



ALBERTA CHAMBER OF RESOURCES

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TO: The House of Commons Standing Committee on Environment and Sustainable Development
c/o Angela Crandall, Clerk of the Standing Committee on Environment and Sustainable Development
ENVI@parl.gc.ca

FROM: The Alberta Chamber of Resources

RE: Brief related to freshwater in Canada

The following response represents the initial views of the Alberta Chamber of Resources (ACR) on the Standing Committee on Environment and Sustainable Development's effort to undertake a comprehensive study of federal policies and legislation related to freshwater.

The ACR is a unique, multi-sectoral business association that represents most elements of the value chain of the resource industry in Alberta. Our [members](#) come from mining, power generation and transmission, agriculture, pipelines, oil and gas, forestry, transportation, minerals, and the significant service and innovation sector that supports them.

Our resource sector participants recognize they have an important role to play in water management in Alberta and they take that responsibility seriously. Our members are heavily involved in water data management reporting for operational use, collaborative watershed planning, and compliance purposes. We believe careful water management is critical to responsible resource development.

The comments outlined in this document will focus primarily on the collection and management of data, but we have provided responses to all questions to assist you in understanding the ACR's perspective. Thank you for the opportunity to participate in this important study. We look forward to continuing the discussion.

Sincerely,

P. Kim Sturgess, C.M., DSc., LLD, MBA, P.Eng., FCAE
President
Alberta Chamber of Resources



Briefing on Freshwater:
Alberta Chamber of Resources Comments on the study on freshwater undertaken by the House of Commons
Standing Committee on Environmental and Sustainable Development

Collaboration and engagement key to reducing duplication

Members of the ACR generally engage with the following federal departments and agencies in relation to freshwater management: Canadian Northern Economic Development Agency, Environment and Climate Change Canada, Crown-Indigenous Relations and Northern Affairs Canada, Natural Resources Canada, Agriculture and Agri-Food Canada, Department of Fisheries and Oceans, the Impact Assessment Agency, and the Canadian Energy Regulator.

Members anticipate engaging with the new Canada Water Agency (CWA) once formed. Depending on the structure of the CWA, engagement could take place in the areas of data gathering and contribution, sharing best practices, coordinating watershed strategies across basins that flow through jurisdictions, and incorporating Indigenous interests.

The ACR believes collaboration between the federal and provincial governments is possible while still respecting provincial jurisdiction on freshwater regulation as per the Canada Water Act. One example of collaboration to explore is with Aquatic Invasive Species.

ACR member example: Suggested future collaboration between provincial and federal governments

A situation where respectful collaboration between the federal and provincial governments is necessary is the control of Aquatic Invasive Species, which pose an enormous threat to irrigation infrastructure and ecosystem biodiversity. The federal government has the opportunity to regulate or fund mandatory watercraft decontamination upon egress in areas where high risk Aquatic Invasive Species, like invasive mussels, have established (i.e. Eastern Canada). Inspection gaps at international borders must also be resolved and recent evidence of imported Moss Balls infested with invasive dreissenid mussels demonstrates the need for more action to be taken.

Roles & responsibilities: Regional regulation, private sector, federal government

The ACR believes interprovincial relationships, interjurisdictional relationships, freshwater allocation, and relationships with Indigenous peoples are best left to the governance of the provinces in which they occur. Regional water stakeholders understand and manage the relationship with water with a level of detail that would be difficult, if not impossible, to do well in a nationally centralized model.

Regional oversight does, and should not, preclude close collaboration with all levels of government to seek out continuous improvement opportunities and sharing to improve decision-making for everyone.

The ACR believes that the Canadian private sector has the potential to play an even greater role in finding solutions to global freshwater security. At a minimum, that could be executed by sharing best practices across international operations.

ACR member example: Interprovincial water security study contribution by private sector

Prairie Prosperity: A Vision for the Management of Water Resources across Saskatchewan and the Prairies was released by Western Economic Diversification Canada (WD) in 2020 and sought to consider the feasibility of potential irrigation and water infrastructure projects in the Canadian Prairies. In support of this effort, WaterSMART Solutions, in partnership with WD, led workshops across the Prairie provinces where water management challenges, opportunities and priorities were discussed. Through WaterSMART's work, common freshwater challenges from the three provinces were determined, which identified key considerations for water management coordination and collaboration.

The federal government could support freshwater-related academic research, R&D, businesses, products, and services in the following ways:

1. Improve fiscal support for businesses and R&D for freshwater projects and technology
2. Support the creation of regional innovation hubs
3. Support collaborative opportunities between freshwater-related academia, R&D, and businesses
4. Provide reliable and consistent data on freshwater across the country

The role of data in freshwater protection and management

The ACR believes insufficient data is collected and made publicly available about freshwater in Canada. Increased funding and management of freshwater data could greatly benefit industry partners and decrease the occurrence of study overlap. Through the introduction of standardized methods of data collection, management and verification would decrease the need for data verification by individuals and increase the useability of Canadian freshwater data.

Water monitoring data has often been found to be inconsistent and difficult to obtain and/or access. Federal water monitoring stations are given limited funding or in some cases, funding has been halted altogether. Members have found that the overlap of federal department data collection with provincial data management creates unnecessary confusion.

The ACR recommends a centralized freshwater data platform be created and made publicly available to ensure that data is accessible and verifiable, increasing the effectiveness of all stakeholders to manage freshwater. It is envisioned that this data platform should also allow for data verification and metadata contribution.

ACR member example: Collection of data and information for compliance

A report of water use data sources and comparative water reporting by WaterSMART Solutions in 2019 found regulatory requirements in Alberta to be quite structured. The database utilized, Petrinex, which is also utilized by Saskatchewan and British Columbia, encourages better reporting, and enables comparison of water use performance metrics. It was also found that only Alberta mandates the reporting of alternative water use with distinctions between various water sources.

ACR member example: Incorporation of Indigenous Knowledge in freshwater management

Mikisew Advisian Environmental (MAE) is a partnership between Mikisew Cree First Nation and Advisian/Worley focused on the Athabasca region of Alberta. It provides best-in-practice water stewardship that incorporates Indigenous environmental values into surface water and groundwater data collection, compliance monitoring and program design, while increasing indigenous employment through providing career and leadership opportunities for Indigenous staff via the establishment of education-to-employment program opportunities.

ACR member example: Peer review for data validation

The use of peer review for the data and reports would ensure data is being represented and interpreted correctly as to not create misleading conclusions. This builds credibility in what gets presented to stakeholders and the public.

The ACR recommends several specific types of data and/or information the federal government should consider providing freshwater stakeholders:

1. Flow rates in all significant rivers and tributaries, on a daily timestamp, as close to real time as possible, with validation of data
2. Water levels in all significant lakes and created water bodies (i.e. behind dams), on a daily timestamp, as close to real time as possible.
3. Water Quality in all significant river, tributaries, natural lakes and created waterbodies, on a daily timestamp (minimum)
4. Data on the interaction between agricultural, municipal, and industrial uses of freshwater on a national scale for determining the current state of freshwater and room for improvement.
 - a. Focus on how water cycles through our society: sources, uses, re-uses (if applicable), and return to the environment
 - b. Water emergencies (drought and flood)
5. Updated groundwater and aquifer mapping across Canada
6. Current groundwater and aquifer quality and quantity data across Canada
7. Information on the interaction and integration of groundwater and surface water
8. Climate projection mapping, including current flood hazard maps to capture Canadian water issues
9. Visualization and analysis techniques applied to freshwater data

Critical to the success of this data gathering is adequate and consistent funding to maintain and report the information.

ACR member example: Irrigators participating in water data collection

Critical water data is collected by Alberta Irrigation Districts daily from their respective reservoirs during irrigation season. This data has importance to irrigators, recreational users, and other stakeholders, and could be reported on providing that the reporting process is not time-consuming for the Irrigation Districts.

ACR member example: Several ACR members participating in best water management practices

A multitude of stakeholders, including several Alberta Irrigation Districts, power producers, municipalities and the Alberta government took part in the development of an operational model that would accurately portray the South Saskatchewan River Basin (SSRB) and its sub-basins. Through the development of this collaborative model, new off-stream irrigation storage reservoir projects were evaluated, which would serve to increase water security and provide many benefits to the SSRB system, called the SSRB Roadmap.

Conclusion

The resource sector takes its responsibilities for water management seriously and is eager to participate in on-going consultation efforts to continuously improve how the sector, government and all Canadians manage decisions related to water. This work is not new to our members; many have significant technical and policy expertise and experience that has added much value to the regional water discussions. We are pleased to now add those voices to the national discussion to support industries, communities, and Canadians with an interest in this important subject.

Please do not hesitate to reach out to the ACR for further clarification or discussion on any of the points in this submission. We look forward to continuing the collaborative effort.