



From left to right: Chief Aaron Sumexheltza, Chief Jordan Joe, Minister of Indigenous Relations and Reconciliation Scott Fraser, Chief Harvey McLeod, Chief Marcel Shackelly, and Chief Lee Spahan. Nicola Valley's five First Nation bands, in partnership with the Government of B.C., made waves by signing the Nicola watershed pilot memorandum of understanding (MOU) on March 23, 2018.

Photo: David Thompson

The New Normal

Water, water everywhere, then nowhere to be seen.

BY ROSIE SIMMS, LAURA BRANDES, AND OLIVER M. BRANDES

IT HAS BEEN a roller-coaster year of freshwater extremes in Canada, with droughts and floods of historic proportions taking hold in turns across the country. Severe summer heat and drought conditions hit the Prairies this summer, and earlier in the year widespread flooding swept across the East Coast.

Conditions in British Columbia (B.C.) were particularly unstable. Spring flooding left entire communities under water and forced thousands to evacuate their homes in towns, cities, and First Nations communities across the province. Mere weeks after communities dealt with flooding wreckage, the province flipped into summer drought, with more than 500 fires raging through dry forests. By mid-August, Eastern Vancouver Island was in Level 4 drought. Only 10 days later, the Northeast, Northwest, Stikine, Skeena-Nass, and all of Vancouver Island reached this code-red drought level. The Northwest remained in Level 4 drought into October—an unprecedented situation with troubling implications for salmon and watershed health.

The consequences of drought in B.C.—and across Canada—are wide-ranging.

Warm water temperatures put additional stress on salmon during their migration to spawn, fire-ravaged watersheds may not be reliable sources of clean drinking water, and the economic fallout from drought is also increasingly apparent. This summer, water shortages threatened operations at the Mount Milligan copper mine in central B.C. The Oil and Gas Commission required industry to suspend all previously approved water diversions in several waterways within B.C.'s Peace and Liard River watersheds. Hot and dry conditions resulted in rising costs and production issues for farmers across the country. And in Vancouver Island's Cowichan Lake area, volunteers from the Lake Cowichan First Nation, and local stewardship groups walked dry creek-beds rescuing stranded fish fry.

As climate change takes hold, unpredictable, and extreme conditions will be the new normal for Canada. We must ask then: How can we be better prepared to deal with the escalating freshwater challenges at our doorstep?

Legal tools to prepare for challenges

Canadian governments all levels—from

federal to local—must use their best available tools to protect fresh water and ensure ecosystems and communities are resilient in the face of increasing threats to water security.

In B.C., one important source of water sustainability and security tools is the *Water Sustainability Act* (WSA). While the Act provides a suite of different mechanisms to protect fresh water, most of these have yet to be deployed. As such, uncertainty persists around how the WSA's sustainability and planning features will be triggered and used, how local communities can be involved, and how implementation will be supported and resourced.

Recent research from the POLIS Water Sustainability Project, based at the University of Victoria's Centre for Global Studies, highlights the ways in which the WSA can be leveraged to address freshwater issues, and how communities and watershed entities can be involved. This includes, for example, protecting environmental flows in rivers and streams, and implementing region- or watershed-specific water sustainability plans.

Importantly, the provincial government

cannot do it alone. Active roles must exist for Indigenous nations (such as government-to-government forums), communities, watershed entities, and water users to craft the necessary mix of solutions to address specific regional water issues. Ultimately, the mix of mechanisms deployed will depend on the local context: the nature of the water/watershed problems, local history, economic development priorities, and the role of Indigenous laws and authority in their traditional territories.

Making history in Nicola Valley

Both Canada and the B.C. provincial government have made strong commitments to reconciliation as part of their mandates (including implementing the United Nations Declaration on the Rights of Indigenous Peoples and the Truth and Reconciliation Commission Calls to Action). Working in government-to-government forums with Indigenous nations on watershed sustainability and resilience is a critical aspect of reconciliation that is beginning to unfold in B.C. The Nicola watershed—which has experienced both spring flooding and extremely low summer flows in recent years—is a focal point of current government-to-government freshwater efforts in B.C.

On March 23, 2018, history was made when five Nicola First Nations and the Government of British Columbia co-signed a Nicola watershed pilot memorandum of understanding (MOU). This innovative project will promote the co-leadership of water resources by the Province and the Nicola First Nations with an overarching goal of sustainable management and improved health of the Nicola watershed.

The MOU sets out the parties' shared commitment to work together in partnership to address watershed issues, with agreement that watershed planning, decision-making, and management must be informed by Indigenous knowledge and best available science, and shaped by Indigenous laws and the WSA.

While the Nicola example is a promising step, more is needed. Many other watersheds are facing urgent

water issues, and without political leadership and resources for government staff, Indigenous nations, and local communities to be involved, further progress will be limited.

Moving forward

While B.C. is now equipped with a modern provincial water law, the same cannot be said about the situation federally. Most of Canada's federal laws and policies date back to the 1980s. Modernizing federal legislation, with a stronger and more coordinated federal role in freshwater management and governance, is a necessary step forward if we are to successfully meet the water challenges and realities of the 21st century.

Moving from today's status quo to a more robust and sustainable system will require significant effort, but the urgency is clear. Major droughts and floods are no longer surprise, once-in-a-decade events. These extremes will be a regular part of our collective future. Using the best tools available to help communities prepare for and adapt to this new reality must be a priority for Canada—from coast to coast to coast.

No one silver bullet solution exists, but rather a suite of approaches is needed: implementing drought and climate resiliency strategies that protect water for nature; better integration of water and land use; and embracing water conservation as an overarching objective, with adequate water pricing and monitoring. Overall, many sources of authority and expertise, as well as creativity and innovation—both Indigenous and non-Indigenous—will be needed to create a resilient and sustainable water future in this country. *wc*



Rosie Simms is a researcher and project manager with University of Victoria's POLIS Water Sustainability Project. Laura Brandes is the communications director at the POLIS Water Sustainability Project. Oliver M. Brandes is the associate director at the University of Victoria's Centre for Global Studies and serves as co-director of the POLIS Project on Ecological Governance.