

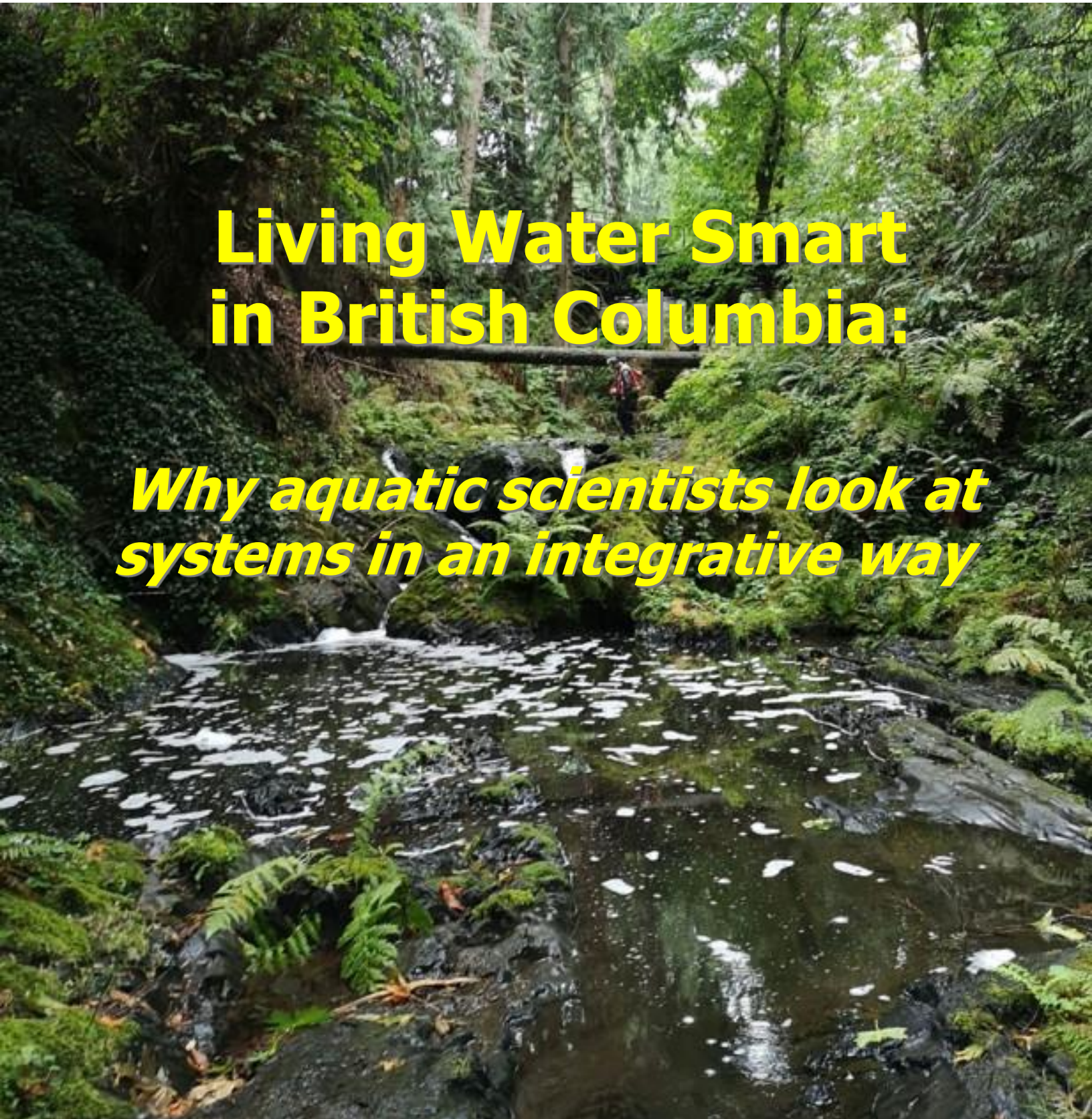


the partnership  
for water sustainability in bc

Waterbucket eNews on October 10, 2023  
<https://waterbucket.ca/wscblog/>

# Living Water Smart in British Columbia:

*Why aquatic scientists look at  
systems in an integrative way*





## Note to Reader:

Waterbucket eNews<sup>1</sup> celebrates the leadership of individuals and organizations who are guided by the vision for **Living Water Smart in British Columbia**<sup>2</sup>.

The edition published on October 10, 2023 featured extracts from a conversational interview with Dr. Dave Preikshot, Senior Environmental Specialist with the Municipality of North Cowichan on Vancouver Island. Dave Preikshot collaborated with the legendary Daniel Pauly on fisheries research projects at the University of BC from 1995 through 2007.

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



Cover Image Credit: Somenos Marsh Wildlife Society

<sup>1</sup> <https://waterbucket.ca/wscblog/>

<sup>2</sup> [https://waterbucket.ca/wcp/wp-content/uploads/sites/6/2017/11/livingwatersmart\\_book.pdf](https://waterbucket.ca/wcp/wp-content/uploads/sites/6/2017/11/livingwatersmart_book.pdf)

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

## One-Minute Takeaway

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**"The job of a scientist is to provide the best advice to help people make a good decision," states Dr. Dave Preikshot**

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"As scientists, we try to walk that tightrope between being overly reactive or not bringing the appropriate dynamics to bear on a situation. That is the debate in so many policy decisions. Ultimately the decisions are up to senior managers, politicians and the public to make."

Dr. Dave Preikshot  
Sr Environmental Specialist  
Municipality of North Cowichan



Every generation is handed a world that has been shaped by their predecessors - and then seemingly forgets that fact. In a short-but-influential paper published in 1995, legendary UBC fisheries scientist Dr. Daniel Pauly coined the term **Shifting Baseline Syndrome** to characterize environmental degradation.

Since 2014, the Partnership has been drawing attention to the **Shifting Baseline Syndrome**<sup>4</sup> for two reasons. One, it helps explain why urban streams continue to degrade. And two, it helps underpin the financial case for tackling the **Riparian Deficit**.

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<sup>4</sup> [https://waterbucket.ca/wcp/wp-content/uploads/sites/6/2021/11/PWSBC\\_Living-Water-Smart\\_Shifting-Baseline-Syndrome\\_Nov-2021.pdf](https://waterbucket.ca/wcp/wp-content/uploads/sites/6/2021/11/PWSBC_Living-Water-Smart_Shifting-Baseline-Syndrome_Nov-2021.pdf)

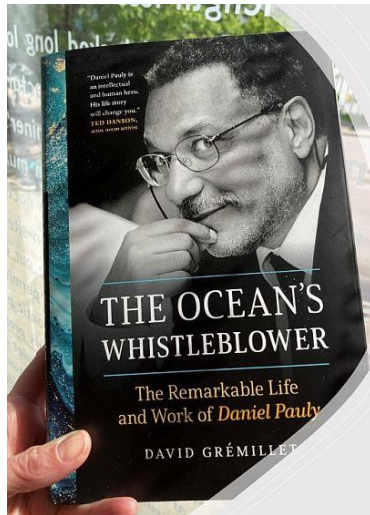
## A baseline creeps imperceptibly over generations

When Daniel Pauly joined the UBC faculty three decades ago, Dr. Dave Preikshot was one of his first two graduate students. They collaborated on research projects from 1995 through 2007. Dave Preikshot is now the Senior Environmental Specialist with the Municipality of North Cowichan.

The "*story behind the story*" of Dave Preikshot provides insights that will inform his peers in local government as well as elected representatives about protecting streams and reducing risk.

***We often limit ourselves to sustaining leftovers:*** "The opportunity to learn from Daniel Pauly and do ecosystem modelling at the UBC Fisheries Centre was fantastic because I got to do work on ecosystem projects in Puget Sound, Alaska, Iceland and Chesapeake Bay," recalls Dave Preikshot.

"A lot of our focus right now is recognizing the value of First Nations oral history and First Nations environmental knowledge. What I learned from Daniel Pauly about the Shifting Baseline Syndrome in the 1990s predisposed me to thinking along these lines."



"We transform the world, but we don't remember it. We adjust our baseline to the new level, and we don't recall what was there."

"You can have a succession of changes. At the end you want to sustain miserable leftovers."

"And the question is, why do people accept this? Well, because they don't know that it was different."

Dr. Daniel Pauly  
Institute for the Oceans and Fisheries  
University of British Columbia

## Editor's Perspective by Kim A Stephens

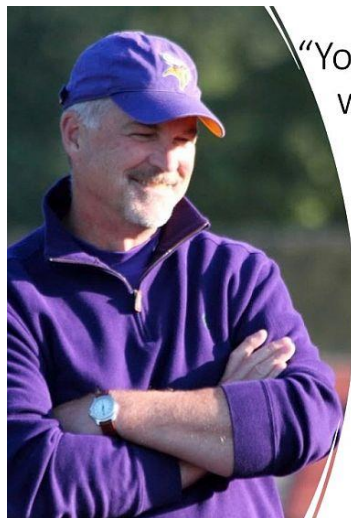
### Why aquatic scientists look at systems in an integrative way

In the interview that follows in the "story behind the story", Dr. Dave Preikshot talks about his 12-year university career from 1995 through 2007 when he worked with Daniel Pauly and how this experience prepared him for his current role as an environmental scientist working in local government.

As Dave shared his story, I was struck by his career parallels with Dr. Chris May of Washington State who we featured in a March 2023 edition of Waterbucket eNews with a story about the [Road Map for System Integrity](#).

In the 1980s, both were naval officers. In the 1990s, both were inspired to return to university and do their PhD degrees. In the 2000s, both joined local government to make a difference at the local scale where it matters most.

Interestingly, both believe that their naval leadership experience gave them a strong foundation for their careers in academia and local government.



“You can do all the research that you want but you need good people in government to implement changes in engineering and development practices. They must be technically savvy and have the drive or desire to give back and do good work.”

Dr. Chris May  
retired Surface & Stormwater Division Director,  
Kitsap County Public Works in Washington State

## Science, watershed-based drainage planning, and the Ecological Accounting Process

In the October 3<sup>rd</sup> edition of Waterbucket eNews, Jim Dumont asked the question, “*Why have the practitioners of Rainwater Management in British Columbia fallen behind the West Coast states in protecting streams and reducing risk?*”

My interview with Dave Preikshot sheds more light on Jim Dumont's question. In North Cowichan, at least, Dave Preikshot has brought science inside local government. That is a good news story because the *science-based, whole-system approach* to drainage planning and design has generally been missing in British Columbia for more than a decade.

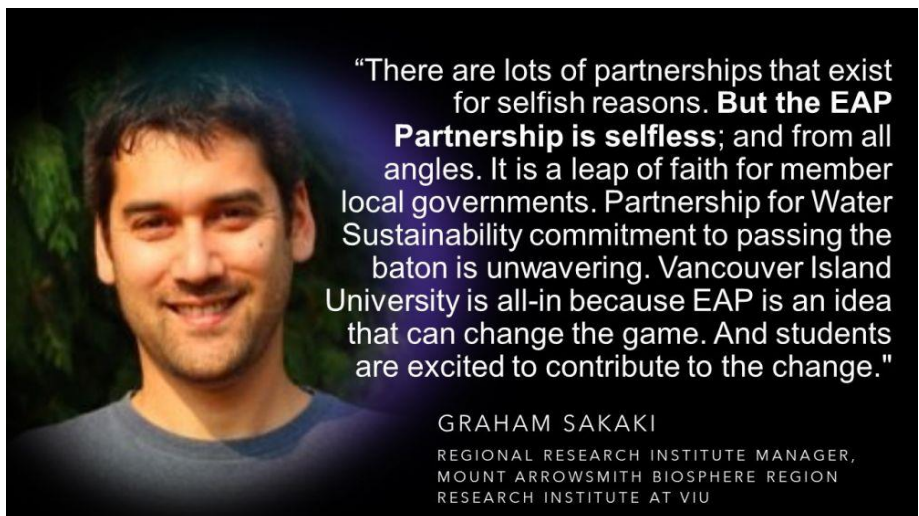
During my conversation with Dave Preikshot, we touched on the context for the decision by North Cowichan to step up and be a founding member of the **EAP Partnership**. This initiative is in collaboration with the City of Nanaimo, Regional District of Nanaimo, UBCM, Vancouver Island University and Partnership for Water Sustainability.

The EAP Partnership is embedding **EAP, the Ecological Accounting Process**<sup>5</sup>, at the Mount Arrowsmith Biosphere Research Institute (MABRRI) at Vancouver Island University. The initial commitment is a 3-year program to invest in youth and train future generations of local government staff.

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*The EAP Partnership is a model for other communities and governments. According to Dr. Max Blouw, “It fits well with the ambition of Research Universities’ Council of BC to support strong working relationships between post-secondary institutions and local governments and communities.”.*

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<sup>5</sup> [www.naturalcommons.ca](http://www.naturalcommons.ca)



## STORY BEHIND THE STORY:

# Why aquatic scientists look at systems in an integrative way - a conversation with Dr. Dave Preikshot

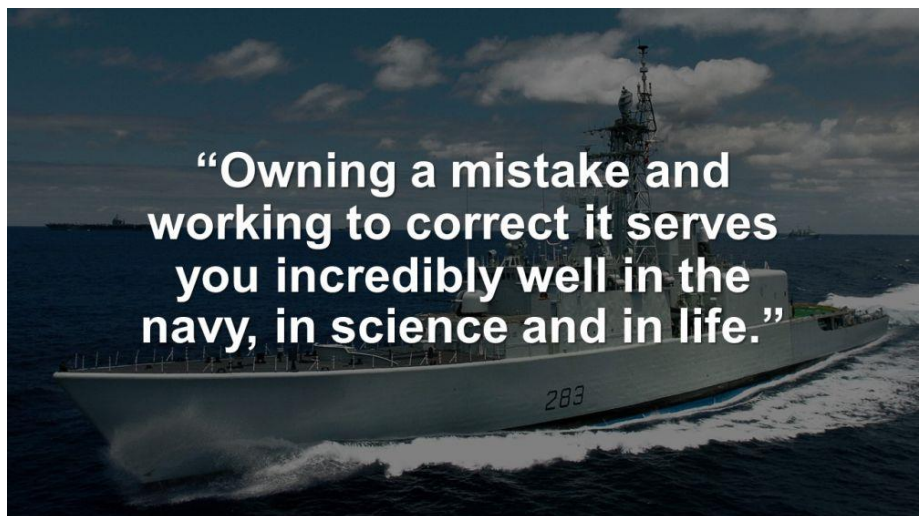
“One of the greatest benefits I got from my naval service was being able to own up to mistakes when I made them and to admit that in front of people and work towards resolving those errors.”

“Later at UBC, I found that owning and correcting mistakes is very much in keeping with a scientific perspective where the goal is not necessarily to reinforce what you already believe, but to find out where you may have been wrong.”

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*This story behind the story comprises highlight extracts from the Editor’s conversation with Dr. Dave Preikshot. The complete interview is incorporated at the end of this document as Appendix A.*

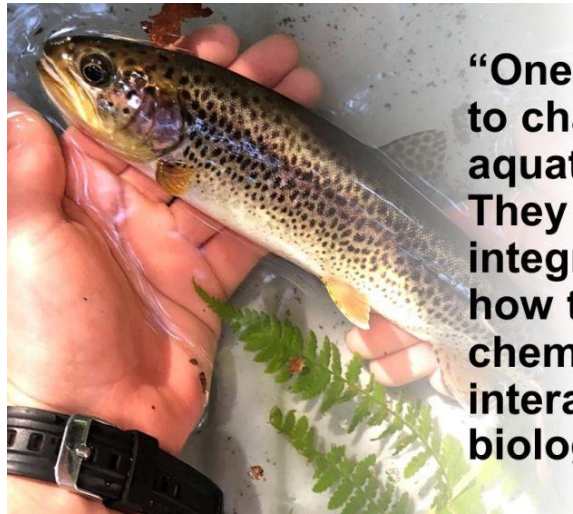
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## Understand the whole-system context

“Imagine a world in which all things are birds where they can be in all places, on the ground and in the sky and in the trees. There is almost no barrier to them moving around. That is what it is like for fish. They fly in the sea.”

“When you think about land animals, they tend to be prisoners of topography and vegetation. But in the sea, it is really not the case.”



**“One attribute tends to characterize aquatic scientists. They think in a more integrated way about how the physical and chemical worlds interact with the biological world.”**

“Aquatic Scientists are thus confronted with this 3-D world and the physics and chemistry of that 3-D aquatic environment as a necessary component of how they understand the organisms that live in that environment.”

### **You can get a handle on uncertainty**

“In building an ecosystem model, you bring together a team of specialists in a variety of disciplines. You are trying to integrate all of that information. They are always phenomenal learning exercises.”



“The misconception about modelling often is that modelling is to confirm what you know. In fact, a huge benefit of modelling is helping identify what you do not know, and in doing so, get a handle on uncertainty rather than trying to confirm what you already believe.”



## Why not choose to be courageous?

"I do believe that scientists need to talk to politicians, managers, and members of the community. And that is what I do in my current role with North Cowichan. However, all you can do as a scientist is provide the best quality of information possible to help them decide what they want to do."

"A challenge I face is that everyone lives on different time scales with different expectations of when things need to be delivered. Sustaining collaboration between managers, politicians, and scientists is tricky."

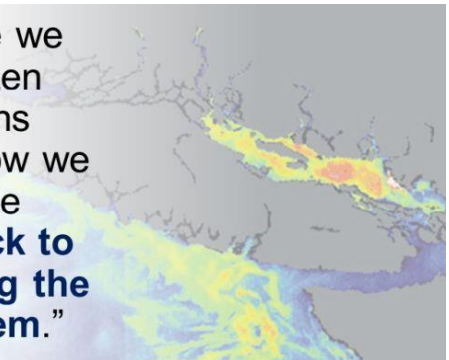


"If you are talking about how ecosystem changes occur, those are at minimum multi-year and at most multi-decadal exercises. And as I learned from working with Daniel Pauly, it is recognizing that you can choose to be courageous in restoring ecosystems."

## Interweaving Indigenous knowledge and Western science fosters reconciliation

"Daniel Pauly and several others, me included, started the ball rolling in 1998 on using what we then called traditional environmental knowledge to study the Strait of Georgia ecosystem and integrate that with Western science."


"We held a workshop where we brought together over a dozen researchers and First Nations leaders and talked about how we might make that happen. We produced a report titled **Back to the Future: Reconstructing the Strait of Georgia Ecosystem.**"



“As time went on, and we amassed scientific and archeological evidence, it really became apparent that this First Nations oral information was often quite accurate. It indicated a wealth of fish resources that had existed and does not exist anymore in many places.”

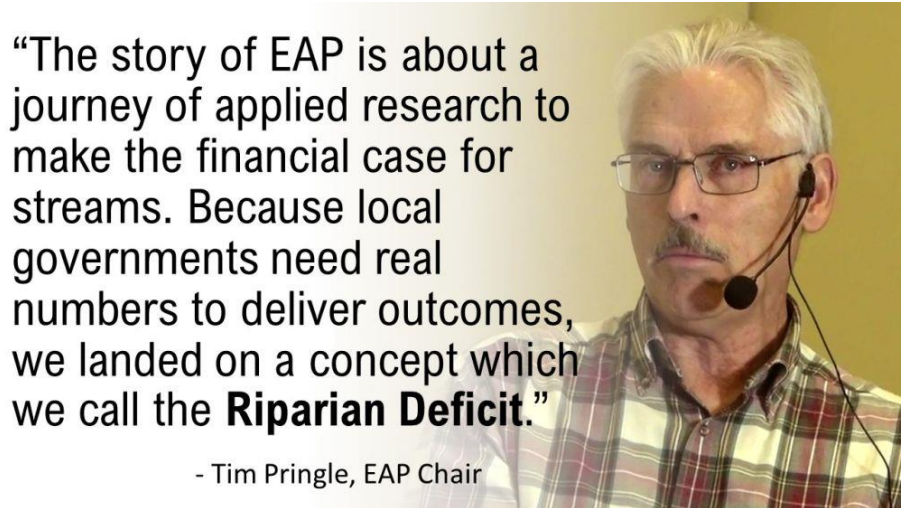
## **Communities need annual budgets to tackle the Riparian Deficit along streams**

“The Ecological Accounting Process has a very practical application. What we are seeking to achieve through our involvement in the EAP Partnership is an understanding of what policy options are available to us to work with the farming community.”



**“EAP is thinking about more purposefully managing creeks and ponds that are integrated into our stormwater drainage infrastructure. It is thinking about how does the integrated and whole aquatic environment in the Municipality of North Cowichan work.”**

“The Richards Creek EAP Project is tied in with that because of how it integrates to that whole watershed and municipal drainage story.”



**“The story of EAP is about a journey of applied research to make the financial case for streams. Because local governments need real numbers to deliver outcomes, we landed on a concept which we call the **Riparian Deficit.**”**

- Tim Pringle, EAP Chair

## APPENDIX A

# **A conversation with Dr. Dave Preikshot about the influences on his career in aquatic science**

## *A window into the Shifting Baseline Syndrome*

From the Canadian navy to academia

How simulation modelling identifies gaps

From academia to the federal government

How a military background is beneficial

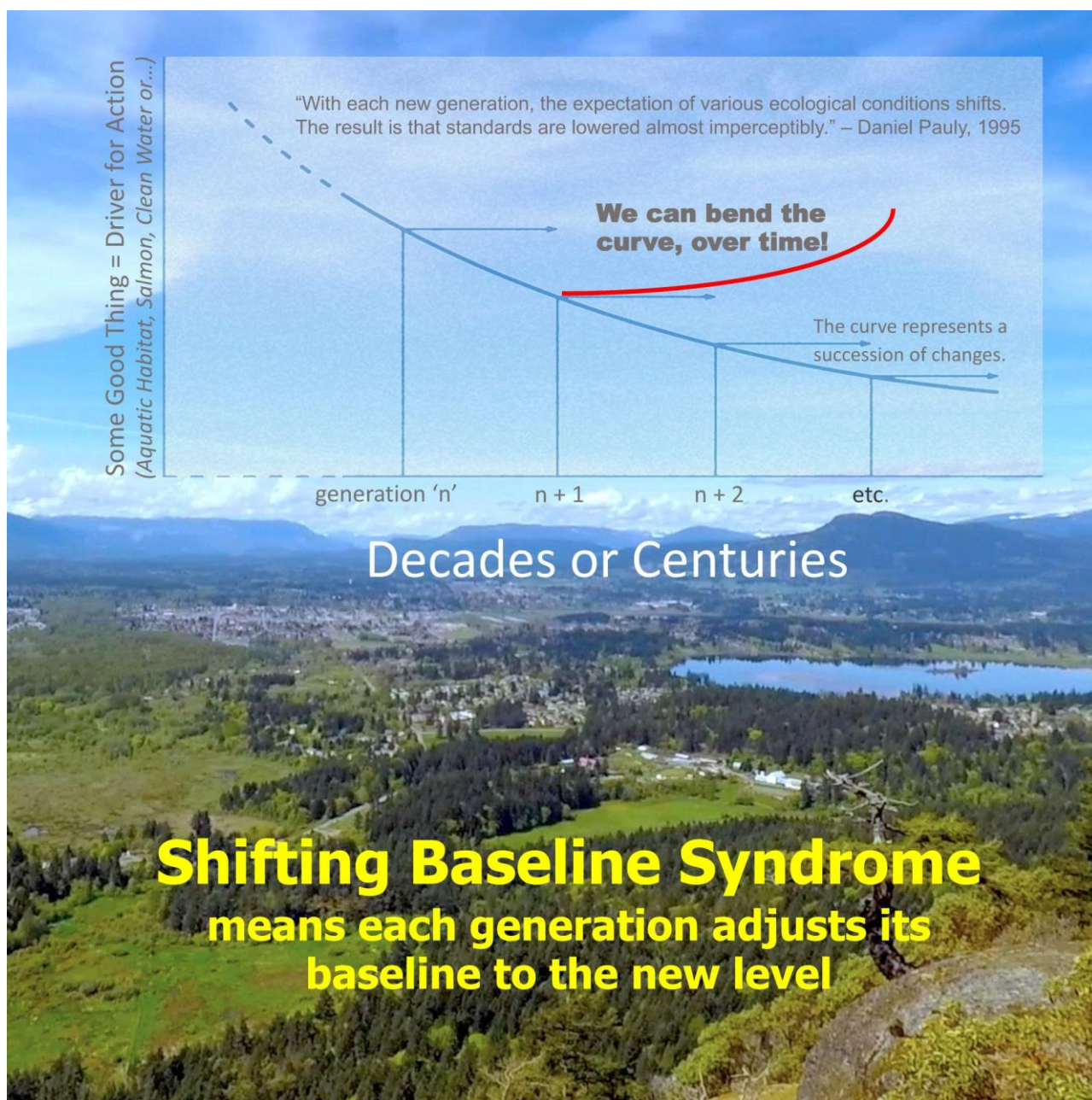
How science can inform decision processes

How interweaving Indigenous knowledge and Western science fosters reconciliation

Communities can develop natural assets as a way to address the Riparian Deficit



*Shifting Baseline Syndrome* makes the case for  
*'Design With Nature'* to *Bend the Curve Upwards*



# A conversation with Dr. Dave Preikshot about the influences on his career in aquatic science

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## Editor's Note:

*In this conversational interview, Dr. Dave Preikshot explains his 12-year university career from 1995 through 2007 when he worked with the legendary Daniel Pauly at the UBC Fisheries Centre. During this period, he obtained three degrees.*

*As Dave shared his story, I was struck by his career parallels with Dr. Chris May of Washington State who we featured in a March 2023 edition of Waterbucket eNews.*

*In the 1980s, both were naval officers. In the 1990s, both were inspired to return to university and do their PhD degrees. In the 2000s, both joined local government to make a difference at the local scale where it matters most.*

*Interestingly, both believe that their naval leadership experience gave them a strong foundation for their careers in academia and local government.*

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## From the Canadian navy to academia

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“My bachelor’s degree in history opened limited opportunities for employment in the civilian world after I left the Canadian Navy where I had trained as a navigator,” recalls Dr. Dave Preikshot.

“In returning to university, I thought that oceanography would be the best way to go, given my interest in the marine environment. And as I worked my way through my degree, I saw that the courses that interested me the most were courses on how oceanography influenced fish populations.”

## Post-graduate research at the University of British Columbia

“This then got me to a graduate degree at the UBC Fisheries Centre studying developing nations fisheries in general. My master’s thesis on this research topic was under Daniel Pauly. The thesis was about how to use different sorts of multi-variate statistical approaches to assess the status of those developing fisheries.”

“Very often developing nations are in data-poor situations. So, the idea was to come up with ways to triage those fisheries...to assess how which ones might be in more need of better management and attention.”

**Background climate variability:** “When I did my PhD thesis next, I studied the influence of climate change AND background climate variability and how those variations influence fish and marine animal populations. This was undertaken with guidance from Dr. Villy Christensen, a frequent research collaborator with Daniel Pauly.”

“I did the ecosystem and climate change work with Villy, largely because he was more of a computer modelling specialist, whereas Daniel was more of *polymath!* In other words, Daniel was a person of wide-ranging knowledge or learning.”

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## How simulation modelling identifies gaps

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“What made our research at the UBC Fisheries Centre particularly noteworthy is that we would run historical simulations first to see whether we could mathematically recreate changes in populations that we know to have occurred in the past,” explains Dave Preikshot.

“If we believe we have a sufficiently good enough understanding of the ecosystem dynamics that caused those observed historical changes, then we can use those same dynamics and forecast what we expect the future to look like, while accounting for likely climatic and management policy scenarios.”

“We can thus assess management policies to help identify more robust, or more conservative policies. Or, if the desire is to increase fisheries exploitation rates, to inform those policies as well. **The model is a platform for testing out those hypotheses.**”

### Where are the gaps in understanding?

“Like all models, and this is poorly understood folks who do not do a lot of modelling, more often than not, the model gives you results which are quite confounding and counterintuitive. And that becomes the interesting point of discussion.”

“If the model tells you something that surprises you, it may be because your assumptions about how the ecosystem works are WRONG.”

“Or because there is something novel and interesting that you have yet to understand. One of the great aspects of doing that sort of work is the opportunity it creates to work with people from a broad spectrum of backgrounds and expertise.”

**“In building an ecosystem model,** you bring together a team of specialists in a variety of disciplines. You are trying to integrate all of that information. They are always phenomenal learning exercises.”

“The opportunity to do ecosystem modelling at the UBC Fisheries Centre was fantastic because I got to do work on ecosystem projects in Puget Sound, Alaska, Iceland and Chesapeake Bay.”

“There was real excitement over the application of that sort of integrative tool. If for nothing else, to provide an accounting sort of perspective of everything you know about an ecosystem.”

“And that in of itself can be a valuable exercise...because at the very least you can find out where gaps in your understanding might be...and where you need to fill things in.”

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### A perspective on computer modelling

*“The misconception about modelling often is that modelling is to confirm what you know,” stated Dave Preikshot*

*“What we really kept on trying to get people to take on board is that a huge benefit of modelling is helping identify what you do not know. And that is a very science-based approach.”*

*“In other words, it is trying to get a handle on uncertainty rather than trying to confirm what you already believe.”*

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## From academia to the federal government

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*In 2007, Dave Preikshot left the UBC Fisheries Centre and joined the Department of Fisheries and Oceans, better known by the acronym DFO, at the Pacific Biological Station in Nanaimo.*

“In 1973, the Fisheries Research Board was integrated into DFO, the Department of Fisheries and Oceans. A lot of the scientists made a choice as to whether they would become part of the DFO structure because the Fisheries Research Board ended its existence as an independent research organization.”

“There was a lot of controversy in Canadian fisheries science over whether or not it was a good idea to integrate science into a resource management structure. That was the reason for some of the scientists to go down the UBC route. This was the genesis for places in research universities like the UBC Fisheries Centre.”

### Perspective on why aquatic scientists look at whole systems in an integrated way

“A lot of scientists who worked at DFO, and in aquatic sciences in general, tend to be a little more integrative in thinking than a lot of other biologists. The reason is that the aquatic environment is so fluid!”

“Things in the aquatic environment live in all parts, all three dimensions, of the aquatic environment.”

**“Imagine a world in which all things are birds** where they can be in all places, on the ground and in the sky and in the trees. There is almost no barrier to them moving around. That is what it is like for fish. They fly in the sea.”

“And so, aquatic scientists tend to be more comfortable looking at the physical and chemical variables within the water environment... because those tend to be much more of a component in controlling the behaviour of the organisms they study.”

“When you think about land animals, they tend to be prisoners of topography and vegetation. But in the sea, it is really not the case.”

**“One attribute tends to characterize aquatic scientists.** They think in a more integrated way about how the physical and chemical worlds interact with the biological world. Aquatic Scientists are thus confronted with it this 3-D world and the physics and chemistry of that 3-D aquatic environment as a necessary component of how they understand the organisms that live in that environment.”

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### Historical context

*“Carl Walters co-wrote a seminal paper wherein he reviewed the influence of that change from Fisheries Research Board to DFO,” stated Dave Preikshot.*

Hutchings, J. A., Walters, C., & Haedrich, R. L. (1997).

***Is scientific inquiry incompatible with government information control?***  
Canadian Journal of Fisheries and Aquatic Sciences, 54(5), 1198-1210.

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## How a military background is beneficial

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“It never hurts to be able to organize,” observes Dave Preikshot. “There is no doubt that a military background, especially for anyone who has served as an officer, will provide a strong organizational capacity. Or you won’t be able to persist.”

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### **Editor’s Note:**

*Their military experience is consequential for both Chris May and Dave Preikshot. In the conversation with Dave Preikshot, we talked about the frame of reference for the Chris May story in March 2023 which is described next:*

*In the interview with Chris May, it emerged that his naval experience was a key to achieving the research breakthrough in correlating the consequences of land use changes on stream health. His leadership skills as a submarine officer enabled him to organize eight graduate students to work as a team. And then Chris May pulled all the pieces together in his thesis. In addition, he was a mature individual when he returned to university and this helped too.*

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“Thinking back, I have no doubt that contributed significantly to my ability to do that sort of integrative science. One of the more beneficial aspects in a military culture is that you are dealing with situations in which decisions have immediate consequences in personal safety. Life and death in the most extreme cases. And these situations are probably more common in the military than in any other occupation.”

“Within the military culture itself, there is a very quick recognition of when you have to own up to mistakes you have made. You learn that the quicker you own up to mistakes, the quicker corrective action can be taken to rectify those mistakes.”

### **A life lesson: own up to a mistake and work to correct it**

“One of the greatest benefits I got from my naval service was being able to own up to mistakes when I made them and to admit that in front of people and work towards resolving those errors.”

“Later at UBC, I found that this is actually very much in keeping with a scientific perspective where the goal is not necessarily to reinforce what you already believe, but to push the boundaries to find out where you may have been wrong.”

“And so, I was really comfortable in an environment where you want to stress test things and figure out where mistakes might be... in order to have a surer footing going forward.”

**Another way of saying adaptive management:** “I remember being with a group of scientists and my calculation or assumption was wrong in a modelling workshop. When I realized my error, I acknowledged it. In a moment when everyone was flummoxed by contradictory data and analysis, the blockage was removed and everyone was relieved that I had owned up to screwing up.”

“That has been a great life lesson. People very often run away from responsibility. But in my experience, owning a mistake and working to correct it serves you incredibly well both in science and in life. Screwing up and owning it and fixing it is really the essence of science.”

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## How science can inform decision processes

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“As scientists, we definitely try to walk that tightrope between being overly reactive or not bringing the appropriate dynamics to bear on a situation. That is the debate in so many policy decisions,” comments Dave Preikshot.

“Ultimately the decisions are up to senior managers, politicians and the public to make. As a scientist, all you can do is provide the best quality of information possible to help society decide what they want to do.”

“And if senior managers and politicians and the public all decide it is not worth the risk to do something, then I say fair game because that is why we rely on the democratic process to move on any of these decisions. Hopefully, though, scientists can provide information that helps that democratic process!”

### Choose to be courageous in restoring ecosystems

“I do believe that scientists need to talk to politicians, managers, and members of the community. And that is what I do in my current role as the Senior Environmental Scientist with the Municipality of North Cowichan. However, it is really hard to keep everybody interested over the long term that characterizes ecosystem management questions.”

“That is a challenge I face. Projects do not happen over the course of a few months. Almost all are multi-year. The challenge is to keep the partnership going over time.”

**A reality is different time scales and expectations:** “One of the features of adaptive management that is difficult is sustaining collaboration between managers, politicians, and scientists; as well as the computer modelers on the team.”

“Computer modelers can be scientists but are more often than not the programmers who provide the platform for completing the technical analysis.”

“Keeping those people in a forum with politicians and decision-makers is tricky because everyone lives on different time scales with different expectations of when things need to be delivered.”

“If you are talking about how ecosystem changes occur, those are at minimum multi-year and at most multi-decadal exercises. And as I learned from working with Daniel Pauly, it is recognizing that **you can be courageous in choosing restoration goals.**”

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### Editor’s Note:

*During our conversation, we discussed pioneer work in the 1990s by the UBC tandem of Carl Walters and Buzz Holling who developed the concept of adaptive management. Context is provided by the following extract from an Adaptive Management Background Paper that I wrote in 1999 for the Puget Sound local government response when chinook salmon were listed as an endangered species:*

*“The challenge is to develop an effective strategy of technology transfer for resource management that will include all participants in the decision-making environment. On a project scale, the interface could take the form of a system that provides structure and process to the interaction between science and management.”*

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## Help decision makers make good decisions

### Editor's Note:

*During the interview, we discussed the challenges inherent in being courageous in choosing restoration goals.*

*We talked about being ready when there is a window of opportunity. One cannot push it. One cannot force it. If one has that bigger picture motivation, it is all about seizing the opportunities to move change forward for the common good because one is committed to helping decision makers make informed decisions that result in better outcomes for the community as a whole.*

*Dave Preikshot provided this perspective on how he sees his role as an environmental scientist: "I do not have agendas. I only have advice."*

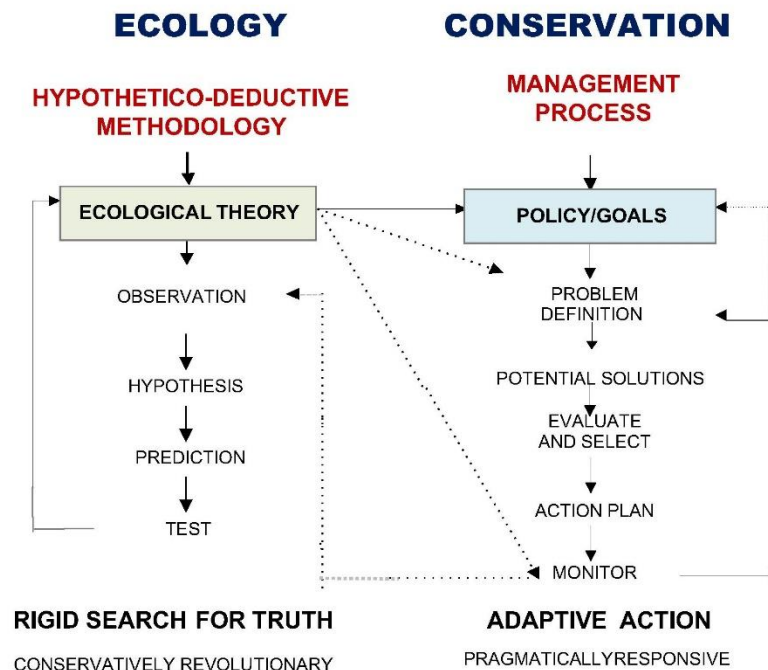
"For any scientist, one of the tough things to remember is that you should not have agendas. Or if you do have an agenda, you have to admit that you are not wearing your scientist's hat when you are describing your agenda.

"And that is tough because your job as a scientist is to provide the best advice to help people make a good decision. But if you try to colour that advice, you are no longer a scientist. You must let the words and data speak for themselves".

"One of the things that I have taken great pride in is that when I write reports, I usually have people tell me that they found that it was written in language that was straightforward and easy to understand. Sometimes I find there is a tendency (by others) to hide behind jargon."

**"You can be the smartest guy in the world, but if you cannot tell anyone what you are thinking, then it does not matter."**

**Editor's Note about contrasting the modes of operation for scientists and managers (decision makers):** Developed by K.H. Rogers, the image below is reproduced from *The Ecological Bias of Conservation - Heterogeneity, Ecosystems, and Biodiversity*, published in 1997. The work by Rogers related to a research program in South Africa that operated around a consensus-building management process facilitated by a decision support system. Although it used different terminology, the concepts are similar to adaptive management and relevant to the critical issues of decision processes in the local government setting.



The dotted lines represent information exchanges that need to be formalized to promote effective dialogue and knowledge transfer. The challenge is to develop an effective strategy that includes all participants in the decision-making environment.

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## How interweaving Indigenous knowledge and Western science fosters reconciliation

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### Editor's Note:

*The early experience by Dave Preikshot in identifying the importance of embracing Indigenous oral history and traditional environmental knowledge aligns with the Blue Ecology initiative led by Michael Blackstock, co-founder of the Blue Ecology Institute Foundation.*

*The Partnership co-chairs the Watershed Moments Team which has produced the Blue Ecology video documentary titled **Blue Ecology is a Pathway to Water Reconciliation and Resilience at the Local Scale**, released on World Rivers Day 2023. The Watershed Moments Team has inter-governmental representation.*

*At its heart, Blue Ecology is about embracing lessons learned from First Nations oral history, taking responsibility for care of the land, and passing on the intergenerational baton.*

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“A lot of our focus right now is recognizing the value of First Nations oral history and First Nations environmental knowledge. And then bringing that on board in terms of management goals and monitoring programs...and fostering engagement and reconciliation work with First Nations,” emphasizes Dave Preikshot.

“For me, that has long been something easily recognizable as something that we should do. Historically, the view of many in management and research is that the stories First Nations people told...of the seeming wealth of resources that had existed...were regarded as fanciful.”

“As time went on, and we amassed scientific and archeological evidence, it really became apparent that this First Nations oral information was often quite accurate. It indicated a wealth of fish resources that had existed and does not exist any more in many places.”

“So, when we are thinking about what our restoration goals should be, and what our management priorities should be, I believe we should be including more meaningful First Nations traditional knowledge in establishing targets.”

“What I learned from Daniel Pauly about the **Shifting Baseline Syndrome** in the 1990s pre-loaded or predisposed me to thinking along these lines.”

**Flashback to 1998:** “Daniel Pauly and several others, me included, started the ball rolling in 1998 on using what we then called *traditional environmental knowledge* to study the Strait of Georgia ecosystem and integrate that with Western science.”

“We held a workshop where we brought together over a dozen researchers and First Nations leaders and talked about how we might make that happen. The resulting report has a lot of mapping and integrative knowledge on what we learned.”

“The report is titled **Back to the Future: Reconstructing the Strait of Georgia Ecosystem**. The contributions jointly describe the ecosystem as it might have been one hundred years ago, before the massive expansions of the commercial fisheries, and five hundred years ago, before contact of native Peoples with Europeans.”

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## Communities can develop natural assets as a way to address the Riparian Deficit

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### Editor's Note:

*During our conversation, we touched on the context for the decision by North Cowichan to step up and be a founding member of the **EAP Partnership**. This is in collaboration with the City of Nanaimo, Regional District of Nanaimo, UBCM, Vancouver Island University and Partnership for Water Sustainability.*

*The question for Dave Preikshot was this: "How do you put EAP in perspective in terms of your Daniel Pauly background, how you see the world, and where we are going with the EAP program?"*

*The intergovernmental initiative is embedding EAP, the Ecological Accounting Process, at the Mount Arrowsmith Biosphere Research Institute (MABRRI) at Vancouver Island University. The initial commitment is a 3-year program to invest in youth.*

*Graham Sakaki, MABRRI manager frames things this way: "The framework for the EAP Partnership is foundational and ensures that EAP can be embedded into the youth who are the future generations of local government staff."*

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"The Ecological Accounting Process has a very practical application. MNC is very limited in its ability to manage agricultural land. What we are really seeking to achieve (through our involvement in the EAP Partnership) is an understanding of what policy options are available to us to work with the farming community," explains Dave Preikshot.

"MNC is assessing ways to work with the farming community to implement riparian management changes because you really need to think in terms of the whole-system ecosystem. The stream corridor is part of a bigger story, and it is integrating that into a bigger story."

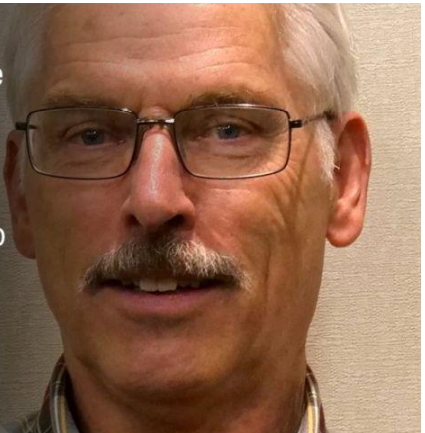
### Look beyond the stream corridor

"We are also working on the biodiversity protection policy and Municipal Natural Assets Initiative (MNAI) in North Cowichan. And our approach to developing the policy is in two steps – first, identify our assets; and secondly, what do we need to do to protect and/or restore those assets."

"Beyond just maintaining natural assets for protecting nature and the intrinsic value that nature has, (we are looking at) what components of the natural environment are assets to the community - just like our infrastructure; and how do we manage those natural assets."

"EAP is thinking about more purposefully managing creeks and ponds that are integrated into our stormwater drainage infrastructure. It is thinking about how does the integrated and whole aquatic environment in MNC work."

"The [Richards Creek EAP Project](#) is tied in with that because of how it integrates to that whole watershed and municipal drainage story."



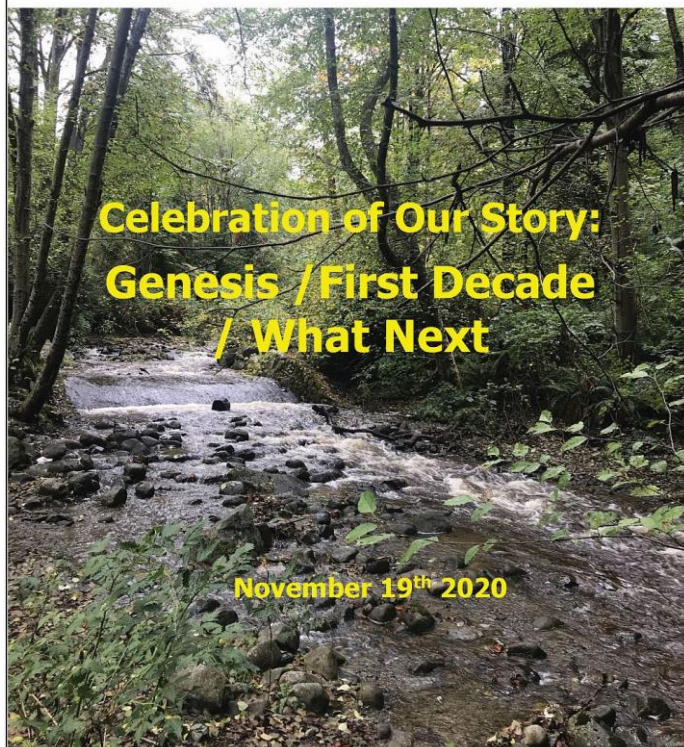
"Local governments have real data to quantify the financial value of streams as physical assets. Having the EAP metric for establishing an annual budget for riparian restoration allows them to put streams into the basket of local government asset management responsibilities."

Tim Pringle, Chair, EAP Initiative





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## About the Partnership for Water Sustainability in British Columbia

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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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