

Advancing Freshwater Management in Alberta

Submission to the House of Commons
Standing Committee on Environment and Sustainable Development

June 11, 2021



Executive Summary

Watershed management in Alberta has a long history of involving multiple sectors and levels of government. After the release of the Water for Life Strategy by the Government of Alberta in 2003, eleven independent organizations were designated as Watershed Planning and Advisory Councils (WPACs). Alberta's watershed councils act as hubs of watershed management in the eleven major river basins of Alberta, reaching thousands of partners from across sectors.

Eight WPACs are signatories to this submission, with the goal of contributing to a pan-Canadian dialogue on freshwater management and identifying opportunities to strengthen place-based watershed management. While perspectives may vary across our diverse memberships, we invite the House of Commons Standing Committee on Environment and Sustainable Development to consider that a new Canada Water Agency will need a clear and focused purpose, with achievable outcomes and deliverables. The Agency will need to:

- Respect jurisdiction and constitutional authority over water;
- Strengthen and leverage local and regional networks involved in watershed management;
- Ensure any proposed changes to freshwater governance are transparent and consider impacts to all sectors;
- Create efficiencies and synergies within areas of federal responsibility; and
- Focus on data dissemination and knowledge sharing.

We acknowledge that intersecting risks are poised to reshape watershed management in the 21st century, and all partners must work together to find solutions. We welcome the federal government's effort to explore opportunities to modernize freshwater management, while emphasizing the need to work together and to build on successful work done at local and regional scales. Please consider our full response to the freshwater study in the following pages, which brings together input from multiple watershed councils and sectors.

Dear House of Commons Standing Committee on Environment and Sustainable Development,

Thank you for taking on the important task of studying freshwater management in Canada, and how to improve it. We appreciate the opportunity to provide our insight, and trust it will be valuable to you.

There are eleven [Watershed Planning and Advisory Councils](#) (WPACs) across the province of Alberta, representing each major river basin. We are independent nonprofit organizations designated by the Government of Alberta to support provincial watershed management, report on watershed health, and facilitate collaborative planning, education, and stewardship. At our core, we are a forum for all stakeholders and thus, have relationships with many sectors and partners, including the Government of Alberta, First Nations, Métis, municipalities, academia, conservation organizations, and numerous types of industry. We have over 3000 members across Alberta.

We surveyed our partners to respond to these questions and are providing one response on behalf of our thousands of members and supporters. We had nearly 100 people directly involved in the writing and reviewing of this submission, each respondent with years of valuable insight and experience, and each speaking on behalf of their own large network. Recognizing that WPACs are multi-sector organizations, we also take care in the sections below to identify areas where perspectives across sectors may differ, in which case there is a need for ongoing dialogue and engagement with the federal government and key sectors.

1. Introductory information

a) Which issues related to protecting and managing freshwater does your organization work on?

Alberta's watershed councils work with our partners on many issues related to freshwater—we are the hub for watershed management. Our work falls into four broad categories: convening and collaboration, policy and planning, education and outreach, and monitoring and assessment. We work collaboratively with land managers, water users, and decision makers on projects that maintain and improve water quality, water quantity, and aquatic ecosystems through engagement and education programs that facilitate change, and through the direct restoration of our natural ecosystems. We deeply value the collegial partnerships we have formed in Alberta and acknowledge long-standing support from the provincial government, municipalities, industry, stewardship groups, and many other partners.

You can find us in a creek taking samples of bottom dwelling bugs, on a lake with a group of anglers talking about how to preserve fish populations, or in a boardroom advising governments about the importance of protecting headwater ecosystems, like the Rocky Mountains. We are in small villages and towns, on farms and ranches, and in big cities because we all depend on freshwater, and we all have a role to play in protecting it. We know that local solutions are best, and we facilitate those solutions to take root in our communities. We have a proven track record of influencing government decision-making, using the best available science and planning grounded in local contexts.

2. Interaction and collaboration with federal departments and agencies

a) Does your organization interact with federal departments and/or agencies on freshwater issues? If so, on which issues and with which departments and/or agencies?

Yes, Alberta's watershed councils interact with multiple federal departments on many freshwater issues, as outlined below. Some WPACs have dedicated seat(s) on their Board of Directors for a federal perspective, however there can be vacancies because of a limited federal presence in different watersheds.

- Agriculture and Agri-Food Canada: Working together on research projects, sharing research results and publicizing best practices to our members, lab analysis, seeking expertise from research scientists.

- Department of National Defence: Representatives serve on various WPAC committees.
- Environment and Climate Change Canada: Receive grants for monitoring and species at risk habitat restoration, work with federal [Canadian Aquatic Biomonitoring Network](#) (CABIN) staff on community based monitoring projects.
- Fisheries and Oceans Canada: Receive grants and seek permits for habitat restoration projects, provide feedback on recovery strategies/plans for species at risk, provide feedback on legislation and policy.
- Health Canada: Refer to drinking water guidelines to educate members about acceptable levels of substances and potential health impacts.
- Impact Assessment Agency of Canada: Provide expertise to Joint Review Panels on topics such as coal mines or water storage reservoirs, collaborate in development of regional water management plans to monitor and mitigate impacts of development projects.
- Natural Resources Canada: Seek grants for restoration projects.
- Parks Canada: Work with federal Canadian Aquatic Biomonitoring Network (CABIN) staff on community-based monitoring projects, work together on habitat restoration projects.
- Water Survey of Canada: Provides flow measurements, an essential service in the science of watershed management, and flood and drought assessment.
- Western Economic Diversification Canada: Participate in their prairie forums.

b) Do the specific freshwater issues targeted by your organization fit within the mandate of a given federal department and/or agency or do they relate to more than one department and/or agency? If more than one, have you been able to identify a lead department and/or agency with which to engage?

Our freshwater-based initiatives usually relate to several departments, with Fisheries and Oceans Canada being the department most aligned with our initiatives. However, we have experienced barriers relating to identification of lead agencies on particular aspects of various initiatives. Most of these barriers relate to locating and accessing the appropriate contact(s) who are able to assist as well as long response times. For example, the closure of Fisheries and Oceans Canada offices throughout Alberta several years ago increased the difficulty and complexity of receiving timely responses to inquiries.

c) Have you encountered notable successes in engaging with the federal government on freshwater issues? If so, please specify. If you have not had success in doing so, what in your opinion is the reason (e.g., no program available tailored to your needs, no identifiable service or unit within a department and/or agency with which to engage)?

Engagement with the federal government on freshwater issues has been mixed. Some groups have had success in working with Agriculture and Agri-Food Canada on research and education projects related to beneficial management practices for agricultural producers. Others have had successful collaborations with Fisheries and Oceans Canada to protect species at risk, and facilitate permitting for water-based initiatives. Environment and Climate Change Canada has been supportive of establishing the Eastern Slopes Collaborative to facilitate using the Canadian Aquatic Biomonitoring Network in Alberta. Environment and Climate Change Canada, Fisheries and Oceans Canada, Impact Assessment Agency

of Canada, and Parks Canada each lead or support specific projects in Alberta, such as oil sands monitoring or reviewing development proposals, where we provide input to them. The recent public hearings held by the Impact Assessment Agency of Canada about the Grassy Mountain Coal Project are an example of a successful process where local experts and knowledgeable stakeholders were allowed to participate in a meaningful way.

The challenges likely stem from a lack of local federal staff focused on freshwater issues in most communities— they no longer have a local DFO or ECCC office, as they used to. In centralized locations where federal staff are located, they seem to have limited capacity and internal support to engage meaningfully with watershed councils. Where federal staff and resources exist, they are willing to provide expertise and information to us, and their participation is valued.

Often it is unclear what federal agency and/or provincial departments have responsibility and why specific decisions are being made, including the decision not to act. The difficulty to access and engage with appropriate contacts in a timely fashion, and sometimes the lack of direction on federal government websites, creates a gap in knowledge and responsibility that sometimes has to be filled by other organizations.

While Canada benefits from a robust regulatory system for the management of freshwater that leverages the division of powers between the federal and provincial governments, there could be additional clarity on the roles and responsibilities, and an effort to find efficiencies, and avoid potential duplication. Government departments need to be confident in their mandate and jurisdiction to support decision-making while accounting for environmental, cultural, social, and economic factors.

d) Do you foresee engaging with the new Canada Water Agency? If so, in what way? What are your organization's expectations with respect to the Agency?

Watershed councils and our partners would like to engage with the new Canada Water Agency to develop a collaborative relationship based on advancing our shared goal of improving watershed health. Our expectation is that the agency's top priority would be protecting water, and that its role, goals and objectives would be very clear and plainly distinct from other government agencies.

We are expecting to work in a participatory and collaborative fashion, and we anticipate the agency will: 1) have and maintain local representation; 2) collaborate with local partners; 3) respect and consider local recommendations; 4) provide timely access to data and resources relevant to local issues; and 5) act in an efficient and timely fashion to protect water. We also anticipate that the agency will take action where federal leadership is needed.

We foresee the Canada Water Agency having a critical role in Indigenous water governance and ecological reconciliation, interprovincial and international watershed management, and climate change adaptation and resilience.

Prior to establishing a new agency, the federal government should review and identify opportunities for its freshwater management objectives to be met through existing public organizations, including through consolidation among the 20 federal departments with responsibilities for water management. If a new Canada Water Agency is created, it needs a clear and focused purpose with achievable outcomes and deliverables. The Agency will need to:

- Respect jurisdiction and constitutional authority over water;
- Ensure any proposed changes to freshwater governance be transparent and consider impacts to all sectors;
- Create efficiencies and synergies within areas of federal responsibility;
- Strengthen and leverage local and regional networks involved in watershed management; and,
- Focus on data dissemination and knowledge sharing.

Canada's freshwater is facing increasing pressure, and the new agency is an opportunity to offer a modern, collaborative response, based on both Indigenous traditional knowledge and western science.

The Alberta Water Council, a collaborative forum for provincial policy discussion, recently completed a risk assessment of Alberta's water management system and found that the top four risks are climate change, economic and population growth, inadequate governance, and knowledge gaps. The new Canada Water Agency could be instrumental in helping address these risks, alongside local, collaborative organizations like watershed councils in Alberta.

3. Federal water legislation, policies and regulations

a) Does your organization interact with federal departments and/or agencies on policies, legislation, regulations, or funding programs related to freshwater? If so, please specify.

We provide input to public consultation processes, at public hearings, and directly to federal staff. For example, one WPAC presented at the public hearing held by the Impact Assessment Agency of Canada for the Grassy Mountain Coal Project. We review and provide input to draft documents such as species at risk recovery plans or park management plans.

Many watershed councils receive funding from one or more federal grants, including the Habitat Stewardship Program for Species at Risk, EcoAction, Environmental Damages Fund, and the Canadian Agricultural Adaptation Program.

Legislation we interact with includes the *Fisheries Act*, *Species at Risk Act*, *Impact Assessment Act*, and *Canadian Environmental Protection Act*.

b) Can you identify any current gaps in federal water legislation, policies, regulations, and/or initiatives, or in general across jurisdictions? If so, please specify.

Our survey respondents identified several gaps, although the degree to which various sectors support different items varies. Some of the key gaps identified to date include (in no order of priority):

1. The *Canada Water Act*, as Canada's primary freshwater legislation, has not been modernized since the 1970s and has not had sustained funding to support the implementation of key priorities for many years. There is a distinct need to modernize the *Canada Water Act* to provide an updated framework for freshwater management. Likewise, there is a need to update regulations for freshwater habitat protections under the renewed *Fisheries Act*, which require modernization and more enforcement to fulfill their mandate to protect water, fish, and fish habitat.
2. There is a lack of federal involvement in interprovincial and international transboundary watershed management initiatives. Regional efforts are underway, led by watershed councils and with support from municipalities, provinces and others, but more engagement is required from the federal government.
3. A lack of ecosystems accounting in Canada. This gap results in incomplete, inaccurate and inappropriately weighted environmental and socio-economic information required by decision makers, which can result in ill-balanced decisions and unintended negative consequences. This year the United Nations adopted the [System of Environmental Economic Accounting](#) to provide consistency across countries. Canada should be a leader in this initiative and improve the way we value nature.
4. There is a lack of effective and consistent cumulative effects management, and decisions continue to be made on a one-off basis without full consideration of cumulative effects and impacts on ecosystem services. Cumulative effects assessments, and an evaluation of impacts to ecosystem services are needed, and should be required as part of impact assessments. Currently the focus is on habitat alteration, which does not capture the full impact.

5. Federal regulations dictating when a federal Impact Assessment is required for coal mining projects appear to be arbitrarily based on coal production rates, and don't take into account important criteria such as federally listed species at risk, headwater ecosystems that support interprovincial rivers, or locations near national parks or provincial boundaries.
6. Since the Fisheries Act changed in 2012, there have been deficiencies in enforcement, monitoring and education by the federal government, and a lack in the overall presence of Fisheries and Oceans Canada. There is also a sense that federal regulations have been inconsistently applied, and the role and authority of Fisheries and Oceans Canada has become ambiguous. As previously mentioned, the closures of offices in Alberta have made it more difficult for timely access and participation from appropriate staff working on regional issues. Also, efforts should be made to make published information on departmental processes more accessible.
7. It is unclear how decisions are made about whether an impact assessment/review of projects with water/watershed implications is required, prior to the announcement of funding agreements by the Canada Infrastructure Bank.
8. There is a need for better policy coordination and information sharing between all levels of government (federal, provincial, and municipal) on flood management/mitigation that is informed by more comprehensive and updated flood hazard mapping for various sized flood events. Clarity is needed around limitations on development in floodplains and flood fringes.
9. Current environmental legislation and regulations do not appear to be protecting some ecosystems as well as they were intended—we continue to see a slow decline in environmental health from cumulative effects. Solutions and innovation are required to protect ecosystem functions and services, and to support sustainable development.
10. It is challenging to manage a waterbody with multiple jurisdictions involved, each with its own rules and processes. Many water bodies fall into provincial jurisdiction but fish and fish habitat are managed federally, and the surrounding land is likely managed by either the municipal or provincial government. Adding to this complexity, the boundaries between water and land are not stable because water bodies move and change. Clarity and support are needed to encourage improved management by all jurisdictions involved.
11. Water and land are sometimes treated as separate entities, while in fact they are closely related. Legislation and policy should appropriately reflect these connections and interdependencies across scales.
12. Canadian Council of Ministers of the Environment water quality guidelines are needed for all contaminants affecting the protection of aquatic life. The CCME could be better leveraged to pursue its objectives with respect to freshwater management.
13. There are gaps in monitoring, assessment, and timely reporting of nonpoint source pollution.
14. More proactive actions to manage invasive species and disease are needed.
15. There is a gap in forest research to understand the relationships between soil moisture, water uptake, and atmospheric flux, especially in areas with large wetland complexes.

c) Do you feel the federal government could play a more effective role in protecting watersheds in Canada? If so, which watersheds and how?

We would like the opportunity to increase engagement and collaboration with the federal government on shared goals and opportunities within Alberta's watersheds, while recognizing existing jurisdictional agreements. In order to be effective, you have to be present, have trusting relationships and a clear mandate, and be willing to act upon local, collaborative decisions. While the federal government should prioritize management of transboundary watersheds, the provinces and territories need to continue to take a lead role in the management of watersheds that lie solely within their boundaries.

Resources are scarce for all roles (monitoring, planning, restoration, education, research, etc.) and adding federal capacity to support existing initiatives would be welcome. Non-profit organizations like watershed councils are stretched to the limit and are taking on more and more work as governments reduce budgets.

The federal government could help dramatically by providing stability and consistency across provinces and territories. Long-term, stable funding for watershed councils and similar groups would provide a solid foundation to build from, and would provide the highest return on investment because we have already done the hard work of building trusting relationships over long periods of time. We know our watersheds and our communities. With additional stability and support, we could have a bigger impact.

All watersheds have communities that rely on them and need attention. The [WWF-Canada Watershed Reports](#) could provide a starting point to identify watersheds at highest risk.

The federal government would be more effective if it administered and enforced the laws within its jurisdiction in a clear and consistent manner so that everyone knew what to expect.

d) Are there areas of freshwater policy, legislation and/or regulation where you feel the federal government should play a greater role?

Through our survey, our stakeholders in Alberta identified the following areas where the federal government could play a greater role, but again, support for each role varies by sector:

1. While Canada's federal system has delegated many areas of responsibility to the provinces, and while various provinces have their own watershed stewardship policies or initiatives, the Government of Canada can play a role by ensuring that watershed stewardship is established as a goal for all provinces to work towards, and by establishing minimum standards that all provinces must meet. For example, a collaborative National Watershed Stewardship Strategy should be developed in partnership with all stakeholders, with clear outcomes that are tracked over time.
2. Valuing nature and using ecosystems accounting in our budgets and financial systems so that we can clearly see the costs and benefits of our choices.
3. Invest more broadly in community-based monitoring programs that are filling important data gaps.
4. Additional support for local organizations and provinces/territories to protect and restore biodiversity in collaboration with all sectors, starting with high value ecosystems like wetlands and grasslands, and at-risk species, like native trout.
5. Collating data, monitoring and sharing information about high priority ecosystems, fish and wildlife habitat and health because many species cross provincial boundaries.
6. Additional local capacity to administer and enforce federal legislation.
7. Developing criteria based on environmental factors for when federal review of Environmental Impact Assessments is required for large developments that pose higher risks to freshwater. For coal projects, for example, the threshold that triggers a federal EIA appears to be arbitrarily based on a coal production rate, and not based on a set of clear criteria that is tied to the potential environmental impact.
8. Monitoring and enforcement for large developments that pose higher risks to freshwater. The federal government's role should be to ensure there is a robust and consistent bar to meet across Canada.
9. Water quality and quantity concerns that cross interprovincial or international boundaries.
10. Cumulative effects assessments and management plans for watersheds that cross provincial or international boundaries, starting in watersheds at high risk.

11. Better oversight of water quality monitoring and enforcement by provinces, particularly where waterways cross interjurisdictional boundaries. Need active management to avoid situations like in Elk River, British Columbia, where selenium contamination from coal mines has travelled far downstream and into the USA.
12. Supporting the monitoring and management of air pollution that is affecting freshwater across provincial/territorial/international boundaries.
13. Scientific research into high priority issues, and sharing information with local stakeholders.
14. Monitor and report on long term water flows from glaciers that are important across boundaries (Columbia, Athabasca, Saskatchewan).
15. Define international inter-basin water transfers within a policy that recognizes that they are important to local communities.
16. Complete the Milk River Basin and Mackenzie River Basin transboundary bilateral agreements.
17. Develop policy and actions to protect riparian areas on federal lands.
18. Assess and minimize development on flood plains that are impacting alluvial aquifers that often cross provincial or international jurisdictions.

e) Are there areas of freshwater policy, legislation and/or regulation that you feel the federal government should vacate and leave to another level of government or to the private sector?

No. We see a critical role for the federal government that cannot be replaced. However, it is critical that the federal government respect the jurisdictions of Indigenous, provincial and territorial governments, and focus on clear areas of federal responsibility to avoid inhibiting or duplicating efforts led by other levels of government.

f) Are you aware of instances where federal freshwater policy, legislation, regulations, and/or initiatives have clearly benefited from your organization's input?

Yes. Our organizations have clearly benefited multiple federal initiatives:

1. The listing/delisting of species at risk.
2. Species at risk recovery strategies.
3. Contributing data to the Canadian Aquatic Biomonitoring Network.
4. Impact Assessment Agency review processes.
5. Preventing invasive species from crossing provincial borders.
6. Improved habitat connectivity across borders.
7. Improved monitoring and reporting of water use by all sectors to the International Joint Commission during a water infrastructure failure that impacted communities in Southern Alberta.

4. Collection of information and data

a) Do you believe that there is sufficient data collected and made available publicly about freshwater in Canada?

No. Many watershed assessments have identified data gaps, such as the WWF-Canada Watershed Reports and our own local State of the Watershed Reports.

Mainstem rivers are generally monitored in Alberta, but monitoring for tributaries and groundwater is often inadequate to assess health or see trends at various watershed scales. Where data is collected, it is often not shared in ways that are easily understandable for most Canadians. Canadians have questions like "is it safe to swim?", "Can I eat fish that I catch?", "is there lead in my tap water?", and this information is not readily available.

Indigenous knowledge, when shared with appropriate protocols, would also provide valuable insights.

A lot of data is collected by various sectors to meet regulatory requirements but this data has various levels of quality control and is not stored, analyzed, or accessible in a way that is useful for environmental monitoring or reporting.

Community based monitoring is filling these gaps but many of these monitoring programs are short term or unstable. Federal government investment in community-based monitoring is essential.

b) Do you believe there should be improvement in freshwater-related data-sharing?

Yes. Data collection, quality control and sharing is needed. There are some positive examples, like the Canadian Aquatic Biomonitoring Network, that are working well and can be used as a starting point.

Timely access to data is vital to groups like ours who are using it to complete watershed assessments, and education. We have had instances where it can take over a year to be provided validated data from various federal groups.

c) Is there any specific type of data or information you would like the federal government to provide to freshwater stakeholders?

Yes. Our stakeholders need all types of validated freshwater data and information, which we use in our own reports and projects. The federal government could assist by consolidating existing data and ensuring timely access to help set priorities. There are gaps in watershed monitoring as noted above, and federal government support to fill these gaps is needed. A one-stop-shop for environmental information would be invaluable, where information is shared in plain language and data can be downloaded easily.

The federal government could assist with developing collaborations with Indigenous Peoples to gather and share traditional ecological knowledge in a way that respects their right to confidentiality, and intellectual property.

d) Has your organization experienced challenges obtaining well-organized data from the federal government on issues relating to freshwater?

Yes. We have had instances where it can take six months to over a year to receive validated data from some federal groups. There are also many data gaps where the federal government is not able to provide any information for a given water body.

e) Is the lack of standardized data or information across government jurisdictions a problem or challenge for your organization in accomplishing its objectives with respect to protecting and managing freshwater?

Yes. There are many challenges stemming from the lack of standardization, difficulty in knowing where to get information, and extended wait times to receive validated data.

5. International and business issues

a) Should Canada play a greater role internationally in helping find solutions, either through government and/or the private-sector involvement, to the challenge of global freshwater security?

Yes. Canada has some of the largest reserves of freshwater in the world, and should be a leader on the international level to find solutions, and protect Canada's water supply from international pressures. To demonstrate our leadership, we must find solutions to domestic problems as well such as clean, reliable water for all Indigenous communities.

Canada can also play a leadership role by becoming a role model for sustainable watershed management that respects our Treaties, and international agreements. Currently many of our watersheds are facing high risks and some are unhealthy, as we see in the WWF-Canada Watershed Reports, and our own State of the Watershed Reports. The

watershed management system must improve or we will continue to see a slow decline in the health of our water, land and biodiversity.

b) Do you feel Canadian private-sector companies, including financial institutions, can and should play a role internationally?

More discussion is needed on this topic. There are ethical questions here that require a fulsome discussion with experts.

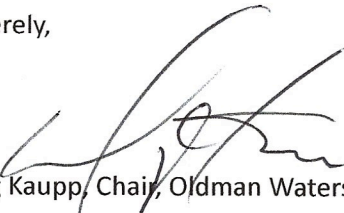
c) What role can the federal government play in better supporting freshwater-related academic research, R&D, businesses, products, and services?

The federal government can play the following roles:

1. Ensure there is stable, long term funding, and continue funding mechanisms that already exist (CABIN, EcoAction, Canada Research Chairs, NSERC, SSHRC, etc).
2. Coordinate a process to identify and prioritize needs across regions in collaboration with all stakeholders.
3. Encourage experts to speak up and share their research without fear of reprisals.
4. Invest in applied research and partnerships that focus on timely and practical solutions to regional issues.
5. Mobilize and facilitate widespread collaboration to communicate and solve urgent issues, similar to how many people were activated to tackle the pandemic.

Thank you for considering the perspectives included in this submission. Watershed management requires meaningful dialogue with multiple stakeholders, and we appreciate the opportunity to engage with the federal government on this important issue. If you have any further questions we would be happy to answer them. Please contact Shannon Frank, Executive Director of the Oldman Watershed Council, at 403-317-1328 or shannon@oldmanwatershed.ca to coordinate a meeting.

Sincerely,



Doug Kaupp, Chair, Oldman Watershed Council, on behalf of:

Josée Méthot, Executive Director, Red Deer River Watershed Alliance

Leah Kongsrude, Executive Director, North Saskatchewan Watershed Alliance

Mike Murray, Executive Director, Bow River Basin Council

Meghan Payne, Executive Director, Lesser Slave Watershed Council

Marilou Montemayor, Executive Director, South East Alberta Watershed Alliance

Tricia B. Fleming, LICA-Environmental Stewards (Beaver River Watershed)

Rhonda Clarke-Gauthier, Executive Director, Mighty Peace Watershed Alliance

CC. Minister Jim Carr, Special Representative for the Prairies