



*Wildfire Resiliency Consortium of Canada*  
*Consortium pour la résilience aux feux de forêt du Canada*

# Appendix

2024 Wildfire Centre of Excellence - Application

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# Supplementary Information

## Note About the Appendix

The appendix has been provided to demonstrate the extensive considerations that have been made to cover the diverse array of Wildfire Resilience Consortium of Canada (WRCC) initiatives that the Foundational Partners have created for this proposal. Discussions have spanned the competitive landscape, integrating thought leadership from wildfire experts, knowledge exchange specialists and even legal advice on the launch of a new not-for-profit. Our Foundational Partners have been engaging in facilitated discussions to share and build on Indigenous priorities, ecosystem concerns and mechanisms for change. Each of these rich conversations added layers of depth to the proposal and our delivery process plan. This comprehensive dialogue informed the strategic way that we have structured the Consortium and will ensure that our organization is responsive to the needs of the wildfire management ecosystem and can truly be the catalyst needed for transformation. We have captured these ideas in this appendix and can demonstrate the breadth of our conversations in the associated Letters of Support attachment.

## Engaging and Empowering the Wildland Fire Ecosystem

The foundational partners and supporters of the Wildfire Resilience Consortium of Canada (WRCC) proposal acknowledge that wildfire management in Canada is struggling to achieve its intended purpose. WRCC will focus on enabling and empowering existing knowledge exchange organizations, empowering them with a common strategy and promoting greater integration of communities, industries and other aspects of society in the prevention and mitigation of wildfires.

During the **Engage** phase of WRCC's launch, we will focus on reaching out to the entire wildland fire ecosystem to understand each group in a strategic way and how they best can be integrated into and amplified by WRCC.

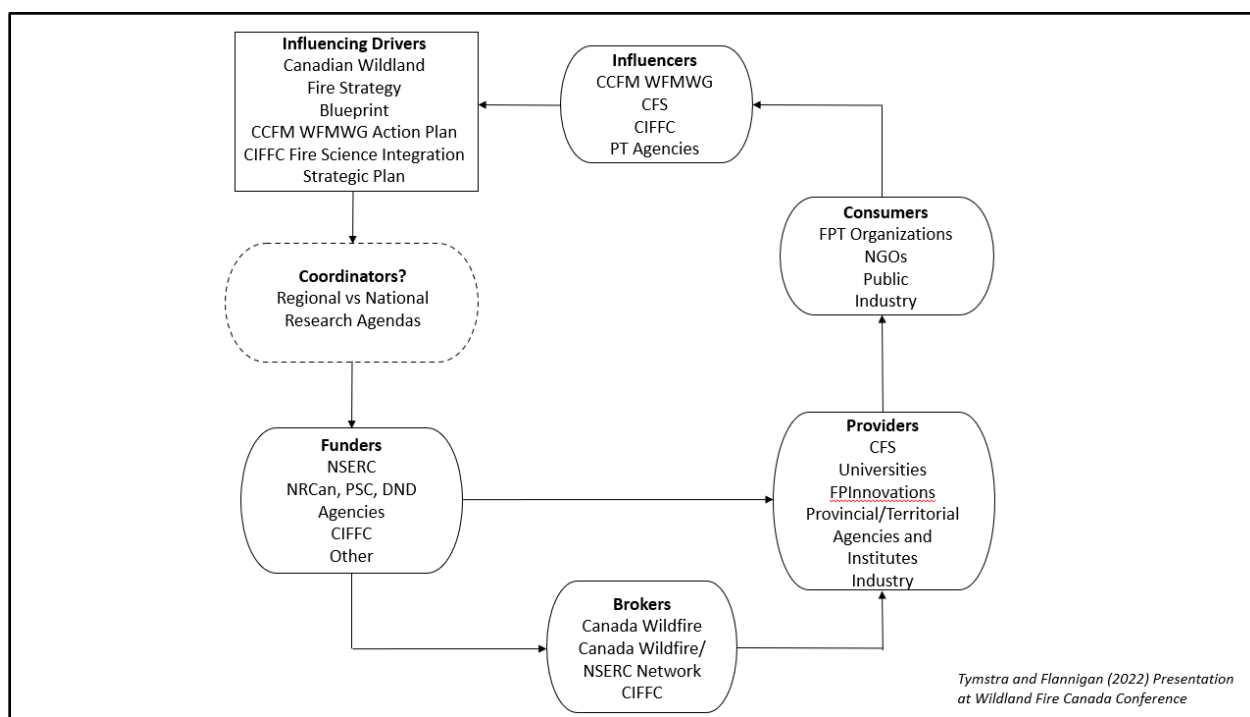


Figure 1. Current wildfire research ecosystem

As identified in the Blueprint, and by collaborators on this proposal, the groups impacted by and involved with wildfire and wildfire management can be put into six broad categories:

1. The public, including individual communities (e.g., remote and rural, Indigenous, etc.)
2. Researchers
3. Wildfire management agencies
4. Private enterprise, including entrepreneurs, consultants, contractors and the media
5. Resource industries (e.g., forestry, non-renewable, tourism, etc.)
6. Elected officials

WRCC will take steps to ensure it does *not* duplicate initiatives already underway by these different groups and will instead work to define each of them and their role in transforming wildfire management. Working with these sectors through the Place-Based Knowledge Networks and

Communities of Practice, we will define **goals, levers of change/incentives** and **outcomes** that reduce the risk from wildfire to social, cultural, ecological, and economic values and increase the use of beneficial fire. The Networks will develop and implement a holistic and systems-based approach to increasing wildfire resiliency at the structure, neighborhood, community and landscape levels.

## Partners

No one sector or organization can create this systemic change, so WRCC has established multiple levels of partners:

### *Foundational Partners*

These organizations are “all in.” Together, we have begun the process of co-designing and building WRCC and have each provided a firm commitment (see Letters of Support attachment). WRCC’s Foundational Partners are:

- [The Institute for Catastrophic Loss Reduction \(ICLR\)](#)
- [FPIInnovations \(FPI\)](#)
- [National Indigenous Fire Safety Council \(NIFSC\)](#)
- [Forest Products Association of Canada \(FPAC\)](#)
- [TRU Wildfire \(TRU\)](#)

We are each willing to:

- Provide financial and/or in-kind contributions (i.e., staff hours or capacities)
- Participate in meetings, sit on the Board of Directors and lead a Community of Practice

The Foundational Partners have established Principles of Working Together and demonstrated collaborative decision-making in the initial visioning and program development stage leading up to this application.

### *Supportive Partners*

Over forty organizations are interested in participating as members, Network leads or leads of the Advisory Circle’s Communities of Practice and have submitted Letters of Support. They have offered to assist and/or contribute to WRCC where possible, when possible and agree with the Vision and Mission of the Consortium as currently drafted. Many have committed to providing in-kind contributions should the Consortium be the successful proponent.

In addition to those organizations that provided Letters of Support, in the process of developing WRCC’s application, we have also had design and partnership conversations with:

#### National:

- Parks Canada
- Red Cross
- Federation of Canadian Municipalities
- Rethink Climate
- The Palladium Group

- Canadian Conservation and Land Management Knowledge Network
- Indigenous Physicians Association of Canada
- XPrize

#### International

- Global Climate and Health Alliance

#### Australia

- The Commonwealth Scientific and Industrial Research Organisation
- Fire and Rescue New South Wales
- AFAC - National Council for Fire and Emergency Services

#### New Zealand

- SCION Research New Zealand

#### Europe

- Xunta de Galicia, Spain
- Centre for Science and Forest Management
- Centre for Wildfire Research (CWR)

#### United States

- NIST: Community Resilience COE
- NIST: Fire Research Division
- CalFire
- National Academy of Sciences
- International Association of Wildland Fire
- Blue Forest

#### British Columbia

- FNESS
- UVIC - Sarah Wiebe
- BC Hydro

#### Alberta

- University of Alberta - Tara McGee
- University of Lethbridge - Laura Chasmer

#### Ontario

- Western University - Doug Woolford
- University of Toronto - Patrick James, Dave Martell
- Aviation, Forest Fires and Emergency Services (AFFES)

#### Quebec

- Université Laval - Steven Cumming, Thierry Deschene
- Université du Québec en Abitibi-Témiscamingue
- Université Laval (FORAC)
- SOPFEU

- Ordre des ingénieurs forestiers du Québec (OIFQ)

#### Newfoundland and Labrador

- Fisheries, Forestry and Agriculture

#### Northwest Territories

- Northwest Territories Medical Association

## Diversity, Equity, Inclusion and Reconciliation

This whole-of-society, transdisciplinary Consortium is being built at a critical moment in Canada's history. Reconciliation is moving into action and systems change for people in Canada can be informed by approaches that step beyond inclusion and into authentically equitable engagement.

WRCC is grateful for a broad group of advisors, who have shared with us the successes of initiatives like the [Tier 1 Gathering for Indigenous Fire Stewardship](#), and the [Guardians program](#), and who hold relationships with Indigenous organizations like First Nations' Emergency Services Society (FNESS) and Indigenous Leadership Initiative (ILI).

## Weaving Knowledge Systems

The Consortium will include strong Indigenous leadership following a model of "by Indigenous people for Indigenous people" in all three phases (Engage, Connect, Accelerate) of its growth.

Research shows that Indigenous and local knowledge systems as well as practitioners' knowledge can provide valid and useful knowledge to enhance our understanding of stewardship of biodiversity and ecosystems for human well-being ([Tengo, et al 2014](#)). Indigenous people's rights to practice traditions such as cultural fire are also upheld by the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP Articles 18 and 26.2). Therefore, both as an [evidence based approach to effective wildland fire management](#), and to uphold legally protected human rights.

In an effort to decolonize the wildfire management sector, WRCC commits to:

- Acknowledging historical injustices, ongoing challenges and systematic exclusion of Indigenous control.
- Supporting Indigenous leadership, including Indigenous decision makers in wildfire management planning, regulatory reviews and updates, and employment opportunities.
- Respecting Indigenous Knowledge.
- Compensating all Indigenous Knowledge keepers appropriately.

We know that we will need collaborative approaches to implement beneficial fire (both cultural fire and prescribed burning), including a strong foundation for the establishment of boundary-spanning individuals and organizations. Guided by the [Beyond Conservation Toolkit](#) developed by the [IPCA Knowledge Basket](#) and [Indigenous Knowledge Circle](#), our staff, Communities of Practice and members will take the time to learn and build relationships based on trust, and adhere to the First Nations principles of Ownership, Control, Access, and Possession (OCAP®) for Indigenous data.

## Sharing Power for Meaningful Engagement

To achieve a true whole-of-society network and accelerate wildfire resilience for all those in Canada, WRCC will hold itself accountable to building reciprocal relationships and sharing power with communities to co-create accessible and meaningful engagement, knowledge exchange, cultural learning and technology implementation strategies. Guided by the eight principles of Simon Fraser University (SFU)'s Morris J. Wosk Centre for Dialogue (a committed supporter of the Consortium (see Letters of Support attachment), WRCC will go [beyond inclusion](#) to embrace the concepts of equity, participatory research and co-creation.

WRCC commits to:

- Centering experiences and participation of underrepresented voices.
- Reaching out to groups that represent the needs of young people.
- Using language that is sensitive to and respectful of all diverse and marginalized groups.



## Vision Graphic



Figure 2. Vision graphic for the overarching structure and activities of the Wildfire Resilience Consortium of Canada, highlighting the three Core areas of activity, the six Place-Based Knowledge Networks, the organizational governance structure and the three proposed phases of activity. This vision graphic was developed by Foundational Partners with feedback from the Circles of Input gatherings held in August.

## Three Cores

The Wildfire Resilience Consortium of Canada will be a catalyst for transformation of wildfire management.

The three core areas of activity will be:

1. **Indigenous Fire Stewardship**, self-determined and governed by Indigenous partners (NIFSC, Thunderbird Collective, Assembly of First Nations (AFN), First Nations' Emergency Services Society (FNESS), etc.), focus on long-term management of the land we all depend on.
2. **Six Place-Based Knowledge Networks**, responsible for accelerating knowledge mobilization and education through a varied, audience-focused range of place-based approaches.
3. **Technology & Innovation Core**, aimed at accelerating the uptake of technological innovations, including providing links between innovators, funders and practitioners.

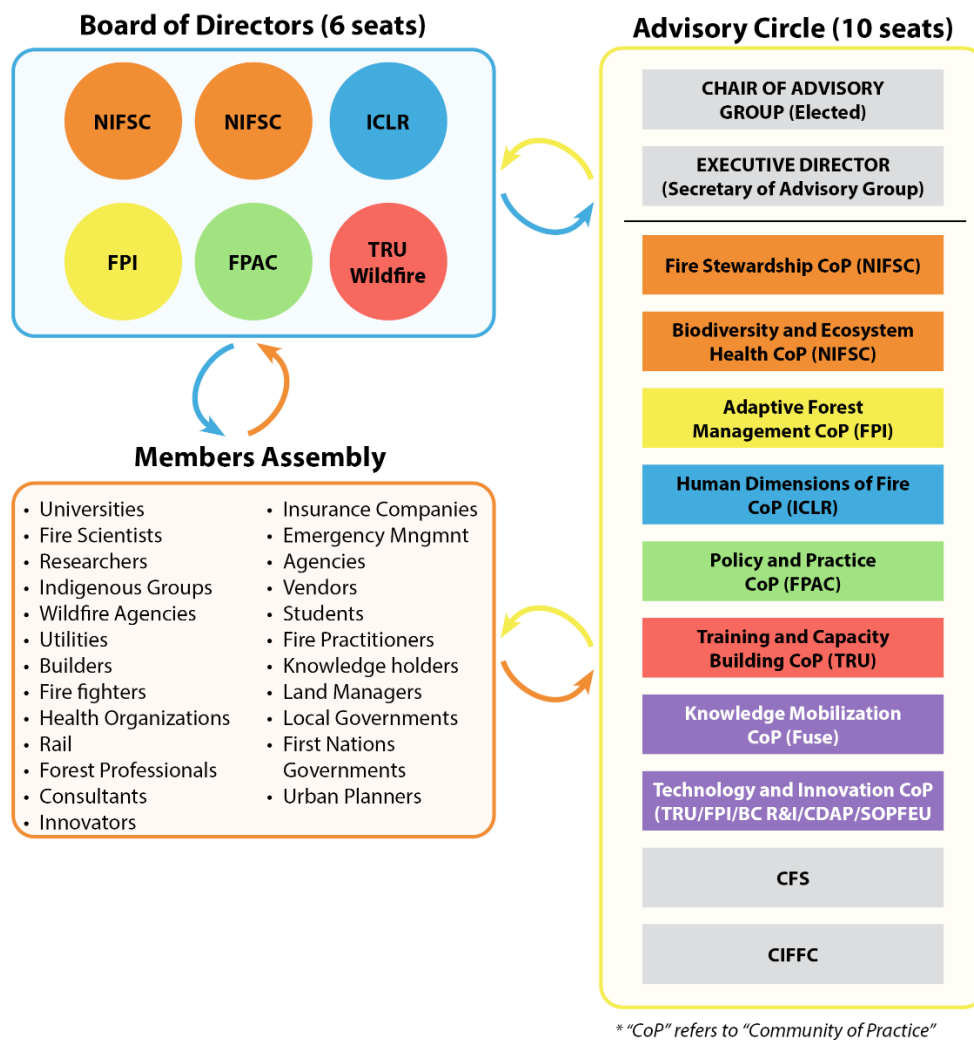


Figure 3. Breakdown of the relationship between the three WRCC cores and their connection to the governance body.

## Place-Based Knowledge Networks

The six Place-Based Knowledge Networks will be established in distinct regions of Canada reflecting terrestrial ecozones to provide direct two-way dialogue, resource development, informal and formal training, etc. to the transdisciplinary wildland fire community ('ecosystem'). They will connect with boundary-spanning individuals and organizations, collate actionable knowledge from diverse knowledge systems and drive impact in wildland fire prevention and mitigation at the place-based level.

This action-oriented group of Networks will be governed by the five Foundational Partners forming the Board and advised by an Advisory Circle of supporting groups like CFS and The Canadian Interagency Forest Fire Centre (CIFFC), as well as human health, wildfire agencies and academic researchers (e.g., the SFU Centre for Dialogue and The University of British Columbia's Centre for Wildfire Coexistence).

There will also be a Council of experienced wildfire, and systems change experts, as well as Elders who will be consulted for key decisions and available for coaching and mentorship. The Council's role will be to share their wisdom with any and all groups within WRCC. Importantly, the Council will include one or more experts in non-profits, transformational change and evaluation. While these experts may not have expertise related to wildfire, they will bring a critical strategic perspective that will support WRCC in advancing systems change. There are already several individuals that have expressed interest in participating on the Council, like [Dr. Courtney Howard](#), but the Council itself has not yet been sat.

The vision graphic (page 9) shows WRCC itself as an ecosystem, with each part impacting, informing and growing the other parts, and no one part above another. The members of the wildland fire community or members assembly act as an interconnected root system forming the base of the Place-Based Knowledge Networks and CoPs. Communication flows between all parts of the ecosystem and is actively exchanged between the strategic Advisory Circle and the transformational place-based networks.

WRCC will focus its first year of activities on **Engaging** with this ecosystem through convening. It will then **Connect** the ecosystem by strategically standing up Communities of Practice (led by the Foundational Partners and Network and Core leads) and developing online platforms. The third phase will be to **Accelerate** mitigation and prevention by continuing to perform diverse strategic knowledge exchange (see Knowledge Exchange Strategy on page 15) and technology and innovation activities.

## Governance Model

As outlined in the application form (Response 8A), WRCC will have a Board of Directors that serves and communicates with the entire whole-of-society network created by the Centre of Excellence or Consortium. These board members will be six of the ten members of the Advisory Circle and will each lead a Community of Practice (CoP).

In addition to the six CoPs, there will be a lead for the Knowledge Mobilization Networks (e.g. Fuse Consulting) and the Technology and Innovation Core (e.g. TRU, FPI, British Columbia Research & Innovation (BC R&I), Alberta's Canada Digital Adoption Program (CDAP), Société de protection des forêts contre le feu (SOPFEU)). Seats will also be held for the Canadian Forest Service (CFS) and the Canadian Interagency Forest Fire Centre (CIFFC), these parties are instrumental in the success of the Consortium but are unable to participate in development and design until a proponent is selected by NRCan.

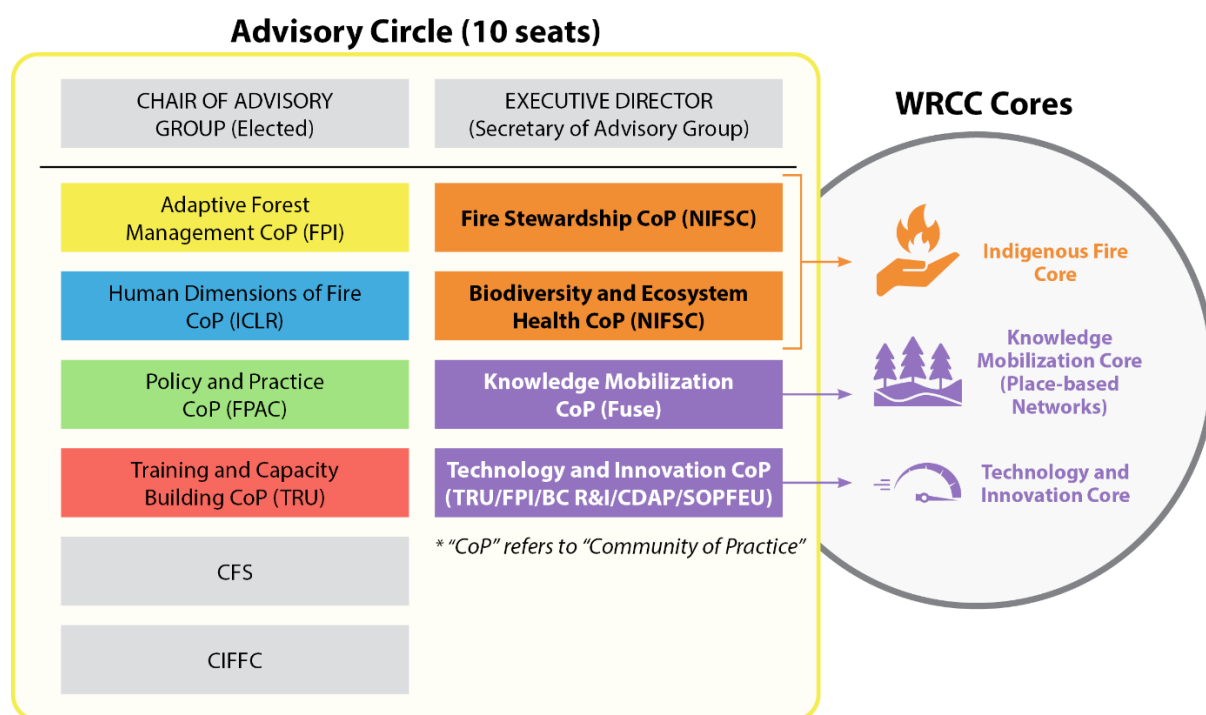


Figure 4. Structure of the governance model, including the Board of Directors, Advisory Circle and Members Assembly, and the connections between these three bodies.

## WRCC Staff

The Executive Director will report to the Board and together with the remaining Consortium staff will be responsible for WRCC's daily operations.

The following staff positions are planned, with the number of staff growing in each year of operation:

Year 1 (3 staff):

- **Executive Director:** Responsible for acting as Secretary for the Advisory Group, developing relationships with partners, overseeing staff, ensuring compliance with legal and regulatory requirements, administration of the Consortium.
- **Finance and Contracting Manager:** Responsible for managing the Consortium's finances, including fundraising, sustainability, and managing contracting (e.g., facilitators).

- **Data Collection/Librarian:** Responsible for collecting resources for databases, facilitating access for users, maximizing discoverability, etc.

*Year 2 (9 staff):*

- **Executive Director:** Responsible for acting as Secretary for the Advisory Group, developing relationships with partners, overseeing staff, ensuring compliance with legal and regulatory requirements, administration of the Consortium.
- **Finance and Contracting Manager:** Responsible for managing the Consortium's finances, including fundraising, sustainability, and managing contracting (e.g., facilitators).
- **Data Manager:** Responsible for web and library support.
- **Network Coordinators (6):** Boundary spanners who are knowledge exchange specialists and will be program managers for each network.

*Year 3 (10 staff):*

- **As above**, plus:
- **Communications Manager:** Responsible for developing and distributing knowledge exchange products and general communication materials on behalf of the Consortium, assisting Communities of Practice.

*Year 4 onward:*

- **As above**, plus:
- Additional paid staff responsible for coordinating each Community of Practice and/or embedded employees in partner agencies (e.g. Knowledge Extension Specialist within UBC's Centre for Wildfire Co-Existence or within FORAC).

## Connecting the Ecosystem Through a Purpose-Built Platform

During the **Connect** phase of WRCC's launch, we will develop a high-performing, user-focused web platform (with some functions similar to [PreventionWeb.net](https://preventionweb.net)) to connect these diverse transdisciplinary communities and the different functions of the Consortium. We are in the process of purchasing the .ca, .com and .org domains for WRCC-CRFFC and can begin development of these platforms shortly thereafter.

Initial conversations regarding the platform include the functionalities listed below. Full discussions regarding the co-design and development of the platform will occur in the first 100 days.

- Click on a research theme or topic to access resources regarding what is already known and be directed to Networks, CoPs and universities that are actively working in the space.
- Connect with related Organizations and Contacts (several content types in a relational database) to see who is working in certain spaces and connect on active projects.
- Access the best available knowledge in a consolidated Consortium library that collates research findings and publications most relevant to decision making needs. Advanced search functions to keep users coming back for more valuable resources.
- Go directly to each Network's landing page, accessible from the main platform but personalized by each Network.

- Provide tailored information for specific audiences and purposes by using different pages for different user categories (some are password protected where researchers can upload data, and some are open access).
- View information regarding the current wildland fire ecosystem and which player to connect with for certain aspects (i.e., CFWIS for fire weather).
- Clearing house of tools and vehicles that can be used for knowledge mobilization, translation and update.
- Collaborate with wildfire researchers and practitioners in shared virtual workspaces.
- Search for available training courses in the wildfire resiliency space, including where, by whom and when they are offered.
- Search for active job postings in the wildfire resiliency space and links to participating government job pages.
- Search links to datasets, repositories and existing models (e.g., <https://www.thebigredguide.com/> and <https://www.frames.gov/>).
- Learn about upcoming events, news and popular resources.
- Ask for help through a centralized portal to the Consortium (answered and directed by Consortium staff).

Early mock-up designs of some of the platform's proposed pages are linked below and accessible online thru Figma:

- [Homepage](#)
- [Accelerator](#)
- [Partners](#)

\*\*\*Please note that based on feedback from the innovation sector, the 'Accelerator' page will now be called the *Technology and Innovation Core*'. This is not reflected in the mock-up page designs as this was a very recent change.

## Knowledge Mobilization Networks

The six place-based Networks described above will be the 'How' of WRCC's mechanism for increased knowledge mobilization. The overarching objectives and best practices of each Network will be outlined in a joint Knowledge Exchange Strategy. Network-specific activities will be identified by the local coordinators and their choice of governance to meet the needs and realities of their regional end users. Each Network will have a paid Coordinator and will connect with decision-makers and organizations within each region. They will source (or develop) a diversity of science communication and knowledge mobilization resources and will respond quickly to current and emerging issues within their region by developing products to respond to end users. Through the Knowledge Mobilization Community of Practice, they will remain connected to the other Networks and communicate back to the Advisory Circle and Board of Directors.

## Outcomes of the Networks

- ***Develop a clear system to connect researchers and practitioners across disciplines*** and act as a bridge between new research, other knowledges and on-the ground-practice (e.g., by



linking industrial design students to wildfire warehouse staff that are looking for ways to improve practices).

- **Provide a dedicated place for boundary spanners** (individuals and organizations with knowledge from and of many aspects of the ecosystem). Boundary-spanning activities can help communities overcome unevenly valued knowledge, lack of trust and outdated policies. Examples of boundary-spanning activities include:
  - Providing fire training beyond wildfire managers.
  - Improving understanding of uncertainty and statistics, change management, foundational science and decision-making beyond those subject matter experts.
- **Facilitate knowledge transfer and exchange beyond webinars** (e.g., knowledge exchange gatherings modeled on the 2024 UBCO Wildfire Coexistence in BC: Solutions Symposium)
- **Develop and support vital two-way communication links** and collaborative problem-solving.

## Knowledge Exchange Strategy

### *Why a knowledge exchange strategy?*

Knowledge exchange will be an integral component of WRCC's activities. WRCC's Knowledge Exchange Strategy (hereafter, "the Strategy") is being developed to align with WRCC's Vision, the three priority objectives of the Centre of Excellence as defined by the Wildfire Resilient Futures Initiative, and the Blueprint for Wildland Fire Science in Canada (2019–2029). The objectives of the Strategy include:

1. **Engaging all members of the wildland fire ecosystem through education and knowledge mobilization.** This objective explicitly includes adopting a people-centered approach to direct engagement with Indigenous peoples to establish partnerships that are respectful, responsible and reciprocal.
2. **Connecting knowledge holders, generators and users through Place-Based Networks.** By connecting Indigenous fire experts, practitioners, researchers and decision makers, Networks will foster interdisciplinary collaboration and on-the-ground change.
3. **Accelerating awareness and uptake of wildland fire innovation and technology,** both within Canada and internationally.

The ultimate goal of this Strategy is to build knowledge exchange capacity among the members of the wildland fire ecosystem. By improving the ability of members to communicate effectively with each other and across silos, the Strategy will foster Communities of Practice with the power to change the way fires are managed at the structure, community and landscape scale.

### *How will the knowledge exchange strategy be implemented?*

The Strategy is a living document that will evolve as WRCC engages with its members and learns more about their opportunities and barriers related to knowledge exchange. The goal, objectives and activities outlined here will progress according to members' needs and over time as the impacts of the Strategy are measured. This approach is consistent with the principles of WRCC as a learning organization.

By connecting with existing regional and global networks, WRCC will avoid duplicating efforts, instead leverage their gains by connecting them, amplifying them and supporting the mobilization of their knowledge into practice. The [Joint Fire Science Program \(JFSP\) Fire Science Exchange Network \(USA\)](#) and [Fire-Res Network \(EU\)](#) are two networks that have expressed their support and interest in collaborating across borders with WRCC.

*What activities will WRCC undertake as part of the strategy?*

WRCC's Strategy will address all six themes of the Blueprint and the goals as laid out by NRCan and will focus knowledge exchange activities around four of the five Blueprint recommendations. The strategy recognizes Indigenous Knowledge as a complementary approach to the delivery and development of all wildfire research.

WRCC will undertake the following activities:

- Support evidence-based changes to practice and policy by providing access to the best available information for land use planners, developers, structural fire departments, municipal leaders and more.
- Enhance knowledge exchange mechanisms to improve the ways in which wildfire science and technology are shared, understood and implemented.
- Expand partnerships and welcome new players.
- Improve governance and coordination to establish national priorities and define national needs.
- Create experiential and immersive learning opportunities for students.

Knowledge exchange activities take many forms. The selected activities and their delivery (e.g., frequency, format, etc.) will be determined in greater detail as the Consortium **Engages** with its members and learns more about their needs. Moving into the **Perform/Accelerate** stage of its growth, WRCC will produce and host a diverse range of knowledge exchange resources, such as:

- Convening workshops (e.g., to share/investigate/examine case studies and case summaries).
- Hosting joint training sessions (formal training in mitigation practices).
- Publishing a seasonal high-quality digest/magazine.
- Funding graphical abstracts or media cards for researchers to share on social media.
- Developing, hosting and maintaining a purpose-built platform that houses wildfire-related publications, reports, videos, etc. (see page 14 above for preliminary ideas on the platform).
- Maintaining a social media presence tailored to specific audiences for each platform.
- Publishing text-based reports and visual guides.
- Hosting webinars, including presentation visuals support and coaching.
- Distributing a high-quality newsletter that drives the target audience back to the website and informs them of training and knowledge exchange events.
- Coaching/mentorship calls to accelerate learning across the Networks and embed knowledge from retired wildfire experts (see page 11 regarding the Council) into future planning (informal opportunities for professional development).
- Secondments and in the field/in the lab job shadowing (interchanging people to see fire issues from other sides).
- Yearly Wildland Fire Canada Conference.
- Creation of an Indigenous Fire Stewardship Conference and or workshops.



- Living Lab Network, international network linkages (through Labs).
- Face-to-face extension space for local, regional and international collaborations.
- Knowledge extension training/education/tools.

As part of this Strategy, each knowledge exchange activity will use the following approach to maximize its effectiveness:

1. Start with Why, to inspire the audience to adopt the best available information into their wildland fire management practice.
2. Target the audience, understanding what they already know, what they value and what they want to know more about.
3. Train practitioners, to ask for the knowledge they need, know where to find it and how to implement what they are learning.
4. Make the management implications (the So What) concrete and connected to the experience and values of the audience.
5. Incentivize sharing of knowledge and reciprocate to knowledge holders.
6. Learning from other Knowledge Exchange Systems and communities of practice such as:
  - a. <https://civil-protection-knowledge-network.europa.eu/about-knowledge-network>
  - b. <https://firelogue.eu/index.php>
  - c. <https://fire-res.eu/about-fire-res/>
  - d. <https://wildfirex.com.au/>
  - e. <https://nespclimate.com.au/about-the-escc-hub/>
  - f. <https://www.bushfirecrc.com/research/utilisation>
  - g. <https://bigbangpartnership.co.uk/about-us>
  - h. <https://knowledge.aidr.org.au/about/>
7. Evaluate the success of the activity, reflect on learnings (see below) and document and share the learnings

## Measuring Impacts and Sharing Learnings

We know that important insights from wildfire management, new findings from wildfire and climate science and improved practices for knowledge exchange are not being systematically captured or retained. This is leading to duplicated efforts and slowing the implementation of better prevention and mitigation as well as suppression and beneficial fire efforts. Opportunities are being missed to commercialize technology and make it accessible to the public, such that communities can better protect themselves from wildfire and associated property loss.

### Societal Impact

Leveraging the practices of the Joint Fire Science Program (JFSP) in the USA, WRCC will invest in activities known to have “societal impact” as defined by Meadow and Owen (2021). Societal impact, defined as “the ways that research, and the process of conducting research, influences the world beyond the academic realm,” can be assessed across five categories:

- Capacity Building
- Conceptual
- Connectivity

- Instrumental
- Socio-environmental, such as improved health and wellbeing or ecosystem structure and function

## Leave a Legacy of Learning

Looking beyond the three years of NRCan funding, WRCC will focus on the key success factors that will enable the established Communities of Practice and Networks to sustain themselves beyond the launch of the Center of Excellence.

After co-designing the goals and objectives of the CoPs and Networks, WRCC will document and share its successes and failures in knowledge exchange, Indigenous fire and technology and innovation to establish a strong learning culture.

*“A learning culture exists when an organization uses reflection, feedback, and sharing of knowledge as part of its day-to-day operations.*

*It involves continual learning from members’ experiences and applying that learning to improve. Learning cultures take organizations beyond an emphasis on program-focused outcomes to more systemic and organization wide focus on sustainability and effectiveness. It is about moving from data to information to knowledge.”*

— [The Centre for Nonprofit Excellence](#)

This *Plan, Do, Learn, Adjust* model may include formal monitoring of:

- What types of training and knowledge exchange capacity building effected long lasting change within the member organizations supported by the Communities of Practice and Networks?
- Is the information infrastructure for effective knowledge sharing (i.e., the proposed platform) retaining users, growing in number and variety of resources, attracting international attention and respecting the knowledge-sharing values of all contributors?
- Are the Networks self-reporting a feeling of connection, collaboration and forward momentum?
- Are new solutions being developed and shared in the Core Communities of Practice?
- Are there examples of effective land and resource management planning and policy and/or changes in municipal bylaws?
- Have case studies of where the workforce has increased competence and empowerment to deliver effective wildland fire management programs been shared?

The Alberta and Ontario Nonprofit Networks have many resources on evaluation, cumulative learning and whole-of-society approaches to systemic change. WRCC will follow these best practices to develop strong evaluation and strategic review processes that support the people and results that will be critical to the success of the Consortium. By embracing an adaptive management approach to its activities, WRCC will be able to improve its effectiveness year over year, ultimately improving its ability to advance all three Objectives outlined by NRCan for the CoE.

## Assumptions and Questions

WRCC intends to take the knowledge and thought leadership that exists in Canada and “hit the **transform** button,” moving from thought to action. We know this is the time to move transdisciplinary knowledge from awareness to impact, yet we recognize that even this broad and diverse group of partners is making assumptions and lacking some key information.

Addressing these gaps will be one main purpose of the initial face-to-face gathering of the Foundational Partners and Community of Practice chairs: define the challenges, name our assumptions, ask the key questions and build trust across knowledge systems and sectors. NIFSC has offered to host this initial gathering alongside the Indigenous Public Safety Conference and National Firefighting Competition in Vancouver in October 2024, assuming funding has been announced.

## References Cited

Brandes, Oliver, et. al. "Wildfire and a Whole-of-Society Approach". *POLIS Wildfire Project*, July 2024, [https://poliswildfireproject.org/wp-content/uploads/2024/07/WOS\\_J15.pdf](https://poliswildfireproject.org/wp-content/uploads/2024/07/WOS_J15.pdf).

Hoffman, Kira, et. al. "Boundary spanner catalyze cultural and prescribed fire in western Canada". *Facets*, July 2024, <https://www.facetsjournal.com/doi/10.1139/facets-2023-0109>

Mayer, Amanda. "Navigating Program Evaluation: A Practical Guide for Youth Leaders." *Lawson Foundation*, April 2023, <https://lawson.ca/navigating-program-evaluation/>.

*Blue Forest*. <https://www.blueforest.org/>.

"Board Essentials - Requirements and Responsibilities of Directors of Nonprofit." *Ontario Nonprofit Network (ONN) and Ignite NPS*, 2021, [https://cdn.theonn.ca/wpcontent/uploads/2022/03/2021\\_ONN\\_Board-Essentials\\_final.pdf](https://cdn.theonn.ca/wpcontent/uploads/2022/03/2021_ONN_Board-Essentials_final.pdf)

*Fire-Res Project: Living Labs*. <https://fire-res.eu/living-labs/>.

*Joint Fire Science Program*. [https://www.firescience.gov/ords/prd/jf\\_jfsp/jf\\_jfsp/r/jfspublic/home](https://www.firescience.gov/ords/prd/jf_jfsp/jf_jfsp/r/jfspublic/home).

*Living Lab Energy*. <https://www.livinglab.energy/home>.

*The Palladium Group: Nature-Based Solutions*. <https://thepalladiumgroup.com/areas-expertise/nature-based-solutions>.

# Project Team Lead CVs

CVs for the following seven project leads follow starting on page 22 of this Appendix:

## Razim Refai

*Senior Researcher, Wildfire Operations*

**FPINNOVATIONS**

## Kelsey Winter

*Manager, Wildfire Operations*

**FPINNOVATIONS**

## Glenn McGillivray

*Managing Director*

**INSTITUTE FOR CATASTROPHIC LOSS REDUCTION (ICLR)**

## Kate Lindsay

*Senior Vice-President and Chief Sustainability Officer*

**FOREST PRODUCTS ASSOCIATION OF CANADA (FPAC)**

## Blaine Wiggins

*Senior Director*

**NATIONAL INDIGENOUS FIRE SAFETY COUNCIL (NIFSC)**

## Shannon Wagner

*Vice-President Research*

**THOMPSON RIVERS UNIVERSITY WILDFIRE (TRU Wildfire)**

## Michelle Vandevord

*President*

**NATIONAL INDIGENOUS FIRE SAFETY COUNCIL (NIFSC)**

## Shelagh Pyper

*Principal*

**FUSE Consulting**



## RAZIM REFAI

M.Sc., P.Eng.



(780) 817-1840



razim.refai@gmail.com

### ACADEMIC PROFILE

Master of Science,  
Mechanical Engineering  
University of Alberta  
(2017)

Bachelor of Technology,  
Mechanical Engineering  
VIT University (2015)

### HIGHLIGHT OF QUALIFICATIONS

- 10 years of experience in the wildfire operations research domain (academia and industry)
- Experience as 'Research Lead' with FPInnovations' Wildfire Operations Research program (\$2.75 million program), inclusive of project planning, resource allocations, budget management, and delivery oversight
- Successfully led the delivery of 30+ research projects as a 'Researcher' and 'Senior Researcher' with aggregate project value of \$2 million
- Strong relationships with existing stakeholders of the Wildfire Operations advisory committee from 10 years of direct-to-client project delivery
- Proven success at developing and maintaining effective strategic domestic and international partnerships in the wildfire domain (U.S. Forest Service, NAFC – Australia)
- In-depth understanding of current state of technology and innovation landscape in wildfire operations with expertise in night-vision imaging systems, thermography, and remotely piloted aircrafts

### EMPLOYMENT HISTORY

#### Senior Researcher, Wildfire Operations

*FPInnovations / 2022 – Present*

- 'Research Lead' for value-driven Wildfire Operations Research Program with emphasis on delivering tangible impacts for wildfire agencies
- Liaised with agency representatives to develop strategic plans for future of research program
- Successfully delivered suite of aviation-related projects that directly influenced government policy
- Created and delivered Aviation Research Seminar Workshop – a knowledge-mobilization session for domestic and international wildfire agencies
- Experience in government contract procurement with successful RFP/RFB submissions
- Created project proposals and budgets for government grant applications with emphasis on application of innovative technology to address wildfire operations questions
- Active member of CIFFC Research and Innovation Integration Committee (RIIC) targeting mobilization of R&D activities in wildfire management and response operations

#### Researcher, Wildfire Operations

*FPInnovations / 2018 – 2022*

- Led research team in the successful delivery of 'Technology and Innovation in Wildfire Applications' research program (\$300k) in a 10-month time period
- Executed and delivered on 20+ research projects spanning themes of aviation and wildfire chemicals, equipment evaluation, community resilience and fuels
- Successfully advocated for embracing innovative technology in wildfire research (thermography, drone, image processing)
- Developed process improvements related to field data collection, design of experiments, and health and safety
- Attracted several revenue-generating contract project opportunities across themes of equipment evaluation and product testing
- Created funding proposals (project plans, budgets, deliverables) for additional government grants (\$300k) to facilitate advancement in wildfire detection technology



**RAZIM REFAI**

M.Sc., P.Eng.



(780) 807 0693



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## EMPLOYMENT HISTORY (CONTINUED)

### Technical Marketing Specialist

*Saltworks Technologies / 2017*

- Accountable for design of heat exchangers for wastewater treatment systems, technical content curation for system commissioning, lead generation, and business development
- Designed shell and tube heat exchangers for new treatment system prototype (4x efficiency)
- Developed technical specification sheets for 3 new generation products
- Setup marketing systems for B2B lead generation (65 new leads)
- Created new design infrastructure to improve speed of on-site commissioning

### Mechanical Engineer-in-Training

*University of Alberta & FPInnovations / 2017*

- Responsible for design, fabrication, and testing of custom thermal measurement instrumentation to evaluate fire suppression chemicals
- Tested wildfire chemicals using prototyped device, found 50% performance improvement
- Reduced cost of testing to \$7500 with new test methods, 80% decrease
- Managed site setup and installation of 12 next-generation heat flux sensors (ICFME, Fort Providence)
- Provided technical engineering support to clients on community protection projects (FireSmart Canada)

### Graduate Research Assistant

*University of Alberta / 2015-2017*

- Established new testing methodology to evaluate the performance of wildland fire chemicals
- Developed product using advanced heat transfer to test fire chemical performance
- Designed heat flux sensors for structural and wildland fire measurement
- Validated new products to meet market requirement by analyzing temperature data
- Documented standardized testing methods for use of developed products

## PROFESSIONAL DEVELOPMENT

- Licensed Professional Engineer (P.Eng.)
- Inclusive Workplace Taskforce (IWT)
- Advanced Drone Pilot (Transport Canada)
- ITC Level 2 Thermography (International)
- Advanced Fire Behaviour (Canada)
- Fire Investigation Origin and Cause (NFPA 921)

# Kelsey Winter

**Current Address**  
925 Parklands Drive  
Victoria BC

**Email and Phone**  
Kelsey.L.Winter@gmail.com  
604.999.4279

## Work Experience

### **Manager Wildfire Operations**

**June 2023-present: FPIInnovations - Vancouver, BC**

Management of a national team of field and lab researchers focusing on research contributing to living well with wildfire. Position is responsible for client and contract management with national and international partners, stakeholder and partner development, program and project planning, tactical planning and budget management.

### **FireSmart Program Lead/Manager**

**Oct 2018-May 2023: BC Wildfire Service – Victoria, BC**

Responsible for the development, implementation and continuous improvement of the FireSmart program in BC. Conducts strategic program planning, manages 11 staff members, and oversees various contractors as well as a \$4-6m annual budget. Acts as direct link between the BC Wildfire Service, Province of BC and the CIFFC National FireSmart program. Responsible for partnership development with First Nations, local governments and industry. Works closely with other provincial and territorial wildfire management agencies.

### **BC FireSmart Committee (BCFSC) Chair**

**May 2018-present: BC Wildfire Service – Victoria, BC**

Responsible for guiding and directing the 12 agencies that make up the Committee on strategically important issues, convening and presiding over meetings, and supervising various subcommittees. Ensures cohesion of direction and purpose at a policy and strategic level. Builds consensus and provides consistent and transparent leadership for the Committee. Ensures Committee has resources and knowledge required to fulfill its responsibilities, delegates duties and functions to Committee members, represents the BCFSC at provincial and national wildfire tables. Sits on FireSmart Canada Advisory Committee as long standing Board Member.

### **Communications and Engagement Specialist**

**May 2014-Sept 2018: BC Wildfire Service – Kamloops/Victoria, BC**

Leading the development and implementation of the ministry's communications and engagement strategies around wildfire prevention. Key resource for all branch executive and management regarding communication goals, strategic initiatives, and engagement. Developing outreach plans for wildfire prevention provincially. Performed as a Type 1 Information Officer and Coach/Mentor on Incident Management Teams, deployed several times through CIFFC partnerships.

### **Wildfire Crew Leader**

**May 2011-Oct 2013 BC Wildfire Service – Kamloops, BC**

Responsible for the operations of a wildfire suppression crew. Duties included fire behavior analysis. Performed in 2011-2012 on a team that monitored grass curing in the area as well as conducted prescribed burns to assess fire behavior and weather assessments.

### **Operations Supervisor**

**Feb 2010-Jan 2011 AP Moller Maersk – Vancouver, BC**

Supervised crossdock and warehouse staff of +40 employees. Facility was responsible for Maersk logistics and distribution operations in Western Canada. Responsibilities included hiring, training, operational logistics supervision, payroll, accounting and finances.

### **Assistant Manager Key Accounts**

**Dec 2008-Feb 2010 AP Moller Maersk - Antwerp, Belgium**

Sales and logistics management for 20+ Global Key Clients. Account plan administration, performance analysis, procedure improvement, rate requests and reporting. Liaison between Head Office and Account Managers.

## Educational Highlights

**2022-2026 PhD in Public Administration** University of Victoria (*in process*)

**2014-2017 Masters in Natural Resources** University of Idaho

**2015-2016 Masters Certificate in Fire Ecology, Management and Technology & Masters Certificate in Restoration Ecology** University of Idaho

**2006-2008 Masters in International Shipping and Logistics**

Executive Management Program for AP Moller Maersk. Global class of 350.

**2002-2006 Bachelor of Commerce with Honors Degree** Focusing on International Business and Organizational Behavior. Queen's University

## Training

2023 Leading public sector innovation

2022 Research as resistance and using evidence in policy

2022 Cultivating Safe Spaces and Vicarious Trauma and Resiliency

## Additional Skills

Extensive experience as supervisor and manager. Strong relationship building skills. Great rapport with all types of people in all kinds of settings. Outgoing and focused. Excellent time management and organization. Goal oriented and team player.

## Extracurricular Activities

**2019-2023** VP Youth – Board of Directors for Gorge Soccer. Volunteer with Victoria Alliance Church.

**2017-2019** Volunteer with the Military Family Resource Centre.

**2016** Team Representative for Duffy's Women's Soccer Team. Member of the Red Cross. OFA 3. Member of the Association of Fire Ecology and the International Association of Wildland Fire.

**2012-2015** Completed first Ironman. Member of the Kamloops Triathlon Board of Executives. Member of the Ridge Runners local run club.

**2008-2014** Member of the Red Cross. Worked on local campaign teams for community initiatives. Coordinated blood drives, used clothing donation, earthquake relief and volunteered on various other projects.

**2002-2008 Canadian Forces Reserves – Navy**

Maintained Canadian Forces physical fitness standard. Trained in First Aid, field rescue, drill, communication and military knowledge. Received award for highest comportment and top female weapons specialist. Recognized for leadership and dedication.

## Personal Interests

Running and Triathlon. Travel. Hiking. Reading. Football (the American kind). My lovely family.

**References** (additional letters available upon request)

**Carol Loski – Strategic Advisor, Partnerships, BCWS**

[Carol.Loski@gov.bc.ca](mailto:Carol.Loski@gov.bc.ca)

**Mike McCulley – Senior Officer, Research and Development**

[Mike.McCulley@gov.bc.ca](mailto:Mike.McCulley@gov.bc.ca)



## **R. Glenn McGillivray**

1420 Epsom Place  
Oakville, Ontario  
L6H 2V5

gmcgillivray@iclr.org  
Mobile: 416 277-5827  
[www.linkedin.com/in/glennmcgillivray/](http://www.linkedin.com/in/glennmcgillivray/)

## **Professional Experience**

### **Institute for Catastrophic Loss Reduction (ICLR)**

Managing Director

November 2005 – Present

- **Pioneered and Executed Strategic Communication Program:**
  - Spearheaded the Institute's first and ongoing strategic communication program, meticulously aligning communication initiatives with organizational goals.
- **Strategic Digital Content Leadership:**
  - Elevated brand visibility by strategically implementing the Institute's first digital content strategy, integrating websites/microsites, video and social media tools into traditional marketing and communication channels.
- **Corporate Identity Program for Strategic Positioning:**
  - Directed the implementation of ICLR's corporate identity program, ensuring strategic and consistent positioning within the insurance, reinsurance and hazard research communities.
- **Strategic Oversight and Leadership:**
  - Responsible for the production of the Institute's annual strategic plan.
- **Executive Leadership on Management Committee:**
  - Play a pivotal role as a key member on ICLR's Management Committee, providing strategic insights and direction.
- **Popular Public Speaker on Strategic Topics:**
  - Established as a highly sought-after public speaker, delivering strategic insights in insurance, reinsurance, sustainability, natural disaster mitigation, and resilience.

### **York University**

Adjunct Professor, Disaster and Emergency Management (graduate program)

August 2020 – Present

### **Collectivfide Insurance Group**

Independent Board Director and Chair of Risk & Compliance Committee

October 2019 – Present

## **Swiss Reinsurance Company Canada**

Assistant Vice President, Head of Corporate Communication and Corporate Secretary

August 1994 – November 2005

- **Leadership in Strategic Corporate Initiatives:**
  - Led the launch of key Group programs in Canada, including Group branding, Group corporate identity, corporate philosophy, Safety & Security, and Group Code of Conduct.
- **Strategic Communication during Corporate Changes:**
  - Served as communication officer during major corporate acquisitions, mergers, and restructurings, demonstrating strategic acumen in navigating change.
- **Strategic Media Relations Leadership:**
  - Orchestrated a highly successful media relations strategy, positioning Swiss Re as an industry leader in senior management quotes and trade magazine articles.
- **Dual Rebranding Success:**
  - Successfully rebranded Swiss Re in Canada (nee Canadian Re) twice, demonstrating strategic adaptability and foresight.
- **Strategic Oversight of Safety & Security:**
  - Held strategic roles as Head of Safety & Security, Chief Privacy Officer, and Chief Complaints Officer, drafting detailed and complex company policies and procedures.

## **Goodman & Carr Barristers and Solicitors**

Supervisor of Media Relations

March 1993 – March 1994

## **The Personal Insurance Company of Canada**

Coordinator of Corporate Marketing

April 1991 – March 1993

## **Educational Background**

Berkeley Law Executive Education

Sustainable Capitalism and ESG certification

University of Toronto, Continuing Education

Canadian Risk Management Certificate

McMaster University

Master of Arts, Political Science (International Relations & Public Policy)

Seneca College of Applied Arts and Technology

Graduate Diploma, Corporate Communication, with Honours

Wilfrid Laurier University

Bachelor of Arts, Political Science

# KATE LINDSAY, R.P.Bio

Email: klindsay@fpac.ca Tel: 613-355-3529  
37 Chem Larrimac, Chelsea, QC J9B 2C4

## EDUCATION

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|  |                |
|--|----------------|
| University of Victoria: B.Sc. Biology                                      | June 2005      |
| Qualified Environmental Professional, Vancouver Island University          | May 2007       |
| Registered Professional Biologist (R.P.Bio), BC College of Applied Biology | September 2009 |
| 4 Seasons of Reconciliation, First Nations University of Canada            | December 2021  |
| Sustainable Finance, Smith School of Business                              | April 2022     |

## WORK EXPERIENCE

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### **Senior Vice-President and Chief Sustainability Officer, *Forest Products Association of Canada***

Ottawa, ON

Nov 2020-present

- Lead on sustainability files, including climate action, adaptation, biodiversity conservation and evolving sustainability reporting.
- Working on national and global initiatives related to; net-zero, healthy and resilient forest ecosystems, low carbon and circular economy.
- Work with partners to develop and implement the National Adaptation Strategy. Collaborate with partners through Climate Proof Canada, Canada FireSmart Advisory Committee, NSERC Wildfire Research Network, as well as Canada's Nature Advisory Committee.

### **Vice-President, Sustainability and Environmental Partnerships- *Forest Products Association of Canada***

Ottawa, ON

July 2018-Nov 2020

- Manage the sustainability portfolio related to forestry, biodiversity, and climate change nationally.
- Advisor to federal Minister on Pathway Target 1 National Advisory Panel, Canada's framework to meeting the Convention of Biological Diversity (CBD) commitments, with a focus on Aichi target 11 (17% terrestrial target).
- Co-liaison and industry lead on the federal Species at Risk Advisory Committee (SARAC).

### **Director, Environmental Regulations and Conservation Biology- *Forest Products Association of Canada***

Ottawa, ON

Feb 2013-July 2018

- Managed federal regulatory files related to forest management including liaising with the federal government, the forest sector, other industry associations and environmental organizations.
- Industry caucus lead for the Species at Risk Advisory Committee 2013-2014.

### **Senior Environmental Analyst- *Cowichan Valley Regional District***

Duncan, BC

Sept 2010 - Mar 2012

- Provided environmental expertise for policy development.

# KATE LINDSAY, R.P.Bio

Email: klindsay@fpac.ca Tel: 613-355-3529  
37 Chem Larrimac, Chelsea, QC J9B 2C4

- Focused on carbon accounting and reporting, energy use, riparian area management, and water conservation and protection.
- Presented regularly to the region's elected officials.
- Liaised with residents on environmental issues.

## **Sole Proprietor - *Coastal Resource Consulting***

Victoria, BC

Sept 2009 - Sept 2010

- Provided consulting services as a R.P. Bio primarily to the forest industry.
- Provided assessment for species at risk, riparian areas and provided Environmental Impact Assessments for various clients.

## **Vice President, Environmental Affairs - *Mithrandir Holdings Limited***

Dublin, Ireland

Jul 2008 - Sept 2009

- Helped raise €2.2 million to commercialize this small construction materials technology company.
- Managed all environmental aspects of commercializing the company's green technology including liaising with government, industry and academia.

## **Wildlife Biologist- *Ecologic Consulting***

Campbell River, BC

Jul 2007 - Jul 2008

- Conducted wildlife and habitat assessments in the forest and energy sectors in relation to wildlife species listed under the Species at Risk Act.
- Responsible for data management and analysis.

## **Advisor, Species at Risk - *Fisheries and Oceans Canada***

Ottawa, ON

Mar 2007 - Jun 2007

- Provided habitat management advice.
- Reviewed recovery strategies, residence descriptions and species assessments.
- Provided policy recommendations for programs and initiatives related to species at risk protection and recovery.

## **INTERESTS**

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Hiking: Frequent hikes in Gatineau Park and surrounding area (plus Cross-country skiing in the winter).

Running: Completed Ottawa and Victoria marathons.

Field Hockey:

Competed for Canada, University of Victoria and a Division 1 team in Europe. More recently play and volunteer with the Chelsea Phoenix Club and Nepean Nighthawks.

Cooking and Baking: Passionate about food and preparing healthy meals for my family.

Travel: I have been fortunate to have extensively engaged my passion for travel including backpacking through Southeast Asia, sailing around much of New Zealand, a road trip through Europe, living in Ireland and trips to Central and South America as well as the Caribbean.

## HIGHLIGHTS

- Master of Arts in Leadership & Training; Justice and Public Safety.
- Comprehensive knowledge and experience of fire operations, accreditation, fire and emergency services standards, acts, codes and legislation and federal Indigenous funding programs.
- Superior oral communication, interpersonal skills, public speaking and liaison duties.
- Extensive finance, human resources, information technology and project management experience.
- In-depth Emergency Management training and experience managing programs and major incident responses.
- Proven ability to work in major emergency situations and large complex fire events.
- Managed mountain pine beetle / community interface fire prevention programs.

## PROFESSIONAL EXPERIENCE

### **Sr. Director,**

National Indigenous Fire Safety Council (formerly AFAC)

June 2022 to present

- Member of the Senior Management team and managing all operational and financial services for NIFSC.
- Working closely with the Board of Directors to develop strategic & operational plans and employee standards.
- Lead administrator with Indigenous Services Canada, coordination with the AFN Fire & Emergency Management files and responsible for organizational reporting.

### **Manager, Provincial First Responder Program & Indigenous Health (Retired)**

BC Emergency Health Services, Williams Lake, BC

July 2012 to August 2023

- Responsible for all fire & emergency services who provide emergency medical care across the province of BC including fire departments, search & rescue, road rescue and first responder societies.
- Coordination of pre-hospital care between BCEHS and First Nations Health Authority and First Nations communities.
- Responsible for patient safety and First Responder investigations across the province.
- Responsible for specialized projects that impact the organization and requires senior executive and government support.

### **Executive Director**

Aboriginal Firefighters Association of Canada (AFAC)

November 2009 to June 2022

- Responsible for implementation and execution of national fire strategy in collaboration with Indigenous Services Canada.
- Research and development of national fire service standards.
- Implementation and delivery of national fire prevention programs and services.
- Responsible for all corporate administration functions (funding, finance, corporate reporting, etc.)

### **Director of Emergency Services / Fire Chief**

Iqaluit Fire-EMS Department, Iqaluit, NU

February 2011 to July 2012

- Acting Fire Chief / Director of Emergency Services including oversight of bylaw enforcement.
- Operations chief responsible for fire, EMS and dispatch services.
- Responsible for training programs for all emergency services divisions (fire/EMS/dispatch).
- Developed and managed emergency plan and program for the city.
- Performed all fire inspections, plans examination, fire investigations and compliance duties.

## **Executive Director**

First Nations Emergency Services Society of BC (FNESS), North Vancouver, BC April 2008 to February 2011

- Chief Officer for all emergency response and fire response activity (disaster response, evacuations, fire investigations, interface fire and legislative responsibilities).
- Developing and delivering fire programs and services including inspections, education, awareness, training, fire department audits and public relations.
- Working in collaboration with the BC Office of the Fire Commissioner on prevention and fire investigation files.
- Emergency management services including emergency plans, disaster response, EOC, PREOC and PECC operations.
- Oversight of all administrative, finance, strategic planning and human resources functions.

## **Emergency Management Liaison Officer (Seconded to FNESS in 2008)**

Aboriginal Affairs and Northern Development Canada, Vancouver, BC August 2006 to April 2008

## **Senior Administrator (BC Public College System)**

Northern Lights College, NVIT, OLA & VCC April 1993 to July 2006

## **Senior Firefighter**

Merritt Fire & Rescue Department, Merritt, BC. October 1996 to May 2001

## **Paramedic**

Various postings - BC Ambulance Service. 1986 to 1994

## **Forest Firefighter**

Smithers Unit Crew - BC Forest Service. 1988 to 1992

## **EDUCATION**

### **Fire Officer Level 4 (NFPA 1021) – in progress**

Justice Institute of BC (9 of 12 courses completed) 2012 to present

### **Fire Prevention Officer Program – in progress**

Justice Institute of BC (16 of 21 courses completed) 2011 to present

### **Emergency Management Certificate**

Justice Institute of BC 2007 to 2010

### **Master of Arts in Leadership & Training; Justice and Public Safety**

Royal Roads University and Justice Institute of BC 2001 to 2003

### **Executive Management (Human Resources) Program**

Thompson Rivers University, Kamloops 1999 to 2001

### **Information Technology: Operation & Management**

Thompson Rivers University, Kamloops 1988 to 1990

## **FIRE/EMERGENCY SERVICE-RELATED CERTIFICATIONS**

- Firefighter Level 1 & 2 / Hazmat NFPA 1001 Certification
- Fire Plan Examiner – JIBC / NFPA 1031 Re-Certification 2014
- Fire Inspector (1) – JIBC / NFPA 1031 Re-Certification 2013
- Fire Investigator (1 & 2) – JIBC / NFPA 1033
- Fire Life Safety Educator (1) – JIBC / NFPA 1035-1
- Fire Service Instructor (1) – JIBC / NFPA 1041-1
- Incident Command System (ICS) 400 - JIBC
- BC Fire Codes - JIBC
- Urban Search & Rescue – JIBC
- Emergency Driving Certification – JIBC
- Flood Management (NFPA 1670) – Rescue 3 International
- Critical Incident Stress Management (Peer & Group Certified) – ICISF (Maryland)
- Local Assistant to the Fire Commissioner – BC Office of the Fire Commissioner
- Emergency Medical Responder (EMR) – EMLB current BC license
- Valid BC driver license with Air Brakes endorsement – clean abstract

Copies of certification and drivers abstract available on request.

## **PROFESSIONAL ASSOCIATIONS**

- EMS Chiefs of Canada
- Canadian Council of Fire Marshal and Fire Commissioners
- Canadian Association of Fire Chiefs (Board member 2011-12)
- Canadian Association of Fire Chiefs - National Advisory Committee member multiple terms
- Fire Academy Advisory Committee – JIBC
- Indigenous Advisory Committee - JIBC
- Canadian Association of Fire Investigators
- Aboriginal Education Advisory Committee - JIBC

## **REFERENCES**

Available on request.

**THOMPSON RIVERS UNIVERSITY**  
***Curriculum Vitae for Faculty Members***

**Date:** August 20, 2024

**Initials:** SLW

1. **SURNAME:** Wagner

**FIRST NAME:** Shannon

**MIDDLE NAME(S):** Lynn

5. **POST-SECONDARY EDUCATION** (list most recent first)

| University or Institution               | Degree | Subject Area | Dates     |
|---|--------|--------------|-----------|
| University of Northern British Columbia | PhD    | Psychology   | 2000-2002 |
| University of Northern British Columbia | MSc    | Psychology   | 1997-2000 |
| University of Northern British Columbia | BA     | Psychology   | 1997      |

**Title of Dissertation and Name of Supervisor**

Emotional Expression in Adolescent-Parent Communication – Dr. Sherry Beaumont

**Special Professional Qualifications**

Registered Psychologist with the College of Psychologists of British Columbia

Registrant #01685 (2004)

Qualified Specialist in Autism - BC Autism Assessment Network (2012)

6. **EMPLOYMENT RECORD** (list most recent first)

(a) *Prior to coming to academic appointments*

| University, Company or Organization  | Rank or Title               | Dates     |
|--|-----------------------------|-----------|
| Wagner Assessment and Consulting   | Psychologist                | 2007-2023 |
| Queenswood Professional Resource Group Inc.  | Psychologist                | 2006-2007 |
| Queenswood Professional Resource Group Inc. (Dr. David Hallman, Neuropsychologist; supervisor) | Assessment Technician       | 2004-2006 |
| Queenswood Professional Resource Group Inc. (Dr. David Hallman, Neuropsychologist; supervisor) | Intern                      | 2002-2004 |
| College of New Caledonia   | Instructor                  | 1999-2000 |
| Government of Canada   | Firefighter                 | 1992-1995 |
| University of Northern British Columbia  | Teaching/Research Assistant | 1992-1995 |



(b) *Academic Employment History*

| Rank or Title   | Dates                       |
|---|-----------------------------|
| Vice President Research; Thompson Rivers University             | July 2023-present           |
| Associate Vice-President Academic; Thompson Rivers University   | Oct 2021-June 2023          |
| Professor; Thompson Rivers University                           | Oct 2021-present            |
| Dean Faculty of Human and Health Sciences; UNBC                 | July 1, 2020- June 30, 2020 |
| Interim Dean College of Arts, Social, and Health Sciences; UNBC | June 2018-July 31, 2020     |
| Interim Chair School of Education; UNBC                         | June 2018-Jun 2019          |
| Chair School of Health Sciences; UNBC                           | 2013-2018                   |
| Professor; UNBC   | 2013-2021                   |
| Associate Professor; UNBC                                       | 2008-2013                   |
| Assistant Professor; UNBC                                       | 2004-2008                   |
| Instructor III; UNBC  | 2003-2004                   |
| Instructor II; UNBC   | 2001-2002                   |
| Instructor I; UNBC  | 2000-2001                   |

(c) *Date of granting of initial tenure: July 1, 2008*

**\*The following additional content was OMITTED FOR PREVITY.**

**7. TEACHING**

- a) *Courses Taught at UNBC*
- b) *Graduate Students Supervised and/or Co-supervised*
- c) *Continuing Education Activities*

**8. SCHOLARLY AND PROFESSIONAL ACTIVITIES**

- a) *Accomplishments,*
- b) *Research grants and contracts*
- c) *Invited presentations and conference participation*

**9. SERVICE TO THE UNIVERSITY**

- a) *Membership on committees and other service*

**10. SERVICE TO THE COMMUNITY**

- a) *Service to the discipline*
- b) *Memberships on scholarly and other committees*
- c) *Editorships*
- d) *Reviewer*
- e) *External examiner*
- f) *Consultant*

**11. AWARDS AND DISTINCTIONS**

**12. REFEREED PUBLICATIONS**

**13. CONFERENCE PROCEEDINGS, HANDBOOKS AND REPORTS**



## Michelle Vandevord

### Associate Director

### Sask. First Nation Emergency Management

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- \*Captain for Muskoday Volunteer Fire Dept- 24 years
- \*President of National Indigenous Fire Safety Council
- \*President of PAGC Search, Rescue and Recovery Team

My name is Michelle Vandevord (Day Star Woman) from Muskoday First Nation, Saskatchewan, where I have resided for over 25 years. I'm a mother of three daughters and three sons. I'm also a very proud Kokum to four grandsons. I started volunteering to be a good role model for my daughters and females in my community. It is also to keep my grandmothers and mothers' legacy of volunteering alive in my family.

I 'am the longest serving female firefighter and the first female Captain in my department's history. I'm very proud to be a part of a very active and progressive First Nation Volunteer Fire Department. I have received our Fire Departments Hubert Bear Memorial Award for volunteering which I'm very proud of as it is named after my uncle. I was honored by my community when I received the Fire Service Exemplary Service Medal with my brothers in the pow wow circle.

I 'am currently the Associate Director for Saskatchewan First Nation Emergency Management (SFNEM) in Prince Albert. We provide Fire & Emergency Training, Response & Services to First Nation communities and organizations. It is a very challenging but rewarding job. My team is improving emergency services on-reserve and I'm proud of our success.

On August 15<sup>th</sup>, 2019. I was voted as the Saskatchewan Director for the Aboriginal Firefighters Association of Canada (AFAC) at the Annual General Assembly. I was then voted as President on August 15<sup>th</sup>, 2020. In both positions I'm the first female in the Associations history. I'm proud to be the President at such a historic time as AFAC manages the creation of the National Indigenous Fire Safety Council. The term "for us by us" is something that I have kept close to my heart as we stand up an organization built to support First Nations Safety on-reserve. The new organization is operational and will continue to serve the



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mvandevord@pag  
c.net



needs of First Nations, Metis and Inuit moving forward.

I sit on the Saskatchewan Association of Fire Chiefs Public Education committee, and many others to give a First Nations voice and share the realities of on-reserve fire and emergency services. I also sit on the Saskatoon Emergency Measures Organization working group which is allowing me to make real change for First Nations who are evacuated from their communities and displaced to the city of Saskatoon.

I was very honored to be selected as a recipient of the National Fire Protection Association Rising Star Program which allowed me to travel to San Antonio, Texas in 2019 to attend the National Fire Prevention Conference. On Nov 20<sup>th</sup>, 2019, I was voted a Board Member for the National FireSmart Board a program which I have been actively promoting to all our First Nation communities.

I currently sit on the U of S Think Tank on Emergency Management, AFN Steering Committee on Flood Insurance, SARIDM Advisory Group, SFN EM Technical Working Group, Sk. Provincial Training Standards Committee, Saskatoon EMO, NIFSC TAC Committee, Sk. First Responder Mental Health Committee, Red Cross/PAGC Collaboration Committee, AFAC BOD, to name a few. I was also honored to be selected to sit on the National Steering Committee for AFN and ISC which addressed the Emergency Management Assistance Program Auditor General Report and Recommendations.

My job every day is to support First Nation Fire & Emergency Management training, response, and services on-reserve in Saskatchewan. My team is creating real change and building capacity that has been recognized across Saskatchewan and Canada.

Michelle Vandevord  
Associate Director /Saskatchewan First Nation Emergency Management





## KNOWLEDGE MOBILIZATION LEAD – FUSE CONSULTING LTD.

At [Fuse Consulting](#), our mission is to help solve the most pressing conservation and land management challenges in Canada. We seek out projects that benefit from a balanced approach of collaboration between industry realities, management policy and research best practices. We play a small part in rebalancing ecosystems, developing relationships with and between land management organizations, elevating the voice of Indigenous knowledge keepers and making science sticky.

## EXPERIENCE

In 2007, Matthew and Shelagh Pyper recognized a need to bridge the gap between researchers and decision-makers and have been pursuing this passion ever since. We each began our work in science communication at the University of Alberta - Matthew on the Sustainable Forest Management Network team, and Shelagh as the Outreach Coordinator and Director of an associated not-for-profit with the Faculty of Engineering.

Together, Shelagh and Matthew built Fuse Consulting and are now facilitating and managing several long-term partnerships, like the [Canadian Conservation and Land Management Knowledge Portal](#), the [IPCA Knowledge Basket](#) and the [Alberta Regional Caribou Knowledge Partnership](#).

Our focus is on building a team of talented individuals who are committed to occupying Fuse's niche between knowledge producers and knowledge users. Our team has grown to 17 talented science communicators, facilitators, knowledge mobilization specialists and graphic designers. We have been helping our diverse clients connect knowledge to practice and be true leaders in sustainability for over 10 years.

## VALUES

### INFLUENCE

Through creative approaches, innovative problem solving and exceptional delivery, we will positively influence land use management decisions.

### EXCELLENCE

By committing to excellence, we will produce products and create experiences of superior quality for our clients.

### GROWTH

Through a relentless commitment to personal and professional growth, we will expand our knowledge and talents and strengthen our impact.

### CONNECTION

We foster an inclusive environment where individuals feel safe to show up and embrace their unique strengths, as we appreciate the value of diverse lived experiences to drive innovation, deepen relationships and support our community.





## TRANSFORMING AND ACCELERATING WILDFIRE RESILIENCE TOGETHER

Our approach at Fuse brings focus to a complex challenge and order to the chaos while still holding space for uncomfortable truth and emergent solutions. This concept is called CHAORD and guides the framework of our organization as well as each client project we tackle.

One sector or organization cannot create change on their own, and so our mission of helping address Canada's most pressing challenges has led us to host, build and translate conversations between partners with overlapping objectives in conservation and land management. We foster and maintain in-person and online connections between industry, government, community and research to elevate all knowledge as equal and achieve understanding and change.

Over the past three years our team has built a solid track record of experience in the wildfire space, and we are well established in the forestry and land/resource management sector. This gives us the context and connections to work with and between universities, research groups, forestry companies and Indigenous partners.

We also now have four strong branches of our company and we think the services and tools of three of them will be needed by the Consortium:

- Knowledge Exchange Partnerships - building KE systems (liaising with web developers), partnership development, strategic planning, KE strategy
- Operational Innovation - training, practitioner resources, cross-sector workshops, field tours/land-based learning
- Knowledge Mobilization - infographics, newsletters, fact sheets, synthesis reports

We are thrilled to have been part of the partnership development and visioning for the WRCC to date and look forward to participating in this initiative if/when the application is successful. We have been invited to coordinate the place-based knowledge mobilization networks and would be honored to fill that role, as well as support the leadership and decision-making team with project management, facilitation and strategic advising.

## TEAM BIOS



**SHELAGH PYPER, B.SC.**

**Principal | Director of Knowledge Exchange Partnerships**

Shelagh is an environmental educator, science communicator and experienced project manager. She has a strong understanding of conservation, land management and ecology and over 15 years experience communicating science to the general public and managing large projects. She approaches each document and visual from an educational lens, striving to use plain language, captivating visuals and communication best practices to make concepts stick. She has worked with academic



institutions, non-profits, government and industry to connect knowledge to practice and build trust and understanding across disciplines and sectors. She provides strategic leadership, creativity and an unwavering bravery and optimism to every project she works on.

Her passion is teaching, and she approaches all communications projects from an educational lens. This makes her especially effective at considering the existing knowledge of the reader, what will motivate them to learn more, and how to make the information relevant to their experience. She has managed all kinds of multi-media educational products as well as multi-sector partnerships. She is also a skilled facilitator and enjoys problem solving and public speaking.

Shelagh is a certified facilitator in the Art of Hosting and the Leaders Discipline and a strategic lead and steering committee member for the [Canadian Conservation and Land Management](#) knowledge network.



**MATTHEW PYPER, M.SC., B.S.C. HONS.**

**Principal | Director of Operational Innovation**

Matthew is an ecologist and facilitator whose work is focused on connecting ecological knowledge to policy and practice in the fields of forestry, conservation biology and sustainability. Matthew's in-depth knowledge about current research, policy and applications have helped him establish a solid reputation with his clients. Matthew brings a creative, dynamic approach to facilitation and is trained in the methods and techniques of the Art of Hosting. He leverages these tools and techniques to bring a strong foundation related to working in complexity to realize strategic and on-the-ground progress with his clients.

Matthew can often be found coaching his children's soccer teams, exploring the beautiful landscapes of the Shuswap, and serving as a 'training opponent (i.e., punching bag)' for his son who is an aspiring karate and kick boxer.



**KATE BROADLEY, M.SC., B.S.C.**

**Director of Research Mobilization**

Kate uses her scientific expertise to produce high-level syntheses of complex information. In addition to writing, she creates visual communication tools such as infographics, figures, and other illustrations.

Kate strives to deliver information in ways that are accurate, impactful, and beautiful. This passion comes from her long-standing interests in both science and art which she has fostered over the course of her career. Alongside her research experience, Kate developed her outreach and communication skills working for organizations like the Bamfield Marine





Sciences Centre and Alberta Parks. With each new communication challenge, she has honed her ability to tailor her message to her audience and keep them engaged. Kate uses her skills as a visual artist to create engaging graphics using a combination of drawing, painting, and digital media.

Kate completed an M.Sc. in Ecology at the University of Alberta supervised by Dr. Stan Boutin and Dr. Cole Burton. She holds a B.Sc (Hons) in Evolutionary Biology from the University of British Columbia.

## APPROACH

While all situations we facilitate are unique, we also know that each situation benefits from similar structures and processes to enable groups to thrive. A few of the core things you could expect from our team include:

- **A focus on trust and relationships:** We know the most important foundation for building lasting, impactful initiatives is a foundation of trust and respect. We introduce steps into our process to ensure people can connect at a deeper level, providing opportunities to build trust and relationships.
- **Alignment around a vision:** Groups have the best opportunity to thrive when they are clear on their motivation (the why), the steps they can take and tools they can leverage (the how) and the outcomes they want to achieve (the what). We work with groups early in the process to build the why, how, and what in a collaborative way. When participants see their own ideas coming to life, it motivates them to further engage and contribute to the process.
- **Leveraging Chaordic stepping stones:** Our process involves working through the Chaordic stepping stones, a series of key steps that help clarify the purpose and motivation of each stage of work. The process also provides a brave space to speak openly and frankly about the people required to achieve the goals, the structures required to keep momentum going, and the potential realities and relationships that might result in tension or added complexity in conversations.
- **Fun, creative approaches:** Experience has shown us that talented individuals thrive in an environment where they feel highly engaged and where the process feels fun and intentional. Our workshops, in particular, are designed to get people moving, thinking, and building towards ambitious future goals.

## CLOSURE

We believe the WRCC's application for the Wildfire COE funding will be successful, thanks to the hard work, existing relationships and strong reputation of the proponents and foundational partners. As a contributing thought leader and author on the application we sincerely believe in the power of this team and the strength of this proposed structure and hope we will have the opportunity to work alongside this amazing group on this important project for many years to come.

Shelagh Pyper, B.Sc. Principal, Fuse Consulting Ltd.