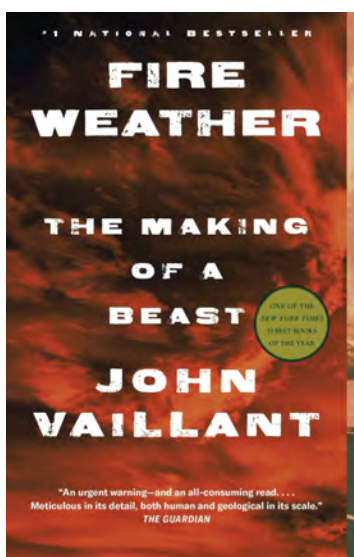
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Fire Weather: The Making of a Beast by John Vaillant

Review by Ken Cameron FCIP

(Vintage Canada, 2023), hardcover, 432 pages, ISBN 978-0735273160. The book is available from Chapters-Indigo or Amazon.



“The willful and ongoing failure to act on climate science is unforgivable; recrimination is justified, but none will be sufficient. In this case, at the planetary level, there is no justice; the punishment will be shared by all, but most severely by the young, the innocent and the as yet unborn.”

– John Vaillant

Climate change is often included among the most vexing issues that planners consider in plotting a course from now into the future. It usually appears among other issues such as housing, reconciliation, protection of biodiversity, and social equity, each of which has both a current and a future dimension and each of which requires collaborative action by individuals and society.

Fire Weather by John Vaillant (Vintage Canada, 2023) demonstrates that climate change stands out as the most urgent and pervasive issue facing humanity. It is the most important book I have read in decades. Its focus is the May 2016 fire that devastated Fort McMurray, a community that is entirely the product of the petroleum industry. “That industry and this fire represent supercharged expressions of two trends that have been marching in lockstep for the past century and a half. Together, they embody the spiraling synergy between the headlong rush to exploit hydrocarbons at all costs and the corresponding increase in heat-trapping greenhouse gases that is altering our atmosphere in real time.”

Like Vaillant’s other book about British Columbia, *The Golden Spruce*, *Fire Weather* unpacks the meaning of a single remarkable and traumatic event, exploring the origins of the Petrocene Age, the efforts of the petroleum industry to hide the implications of untrammelled extraction in decades of energy resources that took millions of years to produce, and the transformation of fire from one of humanity’s most important discoveries to a dominant force threatening our very existence.

You don’t have to look far to see the

impacts already being experienced in Western Canadian communities, so many of them nestled into now-combustible boreal forest. Lytton, West Kelowna, North Shuswap, and Jasper offer examples of incredible property damage and human suffering, fortunately with modest numbers of lives lost to date. In radio interviews, Vaillant has pointed to more precarious communities such as Harrison Hot Springs, where a permanent population of 1,900 surrounded by forest has a single access road. Climate change impacts beyond wildfires can be seen almost daily in the form of heat domes, devastation of tree fruit crops, erosion of glaciers as a source of year-round water, and sea level rises that will put assets such as Vancouver’s Granville Island under water.

For the foreseeable future, every plan or policy will be based, explicitly or implicitly, on an assumption about whether humanity will succeed, in Antonio Guterres’ words, in finding “the off ramp on the road to hell.”

Notwithstanding the evidence, I have had difficulty convincing planners and others in my life of the urgency and pervasiveness of the climate crisis. Vaillant even has an explanation for that: the Lucretius Problem (attributed to the Roman philosopher Titus Lucretius Carus) which he describes as “the self-protective tendency to favour the status quo over a potentially disruptive scenario one has not witnessed personally.” We do not believe what we have not seen.

“In the meantime,” he adds, “life will persist, and so will we.” The book concludes with the observation of Hildegard of Bingen, a twelfth-century Benedictine nun, that the

earth, perhaps uniquely among planets, has *viriditas*, a greening energy that is its response to catastrophe. We do not need to save the planet; it will survive what we have done to it. The question is whether and how we will survive. “This – devoting our energy and creativity to regeneration and renewal rather than combustion and consumption – is what Nature is modeling for us and inviting us to do.”

It will be clear by now that I think every planner should read this book. For more appetizers, there are recordings and podcasts that put Vaillant’s message in a Canadian context: his appearance before the House of Commons Natural Resources Committee (<https://www.youtube.com/watch?v=ljeuEsJHwOA>), his interview with Nala Ayed on the CBC’s Ideas (<https://www.cbc.ca/listen/live-radio/1-23-ideas/clip/16071148-the-making-beast-entering-new-world-fire>), and his discussion of his book with Catherine Cullen on the CBC’s The House (<https://www.cbc.ca/listen/live-radio/1-64/clip/16079750>).

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Regenerative Rural Economies: Helping Communities Transition from Space-based to Place-based Economies

Jordan Wilson, PIBC Student Member, Patrick Oystryk RPP, MCIP and Sean Markey PhD, RPP, MCIP

The Call for Regenerative Economic Development

The International Panel on Climate Change (IPCC) has identified four systems which require significant changes to limit global warming to 1.5 degrees Celsius: energy, land and ecosystems, urban areas and infrastructure, and industry. Underlying many of our society's interactions with these four systems is market demand, global trade, supply chains, and a variety of other economic drivers. If we are to heed the call of the IPCC, our economies must operate within the bounds of nature to ensure the sustained well-being of our communities and our planet³. A regenerative economy, with its corresponding economic development, offers a viable alternative to our conventional economic practices as it prioritizes a "self-renewing" capacity within our economic systems and is predicated on the fact that our economies need to operate within nature's ecological capacity while meeting the needs of society⁴. As an example, regenerative agriculture utilizes select farming practices that help regenerate soil biomass and produce high yielding crops, thereby maintaining and enhancing soil ecosystems while generating high quantities of nutritious food.

To help rural communities transition to a regenerative economy, MODUS Planning, in partnership with researchers at Simon Fraser University's Resource and Environmental Management (REM) department, have been working on developing a land use planning framework that will help guide planners on how to encourage regenerative economic development across rural communities. We chose to focus on land use planning because it is a strong regulatory tool for local government, it influences the design of the built environment⁵, and it may be used to encourage and facilitate regenerative economic development practices. The connection between land use and economic development planning is also a noted research gap. We chose to focus our research on non-metropolitan areas because rural communities will be disproportionately

impacted by climate change and face significant infrastructure challenges. Rural communities also hold significant ecological assets that may be re-bundled into regenerative economic opportunities¹. These place-based strengths may help rural communities adopt and become leaders in the regenerative economy^{1,2}.

Adding Value to Rural Economies

Through regional and case-specific interviews across Canada and in the Cowichan Valley respectively, we heard from local business owners, regional and municipal planners, First Nations, local government officials, local non-profit representatives, and community members regarding the challenges and solutions pertaining to rural economic development, the economic connection to land use planning, and regenerative economies. The early findings indicated that *Governance*, referring to local policy and land use regulations, was the most referenced challenge related to rural economic development. Lack of *Business Resources*, namely human capacity, was also cited as a major economic development challenge, but *Collaboration* was often mentioned as a solution to this problem. Furthermore, we found there to be an overall lack of quantitative *Data* regarding community assets and their conditions. Interviewees suggested *Inventories* of natural, social, cultural, and economic assets would help complement the qualitative engagement data and could even form the basis for a public community resources map for current and prospective business owners.

Building-upon the community resources map idea, interviewees suggested such a map could help identify and support *Value-added* opportunities for local business owners. Referring to the additional value obtained by a supplementary business venture, such as a farm also having a café on site, local farmers in the region have been coming up with ingenious value-adds without damaging the local environmental resources. These include wedding venues, cafés, canneries, breweries, and food-processing additions. Furthermore, in the

case of the food-processing value-add, having processing done on-site reduces transportation emissions and allows for more of the profit to be realized within the region. Interviewees also mentioned that, in the cases where value-adds had been implemented on farms, more local produce was being sold since these business ventures were drawing in a more diverse clientele. Notably, many interviewees indicated that incorporating value-adds into existing businesses ventures, emphasizing mixed land use to increase the economic potential of a parcel, and support connections between the different land uses, such as resource sharing, would all contribute to a regenerative economy.

Although supporting value-adds seems like an obvious way for local governments to support a regenerative economy, there are challenges yet to overcome. First, current local and provincial land use policies were identified by interviewees as major barriers to value-adds, particularly on farms. Second, while generally

ECONOMIC DEVELOPMENT

canopy

SOCIAL & CULTURAL FOUNDATION

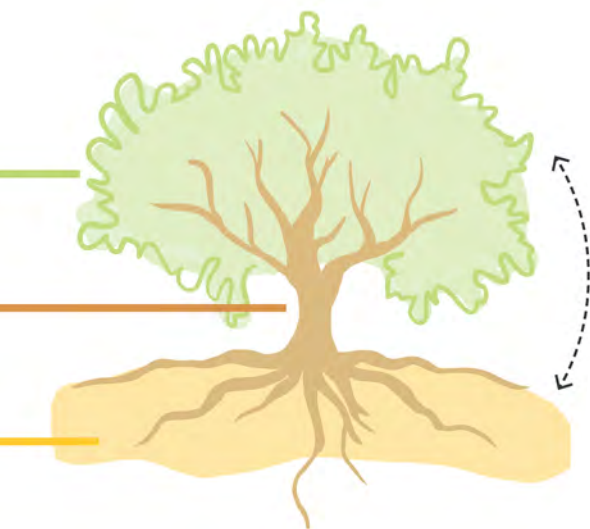
roots & trunk

ECOLOGICAL CAPACITY

soil

Figure 1:
Regenerative Community Tree
Graphic Design by Jean Roe

supportive of the notion of regeneration, many interviewees cited its lack of perceived *Legitimacy* as a potential hurdle when implementing the concept. Yet, many interviewees stated land use planning's influence over economic development is similar to that of an asset management tool, since land use planning dictates how natural and artificial assets are used or constructed over the landscape. Notably, one interviewee stated that, as an asset management tool, land use plans could help local business owners by showing that, "your property would be best suited to do A, B, C, and D; you're allowed to do those activities and by the zoning bylaw, like these are all of your opportunities...that would be such a gift for people." In this way, we find that land use policy could be used to help legitimize regenerative economic development, acting as a supportive tool to regenerative ideas such as value-adds.



A Framework for Understanding the Regenerative Economy

About midway through the interview stage, we began to see a pattern: interviewees were generally supportive of the notion of regenerative economies, though many expressed concern or confusion around the term 'regenerative' as it was either unknown to them or had varying definitions. Therefore, by building upon concepts of *Doughnut Economics* and the *Indigenous Conservation Economy*, our research team developed the *Regenerative Community Tree* to provide context and clarity about what makes a community 'regenerative'^{3,4}. Drawing a bio-mimic comparison to the growth of a tree, Figure 1 illustrates that the "soil" represents the local environment, as it provides the natural resources for the community to grow. The social and cultural fabrics of the community are the "roots" and "trunk" of the system, as they represent the people and the decision-making power regarding how resources are used from the environment.

Finally, the "canopy" is analogous to the community's economic development, since this development is produced from both the roots and soil. A healthy canopy also helps replenish soil and root biomass through carbon sequestration and the shedding, and eventual decomposition, of leaves.

In this way, the *Regenerative Community Tree* helps show how local pillars of environment, society, culture, and economics are interconnected and dependent upon one another for the prolonged resilience and health of the community. Encouragingly, this conceptual model proved useful in subsequent interviews and made for more nuanced conversation on regenerative economic development.

Over the next few months, our research team will be developing a "toolbox" portion of the framework, which will highlight the applicability of local land use tools, such

as zoning, for curating regenerative economic development. Our hope is that this framework will empower local planners and afford them a greater ability at unlocking economic opportunity that is in balance with the rest of the community and its surrounding ecosystems.

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Cities in the Lead on Climate Action: A Cross-Border Comparison (Part 1)

Don Alexander, Retired Member

**Unless otherwise indicated, all references are from City of Portland documents.*

Though quite different in size and other characteristics, Portland, Oregon and Nanaimo, BC¹ are both leaders in the field of climate action. This two-part article will examine this through the lenses of *Doughnut Economics and Biophilic Cities*, which both cities subscribe to in varying degrees.

Briefly, Doughnut Economics can be defined as ensuring that all essential human needs are met while not allowing economic activity to overshoot the carrying capacity of planetary life-support systems (Raworth, 2017). Currently, our economic system in North America is failing on both these counts. Biophilic cities is based on the recognition that humans are healthier on all levels when they have access to abundant nature, that other life-forms and ecosystems have a right to thrive in urban settings, and in so thriving, they provide a bulwark against the worst effects of the deepening climate crisis (Beatley, 2016).

Portland issued its first climate action plan in 1993, the first city in North America, and possibly the world, to do so (Diesner, 2024a). This was followed in 2001 by a *City/Multnomah County Local Action Plan on Global Warming*, and subsequent Action Plans in 2009 and 2015. In 2020, the City declared a climate emergency. It was by no means the first to do so. However, in doing so, it was committing itself to “using a new climate justice and equity-focused approach that centers Black, Indigenous, other communities of color and youth... in the next chapter of climate action planning and implementation” (About the Emergency Climate Declaration, 2024). It is currently going through a major political and government re-organization, including establishing a new Climate and Sustainability Commission, that should result in an even stronger commitment to climate action and sustainability in the future (Diesner, 2024a).

Doughnut Economics

The city's involvement with Doughnut Economics began in 2019, when C40, “a global network of mayors of the world's leading cities... united in action to confront the climate crisis” (C40, 2024), initiated a pilot Thriving Cities Initiative (TCI). It chose three cities

to be part of the initial project – Amsterdam, Philadelphia, and Portland – and provided funding for the first year.

Portland's initial effort began in partnership with the Doughnut Economics Action Lab, headquartered in England, and Circle Economy – a team of 60-plus economics experts based in Amsterdam. The TCI framework, borrowed from Doughnut Economics, is comprised of three phases. Phase A involves constructing a City Portrait, analyzing the causes of undesirable local social and ecological challenges, and creating an inspiring city vision. The second stage collects examples of exemplary local practices, combined with global best practices, to create a series of transformative strategies. The third stage explores strategic partnerships and possible action pathways (About the TCI Pilot Project, 2024).

For the first phase, the City held a workshop with Kate Raworth, who founded Doughnut Economics, in September 2019. Some City staff, however, felt that a ‘European’ framework was being imposed on local conditions and that the workshop was not effective at building a case for the City Portrait analysis. Nonetheless the label of Doughnut Economics has continued to be used.

A year later, conditions had changed. At the time, not only was the COVID-19 pandemic running rampant, but a recession was occurring and the after-effects of the murder of George Floyd were engendering conflict over racial justice issues. For instance, in a key document, it is noted that “[b]y nearly every measurement – health, income, housing, public safety and education – Black, Indigenous, and other communities of color face the greatest disparities. These are *shortfall consumers* [emphasis added] that need prioritized investment for economic recovery, resilient neighbourhoods, financial opportunity, and economic security” (Bureau of Planning and Sustainability, 2021, p. 21).

As a result, City staff were able to further advocate for strategies that addressed these concerns. For instance, when a parallel major effort was launched by the City's Economic Development office to stimulate recovery and job growth, the Bureau of Planning and Sustainability partnered with them to advance green technology, industrial decarbonization, materials innovation, and circularity as part of the *Advance Portland Plan* (Diesner, 2024a).

In September 2021, two years after the workshop with Raworth, the Bureau of Planning and Sustainability issued *Sustainable Consumption and Production: Report and Two-Year Plan*. In this multi-faceted document, the Bureau explored key concepts and foci. For instance, building on work that first appeared in its 2015 *Climate Action Plan*, it shifted from a sectoral approach to measuring carbon emissions – the usual practice – to one that focused on *consumption-generated* emissions. The advantage of this approach is that it not only reflected local and regional production, but also linked local and regional consumption to the carbon footprint of products produced elsewhere in the country and internationally.

It also zeroed in on the role that governments could play in shifting “the systems that drive unsustainable consumption” (ibid., p. 12). It stressed that more consumption and economic growth does not necessarily lead to greater happiness and quality of life and emphasized the need to shift to a ‘regenerative economy.’ It also proposed a number of categories, with associated strategies and actions, for its future work. Action 5B became Portland's Internal Cost of Carbon policy. Action 5E led to a *Portland Circular Economy Needs Assessment* and a *Clean Industry Initiative*. Another example of the strategies in the report where the City has made progress is its efforts to boost public participation in reuse, repair, and tool-share services (Diesner, 2024b).

Biophilic Cities

Though Portland does not use the label of ‘biophilic cities,’ it is a member of the global *Biophilic Cities Network* (Biophilic Cities Network, 2024). Its relevant initiatives fall into two main categories: having a comprehensive forestry program since 2004, and conducting major ecological restoration work. In the former category, it is seeking to enhance its canopy – from its current 29.9% to at least 33.3% by 2035 (Portland Parks & Restoration, 2018); regulate the cutting of trees and see that tree canopy is enhanced during new development projects; engage in extensive public education; encourage stewardship of the forest by all stakeholders; ensure that street trees are more equitably distributed, and ensure that the urban forest contributes to the health and well-being of both residents and urban watersheds (Cairo, 2024; Portland Urban Forest Plan, 2024).



View of Portland,
Oregon overlooking
the Willamette River
on a Fall afternoon

Those neighbourhoods that are tree-deficient have typically been occupied by poor people of colour and, as a result, they suffered the most in the 2021 'heat dome' that wreaked havoc up and down the West Coast (Vibrant Cities, 2024). In response, the City has initiated an aggressive program of planting in the areas with the fewest trees, with the maximum participation of local residents, including involving young people and students in elementary and high schools in education and tree-planting programs (Cairo, 2024; Learning landscapes – Planting schools with trees, 2024).

In addition, the city has the largest forested park in North America, has restored the Johnson Creek floodplain (Naturally Resilient Communities, 2024), and is currently restoring the Brookside wetland (Brookside wetland restoration, 2024). It also has an ambitious Green Streets program that involves placing rain gardens or bioswales between sidewalks and the streets that not only contain additional vegetation, but also direct precipitation through a process of natural filtration and absorption before the surplus is discharged into stormwater sewers.

Conclusion

Portland is currently doing possibly the most advanced climate action and sustainability work in North America. In doing so, the City is advancing the practice of Doughnut Economics and Biophilic Cities, even if it doesn't always use those terms. In the second and final article, I will examine the work undertaken by the City of Nanaimo, which is somewhat more modest, but nonetheless significant.

¹At nearly 106,000 people to Portland's more than 635,000, Nanaimo is roughly one-sixth Portland's size.

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A Licence to Plan or Just Government Oversight?

Considering British Columbia's Professional Governance Act

Raymond Kan RPP, MCIP

On the occasion of its 60th anniversary in 2018, the Planning Institute of British Columbia published a special commemorative issue of *Planning West* reflecting on the Institute's humble beginnings and notable milestonesⁱ. Don South, one of the eight founding members, recounted that, "in 1954, there were fewer than 20 people earning a living in planning in British Columbia." The overarching desire was to create a community of planners. Also top of mind for the founding members was the right to practice: "How you let the good in and keep the bad out was, and is, an insoluble problem. Some of us were looking at the possibility of a licensing act to protect us and the public from the unqualified whoever they might be."

Unlike some allied professions, like engineering and architecture, and planners in other provinces, Registered Professional Planners (RPPs) in British Columbia and Yukon do not have unique legislation under provincial law. Many planners in other provinces today are regulated to varying degrees by provincial legislation, and some provinces require only certain work to be done by RPPs, for example:

- *Newfoundland/Labrador's Urban and Rural Planning Act*: "A plan and development regulations made under this Act and amendments to them shall be certified by a person who is a fellow or full member of the Canadian Institute of Planners."
- *Saskatchewan's Planning and Development Act*: "The official community plan shall be prepared in consultation with a registered professional planner."

Today, the Institute serves as the professional member-services organization and self-regulator for 1,600 planners in British Columbia and Yukon. PIBC's membership has been instrumental in providing clear direction about the operations and governance. In 2003, members voted to introduce a new mandatory Continuous Professional Learning reporting system. In 2012, members approved bylaws that restructured standards for membership and professional conduct, and updated the Institute's governance structures. This also coincided with the transition to the current protected occupational title of "Registered Professional Planner", which is now the common designation across Canada.ⁱⁱ As the Institute closes in on its seventh decade, the opportunity to establish in statute the right to practice as a profession – one of the motivations for founding the Institute – may be coming into view.

Prompted by major environmental failings in the natural resource sector, the Province of BC in 2018 enacted the *Professional Governance Act* (PGA). The stated intent was to set out a consistent governance framework for self-regulating professions previously operating under separate statutes to better prioritize and protect the public interest, reduce the

risks of incompetent and unethical practice, and help the public understand who is qualified to practise in a designated profession.

The Province required six professions to transition to the PGA: agrologists, applied biologists, applied science technologists and technicians, architects, engineers and geoscientists, and forest professionals. Standalone legislative acts that had governed these professions were repealed. The Office of the Superintendent of Professional Governance (OSPG) was established to administer the PGA and develop best practices for professional governance.ⁱⁱⁱ

PGA-governed professionals have title rights (e.g., Registered Professional Biologist) and exclusive scope of practice also known as "reserved practice". Reserved practices help to ensure unregistered, unaccountable, and potentially incompetent individuals are not providing service that requires the knowledge and skills of a registered professional, and who would escape accountability to standards of ethics, competence, and professional conduct set by the regulatory body.

PGA regulatory bodies must have a single, clear mandate to regulate their profession in the public interest. That limits advocacy, awards, or other member services that might create a conflict with the task of regulating professional conduct.

Voluntary applications from the landscape architects and home inspectors are currently under review by the OSPG. With so many allied professions now regulated, or have voluntarily applied to be regulated, under the PGA, the PIBC Board has identified engagement on the matter as a strategic priority.

The following is a sampling of the queries that can be anticipated from the membership:

- *Is the public interest better served in the current governance model, or under the PGA?*
- *Under the PGA, what could PIBC still do, and what must it stop doing?*
- *Is it possible to arrive at a consensus about a reserved practice for planning? Is it worth voluntarily applying for PGA regulation if the Province does not grant a "reserved practice"?*
- *In addition to RPP, what other titles should be protected for the exclusive use of registrants?*
- *What are the effects, if any, on the goal of decolonizing the planning profession?*
- *What are the effects, if any, on labour mobility across provinces and territories?*
- *What will happen to PIBC members who work in Yukon?*
- *What are the effects, if any, on membership attraction or retention?*

- *How will the Institute's governance change to comply with the PGA?*
- *What are the impacts to PIBC's operating costs and membership fees?*
- *What happens to PIBC's relationship with the Canadian Institute of Planners and the national Professional Standards Board?*

PIBC must be able to provide cogent responses and information about trade-offs. This is why the Institute's Policy and Public Affairs Committee and its RPP Regulation Subcommittee are embarking on research and engagement. Because of the crosscutting nature of this matter, all PIBC Committees will be involved, and opportunities for wider engagement with members will be offered.^{iv}

Planning is one of the few professions dedicated to thinking about the future and actively working to shape it for a broader public interest. In the same respect, the Planning Institute of British Columbia is now steering the profession through the ways that planners may wish to be regulated in the province, and how the profession's longstanding obligation to practice with the public interest at the forefront will be protected and strengthened.

Raymond Kan RPP, MCIP is Manager of Research & Policy at PIBC. Raymond is a planner and thought leader now for over 20 years in Canada and the United States.

ⁱPlanning West 60 Years Anniversary Issue: <https://www.pibc.bc.ca/sites/default/files/2019-06/PlanningWest-v60-No4-60Anniversary2018.pdf>

ⁱⁱUnder the *Societies Act*, PIBC is an occupational title society that has one of its purposes the representation of the interests of an occupation or profession. In 1989, PIBC secured and registered occupational title protection for the "Registered Planner" title. In 2012, PIBC amended the protected title to "Registered Professional Planner" and added the protected designation of "RPP."

ⁱⁱⁱOffice of the Superintendent of Professional Governance: <https://professionalgovernancebc.ca/>

^{iv}Special thanks to members who connected with PIBC Board Directors at the Let's Chat table at the 2024 BC Land Summit.

^vIntentions Report for the Designation of Landscape Architects: <https://professionalgovernancebc.ca/2022/07/12/ospg-publishes-intentions-report-for-the-designation-of-landscape-architects/>

Note: An earlier version of this article that previously appeared has been revised from the original to correct and update the title and author information.

Key PGA Concepts

To encourage the membership to begin thinking and talking about the *Professional Governance Act*, some of the key concepts in the Act are presented below:

Registrants: Under the PGA, 'registrants' replaces 'members'. Prior to the PGA, some but not all professional bodies had a dual mandate: advocating for the interests of the profession and its members, in addition to regulating standards for entry and standards of practice. Under the PGA, regulatory bodies have a primary duty to regulate their profession in the public interest.

Regulated practice: Defined in the PGA as 'carrying on of a profession by a registrant of a regulatory body,' this concept covers the broad scope of practice by a registrant that is subject to standards of ethics, competence, and professional conduct set by the regulatory body.

Reserved practice: Also known as practice rights, this is the subset of duties and services within a regulated practice that is reserved for registrants of a regulatory body.

Reserved titles: The titles reserved for the exclusive use of registrants, for example, "Registered Professional Planner," would likely remain and additional reserved titles could be considered.

Advocacy: When professional associations have dual mandates for regulating and advocating for the interests of its registrants, the Province believes the public interest can be compromised in perception or in reality. For this reason, the PGA expressly limits advocacy to a prescribed scope.

Designation Considerations: when assessing the merit of a designation application, the OSPG has generally asked three questions to gauge whether the benefits of PGA regulation outweigh the costs:^v

1. Should there be a regulatory regime for a profession or occupation?
2. What right touch regulation options are appropriate?
3. Is the PGA appropriate? If not, what is the Superintendent's recommendation?

Snuneymuxw Lands Planning Project: A Journey Towards Rightful Stewardship

Pam Shaw PhD, RPP, FCIP and Sonal Deshmukh MCP, B.ARCH
in collaboration with the Snuneymuxw First Nation

Snuneymuxw First Nation (SFN) is currently developing a new Snuneymuxw Master Community Plan with the assistance of the Master of Community Planning (MCP) Program at Vancouver Island University (VIU). This plan is both a visioning exercise and a practical guide for all the lands and waters within SFN's jurisdiction and ownership, and includes detailed information on the cultural, economic, and environmental features or issues that tie to each parcel or area. The planning process is deeply rooted in SFN-guided research and the ancient wisdom of Snawayalth, the teachings that guide the Nation's laws, values, beliefs, spiritual practices, and principles that govern the relationship between the Snuneymuxw people, their territory, and each other. Importantly, this project also affirms the *Snuneymuxw Treaty* of 1854, reinforcing the Nation's ongoing commitment to preserving their rights and heritage.

*At the heart of the Salish Sea,
where the land meets the waters in
a natural harmony, are the lands
of Snuneymuxw people.*

The Snuneymuxw First Nation are Coast Salish people whose territories span large areas of central Coast Salish lands on the eastern coast of what is now known as Vancouver Island, stretching over to the Fraser River across the islands and waters of the Salish Sea. Since the beginning, the Snuneymuxw People have lived in their ancestral territory, sustaining their lands, resources, and culture. At the early stages of colonial settlement, the Snuneymuxw People recognized that a treaty agreement was crucial to protect the lands and their ways of life. On December 23, 1854, the Snuneymuxw People entered into the *Snuneymuxw Treaty* of 1854, often referred to as the Trade and Commerce Treaty, to forever and always protect their villages, fields, waterways, and rights to hunting and fishing. However, despite ongoing efforts, the treaty was not honoured, leading to the wrongful displacement of the Snuneymuxw from their villages and lands. Their territory was appropriated for use by the Hudson's Bay Company, coal companies, and settlers, resulting in generations of struggle for the Snuneymuxw to date as they fought to have their rights and title recognized. Today, Snuneymuxw is one

of the largest nations in British Columbia with a population of approximately 2,000 people. However, the Nation has the smallest land base per capita due to these historical injustices. Many community members currently live off-reserve due to the limited land base. The Nation is actively working to expand the land base through reconciliation negotiations, fee simple purchases, leaseholds, partnerships, new additions to Reserve Lands, and other means with the hope that those currently living away can return home.

The years 2023 and 2024 marked significant milestones in the Nation's history as three culturally significant land parcels were regained by Snuneymuxw, reaffirming their role as the rightful stewards of these lands. Among these was the return of 102 acres of Kwula'xw Village lands along the Nanaimo River Estuary through a historic land transfer agreement with Seaciff Properties as part of the Sandstone Development in south Nanaimo. Additionally, 25 acres were transferred to the Nation, with an option to purchase another 150 acres. A further 194.6 acres of "Camp Nanaimo" was recently returned to the Nation as an Addition-to-Reserve. These former Department of National Defense lands were acquired through a landmark agreement with Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC). Lastly, 6.6 acres of Sxwayxum Village, formerly referred to as the Howard Johnson Hotel site, were jointly purchased by the province and Snuneymuxw. These efforts show the determination and ongoing commitment of Snuneymuxw's leadership to reclaiming their lands and preserving their heritage, while also reflecting the government's efforts toward meaningful reconciliation.

The project began with a series of initial scoping meetings between the Snuneymuxw leadership, key advisors, and the Master of Community Planning Program at Vancouver Island University. These gatherings laid the foundation for a comprehensive research and engagement strategy that would unfold over the next few years. It was anticipated that students would bring innovative ideas and energy to the project, as well as skills in research and





site design. Faculty were also involved in the project, contributing both their academic and professional expertise. This opportunity has created immense benefits for students through assisting in engagement events, project planning, and contributing to the drafting of the Community Master Plan. Additionally, students have reported that the experiential learning has been life changing as they learned about colonial practices, treaty processes, the impacts of legislation and regulations on Nations, and their role as future planners within these structures.

Methodology and Student Involvement

The lands planning process officially began in 2023, with a strong emphasis on engagement with the Snuneymuxw community. Central to this effort was ensuring that the voices of the current community were heard, while listening to the wisdom of the past, and considering the needs of future generations.

The initial phase involved a deep dive into existing literature, studies, plans, and documents to gather information on the lands and waters. Along with extensive materials from the Nation, the archives in Nanaimo and Victoria were visited to review historical documents, photographs, and maps and uncover the layers of the history of Snuneymuxw lands. Since understanding the land's history is essential for guiding planning activities, this approach aligned with the Snuneymuxw belief that “when you let the land lead, she will tell you what she needs.” This belief became the guiding principle of the project, ensuring that the future visions for these lands would be rooted in their wisdom and history.

Recognizing their role as settlers on Snuneymuxw lands, the VIU team adhered

to an “open heart, open mind” approach grounded in ongoing learning and deep respect. Additionally, as future planning professionals, it was crucial for students to reflect on their role in reconciliation and the vital need to decolonize planning practices.

The VIU team collaborated closely with the Nation and the Petroglyph Development Group (the Nation's economic development corporation) to create detailed mapping layers of all lands and waters under Snuneymuxw ownership and jurisdiction. With these maps in place, the team reached out to the community through a wide variety of tailored engagement methods, including community events, pop-up sessions, one-on-one conversations, and World Café-style discussions to gather insights on their visions and priorities for the future development and preservation of all Snuneymuxw holdings.

Student involvement was key to conducting this wide-ranging engagement process, and the students benefitted from gaining practical experiences on a real-world project. The students were also integral in the development of multiple conceptual development/protection scenarios for priority sites through an intensive design process. As noted by the students, there is no better way to learn than through hands-on involvement!

What's Next

The Snuneymuxw Community Master Plan is a living document and will be regularly updated to reflect evolving needs, opportunities, and new land additions. The project will also include a comprehensive land atlas that tells the story about the history and future potential of the lands and waters. This narrative will honour and continue the

Snuneymuxw legacy of learning from, caring for, and cherishing the blessings of their territory.

The MCP Program is deeply grateful to Snuneymuxw First Nation for this opportunity and hope that their efforts contribute to the achievement of the Nation's vision, goals, plans, and actions.

Vancouver Island University Master of Community Planning Program:
Pam Shaw PhD RPP FCIP – Director
Sonal Deshmukh MCP B.ARCH – Faculty

This article was written in collaboration with and approved by Snuneymuxw First Nation.

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PIBC BOARD NOTES

On **May 8th, 2024**, the PIBC Board of Directors met in Nanaimo, BC.

It was acknowledged that the meeting was taking place on the traditional territories of the Snuneymuxw First Nation.

MEETING MINUTES

There was a brief follow up discussion regarding the matters discussed at the previous meeting. The Board approved the minutes of the March 1st, 2024, and April 24th, 2024, meetings.

PRESIDENT

Emilie K. Adin RPP, MCIP provided an update on various activities, including the finalized 2023 PIBC Annual Report, continuation of the 'President's Minute' webinar segment, judging a recent planning competition and chairing the Governance and Nominating Committee. Some upcoming activities were also noted such as the national Planning Alliance Forum (PAF), a planned Past President's Forum, and outreach with the Hey Neighbor Collective.

BOARD & GOVERNANCE

The Board reviewed and discussed the 2023-2025 Strategic Priorities noting the potential value of moving towards longer-term strategic planning and accompanying development of an operational plan. There was also some discussion regarding timing for Board terms. It was agreed to refer the matter to the Governance and Nominating Committee for consideration.

ADMINISTRATION & FINANCE

Executive Director Dave Crossley reported on the ongoing and key projects, initiatives, and activities at the PIBC office.

The Board reviewed the 2023 unaudited financial statements to March 31st, 2024, for information. The Board also reviewed and discussed the 2023 Annual Report and 2023 Audited Financial Statements.

COMMITTEE REPORTS & BUSINESS

Policy & Public Affairs: The Board discussed the work and activities of the Peer Learning Network (PLN). It was agreed that next steps would include the development of an updated

PLN action plan for the coming months of the initiative, further feedback to and follow up with the Province of BC, potential additional webinar topics, and extending the 'Peer Learning Pods' program as part of the PLN.

Planning Practice & Reconciliation: The Board discussed an update from the PPRC including acceptance of the initial consultants' report and recommendations. There was discussion of next steps including potential short-term actions, further engagement between the PPRC, the Board, and other Institute committees. The Board also discussed and approved the allocation of funds to support the continued work of the PPRC and consultants in advancing the Institute's work on planning practice and reconciliation.

Professional Standards & Certification: The Board approved the admission of a number of new members including 48 Certified, 23 Candidate, 3 Pre-Candidate and 14 Student members. The Board also noted 14 resignations and a number of membership transfers and other changes.

Communications: The Board discussed the Communications Committee's Media Outreach proposal to develop a list of subject matter experts (SMEs). There was discussion regarding potential approaches for appropriately selecting prospective SMEs, ensuring diversity, and clarification of the role of SMEs and representation of the Institute. It was noted that further work by the Committee should be undertaken on the proposal.

Member Engagement: The Board endorsed the Member Engagement Committee's proposed engagement and outreach to members at the BC Land Summit conference.

JEDDI Working Group: The Board approved the appointment of 11 new members to the Institute's Justice, Equity, Diversity, Decolonization and Inclusion (JEDDI) working group.

INSTITUTE REPRESENTATIVE REPORTS & BUSINESS

The Student member representative from SFU provided a brief update to the Board on the recent activities within the planning program including noting that: an SFU graduate is presenting at the BC Land Summit conference; that there was an upcoming student social event; that the accreditation of the new

undergraduate program and reaccreditation of the graduate program had been completed; and that internal personnel changes had also been completed.

NEXT MEETING(S)

It was noted that the next Board meeting would take place on June 28, 2024, in Whitehorse, Yukon.

**SAVE THE
DATES!**

UPCOMING WEBINARS

PIBC's Continuous Professional Learning (CPL) webinars are eligible for 1.5 CPL units each.

For Peer Learning Network (PLN) webinars, visit the PIBC PLN webpage at www.pibc.bc.ca/pln.

PIBC CPL Webinar #8
A Legal Argument for Procedural Fairness in Land Use Decisions
November 27, 2024

PIBC CPL Webinar #9
Accessibility & Inclusion in the Built Environment
December 4, 2024

PIBC CPL Webinar #10 (free)
Ethics in Planning
December 11, 2024

PIBC 2025 CPL Webinar #1
Annual Planning Outlook 2025
January 29, 2025

Visit the PIBC Webinars webpage www.pibc.bc.ca/pibc-webinars for information on current webinars, registrations, and the latest webinar recordings.

MEMBERSHIP REPORTS

Welcome New Members! Congratulations and welcome to all the new PIBC Members!

MAY 8, 2024

At its meeting of May 8, 2024, it was recommended to and approved by the Board to admit the following forty-eight (48) Certified, twenty-three (23) Candidate, fourteen (14) Student and three (3) Pre-Candidate individuals to membership in the Institute as noted:

CERTIFIED:

Graham Alison
Jessica Ball
Gurkanwal Boparai
Jessica Brodeur
Richard Buchan
Nicole Capewell
(Transfer from API)
Deepa Chandran
Jack Cherniawsky
Victor Cheung
Alissa Cook
Benjamin Daly
Katherine Davis
Natasha Ewashen
Celina Fletcher
Elsabe Fourie
Theodora Gunn
Katherine Hadzipetros
Alexander Hallbom
Erica Hartling
Jenna Hildebrand
Emily Johnson
T'Brenn Kelly-McKinnon
Benjamin Kent
InGi Kim
Brenda Kolenbrander
Julianne Kucheran
Matthew Kuziak
Jonathan Francis Maselli
Brian Mccloughlin
Doug Merry
(Transfer from OPPI)
Cedar Morton
Andrew Misiak
Linden Mulleder
Samantha Munns
Ka Bo Ng
Edward Nichol

Patrick Oystryk
Kayla Pagliocchini
Jimin Park
JoAnn Peachey
Sarah Robertson
Mercedes Robinson
Jean Roe
Victoria Venner
Kyle Wardstrom
Karmen Whitbread
Scott Wilson
Amanda Young
(Transfer from APPI)

CANDIDATE:

Matthew Bakker
Jonathan Boron
Marika Butzelaar
Charly Caproff
Ming Wai Chung
Deanna Cummings
Scott Dow
Paul Fenske
Anthony Fotino
Mohaddese Ghadiri
Daniel Iwama
Eric Joyal
Fausto Kadomoto Inomata
Wendee Lang
Amy Liebenberg
Scott MacDonald
Kateryna Morenets
Adam Morton
Mohammad Nemati Keyvan
Gillian Nicol
Benjamin Ricketts
Nuzreth Hafsa Salihue
Man-Juk Bryan Wong

PRE-CANDIDATE:

Ciara Chamberlaine
Manjhot Rai
Mina Sarni

STUDENT:

Hemaya Bassi *(UBC)*
Robert Brooks *(Uni of Alberta)*
Anoop Dayal *(UBC)*

Reid Dunham *(SFU)*
Peter Pencheng Fang *(UBC)*
Fatemeh Fazeli
(Uni of Alberta)
Ethan Fukuhara *(SFU)*
Jaclyn Gavas
(Manitoba – Joint with MPPI)
Moriah Harris *(SFU)*
Lynne Kirn *(UBC)*
Colin Roon *(SFU)*
Analisa Ruiz *(UBC)*
Nathaniel Willing *(UBC)*
Olivia Wong *(SFU)*

Member Changes

It was further recommended to and approved by the Board to grant or acknowledge the following six (6) Certified and two (2) Candidate individual's membership status changes:

FROM CERTIFIED TO MEMBER ON LEAVE:

Janae Enns
Julia Dykstra
Samantha Huchulak
Brienne Labute
Dawn Smith
Alexandrea Wallace

FROM CANDIDATE TO MEMBER ON LEAVE:

Francine de Lotbiniere-Basset
Kaelan Watson

It was also noted by the Board that the following three (3) Certified and three (3) Candidate members returned to active practice, thus returning to active membership:

FROM MEMBER ON LEAVE TO CERTIFIED:

Caitriona Feeney
Samantha Huchulak
Madeleine Koch

FROM MEMBER ON LEAVE TO CANDIDATE:

Francine de Lotbiniere-Basset
Julianne Kucheran
Chengyu (Tate) Zhang

It was further noted by the Board that the following eleven (14) individuals ceased to be members of the Institute.

RESIGNED:

Andrea Antifaeff
Juan Francisco Arellano
Ian Cowan
Cara Fisher
Louisa Garbo
Krista Macaulay
Lawrence Parkin
Catherine Daphne Powell
Yuli Siao
Terry Sidhu
Liana Stephan
Margaret-Ann Thornton
Graham Winterbottom

DECEASED:

Iona Campagnolo (Honourary)

Membership Renewals & Removals

At the PIBC Board meeting of May 8, 2024, it was also reported and confirmed that the following individuals had not renewed their membership in the Institute for the current year (2024) and in accordance with the Institute's bylaws ceased to be members effective as of May 8, 2024:

Ken Berglund
Eric Chow
Andrew Hiscox
Lydia Korolchuk
Elise Leeder
Kimberly Lemmon
Mitchell Mackenzie
Brian Miller
Shana Roberts

JUNE 28, 2024

At its meeting of June 28, 2024, it was recommended to and approved by the Board to admit the following two (2) Certified, six (6) Candidate, ten (10) Student and six (6) Pre-Candidate individuals to membership in the Institute as noted:

CERTIFIED:

Cameron McCoy
(Transfer from OPPI)

Emily McGirr
(Transfer from OPPI)

CANDIDATE:

Abiola Falaye
Lauren Goodland
Hossam Meawad
Kevin Shackles
Bailey Walsh
Katy Walsh

STUDENT:

Niloofer Ferdosi (VIU)
Stephanie Jeremie (UBC)
Nico Law (SFU)
Maria Levkovytska
(Joint with SPPI /
Univ. of Saskatchewan)
Otuo Serebour Boatın (VIU)
Ian Smith (SFU)
Alicia Vanin (VIU)
Max Webber (UBC)
Tianshu Yin (UBC)
Tian Yu (University of Alberta)

PRE-CANDIDATE:

Xerxes Au
Parthvi Darji
Melisa Gunn
Shane Hunt
Jennifer Pace
Rachel Pukesh

Member Changes

It was further recommended to and approved by the Board to grant or acknowledge the following one (1) Certified individual's membership status changes:

FROM CERTIFIED TO MEMBER ON LEAVE:

Maureen Solmundson

It was also noted by the Board that the following five (5) Certified members returned to active practice, thus returning to active membership:

FROM MEMBER ON LEAVE TO CERTIFIED:

Patrick (PJ) Bell
Laurel Cowan
Pablo Golob
Kristen Lassonde
Hsuan-Ju (Rosa) Shih

It was further noted by the Board that the following eleven (3) individuals ceased to be members of the Institute.

RESIGNED:

Caelen Middleton
Crystal (Chris) Oberg
Andrew Wilson

AUGUST 7, 2024

By Electronic Resolution

By way of an electronic resolution issued on August 2, 2024 and approved on August 7, 2024, the Board and approved admitting the following three (3) Certified, three (3) Candidate, ten (10) Student and two (2) Pre-Candidate individuals to membership in the Institute as noted:

CERTIFIED:

Jessie Gresley-Jones
(Transfer from OPPI)

Ryan Mounsey
(Joint with OPPI)

David Witty (Reinstate)

CANDIDATE:

Jessie Fletcher
Marie Whitehead
Da Wu

PRE-CANDIDATE:

Ava Reeve
Gaurav Sing

STUDENT:

Rajdeep Dhaliwal (UBC)
Brie Dinsdale (VIU)
Anna Irwin-Borg (VIU)
Matthew Jeffrey (VIU)
Nathan Kulchitsky (UNBC)
Deraek Menard (VIU)
Manuel Meier (VIU)
Nicholas Rae (VIU)
Collins Takyi (VIU)
Megan Turcato (VIU)

Member Changes

It was further recommended to and approved by the Board to grant or acknowledge the following two (2) Certified and one (1) Candidate individual's membership status changes:

FROM CERTIFIED TO MEMBER ON LEAVE:

Kerri Clark
Dana Hawkins

FROM CANDIDATE TO MEMBER ON LEAVE:

Jenna Dallmeyer

It was also noted by the Board that the following four (4) Certified and three (3) Candidate members returned to active practice, thus returning to active membership:

FROM MEMBER ON LEAVE TO CERTIFIED:

Selena Brill Jutras
Rebecca Chaster
Urszula Oram
Megan Shaw

FROM MEMBER ON LEAVE TO CANDIDATE:

Jenna Dallmeyer
Ashley Thandi
Kaelan Watson



SPONGE CITY – SHENZHEN, GUANGDONG PROVINCE, CHINA

Tropical coastal cities (like Bangkok, Mumbai and Ho Chi Minh City, just to name a few) are projected to experience the greatest increases in rainfall with global warming. Major cities in developing countries are looking for ways to adapt China's Sponge Cities Program (SCP), which utilizes the building of natural structures to protect from flooding while redirecting and increasing water supply to rapidly growing urban areas.

What is a Sponge City?

China's Sponge Cities Program began in 2015 and is a visionary initiative that attempts to tackle the twin crises of urban flooding and drought. Utilizing pioneering techniques (including Low-impact Development (LID) from the US and Sustainable Drainage Systems (SUDS) from Australia and the United Kingdom), sponge cities are designed to absorb and capture stormwater in one place (where it is a problem) and move and release it to another location where the excess water is useful. SCP differs from traditional techniques in that it covers a wider range of issues, including eliminating urban waterlogging, restoring natural ecosystems, and mitigating the urban heat island effect.

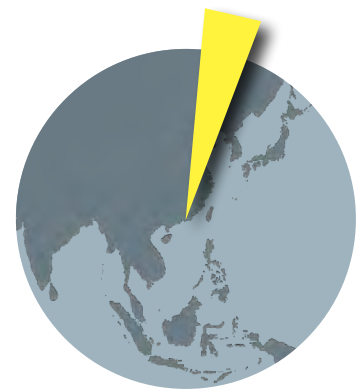
The SCP concept was invented by Chinese landscape architect and professor Kongjian Yu, who, as a young child, almost died from a flood. This experience spurred his personal motivation to take on the increasing frequencies of dangerous floods impacting densely populated cities like Shenzhen, which has a population of 12 million (and growing).

Shenzhen – an Expanding Example of a Sponge City

Shenzhen is a leading Sponge City that uses nature in the designing and engineering of floodable spaces that aim to not only survive but thrive during floods. Containing wetland vegetation, elevated paths, and permeable pavement, Shenzhen Bay Park, adjacent to the Futian Mangrove Nature Reserve, is a good example of SCP techniques. Its 13 km coastline is free of large structures and its major highways, structures, and residential areas are all behind the park; a safe distance from the ocean and floods.

The SCP program also incentivizes and subsidizes businesses to partner with city government on integrating sponge city requirements into building standards. For example, one of China's largest internet technology businesses constructed its global headquarters in Shenzhen and integrated rooftop water collection and permeable ground level tiles.

In 2023, there were a total of 30 cities in China's SCP. By 2030, China aims to make 80 per cent of the urban areas in these cities "sponge-like." China also plans to bring its SCP knowledge and techniques to interested foreign partners in developing countries with dense urban populations facing similar flood and drought challenges.



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