Community-based Water Monitoring & Federal Commitment to Freshwater in Canada

A submission to the House of Commons Standing Committee on Environment and Sustainable Development for its study on freshwater

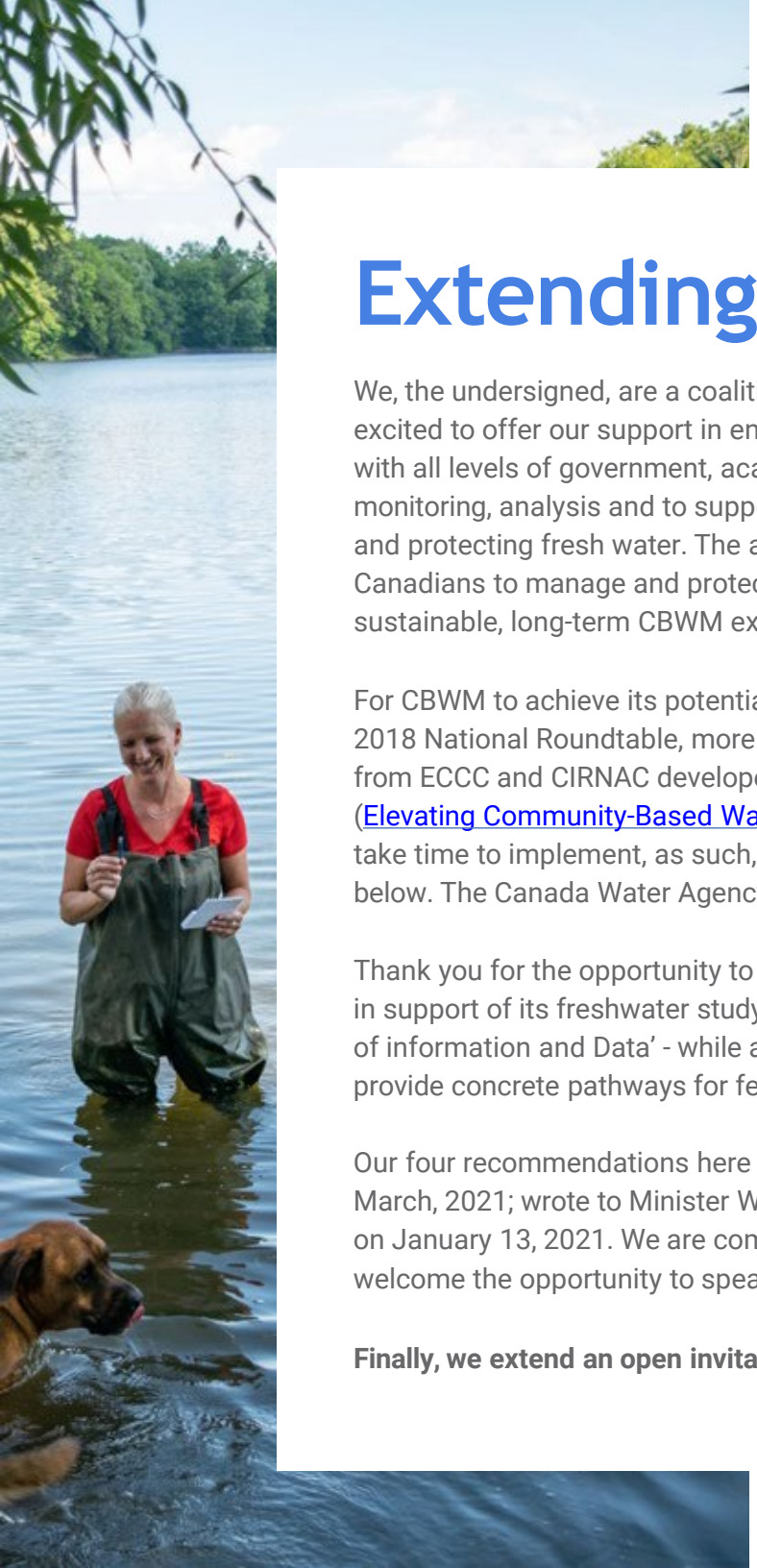
La surveillance communautaire de l'eau et l'engagement fédéral envers l'eau douce au Canada

Présentation au Comité permanent de l'environnement et du développement durable de la Chambre des communes pour son étude sur l'eau douce

OUR LIVING WATERS

Presented by:
The undersigned members of the
Our Living Waters Network

Présenté par :
Les membres soussignés du réseau
Nos eaux vivantes



Extending a helping hand.

We, the undersigned, are a coalition of Community-Based Water Monitoring (CBWM) leaders from across the country, and are excited to offer our support in engaging more communities in protecting our most precious resource: water. We have worked with all levels of government, academia, and others to ensure CBWM efforts gather high quality data that can be used for monitoring, analysis and to support informed decision making. In addition, CBWM powerfully engages Canadians in managing and protecting fresh water. The act of citizens gathering data has the benefit of democratizing data and incentivizing all Canadians to manage and protect their home waters. We hope we can help generate more ways to support you in ensuring sustainable, long-term CBWM exists to protect freshwater in Canada.

For CBWM to achieve its potential however, it first needs to be legitimized and committed to by the federal government. At a 2018 National Roundtable, more than 50 CBWM leaders, Indigenous monitoring groups, water scientists and policy experts from ECCC and CIRNAC developed 60 tangible recommendations for the federal government to support CBWM programs (Elevating Community-Based Water Monitoring in Canada Final Recommendations, 2019). We know 60 recommendations will take time to implement, as such, we have prioritized four key actions the government needs to take, which we have outlined below. The Canada Water Agency should play a prominent role in supporting these key actions.

Thank you for the opportunity to submit this brief to the Standing Committee on Environment and Sustainable Development in support of its freshwater study. Our four key actions speak directly to the fourth category of questions posed - 'Collection of information and Data' - while also relevant to freshwater collaborations, policies and international relations. These actions provide concrete pathways for federal contribution to freshwater protection in Canada.

Our four recommendations here are the same four we submitted **during** the Canada Water Agency public consultations in March, 2021; wrote to Minister Wilkinson about on November 26, 2020; and spoke with Parliamentary Secretary Duguid about on January 13, 2021. We are committed to supporting the hard work necessary to make these recommendations a reality. We welcome the opportunity to speak about this brief in more detail; contact Andrew Stegemann at andrew@ourlivingwaters.ca.

Finally, we extend an open invitation to come out sampling with us this summer!

ONTARIO
Courtesy of Water Rangers, Abbey Neville

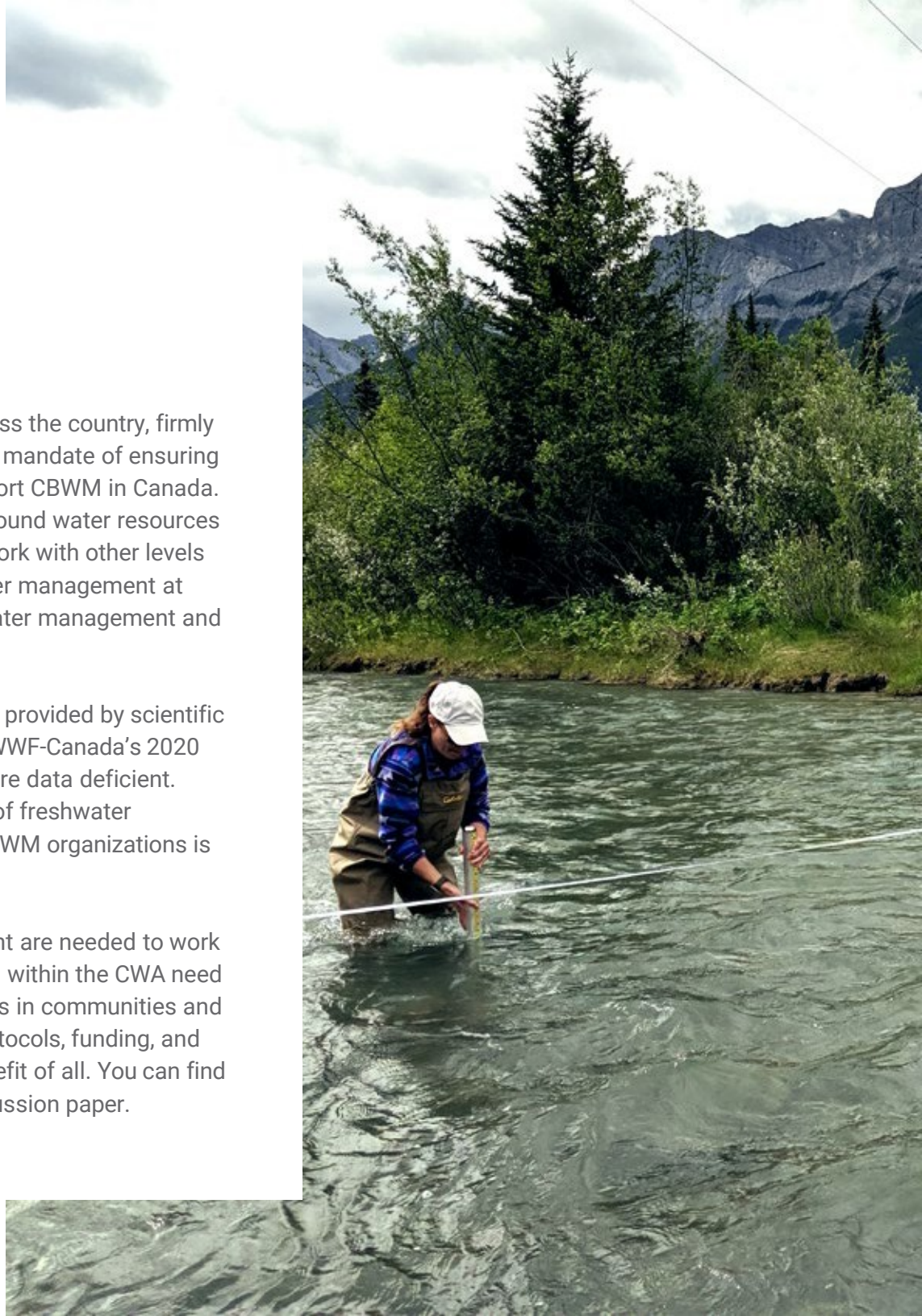
#1

BUILDING UP AND CAPITALIZING ON THE EFFORTS OF CBWM WITHIN THE CANADIAN WATER AGENCY (CWA)

The Our Living Waters (OLW) Network, with over 100 members across the country, firmly believes that the federal government, through a CWA, can support a mandate of ensuring all waters are in good health by adopting a long-term vision to support CBWM in Canada. While questions of jurisdiction can often complicate discussions around water resources in Canada, a CWA is an opportunity for the federal government to work with other levels of government to enhance CBWM outcomes that contribute to better management at every level. This will help create a more holistic approach to freshwater management and conservation in Canada.

We recognize your commitment to integrating information and data provided by scientific organizations and experts into decision-making. Unfortunately, as WWF-Canada's 2020 Watershed Reports have shown, 60% of Canada's sub-watersheds are data deficient. There isn't enough information to confidently understand the state of freshwater ecosystems in most of the country. This is why data provided by CBWM organizations is so important when making water management decisions.

CBWM organizations are ready. Leaders from the federal government are needed to work with CBWM organizations. We believe that liaison positions situated within the CWA need to be created. Positions that can bridge gaps between CBWM efforts in communities and the federal government. These leaders can share knowledge on protocols, funding, and training opportunities to maximize the impact of CBWM for the benefit of all. You can find more details on this approach outlined in the Elevating CBWM Discussion paper.



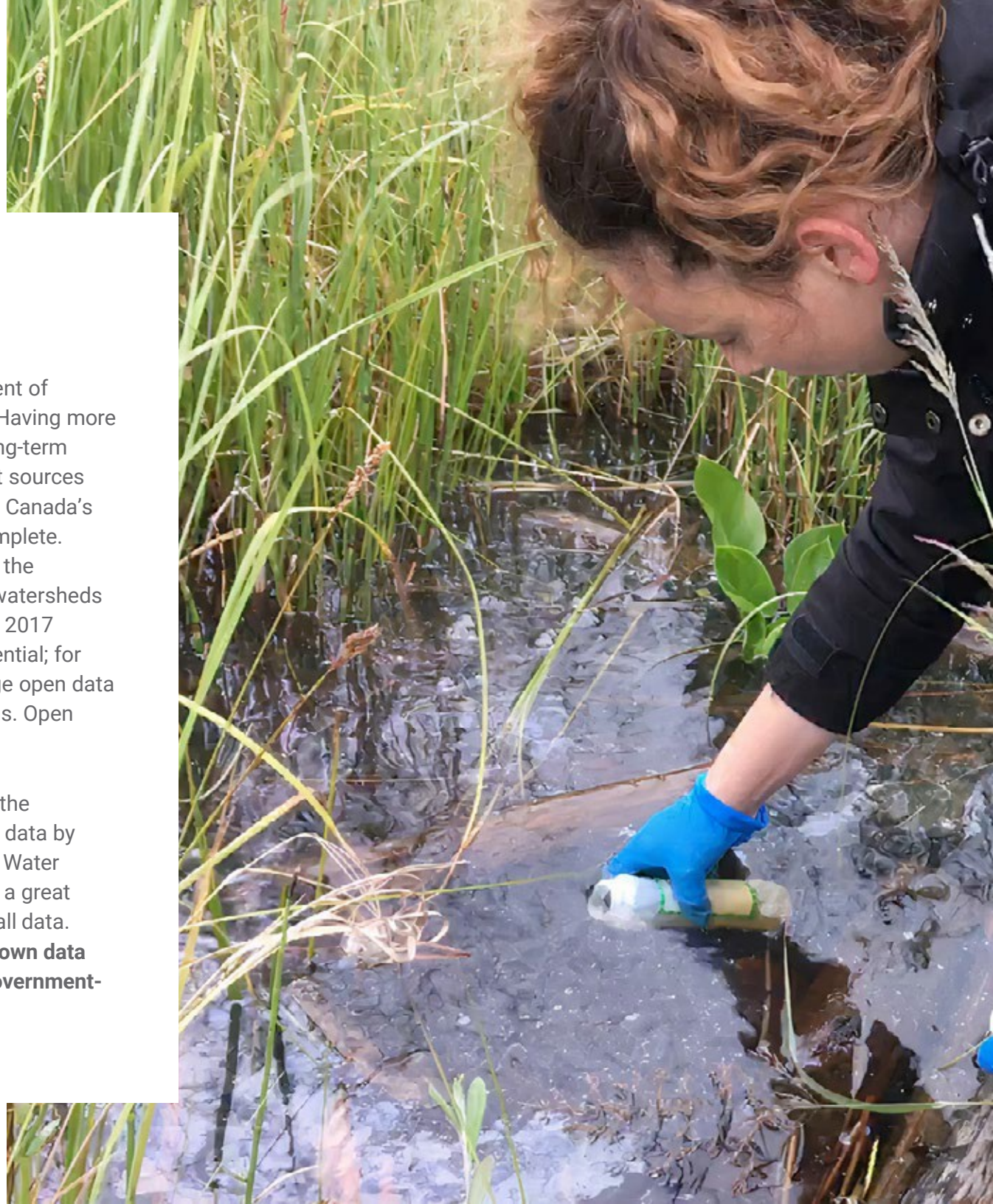
ALBERTA
Courtesy of WWF Canada, Catherine Paquette

#2

DEVELOPING WAYS TOMAKE MORE DATA OPENACCESS

We recognize the significant progress the Government of Canada has made in its commitment to open data. Having more data available through government (i.e. National Long-term Water Quality Monitoring Data) and non-government sources (i.e. DataStream) has made assessments like WWF- Canada's Watershed Reports easier to generate and more complete. Having access to more open data had an impact on the Watershed Reports results – an additional ten sub-watersheds received a score in the 2020 report compared to the 2017 report. Beyond that, open data has tremendous potential; for example, Aquahacking participants regularly leverage open data to develop novel approaches to solve water problems. Open data amplifies innovation!

That said, there is still progress needed. We believe the federal government must continue to prioritize open data by leading by example. Making the National Long-term Water Quality Monitoring database open and accessible is a great example of the approach that should be taken with all data. **The federal government must continue to make its own data and information open and require the same from government-funded and mandated research and monitoring.**



NWT
Courtesy of DataStream, Lindsay Day

#3

AMPLIFYING EXISTING CBWM ORGANIZATIONS ACROSS THE COUNTRY

Hundreds of CBWM groups across Canada are helping communities become aware of the challenges their local waterbodies face and, therefore, more willing to act on their behalf. Beyond that, networks of coordinated monitoring hubs like those found in the Northwest Territories supporting Indigenous-led monitoring, Lake Winnipeg, Atlantic Canada, and the Columbia Basin are great examples of CBWM collaboration at the municipal, provincial, and federal levels. These hubs aim to coordinate efforts to make it easy for decision-makers to access data. With the support of the federal government, both small and large organizations have the potential to do so much more to monitor and protect waterways across the country through our active collaboration with partners. A great example of this is Water Rangers, a pilot program run with WWF-Canada that equipped 26 groups in data deficient subwatersheds with water quality equipment. Their data was then fed into DataStream, making it accessible to decision-makers. Another example is G3E working in 20 Quebec subwatersheds and hundreds of schools and parks, collecting valuable benthic invertebrate data.

Unfortunately, these initiatives are often difficult to scale and sustain without support. **We believe the Government of Canada has a responsibility to amplify and elevate CBWM initiatives.** For example, by providing ongoing, long-term funding and liaison support, CBWM organizations can do what they do best, which is ensuring the health of our waters!

NUNAVUT
© Martha Lenio, WWF-Canada

#4

INVESTING IN A SUSTAINABLE, LONG-TERM VISION FOR TAKING CARE OF CANADA'S FRESHWATER

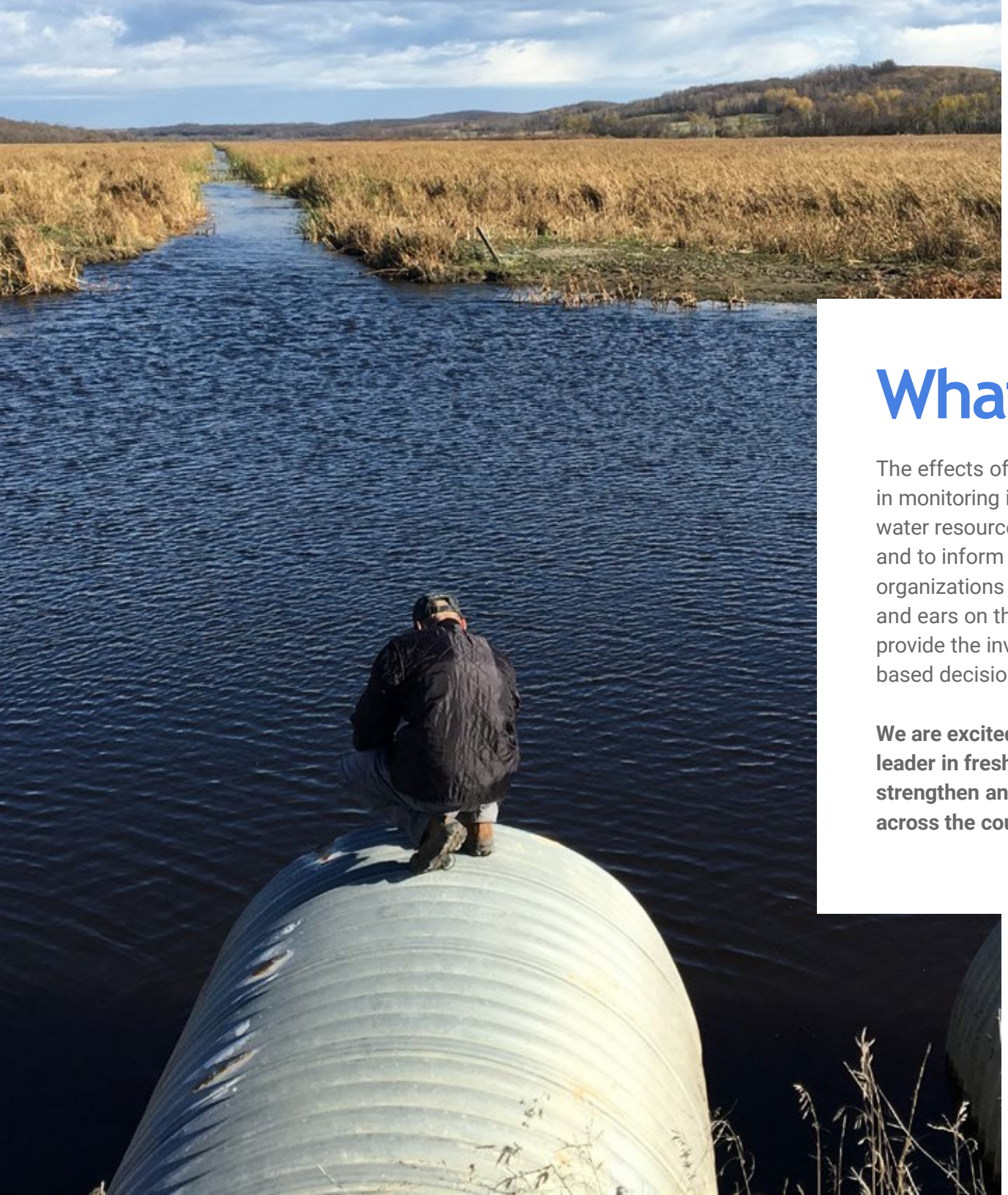
From just three weeks of outreach, we easily found $43 million in 'shovel-worthy' CBWM projects all across the country ready to start. There is so much potential capacity for CBWM that only requires resources to start. To this end, we are asking for an annual commitment of $100 million to support CBWM groups in their efforts to build water monitoring capacity and to establish and maintain modern and efficient systems for sharing this data openly.

We know from past research that investing in CBWM saves the government money and has an impressive multiplier effect. According to an analysis on the Atlantic Coastal Action Program (ACAP), had Environment Canada conducted the same work, with government offices and employees rather than through a community-led approach, it would have had to spend 12 times as much money to derive similar benefits. ACAP's economic impact (GDP) was, in total, about 22 million dollars in direct and spin-off economic activity from 1997-2001, which far exceeds Environment Canada's six million-dollar investment[1].

An annual investment of $100 million could provide more than $1.2 billion in value for both the government and the communities they are in. We're gathering more evidence from current programs regarding the return on investment of CBWM programs to demonstrate that, as a movement, we continue to innovate and improve our approach to save more money and provide more benefits. Our approach works, and we're ready to expand our reach and scale.

1 McNeil et al., 2006

SASKATCHEWAN
Courtesy of WUQWATR, Justine Melo



What's next?

The effects of climate change are being felt now. Investment in monitoring is urgently needed to understand how our water resources are being impacted by a changing climate, and to inform better water management decisions. CBWM organizations are ready to act. They are ready to be the eyes and ears on the ground to help fill in the knowledge gaps and provide the invaluable information needed to make evidence-based decisions.

We are excited to help the federal government become a leader in freshwater management by working together to strengthen and support community-based water monitoring across the country.

MANITOBA
Courtesy of Geoffrey Gunn, IISD

Sincerely, the following members of the OLW Network :
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Thanks / Merci!

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