Primer: The Our Living Waters Shared Measurement System

Acknowledging worldview: It's important to be transparent that this Shared Measurement System was designed from a non-Indigenous worldview and we recognize that Indigenous ways of knowing are absent from it. For more information on this positioning, see our Right Relations page.

Introduction

The pool of experience, energy and expertise that makes up the water community in Canada is broad and deep. This breadth and diversity is a major source of strength. Yet, despite our many efforts, the waters continue to suffer.

We know there is a need to coordinate our efforts to improve water health, but we also know that coordination doesn't happen automatically. Our Living Waters works to coordinate organizations under a common framework to achieve the ambitious goal of ***all waters in good health by 2030.*** Achieving this goal will require many actors to work together as a connected and aligned Network. This primer explains the main tool we use to do this, the Shared Measurement System.

Our common language

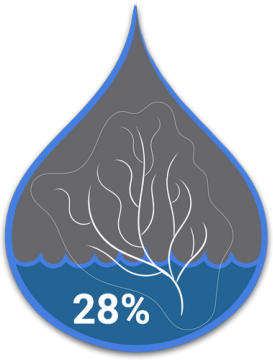
We've all had the experience of using the same language to mean different things. For clarity, here's how we are using some specific terms. Our Shared Measurement System has three main levels:

1. **Our ambitious goal** - Paints a picture of a desired future that is hard but possible to obtain. It can also be thought of as a vision, ultimate outcome, desired future, or even a Big Hairy Audacious Goal (BHAG)!
2. **Water health indicators** - Measure the health of our waters. They can also be called metrics or benchmarks.
3. **Impact measures** - Measure or quantify our collective progress towards our ambitious goal. They can also be thought of as metrics, benchmarks, goals or objectives.

What's our North Star?

Our Shared Measurement System was collaboratively built by water leaders who considered the forces at work resulting in poor water health and threats to our watersheds, and importantly, how a measurement system could help us do something about it. The framework starts with our ambitious goal: ***all waters in Canada in good health by 2030*** - a plain language vision that states what we want for waters across Canada. While the goal unites the Network in working towards an important future, it's not measurable on its own and doesn't tell us clearly what we mean by water health.

That's where our water health indicators come in. For the second level of our framework, we've adopted six water health indicators directly from WWF-Canada's Watershed Reports. These reports are the only broad scale assessment of inland watershed health across the country (you can hear a detailed explanation of the Watershed Reports in this recording.) The indicators clearly define good water health and show us where we are now in relation to where we want to be. In the following images, we've used all of WWF's data to visualize an up-to-date picture of water health across Canada. We will have achieved our goal once the indicators all reach 100%.

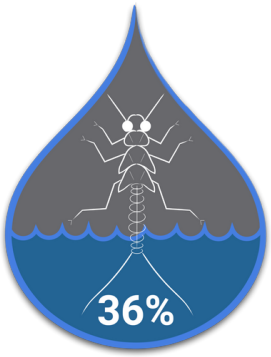


Overall Health (percent of the 25 major watersheds in Canada rated as 'good' or 'very good' for overall health)

It's important to have a comprehensive picture of water health for the major watersheds in Canada. Overall Health includes how a watershed is doing on all fronts, according to all the indicators listed below.

Overall Threats (percent of the 25 major watersheds given an overall threat rating of 'low')

This measure quantifies the risks that waters in Canada face, including: pollution, alteration of flows, habitat loss, overuse of water, invasive species, habitat fragmentation and climate change.



Benthic Invertebrates (percent of the 25 major watersheds rated as 'good' or 'very good' for bugs, or benthic invertebrates)

Aquatic bugs that live at the bottom of our waterways are important to a healthy environment. They act as food, help to keep our waters healthy, and seeing changes in these animals warns us about threats to water health.

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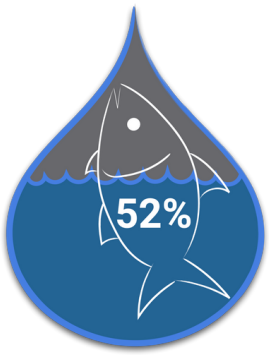
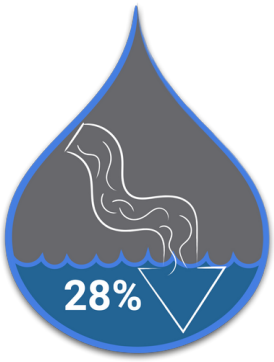


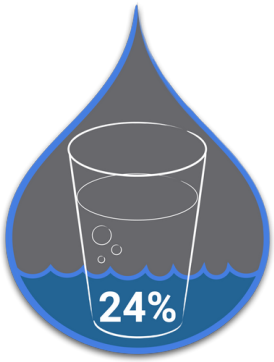
Fish (percent of the 25 major watersheds rated as 'good' or 'very good' for fish)

Healthy fish indicate a thriving environment. Thriving fish also support recreational and commercial fishermen (and kids peering over docks) across the country.



Water Flow (percent of the 25 major watersheds rated as 'good' or 'very good' for water flow)

The amount of water in our lakes and rivers, and how that volume changes throughout the year, are crucial to the health of the environment and the quality of water for our communities.



Water Quality (percent of the 25 major watersheds rated as 'good' or 'very good' for water quality)

Harmful contaminants in our water can significantly hurt the environment and communities that rely on that water.

Together, our ambitious goal and water health indicators act as our north star, guiding the Our Living Waters Network towards our collective vision. We also know this north star vision is important to Canadians, who view water as the most important natural resource.

However, the six water health indicators are broad and high level, measuring water health itself. When we see change in a given indicator, we can struggle to attribute any specific action to that progress. For example, a number of highly complex factors such as rainfall, forest cover and human water use interact to determine the flow of water in aquatic ecosystems. As a result, we might see that water flow has improved or worsened in our watersheds, but we couldn't explain why. **For this reason, we also need to determine specific ways to take action to improve water health in Canada.**

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How do we reach our North Star?

That's where our 24 impact measures play a crucial role. Taken together, they're our tangible strategy to guide water leaders to work together as a connected and aligned Network. These metrics are the key components of our Shared Measurement System. Each impact measure provides a common metric that like-minded organizations work to improve in different ways.

Impact measures also provide a framework for us to tell Our Stories, which are important narratives about how Network members work together to "turn the curve" on water health in Canada. By "turning the curve", we mean seeing a real and lasting improvement in the trend line for a given impact measure. By definition, the process to turn the curve requires collaboration; we have to work together to come up with innovative actions that will improve water health. In reality, each Network member concentrates on one or a few impact measures. However, it is only through collective action that we can turn the curve on all 24 impact measures and head towards our goal of *all waters in Canada in good health by 2030.*

We've categorized the 24 impact measures in the Shared Measurement System into four logical themes: Robust & Accessible Information, Informed & Engaged People, Our Blue Footprint, and Water Policy & Governance. Nevertheless, we recognize there is often significant crossover for any given impact measure across categories. For example, legislating restoration can be housed under Our Blue Footprint and Water Policy & Governance.

You can find our 24 impact measures and the four categories (in bold) they fall under on the following pages.

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	**CATEGORY 1 Robust & Accessible Information**	**Accessible scientific, traditional and local knowledge to monitor, assess, and report on water health and to anticipate and understand emerging issues**
	Accessible Data	Percent of 167 sub-watersheds in Canada that have sufficient, accessible data allowing WWF-Canada's Watershed Reports to assess their overall health
	Decision Makers	Average level of agreement (1 to 10) among selected water decision makers with the statement, "In general, when faced with a decision related to water resource management, I am able to obtain information of sufficient quality to make a sound decision"
	Open Access Hubs	Number of threatened watershed basins (23) with high quality open access water data hubs
	**CATEGORY 2 Informed & Engaged People**	**The public in Canada understands the value of healthy water, and that water in Canada is not unlimited, has threats to its health and needs protecting**
	Citizen Legal Action	Number of federal and provincial/territorial jurisdictions with at least one mechanism for citizens to drive enforcement of a water-related law
	Freshwater Awareness	Percent of people who have an accurate sense (awareness) of the health of and threats to freshwater
	Media	Percent change in traditional media stories on water impacts
	Supporter Actions	Supporter base who acted for freshwater health in the last year

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	CATEGORY 3 Our Blue Footprint	**Human-made infrastructure and economic systems function in harmony with watershed ecosystems so that the integrity of the natural environment is maintained or restored when needed**
	Combined Sewer Overflow	Number of combined sewer overflow locations across the country within how many municipalities, and the volume of untreated sewage coming from these sources
	Drinking Water Advisories	Total number of communities with drinking water advisories, including Indigenous communities
	Government Financing for Protection	Ratio of all government spending on biodiversity and landscape protection to spending on fuel and energy programs
	Green Infrastructure	Number of communities with Transformative Green Infrastructure programs
	Harmful Algae Blooms	Number of provinces/territories with water-quality monitoring programs with the potential to estimate the number of water bodies impacted by algal blooms
	Legislating Restoration	Number of jurisdictions in which environmental restoration is codified in environmental legislation through direct application of the polluter-pays-principle
	Municipal Natural Asset Management	Number of municipalities adopting municipal natural asset management approaches
	Pipeline Threats	Percent of 167 sub-watersheds threatened by federally monitored pipeline incidents

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	CATEGORY 4 Water Policy & Governance	A public policy framework enables watershed governance and collaborative decision-making at different scales, and includes enforced legal standards to ensure human and aquatic ecosystem health
	Drinking Water Source Protection	Number of provincial and territorial jurisdictions with source water protection programs designed to protect drinking water from source to tap
	Enforceable Water Quality Standards	Number of provinces and territories with enforceable surface water quality standards
	Environmental Flow Standards	Number of federal and provincial/territorial jurisdictions with enforceable environmental flow standards
	Freshwater Policy	Number of federal and provincial/territorial jurisdictions with a freshwater policy and/or law less than ten years old
	Human Right to Water	Number of federal and provincial/territorial jurisdictions formally recognizing the human right to water
	National Drinking Water Standards	Do enforceable national drinking water standards exist?
	Recreational Water Quality	Number of provinces and territories that have: a) established recreational water quality monitoring guidelines, and b) a system of communicating results to the public
	Watershed Entities & Plans	Percent of sub-watersheds with a watershed entity and a watershed plan
	Watershed Governance	Percent of major 25 watersheds with a mechanism in place to support watershed governance

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This primer outlines how our collaboratively designed Shared Measurement System fits together and guides us towards our ambitious goal. As such, our Shared Measurement System also acts as our theory of change, which is simple to state, even if it's complex in practice: OLW facilitates collaborative action to turn the curve on our 24 impact measures over time in order to achieve our common goal of *all waters in Canada in good health*.

Please reach out if you have questions, comments or ideas about the Shared Measurement System to info@ourlivingwaters.ca.

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All waters in Canada in good health by 2030