



the partnership
for water sustainability in bc

Waterbucket eNews on May 9, 2023
<https://waterbucket.ca/wscblog/>

A young child with dark hair, wearing a striped tank top and red shorts, is running through shallow water. The child is captured in mid-stride, with water splashing around their feet. The background is a blurred natural setting with trees and water.

Living Water Smart in British Columbia:

*Healthy Waters Program for
salmon, whales, and people*

Note to Reader:

Waterbucket eNews¹ celebrates the leadership of individuals and organizations who are guided by the vision for **Living Water Smart in British Columbia**².

The edition published on May 9, 2023 featured the Healthy Waters Program, an initiative of the Raincoast Conservation Foundation and the vision of Dr. Peter Ross.

The umbrella for Partnership initiatives and programs is the **Water Sustainability Action Plan for British Columbia**³. In turn, the Action Plan is nested within **Living Water Smart, British Columbia's Water Plan**.



Cover Image Credit: A young Indigenous girl dancing in the Fraser River. Photo credit Michael Snyder.

¹ <https://waterbucket.ca/wscblog/>

² https://waterbucket.ca/wcp/wp-content/uploads/sites/6/2017/11/livingwatersmart_book.pdf

³ <https://www.waterbucket.ca/cfa/sites/wbccfa/documents/media/81.pdf>

Editor's Perspective

My first contact with Peter Ross was in 2015 at a meeting of Metro Vancouver local governments. In recent years, we have had periodic contact as he worked hard to bring his vision for the [Healthy Waters](#)⁴ initiative to fruition. Peter Ross is passionate about his mission. His story is a good news story!



Structured in three parts, the story behind the story that emerged in my "conversational interview" with Peter is compelling. First, he paints a picture of present-day conditions, and why water is under threat from a half-million chemicals and another 1000 each year.

Peter then explains why killer whales are demonstrating the fundamental failure of our regulatory system to have an early warning system. But do not despair because Peter concludes with a framework for community-based action.

"People have their eyes on the streams and waterways now. There is a lot more community interest. There is a lot more watershed-based focus for community organizations and municipalities," observed Peter Ross.

"We must cast a wide net for pollution monitoring to basically understand what we might run into. And then, when we start to uncover some awkward, embarrassing truths, we can actually act on them," he added.

*Kim A. Stephens, MEng, PEng (non-practising),
Executive Director
Partnership for Water Sustainability in BC
May 2023*



⁴ <https://www.raincoast.org/waters/>

One-Minute Takeaway

"We have gone into outer space. We can fly anywhere in the world. We have fallen in love with technology. All this without understanding that technology has the potential at some point in its lifecycle to harm water or water quality and threaten food security for all of us."



Dr. Peter Ross
Raincoast Conservation Foundation

PROGRAM GOAL: *Healthy Waters for Salmon, Whales and People*

"To address this need, we at Raincoast are launching the Healthy Waters Program, a new community-oriented water pollution monitoring initiative. This program will complement existing initiatives, transcend jurisdictional silos, and bring high resolution analysis of contaminant classes of concern to BC watersheds, beginning in the Fraser River and Salish Sea watershed region."

Peter Ross

"I think what is happening now is that we have lost touch with our watersheds"

"We know that BC is home to the world's most contaminated marine mammals (killer whales). But our fundamental lack of data on which chemicals end up in our waters and threaten the health of salmon jeopardizes our ability to protect our most iconic fish for future generations," states Dr. Peter Ross, Senior Scientist and an internationally recognized ocean pollution expert with the Raincoast Conservation Foundation.

"And while many would hope and expect that government labs would be in the business of monitoring our waters for harmful chemicals, the hard truth is that it is easier to ignore evidence that does not exist. And so goes the story: an inconvenient and at-times difficult truth is often left un-examined."

"With an estimated 500,000 chemicals on the market, where does one start? How does one describe the source, transport and fate functions for even a small subset of these? How does one determine impact to aquatic biota? And whose responsibility is it to monitor fish habitat quality...?"

STORY BEHIND THE STORY:

Healthy Waters Program for salmon, whales, and people - a conversation with Dr. Peter Ross

“Without looking, we are not going to know what is polluting within a watershed, or from outside a watershed, and what is subject to what jurisdiction or regulation. One of the things that I discovered after the disaster caused by the atmospheric river in November 2021 was that nobody was watching fish habitat.”

– Dr. Peter Ross

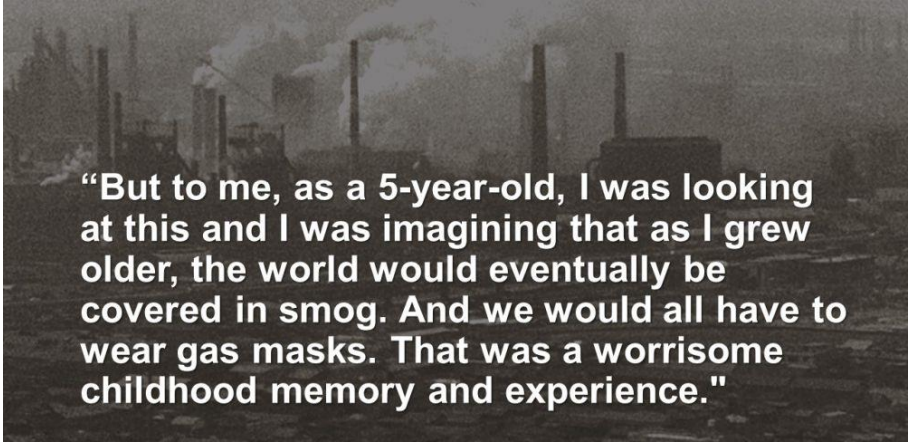


Peter, I asked, what is the source of your passion and why are you taking on this mission?

“The practical fact of the matter is that I was trained to be an ecotoxicologist. I was trained to study pollution. I was trained to look for source, transport, fate and effects pathways. That was my career,” responded Peter Ross.

“But if I step back and reflect, I can remember poignantly when I was 5 years old and watching a black and white television with rabbit ears. There was a news image from Tokyo where the downtown was being smothered in smog. This was the late 1960s. The police were wearing gas masks.”

“This was a time when air quality became a crisis point for major urban centres. The Japanese government then embarked on a very ambitious road map to move industry out of the city.”



“But to me, as a 5-year-old, I was looking at this and I was imagining that as I grew older, the world would eventually be covered in smog. And we would all have to wear gas masks. That was a worrisome childhood memory and experience.”

PART ONE: Fast forward to the present

“Right now, I find myself trying to simplify the pollution file because the world has become so complicated. We have a staggering half million chemicals on the high-volume production marketplace,” continued Peter Ross.

“When I as a scientist who has been practicing for decades try to understand what the consequences are for fish or fish habitat or whales or people, I realize that I have my work cut out for me.”

“And so, I find myself increasingly turning myself around. Instead of trying to capture the science and understanding of half a million chemicals, which is pretty much impossible, I am now saying: **water as a focal point is very simple.**”

Water connects salmon, whales, and people

“Water is fundamentally valuable to all living things. It is under threat from all our activities. It is really that simple.”

“Some of us can deal with the complexities underlying different chemicals and pollutants. But at the end of the day, it is all about water. That is what connects us all - connects our freshwater watersheds to our marine environment through migrating salmon, connects our activities on land to what is happening to resident killer whales.”

“It is what provides drinking water for our homes. So many connections.”

The flip side of a problem is an opportunity

"When I worked for the federal government, I was often viewed as Dr. Bad News because of my research into contaminants and salmon. Managers struggled to find value in contaminants research, seeing this topic to be a nuisance that was peripheral to our mandate."

"So the research program was axed. DFO lost its capacity. It made me realize that bad news does not always suit a civil servant."



"And so, this is a second fundamental simplicity of my life now which is to say....if we don't know what the invisible pollutants are in the water, then we don't have to worry about them."

"But as soon as Coho Salmon start arriving in streams and go belly up....or southern resident killer whales become one of the most PCB-contaminated marine mammals in the world.....or Dungeness crabs are full of harmful dioxins....we must ask ourselves why are these things happening?"

"Chemicals are threatening human health. They are threatening the health of wildlife, fish, marine mammals, seabirds....and they are degrading food security for Indigenous communities that are often much more intimately connected to the natural world."

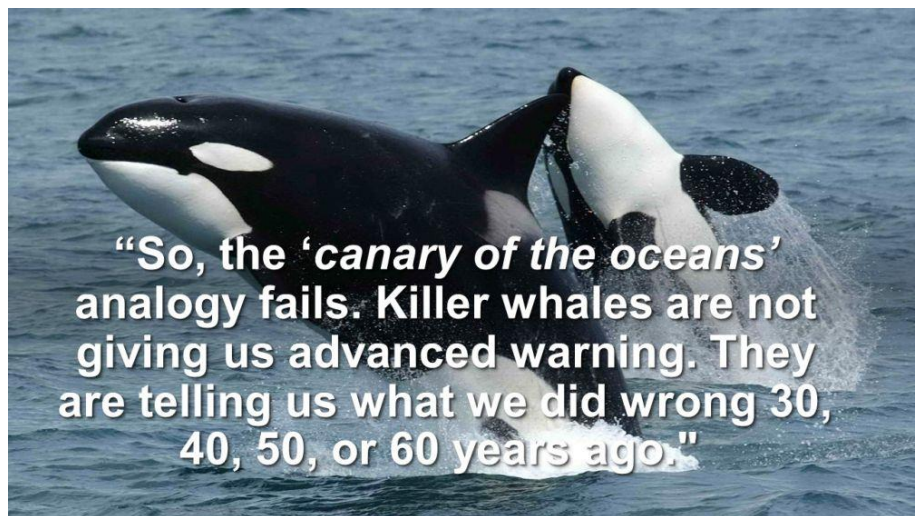
"Those are two fundamental lessons for me as I reflect on the bad news water pollution file."

PART TWO: **Canaries of the ocean analogy fails**

"We have 1000 new chemicals on the market every single year. We are doing a real-time experiment with ourselves and with our watersheds. That's deeply troubling," emphasized Peter Ross.

"I used to refer to killer whales and harbour seals as the canaries of the ocean. The problem is that killer whales are not giving us an early warning about the potential impacts of these chemicals."

"Killer whales are demonstrating the fundamental failure of our regulatory system to predict that long-lived animal at the top of the food chain would be so vulnerable to industrial chemicals."



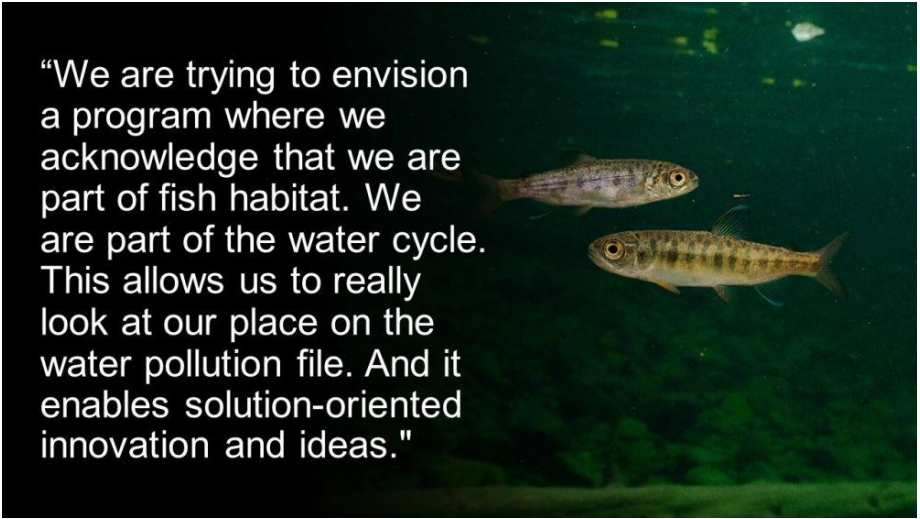
"I think what is happening now is that we have lost touch with our watersheds. We have gone into outer space. We can fly anywhere in the world. Cell phones, laptops and software packages make it so easy to work anywhere we want and to create incredible, innovative, interactive tools."

"We have fallen in love with technology. All this without understanding that technology has the potential at some point in its lifecycle to harm water or water quality and threaten food security for all of us."

PART THREE: **So what can be done?**

“One of the exciting things to me right now is that I believe there is an awakening of **'think globally, but act locally'**. People are seeking to become more connected with their watersheds. They are concerned about climate change,,,,, floods, droughts, fires.”

“They are worried about what is happening to salmon and whales. There is a tremendous opportunity to roll up our sleeves at a watershed scale and take advantage of local priorities that are set within the changing global climate and marketplace.”

A photograph of two fish swimming in clear water. The fish are positioned on the right side of the frame, swimming towards the left. The background is a soft, out-of-focus green, suggesting an underwater environment with vegetation or algae.

“We are trying to envision a program where we acknowledge that we are part of fish habitat. We are part of the water cycle. This allows us to really look at our place on the water pollution file. And it enables solution-oriented innovation and ideas.”

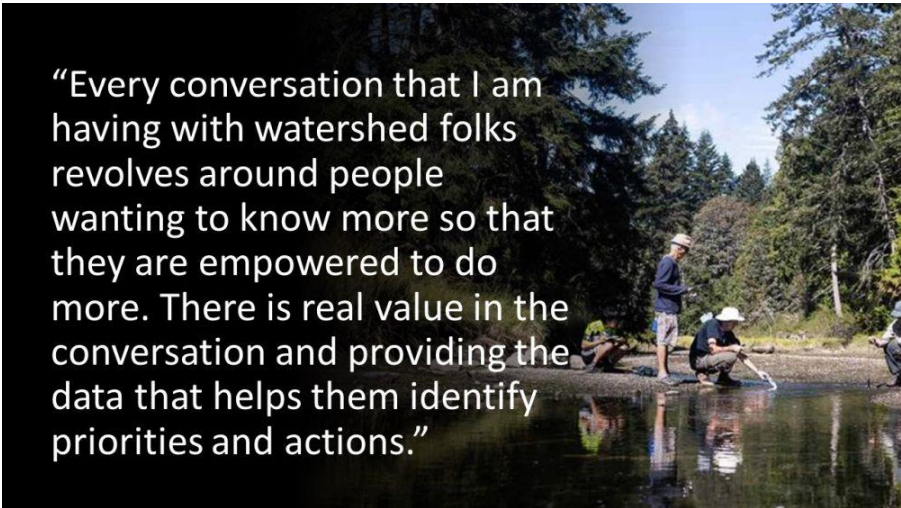
Local scale is the scale where actions matter

“For Healthy Waters, we basically said, we would like to set up a community-oriented water pollution monitoring program for salmon, whales and people.”

“Salmon because they navigate that gauntlet of thousands of pollutant sources and activities.”

“Killer whales because they eat salmon and rely on healthy, abundant salmon.”

“And people, because we are borrowing water from fish habitat upstream and releasing it downstream, usually more contaminated than when it came in.”

A photograph showing several people in a natural setting, likely a stream or riverbank. One person is kneeling and using a tool to sample water, while others stand nearby. The background is filled with lush green trees under a clear sky.

“Every conversation that I am having with watershed folks revolves around people wanting to know more so that they are empowered to do more. There is real value in the conversation and providing the data that helps them identify priorities and actions.”


Leverage capacity in support of stewardship

"The new Healthy Waters program will support sampling and analysis for a variety of contaminants of concern at up to 12 flagship BC watersheds," Peter Ross explained with passion and enthusiasm!

"It goes back to the half million chemicals. What makes sense. What can we look for. How can we be strategic and targeted in our approach. Yet at the same time we have to cast the net wide enough so that we are able to refine the strategies and approaches."

"Healthy Waters will engage, share and train Indigenous community members, conservation teams and local authorities, thereby leveraging capacity in support of water quality monitoring and stewardship."

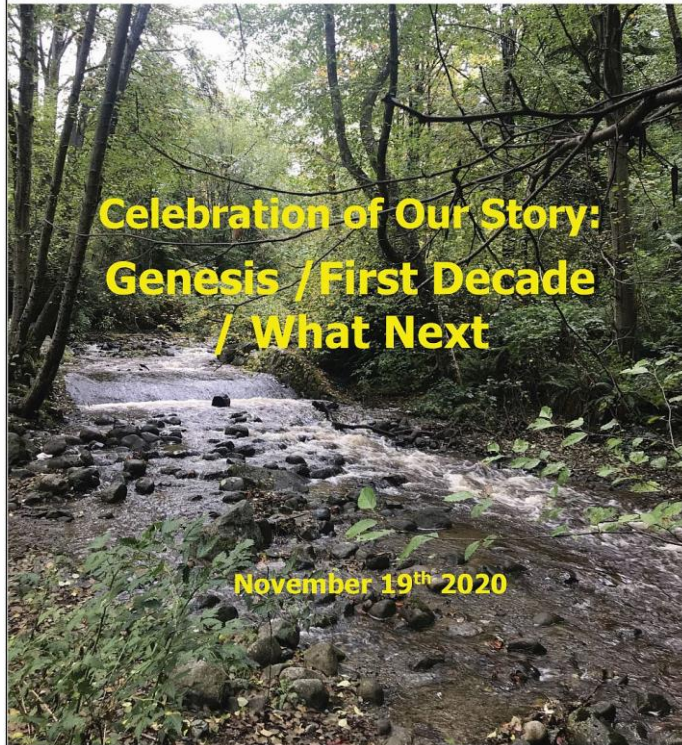
"The program aims to monitor water quality from source to home, road runoff, freshwater fish habitat and marine waters, effectively documenting water contaminants from the mountains to the sea. Stay tuned as this program is launched at a watershed near you in summer 2023!"

A portrait of a man with a beard and glasses, wearing a blue button-down shirt. He is standing outdoors with a body of water and a city skyline in the background. He has his arms crossed and is looking directly at the camera.

“We must cast a wide net to basically understand what we might run into. And then, when we start to uncover some awkward, embarrassing truths, we can actually act on them.”



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TO LEARN MORE, VISIT:

<https://waterbucket.ca/about-us/>

About the Partnership for Water Sustainability in British Columbia

Incorporation of the Partnership for Water Sustainability in British Columbia as a not-for-profit society on November 19, 2010 was a milestone moment. Incorporation signified a bold leap forward.

Over two decades, the Partnership had evolved from a technical committee in the 1990s, to a “water roundtable” in the first decade of the 2000s, and then to a legal entity. The Partnership has its roots in government – local, provincial, federal.

The Partnership has a primary goal, to **build bridges of understanding** and pass the baton from the past to the present and future. To achieve the goal, the Partnership is growing a network in the local government setting. This network embraces collaborative leadership and **inter-generational collaboration**.

The Partnership believes that when each generation is receptive to accepting the inter-generational baton and embracing the wisdom that goes with it, the decisions of successive generations will benefit from and build upon the experience of those who went before them.



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