



the partnership
for water sustainability in bc

***Growing the Living Water Smart
Network through the Power of
Collaborative Leadership***

Annual Report 2021

Note to Reader:

The Partnership for Water Sustainability is guided by the vision for [Living Water Smart in British Columbia¹](#). The umbrella for Partnership initiatives and programs is the [Water Sustainability Action Plan for British Columbia²](#). In turn, the Action Plan is nested within [Living Water Smart, British Columbia's Water Plan](#).

This [Annual Report 2021](#) presents a big picture look at what The Partnership represents and does. The format comprises a set of 30-second takeaways to illustrate the breadth and depth of initiatives and programs.

This Annual Report 2021 complements [Celebration of Our Story: Genesis / First Decade / What Next](#), released in November 2020.



¹ https://waterbucket.ca/wcp/wp-content/uploads/sites/6/2017/11/livingwatersmart_book.pdf

² <https://www.waterbucket.ca/cfa/sites/wbccfa/documents/media/81.pdf>

Water as a Metaphor for Collaborative Leadership

“Water is a great metaphor for collaborative leadership. It is life giving. It nurtures. It flows and changes shape. It can be liquid, ice or steam. It overcomes obstacles with its constant presence; moving over, around or wearing down. One drop among many. Today our world is facing some big challenges. An opportunity exists in the space between what was and what will be. What will this be for us in British Columbia? Well that depends on every one of us.

Dr. Kathy Bishop
Royal Roads University
June 2020

President's Perspective: A 30-Second Takeaway

Looking back, 2021 has been an extraordinary year for the Partnership. We continued to elevate our game and in so doing demonstrated what is possible. We provided leadership for a range of initiatives of provincial importance. These four stand out:

- **Groundwater Licensing** is a cornerstone of the *Water Sustainability Act*. It is the biggest endeavour the Province of BC has taken on in its water management history.
- **EAP, the Ecological Accounting Process**, is game-changing. It provides local governments with a methodology and metrics to integrate stream corridor systems within *Asset Management Budgets*.
- **BC Landscape Water Calculator** is aligned with the next iteration of the provincial government's *Water Conservation Condition*. This is the contractual mechanism for infrastructure grants.
- **Blue Ecology** is an ecological philosophy whose time has come. Interweaving Indigenous knowledge and Western science would be the foundation for a whole-system approach to *Water Reconciliation*.

These successes were achieved through the power of collaborative leadership. The process involves bringing the right people together in constructive ways with good information, such that they create authentic visions and strategies for addressing the shared concerns of their organizations and communities.

Looking ahead to 2022, the Partnership and our partners in the *Living Water Smart* network are poised to build on these breakthrough initiatives. We will also be celebrating the 20th anniversary of [Stormwater Planning: A Guidebook for British Columbia](#). The Partnership is the steward for the Guidebook.

In 2022, the Partnership will publish the fourth in the Beyond the Guidebook series of guidance documents. Tentatively titled *Flowing Towards "Water Reconciliation" within the Georgia Basin/Salish Sea*, Beyond the Guidebook 2022 will showcase parallel streams of effort by our local government partners in five sub-regions over the past two decades. This work is ongoing under the umbrella of the *Georgia Basin Inter-Regional Education Initiative*, launched in 2012.

A handwritten signature in blue ink that reads "Ted van der Gulik".

*Ted van der Gulik, PEng,
President*

*Partnership for Water Sustainability in BC
November 2021*

The Living Water Smart Network is guided by a shared vision. By pulling threads of understanding from the past through to the present and future, it would help communities reconnect people, fish, land and water in altered landscapes

“The network emerges around a common goal, rather than a particular program or organizational model. The community mobilizes the resources from throughout the network, and based on existing relationships in the community.”

“The solution is emergent and comes from the community members themselves, rather than being pushed from the top down.”

“And finally, once a network is up and running and proves itself to be effective, it becomes the primary vehicle for change, rather than the individual organizations themselves.”

DR. JANE WEI-SKILLERN
UNIVERSITY OF CALIFORNIA BERKELEY
CO-AUTHOR OF THE GROUNDBREAKING
“THE NETWORKED NON-PROFIT” (2008)



Table of Contents for Annual Report 2021

What the Reader will Learn About the Partnership

Historical Context / Operational Framework

How the Partnership Functions as Network

Intergenerational Mission of the Partnership

Ambassador of the Partnership Program

Introduction to Partnership Initiatives & Programs

- waterbucket.ca website & Waterbucket eNews are the Partnership's Communication Platforms
- Groundwater Licensing is a cornerstone of the Water Sustainability Act
- EAP, the Ecological Accounting Process, is game-changing for Stream Corridor Systems
- BC Landscape Water Calculator helps homeowners determine total landscape water need
- Blue Ecology, the Watershed Moments Series, and Interweaving of Indigenous Knowledge & Western Science to Achieve Water Reconciliation
- Georgia Basin Inter-Regional Education Initiative, a unique mechanism for collaborative leadership
- Beyond the Guidebook 2022: Flowing Towards "Water Reconciliation" within the Georgia Basin / Salish Sea
- Water Balance Methodology and family of online tools operationalize hydrology performance targets for growing green infrastructure
- BC Agricultural Water Demand Model & Family of Online Calculators for Climate Action

Historical Context / Operational Framework

An Overview for the Interested Reader

The Partnership for Water Sustainability in BC is a non-profit society that delivers services in collaboration with government. The Partnership was incorporated under the BC Societies Act on November 19, 2010. This was a transformative decision.

Morphing of the former “BC water sustainability technical committee” into “**The Partnership**” ensured continuity, longevity and sustainability in evolving tools, resources and programs developed under the umbrella of the [Water Sustainability Action Plan for British Columbia](#) (Action Plan).

The Action Plan is guided by the vision that on-the-ground initiatives inform Provincial policy through the shared responsibility model.

The Partnership plays a bridging role among the provincial government, local government, and community stewardship sectors. It is the hub (or node) for a “convening for action” network in the local government setting. It delivers Action Plan initiatives and programs through partnerships.

When the Action Plan was released in 2004, it brought together six Action Plan Elements. The Water Balance Model, an online decision support tool, was the centrepiece initiative. The success of this initiative lent immediate credibility. There was a track record of intergovernmental cooperation, communication, coordination, collaboration, and funding.

Action Plan experience informed development of [Living Water Smart, British Columbia’s Water Plan](#), released in 2008, as well as the parallel [Green Communities Initiative](#). The Action Plan is nested within Living Water Smart.

In 2008, Living Water Smart was the provincial government’s call to action, and to this day transcends governments. The partnership umbrella provided by the Action Plan has allowed the Province of British Columbia to leverage partnerships to greatly enhance the profile and impact of Living Water Smart.

Partnership Goals and Objectives

The mission is to evolve the elements of a fully integrated Action Plan to:

Promote a watershed-based approach that manages the natural environment and the built (human-altered) environment as integrated components of the same watershed and results in 'design with nature' outcomes.

Consider the health and well-being of communities in the context of a 50-year planning horizon and beyond.

Focus on the social, economic, and environmental benefits of an integrated and sustainable approach to water resource management across the province.

Educate and influence policy makers, practitioners, and stakeholders regarding the benefits of protecting and/or restoring the hydrologic cycle (water balance).

Build support for a paradigm-shift in British Columbia that, over time, would result in water being at the heart of decision-making for human activities.

Facilitate the move toward a sustainable 'closed loop' approach to water resource management in British Columbia.

Promote an ecosystem approach to protecting water resource health which recognizes that what the cell is to the body, the site is to the region

To accomplish the above, The Partnership has three objectives that cascade:

Link and integrate all aspects of water resource management and water use.

Develop partnerships with organizations and groups to:

- Add the 'water dimension' to community planning and land development.
- Promote change at four scales – region, watershed, neighbourhood and site.
- Promote technological and cultural changes, including professional, organizational and societal changes.

Find the appropriate balance between:

- Planning process and concrete outcomes
- Changing behaviour and changing practices
- Capture the expertise needed for the task.

How the Partnership Functions as Network

Context for the Interested Reader

Counter-Intuitive Principles for Effective Networks

*Focus on mission
before organization*

*Manage through
trust, not control*

*Promote others, not
yourself*

*Build constellations,
not stars*

The Partnership for Water Sustainability is a legal entity. Operationally, however, we function as the hub for a network that is guided by the collaborative leadership model. This approach reflects our genesis, first as a technical committee and then as a roundtable. We are growing the network. We are not building a conventional organization.

Collaborative leadership uses the power of influence rather than positional authority to engage and align individuals and organizations within a network, and deliver results across organizational boundaries

The network is the ultimate source of strength of The Partnership. The network also holds the key to intergenerational collaboration. It is how we build bridges of understanding and pass the baton from the past to the present and future. In this way, the network is a foundation piece for succession planning.

For The Partnership to be successful in facilitating changes in practice over the long-term, the groundwork must be done by our partners. This means the work of The Partnership must be aligned with and support their organizational aspirations and objectives.

"Embracing collaborative leadership, growing a network based on shared aspirations, and delivering results across organizational boundaries differs in every way from building an organization in any conventional sense."

Mike Tanner, Founding Director
Partnership for Water Sustainability in BC



Intergenerational Mission of the Partnership

Context for the Interested Reader

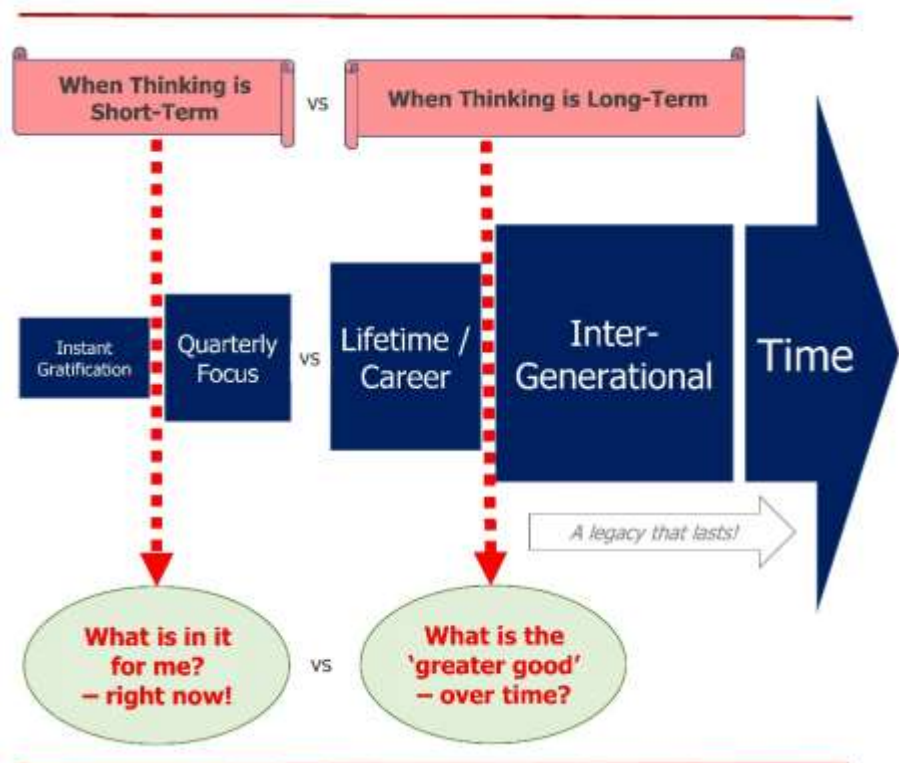
Policy or technical knowledge alone is not enough to resolve the water challenges that face BC, now and in the future. Creating a *climate for change* requires an appreciation and understanding of human behaviour, combined with a knowledge of how decisions are made in the real world. It takes a career to figure this out.

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.

Whether and how we deal with uncertainty, manage risk, and adapt to droughts and floods will depend on how effective we are in encouraging a spirit of inter-generational collaboration among decision-makers at all levels within government and with community.

When members of the Living Water Smart network are successful in achieving their missions, the Partnership is successful.

The Time Continuum graphic opposite conceptualizes the way of thinking that underpins the inter-generational mission of the Partnership for Water Sustainability. Influence choices. Capitalize on the REACHABLE and TEACHABLE MOMENTS to influence choices.



Ambassador of the Partnership Program

Context for the Interested Reader

*The Ambassador program complements the **Champion Supporter** of the Partnership recognition program. The primary purpose of the latter is to recognize organizations whose enduring support for The Partnership, and staff participation in Partnership initiatives, is essential for long-term success in realizing the Living Water Smart vision. Individuals may also be recognized as Champion Supporters when their contributions are determined to be outstanding.*

The Partnership has steadily built upon its strong foundation of principles and objectives in successfully undertaking an array of Living Water Smart program initiatives. As interest and participation in these initiatives has grown, The Partnership has steadily worked towards a goal to ensure succession, sustainability, and credibility.

To achieve this goal, we launched the [Ambassador of the Partnership](#) program in 2021. This flagship program provides formal recognition of individuals who, supported by their organizations, bring special value to the partnership mission for building bridges of understanding through intergenerational collaboration.

To be successful, the network needs other nodes, each with a contact or ‘ambassador’ to ensure the seamless exchange of information and ideas on a self-supporting, independent and free-flowing basis. Success in Living Water Smart is contingent upon collaboration; inter-municipal, inter-regional, and inter-provincial. Experience has shown this can only be achieved through working across boundaries. The segue to success is through the [Ambassadors of the Partnership](#) who are the bridges across the boundaries, connecting to other nodes.



“Based on rapidly evolving demographic, climatic and social changes, we chose 2021 as the starting year for the *Ambassadors Program* and 2022 as our flagship year to vigorously promote the initiative.”

Derek Richmond, M.Eng., P.Eng.
Founding Director & Secretary
Chair, Ambassadors Program
Partnership for Water Sustainability in BC

Introduction to Partnership Initiatives & Programs



waterbucket.ca website & Waterbucket eNews are the Partnership's Communication Platforms

Launched in 2005 with a public announcement by the BC Minister of Environment, the vision for the [waterbucket.ca website](https://waterbucket.ca) was to provide a resource rich “destination location” website for information and communication related to Living Water Smart in BC.

The Partnership has achieved this vision. The website is a “go to” resource. Most importantly, waterbucket.ca allows our ‘convening for action’ partners to record their history even as they are creating it.

*View online versions
of Waterbucket
eNews newsletters at:
[https://waterbucket.ca/
wscblog/](https://waterbucket.ca/wscblog/)*

SHARE INFORMATION. INFORM DECISIONS. This soundbite lines up nicely with the mission of the [Waterbucket eNews](#) newsletter which is to help readers make sense of a complicated world.

Published weekly from September through June, Waterbucket eNews celebrates the leadership of individuals and organizations who are guided by the Living Water Smart vision and mission to build greener communities and adapt to a changing climate; and embrace “design with nature” approaches to reconnect people, land, fish, and water in altered landscapes.

“The waterbucket.ca website is providing the reasons to have the conversation about ‘*why change*’. The resulting awareness of **need** will help us obtain the mandate to implement watershed-based land use planning.”

Marvin Kamenz
Director of Development Services
Town of Comox



Groundwater Licensing is a cornerstone of the Water Sustainability Act

The *Water Sustainability Act* (WSA), passed in 2016, is the governance and regulatory component of [Living Water Smart, British Columbia's Water Plan](#). However, water has not been a high priority for successive provincial administrations. There has been no water champion. And this has had consequences for groundwater licensing implementation.

In mid-September 2021, The Partnership released a [Groundwater Licensing Primer](#) that laid out WHAT must happen to rectify a chaotic situation, provide a dedicated budget, and get groundwater licensing implementation back on track. The Partnership highlighted that there is not a clear plan on how the provincial government will deal with the inevitable crisis that looms large on March 2, 2022.

The Partnership met with the *Select Standing Committee on Finance and Government Services* on September 30th to spell out HOW the provincial government should fund and implement game-changing solutions beginning with Budget 2022. This would require an annual commitment of \$30 million over a 10-year period.

Download a copy of The Partnership's submission to the committee:

https://waterbucket.ca/wcp/wp-content/uploads/sites/6/2021/09/PWSBC_Living-Water-Smart_Groundwater-Licensing_Budget-Consultation-2022-submission.pdf

“Ted van der Gulik's expertise, his passion, and his knowledge make him a powerful voice. He has managed to scare me about what needs to be done! I am pretty sure that what Ted has raised will be a big part of our (committee) conversations in terms of the message that we want to give to the legislature.” – September 30, 2021

Janet Routledge, MLA

Chair, Select Standing Committee on Finance and Government Services, Province of British Columbia



EAP, the Ecological Accounting Process, is game-changing for Stream Corridor Systems

In British Columbia, there is an expectation that local governments would integrate natural assets into their asset management processes. EAP shows them how to do it for stream systems. EAP provides local governments with a guiding philosophy, a methodology, and metrics.

A stream is a land use because the stream corridor is defined in regulations and has a financial value.

To learn more about the EAP program, visit www.naturalcommons.ca

The goal of making the financial case for the stream has been realized through a systematic process founded on case study applications to test, refine and mainstream EAP. A notable outcome is **Riparian Deficit**, a new way of defining "loss of riparian integrity".

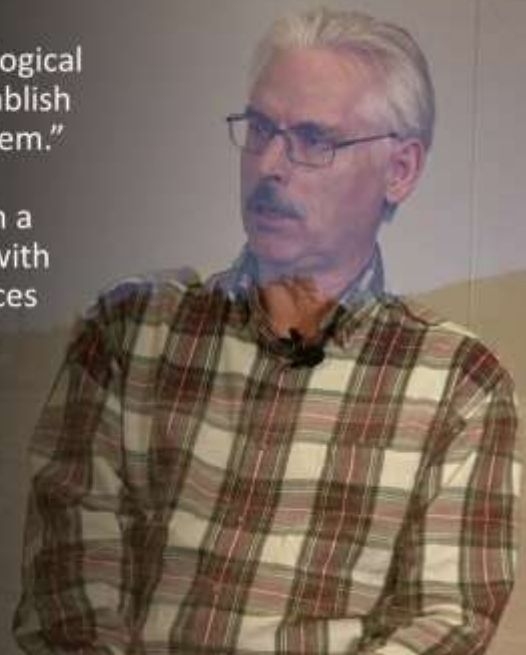
Riparian Deficit is an attention-grabber because it is the environmental equivalent of the **Infrastructure Deficit (or Gap)**. The latter is the driver for contemporary asset management which has a goal of sustainable service delivery for constructed assets such as water, sewer and drainage infrastructure.

EAP is the culmination of a 25-year journey for The Partnership. This journey began with seminal research at the University of Washington in the 1990s that applied a whole-system approach and correlated land use changes with impacts on stream condition.

"EAP interweaves financial, social, and ecological perspectives within a single number to establish the financial case for a stream corridor system."

"This provides environmental planners with a starting point for a balanced conversation with engineers and accountants about the services that natural and constructed assets both provide. This alone is a game-changer."

Tim Pringle, Chair, EAP Initiative
Partnership for Water Sustainability in BC



BC Landscape Water Calculator helps homeowners determine total landscape water need

Local governments in three regions – Okanagan (Kelowna), Fraser Valley (Abbotsford) and Vancouver Island (Capital Regional District) - have collaborated with The Partnership to operationalize the [BC Landscape Water Calculator](#).

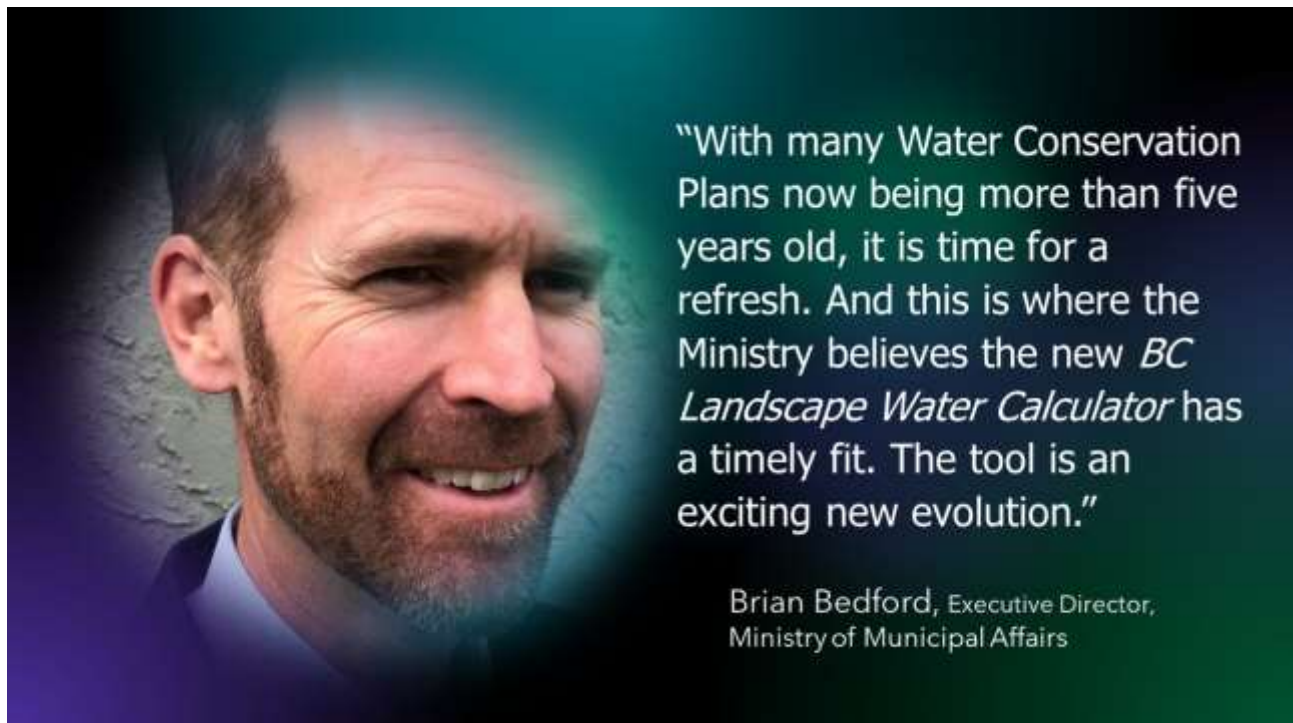
Test drive the BC Landscape Water Calculator at:

<https://bcwatercalculator.ca/landscape/irrigation>

The power of this online tool is that it is linked to a provincial 500 metre gridded climate dataset that was built for the [Agricultural Water Demand Model](#). This is what establishes the **allowable water budget** for every property in British Columbia. Users then test various combinations of plant types and irrigation systems to determine their **total landscape water need**.

BC's new reality is longer, drier summers. Targeting seasonal outdoor water use represents the best opportunity to achieve “water use in balance with a changing water cycle”. This new online tool helps homeowners design water efficient yards and gardens.

Updating the [Water Conservation Condition](#) for the next iteration of the provincial government grants program would create the opportunity to encourage use of the BC Landscape Water Calculator.



“With many Water Conservation Plans now being more than five years old, it is time for a refresh. And this is where the Ministry believes the new *BC Landscape Water Calculator* has a timely fit. The tool is an exciting new evolution.”

Brian Bedford, Executive Director,
Ministry of Municipal Affairs

Blue Ecology, the Watershed Moments Series, and Interweaving of Indigenous Knowledge & Western Science to Achieve Water Reconciliation

Visit waterbucket.ca to learn more at:

<https://waterbucket.ca/wcp/category/blue-ecology-michael-blackstock/>

<https://waterbucket.ca/viw/category/vancouver-island-symposia-series/>

Beginning in 2018, The Partnership and Nanaimo & Area Land Trust (NALT) have co-produced [Watershed Moments](#), the [Vancouver Island Water Stewardship in a Changing Climate Annual Symposia Series](#).

Watershed Moments 2021, the Blue Ecology Virtual Seminar, is a bridging event to the next full-scale [Blue Ecology Symposium](#) which will be in 2022.

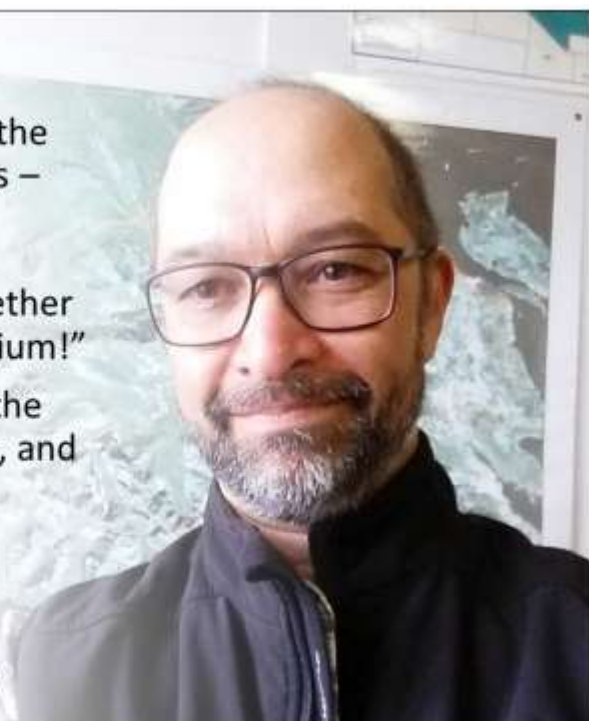
Watershed Moments 2021 is the event of record for launching Michael Blackstock's [Blue Ecology Institute](#). The initiative is guided by a vision to build a bridge between two cultures through a water-first approach.

More than a decade ago, international recognition gave Blue Ecology early credibility and profile. However, there was limited awareness within BC of what Michael Blackstock had accomplished on the global stage. Fast forward to November 2017. That is when The Partnership held the [Blue Ecology Workshop](#) to begin the process of mainstreaming Michael Blackstock's work and ecological philosophical into the local government setting.

"We have landed at the crux of two of the most important issues facing Canadians – relationships with First Nations and relationships with water. And we just happen to be trying to piece them together as a seminar and eventually as symposium!"

"We must ensure that we do not rush the process. We must get the process right, and that what we deliver is the water reconciliation piece."

Paul Chapman, Chair
Watershed Moments Symposia Series
Executive Director, Nanaimo & Area Land Trust



Georgia Basin Inter-Regional Education Initiative, a unique mechanism for collaborative leadership

There is no formal mechanism to enable or facilitate inter-regional collaboration in British Columbia. The Partnership fills this gap in the southwest corner of the province, where 75% of the population lives, through the [Georgia Basin Inter-Regional Education Initiative](#).



Launched in 2012, the IREI facilitates peer-based education among local governments located on the east coast of Vancouver and in the Lower Mainland. In 2016, five Regional Boards – Cowichan Valley, Nanaimo Region, Comox Valley, Capital Region, and Metro Vancouver - recommitted through 2021 to collaborate and work as a team.

The IREI is nested within the [Water Sustainability Action Plan](#) which, in turn, is nested within [Living Water Smart](#). Cascading is the reverse way to think about this nesting concept. Each successive layer in the cascade adds depth and detail to enable the move from awareness to implementation – that is, action.

2022 is the 10th anniversary of the IREI

Exhibit A conceptualizes parallel streams of effort over two decades in the five partner regional districts. Each sub-region is represented on the Watershed Moments team.

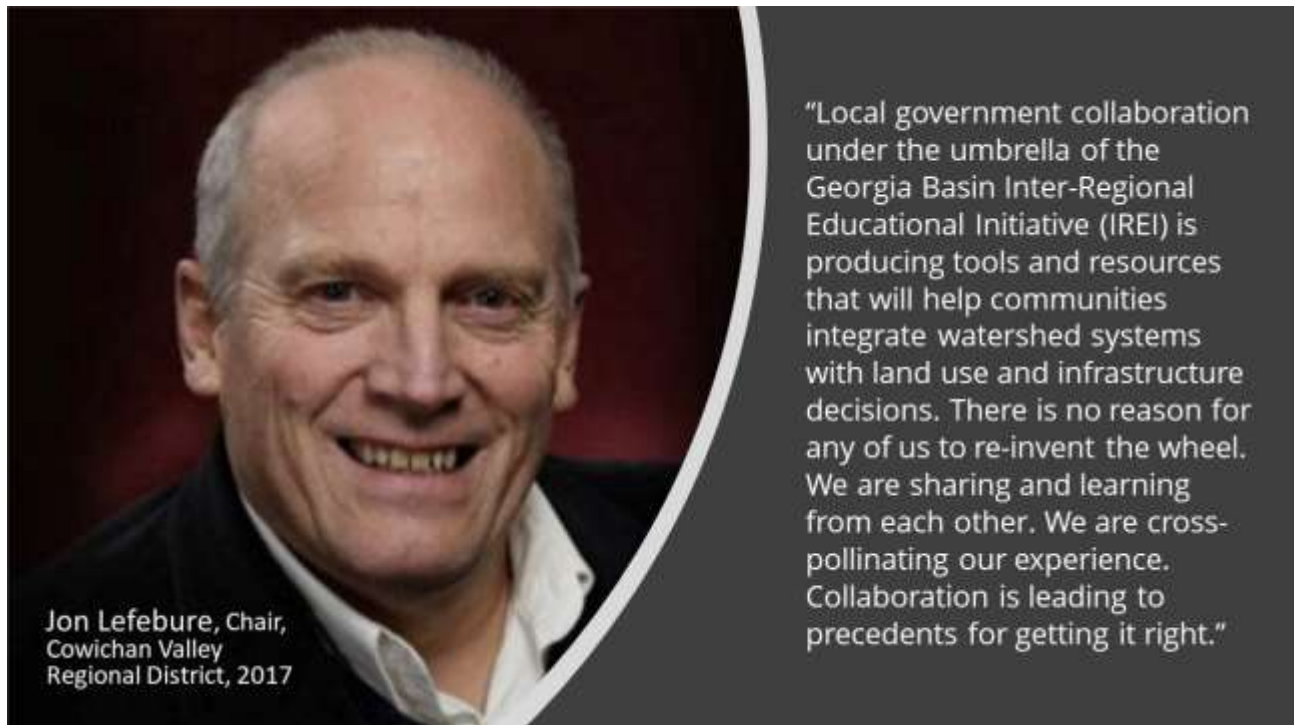
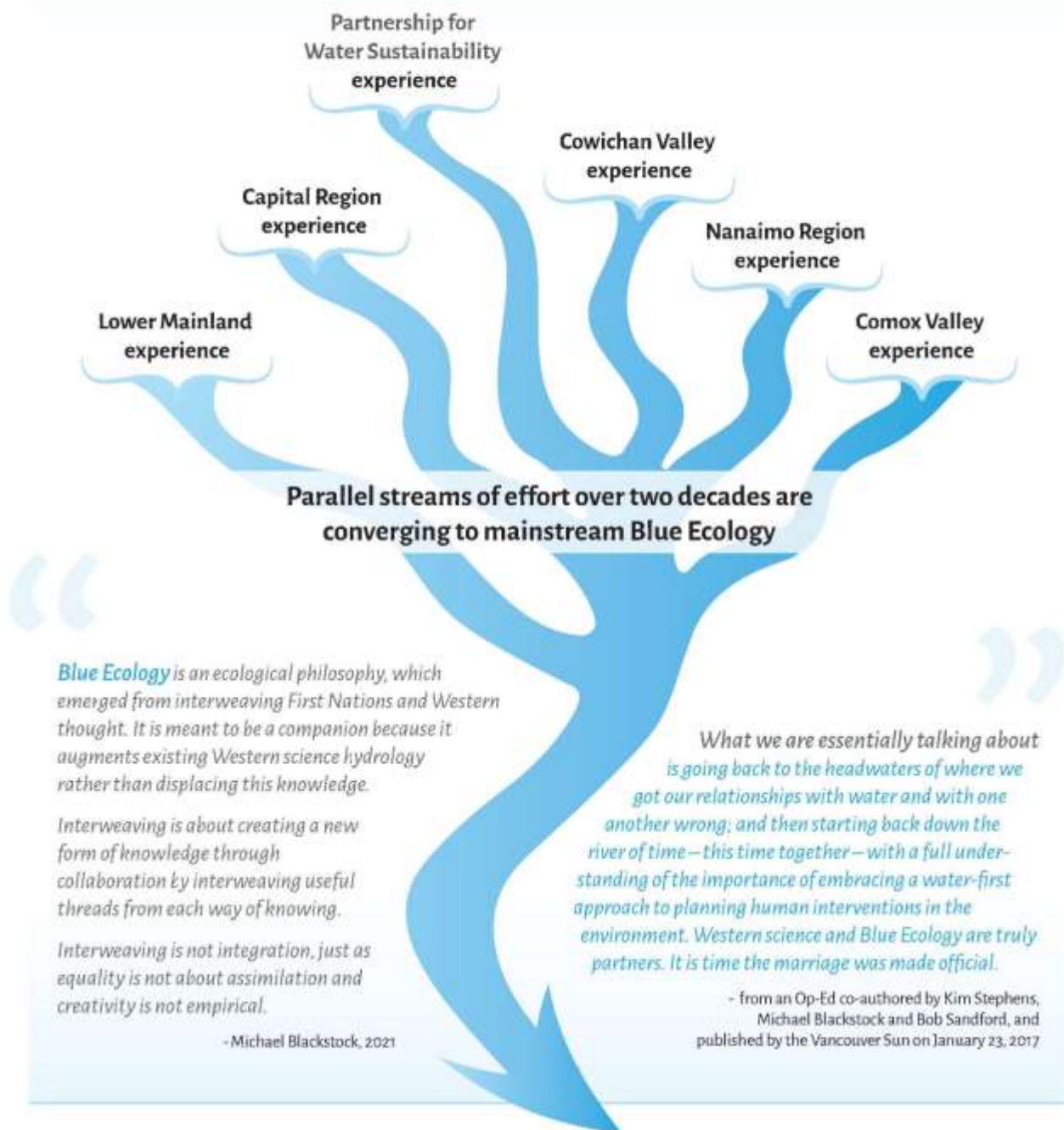


EXHIBIT A

LIVING WATER SMART IN BRITISH COLUMBIA

Flowing Towards “Water Reconciliation” Within the Georgia Basin / Salish Sea

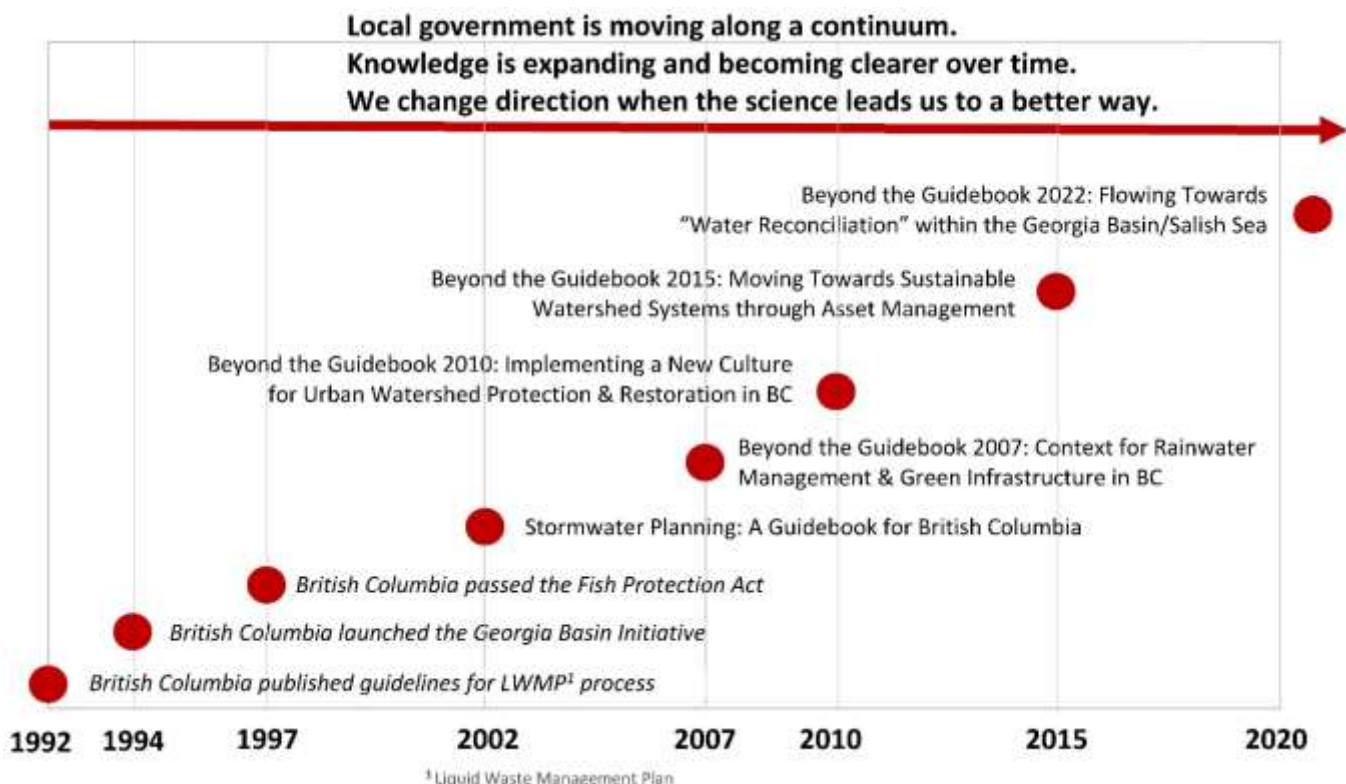


Beyond the Guidebook 2022: Flowing Towards “Water Reconciliation” within the Georgia Basin/Salish Sea

Building on the science-based foundation presented in [Stormwater Planning: A Guidebook for British Columbia](#), the *Beyond the Guidebook Series* documents the progress of local government champions who are leading implementation of changes in practice. Three milestones along the way are 2007, 2010 and 2015 as noted below. The *Beyond the Guidebook* titles reflect incremental progress over time.

The timeline image provides historical perspective for a provincial process that began in 1992 with publication of guidelines for [Liquid Waste Management Plans](#). In 1992, the description of the rainwater component was broad-brush. Within a decade, the Province of BC released the Guidebook and provided science-based direction for application of the [Water Balance Methodology](#) to address changes in hydrology and protect stream system integrity.

[Beyond the Guidebook 2022](#) will weave the story of parallel streams of effort involving The Partnership and five Georgia Basin sub-regions.



Water Balance Methodology and family of online tools operationalize hydrology performance targets for growing green infrastructure

Learn more about the family of Water Balance tools at:

<https://waterbalance.ca/>

Beginning in 2003, The Partnership has developed the Water Balance family of tools as an extension of [Stormwater Planning: A Guidebook for British Columbia](#). The purpose is to operationalize the Water Balance Methodology. The goal in operationalizing performance targets and growing green infrastructure is to achieve multiple benefits, in particular protection and/or restoration of stream integrity.

The flagship is the [Water Balance Express](#), an interactive tool for homeowners. The Partnership vision is to interlink the Express and the Landscape Calculator to achieve 'whole-system, water balance management' at the property scale. The commonality is soil and how soil functions as an absorbent sponge to hold and slowly release water, thereby maintaining the water balance during wet and dry cycles.

As more local governments join the BC Landscape Water Calculator and Water Balance Express initiatives, the scope of cost-sharing of interlinking and other enhancements will further add to the capabilities and ease-of-use of both tools.



Richard Boase, Vice-President
Partnership for Water Sustainability

"An increasing building footprint on properties is short-circuiting the WATER BALANCE. This creates risks for local government, both financial and environmental. If we want to make change, then we must find a way to influence landowners to look at their properties differently. The Water Balance Model Express allows a landowner to look at what is on the property now; and quantify the kind of footprint change they intend to make."

BC Agricultural Water Demand Model & Family of Online Calculators for Climate Action

Two decades ago, The Partnership's Ted van der Gulik had a vision for a science-based approach to management of irrigation water demand in BC. As the Senior Engineer in the Ministry of Agriculture, he had a mandate that allowed him to put his ideas into practice through province-wide implementation of the [Agriculture Water Demand Model \(AWDM\)](#). The power of the tool is found in the provincial 500-metre gridded climate dataset, a North American first.

Three Key Messages

First, put the science in water licensing.

Secondly, it is all about food security. And

thirdly, give people only what water they need today.

In June 2008, the stars aligned when the provincial government embarked on [Living Water Smart, BC's Water Plan](#). This provided the framework for a new era of water management in BC. As a catalyst for action, Living Water Smart also allowed the provincial government to leverage what Ted van der Gulik and his colleagues were already doing to put bold ideas into practice on a provincial scale.

The Partnership is program delivery manager for the ongoing program for AWDM implementation in all regions of the province. Also, the ADWM is the platform and engine for development of additional tools such as the [BC Agriculture Water Calculator](#) (which supports groundwater licensing) and the [BC Landscape Water Calculator](#).

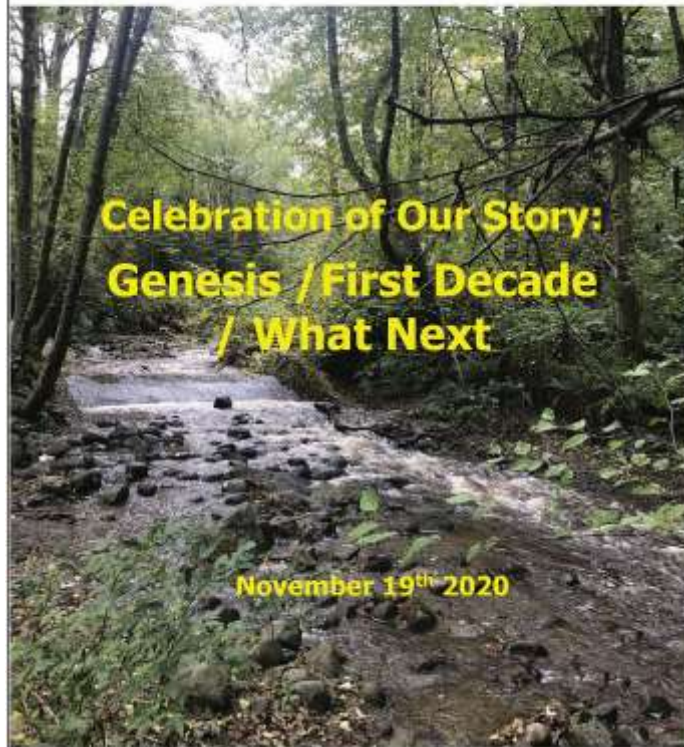


"For irrigation water use, it is important to link water allocation and water licensing. The takeaway message is that we must continually strive to improve the licensing system by taking advantage of all the science as it comes along. And that is what BC has been doing over the last 15 years with a science-based approach. We have much better information today to make licensing decisions. That's the bottom-line."

Ted van der Gulik, Chair
BC Agricultural Water Demand Model



the partnership
for water sustainability in bc



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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