



the partnership  
for water sustainability in bc

# Stream Systems and Watershed Stewardship in the Comox Valley:

*Moving Towards  
Sustainable Service Delivery*

**Spring 2023**  
Working Draft

## Note to Reader:

Published under the umbrella of the Georgia Basin Inter-Regional Education Initiative (IREI), this publication is the second in the [Stories of Inter-Regional Collaboration Series](#). Each story in the series features a partner region. The emphasis is on what we have learned over the past two decades. Looking back informs how we see ahead.

The series builds on the precedent that the Partnership established with the [Watershed Case Profile Series](#) and feeds into the [Beyond the Guidebook Series](#) of guidance documents that, in turn, build on [Stormwater Planning: A Guidebook for BC](#), released by the Province of British Columbia in 2002.

The series focus is on inter-regional collaboration and how learning from each other has cross-pollinated and influenced initiatives and outcomes in all participating regions. The ‘implementation challenge’ is the driver for collaboration under the IREI umbrella.

These legacy resources are by no means technical reports, although they are founded on technical concepts and understanding. Neither are they written in a technical format nor a technical style. Rather, these are “stories behind the stories”. Much like a news magazine would, they weave quotable quotes by the players who were involved along the way. The Partnership hopes readers will find each story in the series to be enjoyable and compelling.

### ACKNOWLEDGEMENT:

*The cover photo was provided by the Comox Valley Regional District. Many of the photo images used in this document as backdrops for key messages were contributed either by Cameron Stephens or by David Mackenzie, photographer extraordinaire, a Lifetime Member of the Partnership for Water Sustainability in BC.*

## What the Reader Will Learn

Know your history. Understand the context. Build on experience. Collaboration at all levels would help everyone better deliver on policy goals and regulatory requirements. This story of collaboration within the Comox Valley is a “legacy resource” because it is written to help future generations of local government champions in the Comox Valley “understand the why” behind their oral history.

This legacy resource for the Comox Valley is the second in a series of comprehensive “stories behind the stories” of inter-regional collaboration among local governments along the east coast of Vancouver Island and in the Lower Mainland region of British Columbia.

***What is the issue driving inter-regional collaboration?*** If we know how to do a much better job of protecting ecological features and stream systems in our communities and on our landscape, then why aren’t we doing a better job? Why are streams still being degraded?

***Why is Inter-regional collaboration important?*** It helps the champions in each region understand what other regions are doing, what works, and what does not. In a very real sense, success or failure depends on whether the “intergenerational baton” is passed from one administration to the next.

***How will inter-regional collaboration make a difference?*** Our land ethic has consequences for water and our climate is changing. To make a difference, it will be necessary to “get it right” in stream channels and on the land draining to them. We do that by showcasing and celebrating successes and inspiring others to springboard from stop-gap remediation of problems to long-term restoration of properly functioning creeksheds in settlement areas.

***Who will read this legacy resource?*** This “story behind the story” is unlikely to be a best-seller or even read widely. However, the Partnership does hope that it will have lasting value as a legacy resource for those who wish to understand the past and build on experience and turn the wheel, not reinvent it. At the end of the day, if the Partnership did not tell the stories of the ongoing “convening for action” processes in the IREI regions, who would?



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



# Georgia Basin Inter-Regional Education Initiative (IREI)

## Educational Goal

Build practitioner capacity within the local government context to implement the whole-system, water balance approach known as ***Asset Management for Sustainable Drainage Service Delivery***

**Mandate:** Provide value through collaboration and partnerships.

## Acknowledgments

The Partnership for Water Sustainability gratefully acknowledges the financial support over the past two decades by the Real Estate Foundation of BC, by the Province of British Columbia through the Ministries of Municipal Affairs and Environment as well as the Union of BC Municipalities, and by the federal government through the Federation of Canadian Municipalities.



## About the Partnership for Water Sustainability

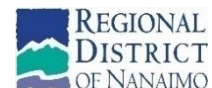
*The Partnership for Water Sustainability in British Columbia has its roots in government – local, provincial, federal. Incorporation of the Partnership as a not-for-profit society, on November 19<sup>th</sup> 2010, was a milestone moment.*

*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 in 2010. Incorporation enhanced the capabilities of the Partnership to develop tools and resources, and facilitate peer-based learning, to sustain implementation of the vision for **Living Water Smart in British Columbia**.*

*The Partnership vision is to build **bridges of understanding** and pass the baton from the past to the present and future. To bring the intergeneration vision to fruition, the Partnership is growing a network in the local government setting, which encompasses both government and stream stewardship sectors. This network embraces collaborative leadership and **intergenerational 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.*

## Five regional districts have endorsed the IREI thru Board Resolutions



CVRD



Making a difference...together



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# A Guide for the Busy Reader

## Stream Systems and Water Stewardship in the Comox Valley

Elements of the Storyline	THIS IS A STORY, NOT A REPORT. THE FORMAT FOR TELLING THE STORY IS ALTERNATING PAGES OF TEXT AND VISUALS.
Synopsis for Busy Reader	<p>The high-level overview of the Comox Valley Water Sustainability Journey is written for the extremely busy who just wants to understand “what I need to know” about the journey.</p> <p><i>Each of the “six parts” is distilled into two pages. A synthesis page plus an accompanying image page bring to life a key message for each part.</i></p>
Inter-Regional Context for Collaboration	<p>Part A establishes context and primes the reader for what follows in the next five parts. It delves into why the IREI is a unique mechanism for collaborative leadership and elaborates on how this plays out through a <i>Regional Team Approach</i>.</p>
Window into the Comox Valley Water Journey	<p>Part B sets the stage for Parts C, D and E. To achieve this, it starts with the context for judging progress, follows with a perspective on the art of the possibility for water sustainability, and then tells the story of the journey through the eyes and words of 9 individuals.</p>
Convening for Action from 2006 thru 2011	<p>Part C begins by tracing the early history that propelled collaboration on Vancouver Island. It then transitions into the contributions by Comox Valley local governments, and how the valley emerged as an early adopter of the vision for <i>Sustainable Service Delivery</i>.</p>
Convening for Action from 2012 thru 2017	<p>Part D describes how the Comox Valley has benefitted from and influenced inter-regional collaboration. It interweaves vignettes to illustrate the regional team focus on actions and outcomes, and how the team framed and elevated water sustainability priorities.</p>
Springboard from 2017 Eco-Asset Symposium	<p>Part E describes how the “process for change” is unfolding in the Comox Valley. It starts with the 2017 Eco-Asset Symposium and what this set-in motion on Vancouver Island. It then celebrates the local accomplishments that have established provincial precedents.</p>
A Look Ahead: The Next Five Years	<p>Part F reflects on how the “experiment in collaboration” is anticipated to play out because the “spirit of collaboration” has taken root. The lines of communication are open between local government. This bodes well for all four moving in the same direction.</p>

## EXECUTIVE SUMMARY

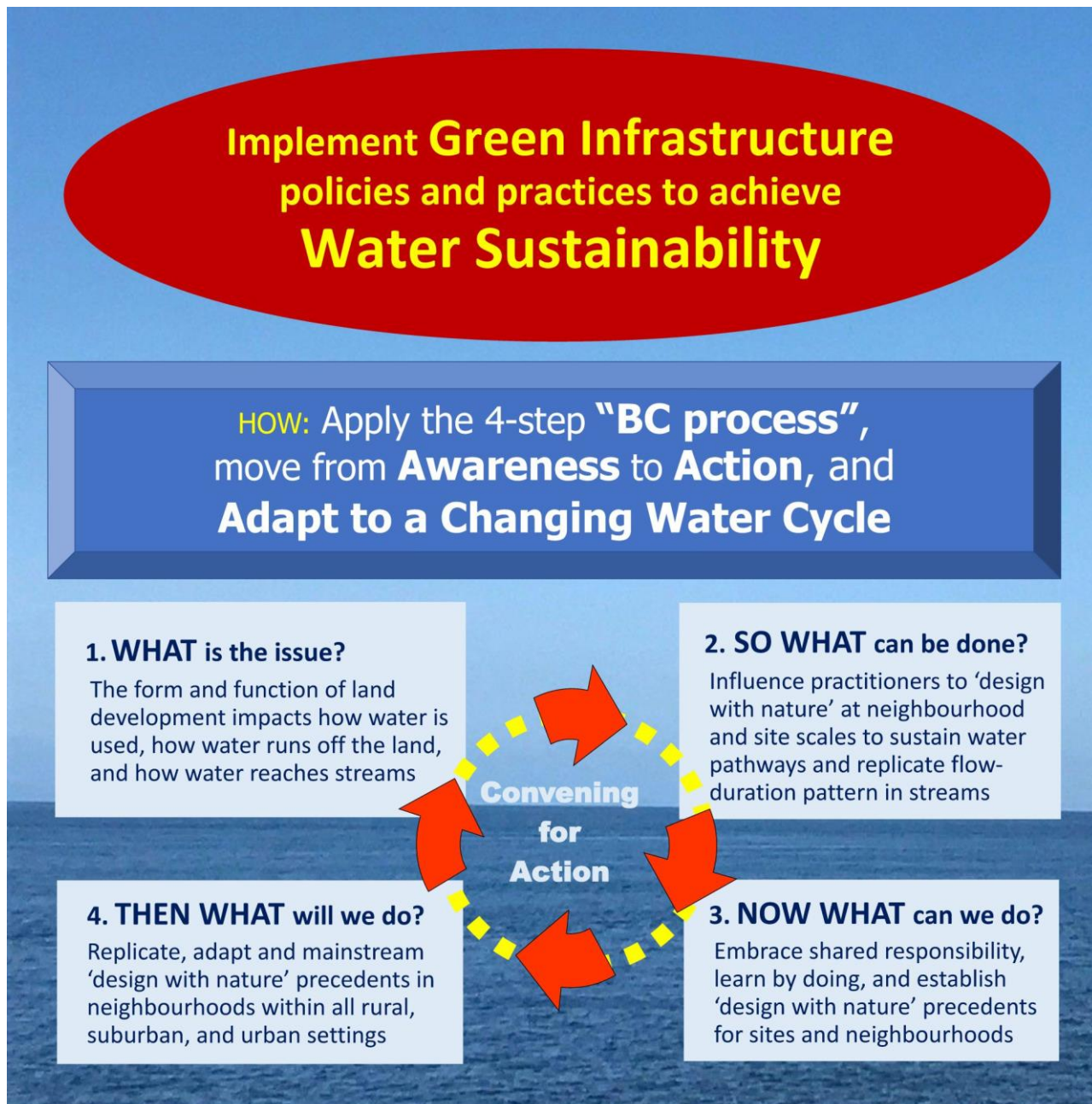
# Synopsis for the Busy Reader



*The Executive Summary provides a high-level overview of the Comox Valley Water Sustainability Journey and how it has been influenced by, as well as influenced, inter-regional collaboration.*

*It is written for the extremely busy who just wants to understand “what I need to know” about the process for achieving Sustainable Service Delivery looks like in the Comox Valley.*

Figure ES1 – Convening for action requires patience



Source: Figure 9 in *Beyond the Guidebook 2010: Implementing a New Culture for Urban Watershed Protection and Restoration in British Columbia*, June 2010



# Implement Green Infrastructure policies and practices to achieve Water Sustainability

## Look Back to Look Ahead

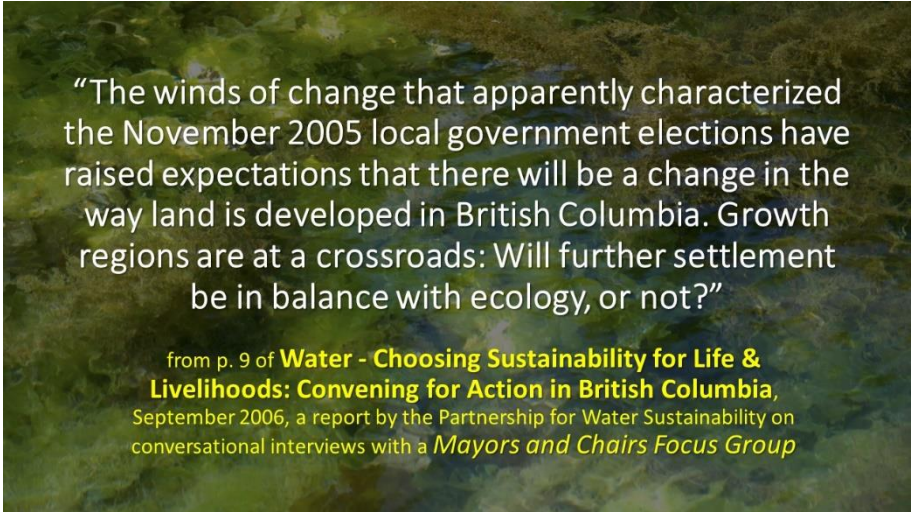
British Columbia has long been ahead of the game in linking green infrastructure practices to desired water sustainability outcomes. This reflects an understanding of the critical role played by soil, vegetation, and trees in an absorbent landscape.

To adapt to a changing water cycle – **the new reality** - soil depth as an ‘absorbent sponge’ is a primary water management tool, during both dry-weather & wet-weather periods. Less water runs off when it rains. During periods of drought, this means that less water is needed for irrigation and there is more streamflow to sustain aquatic habitat.

### 2006 Mayors and Chairs Focus Group

*“A distinguishing feature of the focus group was that everyone had thought about how to achieve environmental, economic and social objectives through a community’s infrastructure choices.”*

Ray Fung, Chair (2008-10)  
Green Infrastructure  
Partnership



“The winds of change that apparently characterized the November 2005 local government elections have raised expectations that there will be a change in the way land is developed in British Columbia. Growth regions are at a crossroads: Will further settlement be in balance with ecology, or not?”

from p. 9 of **Water - Choosing Sustainability for Life & Livelihoods: Convening for Action in British Columbia**, September 2006, a report by the Partnership for Water Sustainability on conversational interviews with a *Mayors and Chairs Focus Group*

## Convening for action requires patience

**Figure ES1** is a road map to guide “convening for action”. The image reflects BC experience. It synthesizes a 4-step process for inter-regional collaboration. The process is adaptive and illustrates “how we will get there”. Two decades ago, some BC communities began the transition from SO WHAT to NOW WHAT, knowing that the process would be incremental and therefore take time.

Two foundational concepts underpin the 4-step process. They are the **Shifting Baseline Syndrome** and **Design with Nature** paradigms which were developed by Dr. Daniel Pauly and Dr. Ian McHarg, respectively. These are described next.

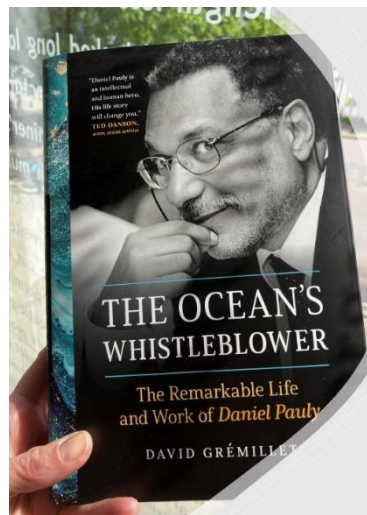
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## Shifting Baseline Syndrome: *Bend the Curve*

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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 Daniel Pauly argued that this blind spot meant scientists were failing to account fully for the slow creep of disappearing species.

Each generation accepted the depleted ocean biodiversity they inherited as normal, he stated. He coined this effect as the **shifting baseline syndrome**. Since then, the shifting baseline effect has been observed far more widely than the fisheries community – it takes place in any realm of society where a baseline creeps imperceptibly over generations. It has influenced the [Water Sustainability Action Plan](#).



“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

### A British Columbia example of a Shifting Baseline: Riparian Ecosystems reduced to Riparian Zones

A common history of land use (settlement) on the east coast of Vancouver Island and in the Lower Mainland has been the fragmentation of the riparian network in both rural and urbanizing landscapes. Riparian ecosystems (networks) have become reduced to riparian zones and stream function has been lost.

“We can recreate the past. Seeing examples of what the past looked like enables people to re-set their baseline,” stated Daniel Pauly during his TED Talk in 2010. His explanation of the Shifting Baseline Syndrome helps make the case for “Design With Nature” to develop land differently and thus **bend the curve** as illustrated on **Figure ES2**. Getting there requires patience, time, and sustained commitment.

**Figure ES2 – Shifting Baseline Syndrome makes the case for ‘Design With Nature’ to Bend the Curve Upwards**



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## “Design With Nature” framework for integrating across infrastructure systems

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In 2005, the Green Infrastructure Partnership framed a “made in BC”, **Design With Nature** approach to community development by defining six objectives listed in **Figure ES3**. This definition is a system lens. It embraces yet at the same time transcends engineered infrastructure to provide a comprehensive view.

“When we refer to designing with nature, we are borrowing from Ian McHarg and the title of his 1969 book. *Design With Nature* remains one of the best-selling books ever written by a designer. We are consistent with what McHarg intended in terms of ecological planning and letting the landscape inform development,” explains Ray Fung, Past-Chair (2008-2010) of the BC Green Infrastructure Partnership. Ray Fung is also a founding member of the Partnership for Water Sustainability.

### Design With Nature and Climate Adaptation

Ian McHarg is described as the most influential landscape architect of the twentieth century. His *Design With Nature* vision, more manifesto than scholarly text, has for two decades influenced implementation of British Columbia’s Water Sustainability Action Plan.

“On the 50th anniversary of its publication, one is struck by the durability of McHarg’s ideas and the parallels between the ecological crisis and resultant activism of his era, and those of the contemporary moment we now find ourselves in - one defined by global climate change,” wrote Billy Fleming, the lead member of four University of Pennsylvania co-authors, in a reflective article published in June 2019.

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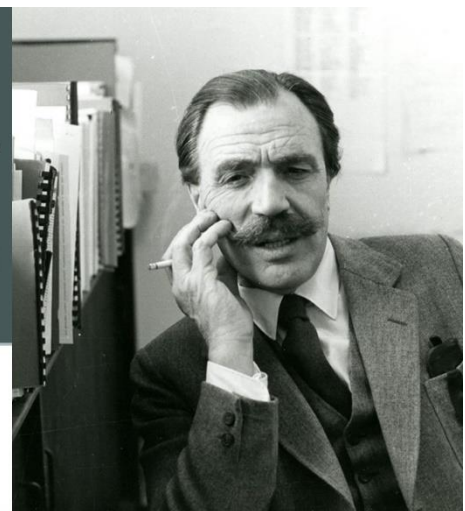
*“Designing with nature captures the essence of climate change adaptation. Adaptation is about responding to the changes that will inevitably occur. Adaptation is at the community level and is therefore about collaboration.”*

Ray Fung, 2007

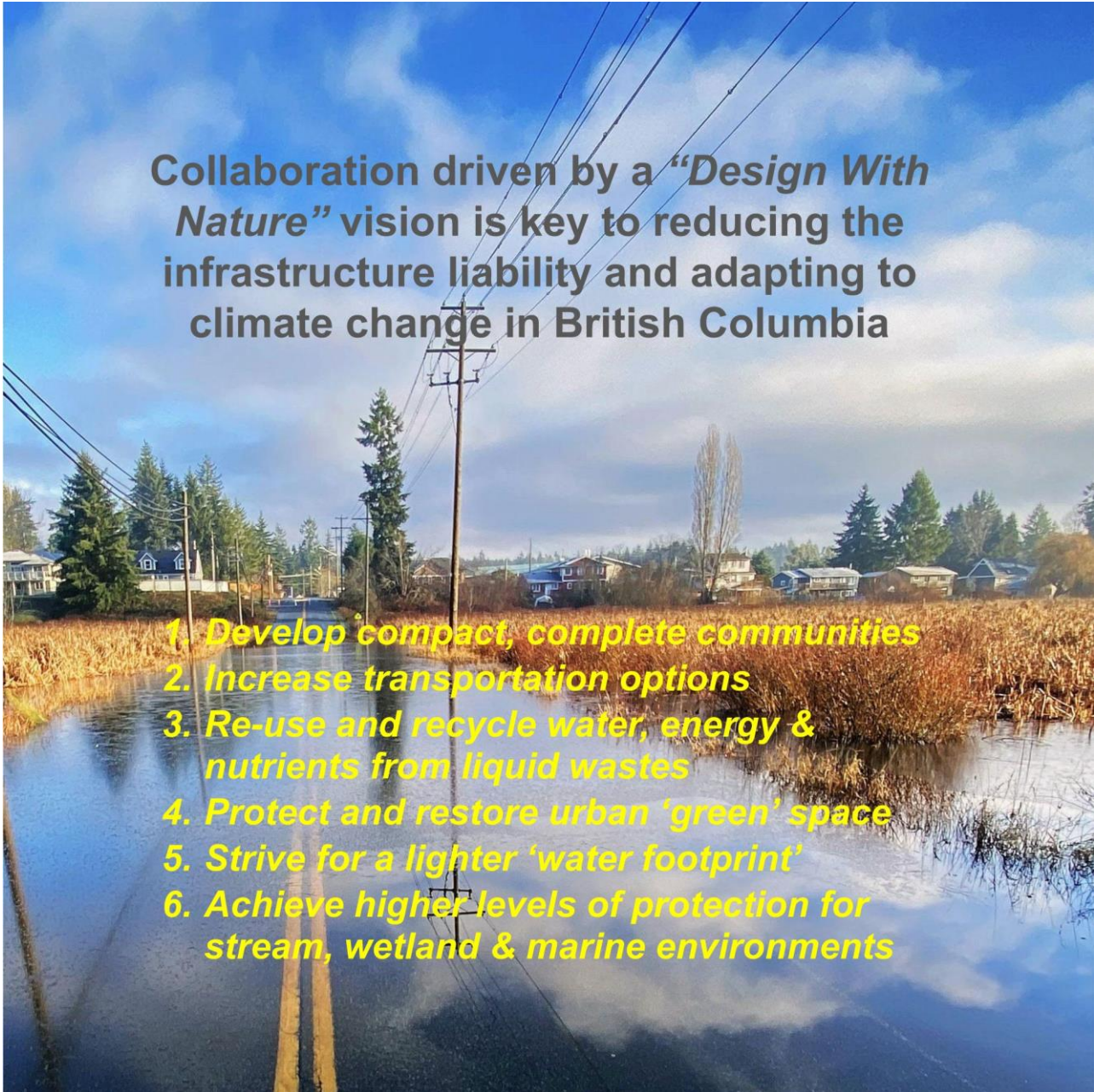
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**“Man is that uniquely conscious creature who can perceive and express. He must become the steward of the biosphere. To do this, he must design with nature.”**

Dr. Ian McHarg (1920-2001) - renowned landscape architect, writer, educator, “father of GIS”, and author of **Design With Nature**, the transformational textbook first published in 1969



**Figure ES3 – “Design With Nature” framework for integrating across infrastructure systems**

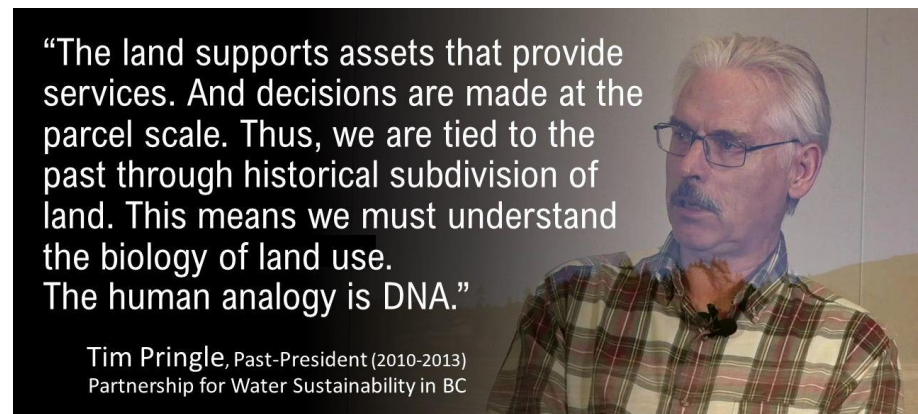


Source: *The Green Infrastructure Partnership: Convening for Action in British Columbia, July 2005 Progress Report*

## What we learned though “convening for action” on Vancouver Island

Tim Pringle, a founding Director of the Partnership, is one of the architects of the [Convening for Action in British Columbia](#) initiative. He reminds us of this guiding principle for the “Design With Nature” paradigm - **use and conservation of land are equal values**.

**Figure ES4** captures Tim Pringle’s observations of what local governments can learn from the “convening for action” experience of the Comox Valley and partner regions. His observations provide the reader with an over-arching perspective of the narrative that follows.



### Develop differently means change the land ethic

Below is a road map for the narrative in this Executive Summary and for the six “parts” of the Comox Valley storyline. The umbrella theme for the set of key messages is that a community’s “land ethic” ultimately determines whether there will be impacts or benefits for water.

	Theme	Key Message
A	Inter-Regional Context for the Comox Valley Water Sustainability Story	Collaborative leadership powers inter-regional collaboration
B	A Window into the Comox Valley Water Journey	Inter-generational collaboration means build on knowledge, experience, and wisdom
C	Convening for Action from 2006 thru 2011	Regional team approach is founded on collaboration and Partnerships
D	Convening for Action from 2012 thru 2017	Local governments are at different points of understanding along the watershed health continuum
E	Springboard from the 2017 Eco-Asset Symposium	It is important to get the process right to get the right outcome
F	A Look Ahead: The Next Five Years	Informed perspectives on how the near-term future might unfold

## Figure ES4 – What we learned through “convening for action” on Vancouver Island

“There are leaders in local and provincial governments and in the community who have the knowledge to see where change is needed. Their involvement is essential in making changes occur.”

“These leaders understand that water sustainability issues are critical to community prosperity.”

“The **CAVI- Convening for Action on Vancouver Island** process confirmed that these leaders and practitioners should design the educational opportunities.”

“A great deal of the CAVI success flowed from having sharing and learning events occur where the audience works in their communities.”

“It was key that ideas and content be presented by colleagues who intend to make positive changes where they work.”

“The CAVI approach created momentum for change and improvement to achieve water sustainability.”

“This legacy is what supports enduring Partnership success with the **Georgia Basin Inter-Regional Education Initiative.**”

reflections by Tim Pringle  
August 2022

## Part A - Inter-Regional Context for Collaboration

### Collaborative Leadership powers Inter-Regional Collaboration

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. Context is everything. Thus, Part A paints a picture of what **Inter-Regional Collaboration** looks like in the Georgia Basin.

The Comox Valley is an important contributor in a multi-decade, shared journey. **Figure ES5** introduces key elements of a process for pushing boundaries and building inter-regional capacity through Collaborative Leadership. The journey in the Georgia Basin is ongoing.



“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.”

**Dr. Kathy Bishop**

*associate professor in the School of Leadership Studies, Royal Roads University*

### Inter-Regional Collaboration Helps Everyone

In light of a changing climate, local governments in the Georgia Basin have been struggling for the best part of two decades with the question of how best to move forward on three priorities: **Watershed Health, Rainwater Management** and **Sustainable Service Delivery**.

This quandary leads to an ‘implementation challenge’. This is the driver for inter-regional collaboration that helps everyone better deliver on policy goals and regulatory requirements. Inter-regional collaboration helps those who are managing change in each region understand what other regions are doing, what works, and what does not.



Figure ES5 – Mind Map for Collaborative Leadership



## Part B - Window into the Comox Valley Water Journey

### Inter-Generational Collaboration means Build on Knowledge, Experience and Wisdom

Look back to see ahead. Part B tells the story of the **Comox Valley Water Journey** and is broad-brush in painting a picture of the past two decades.

Part B is the bridge to Parts C, D, E and F which elaborate on defining moments and building blocks during the period 2006 through 2022. Moreover, Part B steps back to provide an over-arching context for the three phases in the Comox Valley journey.

Part B looks through the lenses of a number of long-term players. They reflect on the journey and share their wisdom on the importance of staff **commitment to doing what is right for the right reasons**.



### Future Resiliency of the Comox Valley

Reflections by Nancy Gothard, captured in **Figure ES6**, provide insight and perspective about the foundation for inter-regional and inter-generational collaboration in the Comox Valley.

The Comox Valley experience reminds us that the **journey must be measured in terms of decades** rather than years. One can only realistically judge progress by looking back to assess how far one has travelled. Hence, essential ingredients for mission success are intergenerational commitment and oral history. They go hand in hand.

**Figure ES6 – Step Back, Learn from History,  
and Reflect on Next Steps**

**“The approach to watershed-based planning and water sustainability in the Comox Valley is happening through champions** because, apart from some high-level enabling legislation, there is no strong top-down mandate ‘requiring’ that we do these things.”

“The fact that we are all at the same point on the trajectory in terms of infiltrating these ideas into our organizations suggests that we are on the tipping point of a breakthrough in collaboration.”

**“Everyone who has gone through the IREI has been ‘seasoned’ to be nimble and open-minded, and to genuinely be of assistance to others.”**

Nancy Gothard, July 2014

## Part C - Convening for Action from 2006 thru 2011

### Regional Team Approach is founded on Collaboration and Partnerships

The regional team approach seeks to align efforts for the **common good**. Collaboration grows from a shared vision about the future and commitment to action.

Viewed primarily through a Comox Valley lens, Part C is the story of the **building blocks process** that coalesced a regional team steered by Derek Richmond. During the years 2006-2011, each CAVI building block was the springboard to the next defining moment in a process. In turn, CAVI was the launch pad for the **IREI**.

**Figure ES7** is the branding image for the **Regional Team Approach**. As Comox Valley experience demonstrates, it is mission possible. Part C is a narrative, told by weaving “quotable quotes” by key players.



### Doing Business Differently is Mission Possible

In February 2005, at a water conference held in the Okanagan, the Partnership announced the **Convening for Action in British Columbia** initiative. Over the next 18 months, the Partnership undertook pilot projects in the Okanagan and Metro Vancouver regions.

In September 2006, in a bold leap forward, the Partnership launched **CAVI-Convening for Action on Vancouver Island** as a demonstration initiative at an Island-wide, inter-regional scale. The Province of British Columbia and Real Estate Foundation provided multi-year funding to implement the CAVI program during the years 2006 through 2011.

**Figure ES7 – Everyone who embraces Shared Responsibility  
has a role to play under a Regional Team Approach**



## Part D - Convening for Action from 2012 thru 2017

### Regions are at different points of understanding on watershed health continuum

During the period between 2006 and 2011, the CAVI program served as a “proof of approach” for collaboration within a region. By 2012, the partner regions were primed for formal collaboration between regions to help each other move forward on the Watershed Health issue.

**Figure ES8** reflects the essence of the vision for bringing together an [Inter-Regional Leadership Team](#). Each region faced implementation challenges due to the gap between awareness of what should be done versus ensuring action on the ground. Bridging the gap was the IREI focus for the 5-year period 2012 through 2017.

In 2015, all five Regional Boards passed resolutions to support a request to the Province for IREI program funding. They did so again in 2016 with a 5-year commitment to collaboration through 2021.

### Through sharing and learning, ensure that where everyone is going is indeed the right way

During this 5-year period, a track record of success showcased the benefits of inter-regional collaboration. This set the stage for the third phase of collaboration which is ongoing.

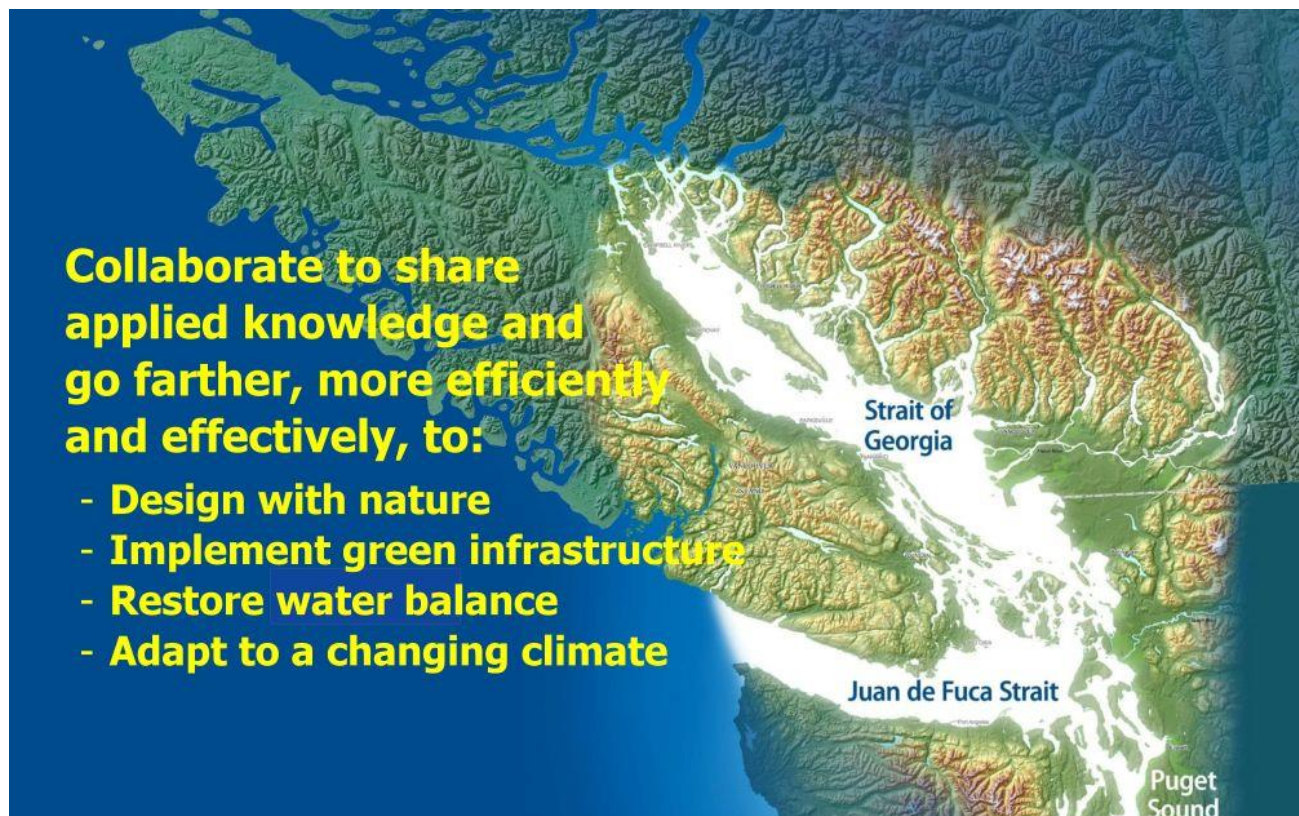
A desired outcome which is transformational in scope and impact, is that all local governments would learn from each other’s experience and would understand **how** natural systems support municipal services and would be able to fully **integrate** this understanding and associated methodologies into programs, planning and funding.

*“The Ministry looks forward to aligning efforts with the Partnership. Renewed emphasis on the rainwater management component of Liquid Waste Management Plans has created an opportunity to demonstrate how to integrate regulatory compliance and collaboration.”*

wrote Cairine MacDonald, Deputy Minister of Environment,  
in a letter to the Partnership (September 2012)



**Figure ES8** – Within the Georgia Basin eco-region, inter-regional sharing and peer-based learning helps everyone move along the Watershed Health Continuum



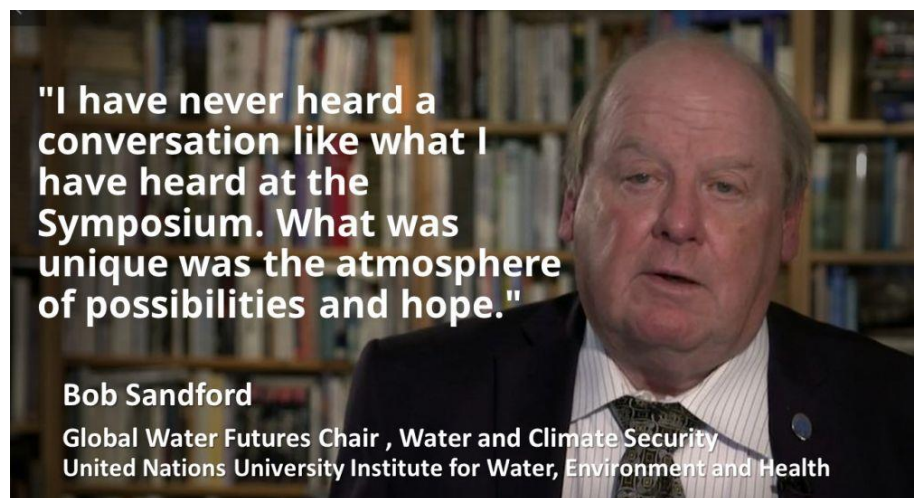
## Part E – Springboard from the 2017 Eco-Asset Symposium

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### It is important to get the process right, to arrive at the right outcome

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In March 2017, the Comox Valley Conservation Partnership organized the **Comox Valley Eco-Asset Symposium** in collaboration with the four local governments and the Partnership for Water Sustainability,



### From Awareness to Action to Outcomes

The symposium is viewed as a watershed moment because of what it set in motion and how outcomes flow through time. First, Comox Valley action was the catalyst for the Partnership's **Watershed Moments Symposia Series** which connects dots: climate change, inter-regional collaboration, actionable visions backed by a budget, and interweaving of Indigenous knowledge and Western science through Blue Ecology.

Secondly, the symposium provided a platform to launch the 6-year program of applied research for **EAP, the Ecological Accounting Process**, to answer this core challenge: *how does one influence the asset management mindset so that local governments include a line items for stream and riparian system maintenance in annual budgets?*

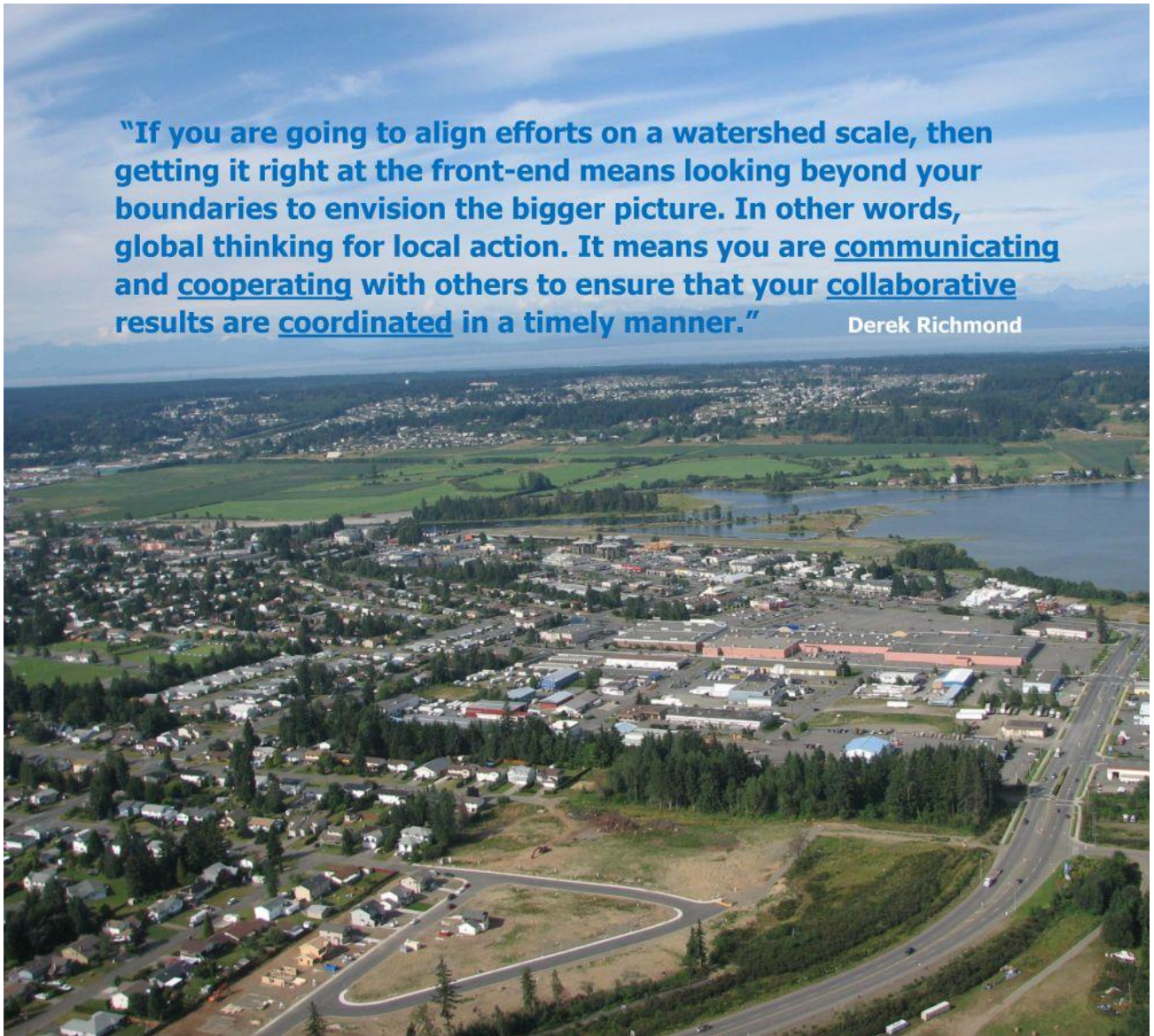
Thirdly, as illustrated by **Figure ES9**, the event anticipated emergence of Courtenay and Comox as provincial leaders in **Sustainable Service Delivery** and **Water Balance Management**, respectively.



**Figure ES9 – A Regional Team Approach is guided by the 4Cs:  
Communication, Cooperation, Collaboration, Coordination**

**“If you are going to align efforts on a watershed scale, then getting it right at the front-end means looking beyond your boundaries to envision the bigger picture. In other words, global thinking for local action. It means you are communicating and cooperating with others to ensure that your collaborative results are coordinated in a timely manner.”**

**Derek Richmond**



## Part F – A Look Ahead: The Next Five Years

### Collaboration is a Springboard to Success

A regional team approach founded on collaboration revolves around building relationships. And that takes time because trust must be earned. In 2007, the Partnership initiated the [Convening for Action in the Comox Valley](#) program as an “experiment in collaboration”. The Partnership role was honest broker in bringing the players together.

With the passage of time, the spirit of collaboration has taken root in the Comox Valley. That outcome is clear from the numerous conversational interviews that resulted in the storylines for Part B and Part F. The City of Courtenay’s Geoff Garbutt puts it this way, **“lines of communication are open between local governments.”** What this means in practice is illustrated on **Figure ES10**.

### Asset Management for Sustainable Service Delivery

The Comox Valley regional team was ahead of its time in embracing the vision for [Asset Management for Sustainable Service Delivery](#) when first advanced by the Ministry of Municipal Affairs in 2011.

Comox Valley local governments were among the first to grasp that sustainable service delivery goes beyond constructed infrastructure to include natural assets. To achieve the goal of stream system integrity, the Comox Valley is leading the way in showing how to both give equal weight to the environmental perspective and operationalize ecological accounting under the umbrella of Asset Management.



“Asset Management for Sustainable Service Delivery is much more than just about the physical infrastructure. It is more than just about setting some money aside for infrastructure replacement. It must be a comprehensive and integrated approach that links the past, present and future.”

Geoff Garbutt

**Figure ES10 – Lines of communication are open in the Comox Valley**



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## PART A

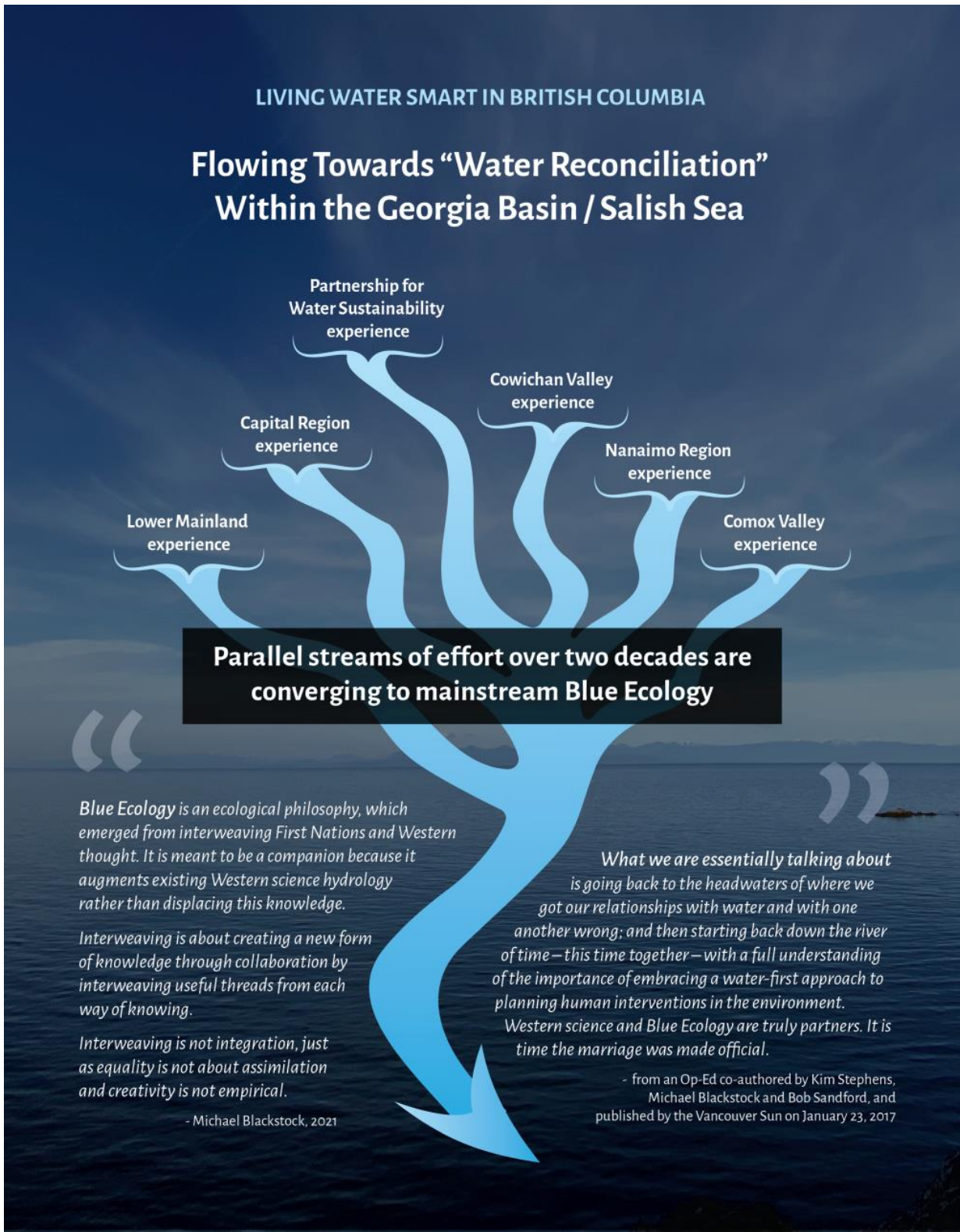
# Inter-Regional Context for Collaboration



*To provide the reader with an over-arching understanding that then establishes context and insight for the five parts that follow, this Part A is structured in four segments:*

- 1. Georgia Basin Inter-Regional Initiative, a unique mechanism for collaborative leadership***
- 2. Towards a Watershed Health Legacy in the Georgia Basin***
- 3. 'Design With Nature' going forward***
- 4. Regional Team Approach***

Figure A1



# 1. Georgia Basin Inter-Regional Initiative, a unique mechanism for collaborative leadership

## Flowing Towards “Water Reconciliation”

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

Launched in 2012, the IREI facilitates peer-based education among local governments on the east coast of Vancouver and in the Lower Mainland. In 2016, five Regional Boards – **Comox Valley**, Nanaimo Region, Cowichan Valley, Capital Region, and Metro Vancouver - recommitted through 2021 to support inter-regional collaboration.

## Parallel Streams of Effort

**Figure A1** conceptualizes parallel streams of effort over two decades in the five partner regions. With this document, we are setting the stage for handing off the inter-generational baton in conjunction with a reinvigorated commitment to inter-regional collaboration.

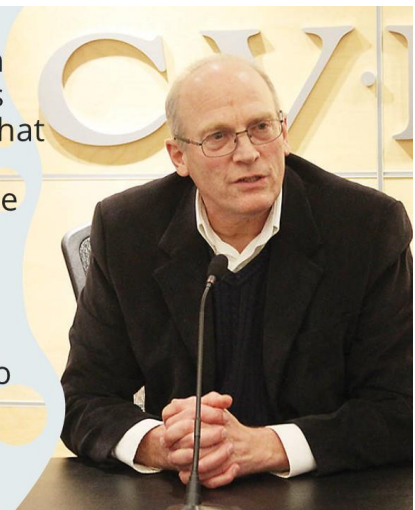
The IREI is nested within the [Water Sustainability Action Plan](#) which, in turn, is nested within [Living Water Smart](#). Cascading is the reverse way to think about this nesting concept. Each successive layer in the cascade adds depth and detail to enable the **move from awareness to implementation**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



*2022 was the 10<sup>th</sup> anniversary of the IREI*

“Local government collaboration under the umbrella of the IREI is producing tools and resources that will help communities integrate watershed systems with land use and infrastructure decisions. There is no reason for any of us to re-invent the wheel. We are sharing and learning from each other. Collaboration is leading to precedents for getting it right.”

Jon Lefebure, Past-Chair,  
Cowichan Valley Regional District, 2017



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## Focus on Context, Intent and Results

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**Watershed Health, Rainwater Management** and **Sustainable Service Delivery** have been related priorities for communities on the east coast of Vancouver Island and in the Metro Vancouver region for the best part of two decades, and in some cases longer.

Furthermore, local governments have for years been struggling with the question of how best to move forward on these priorities, particularly in light of a changing climate and community expectations to provide higher levels-of-service at reduced levels-of-cost.

The **'implementation challenge'** is the driver for collaboration under the IREI umbrella. Collaboration at all levels would help everyone better deliver on policy goals and regulatory requirements. Inter-regional collaboration helps the champions in each region understand what other regions are doing, what works, and what does not.

### 'Mind Map' for Collaboration

The IREI program for **'sharing and learning'** in the local government setting transitioned from the successful 'proof of approach' on Vancouver Island in 2012 to full-scale implementation starting in 2014, including Metro Vancouver.

**Figure A2** conceptualizes the scope and focus of the IREI program in facilitating and aligning integration at two scales, provincial and inter-regional. Beginning in 2014, the IREI program aligned with the rollout of the three landmark provincial initiatives identified in the sidebar.

The implementation spotlight is on what does the Watershed Health Goal mean in practice, and how will it be translated it into action on the ground. As defined on Figure A2, the goal is to create a legacy.

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### Move from Stopgap to Long-Term Solutions

*A goal is to 'get it right' in stream channels and on the land draining to them. The challenge is to move from stop-gap remediation of problems to long-term restoration of properly functioning creeksheds.*

*In 2014, three landmark provincial initiatives came to fruition. Together, they provide a platform for integrated and coordinated actions.*

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**"Sustainable and resilient are complementary terms that draw attention to the future and help focus thought and action. However, use of resilient more clearly shines the spotlight on **Context, Intent and Results.**"**

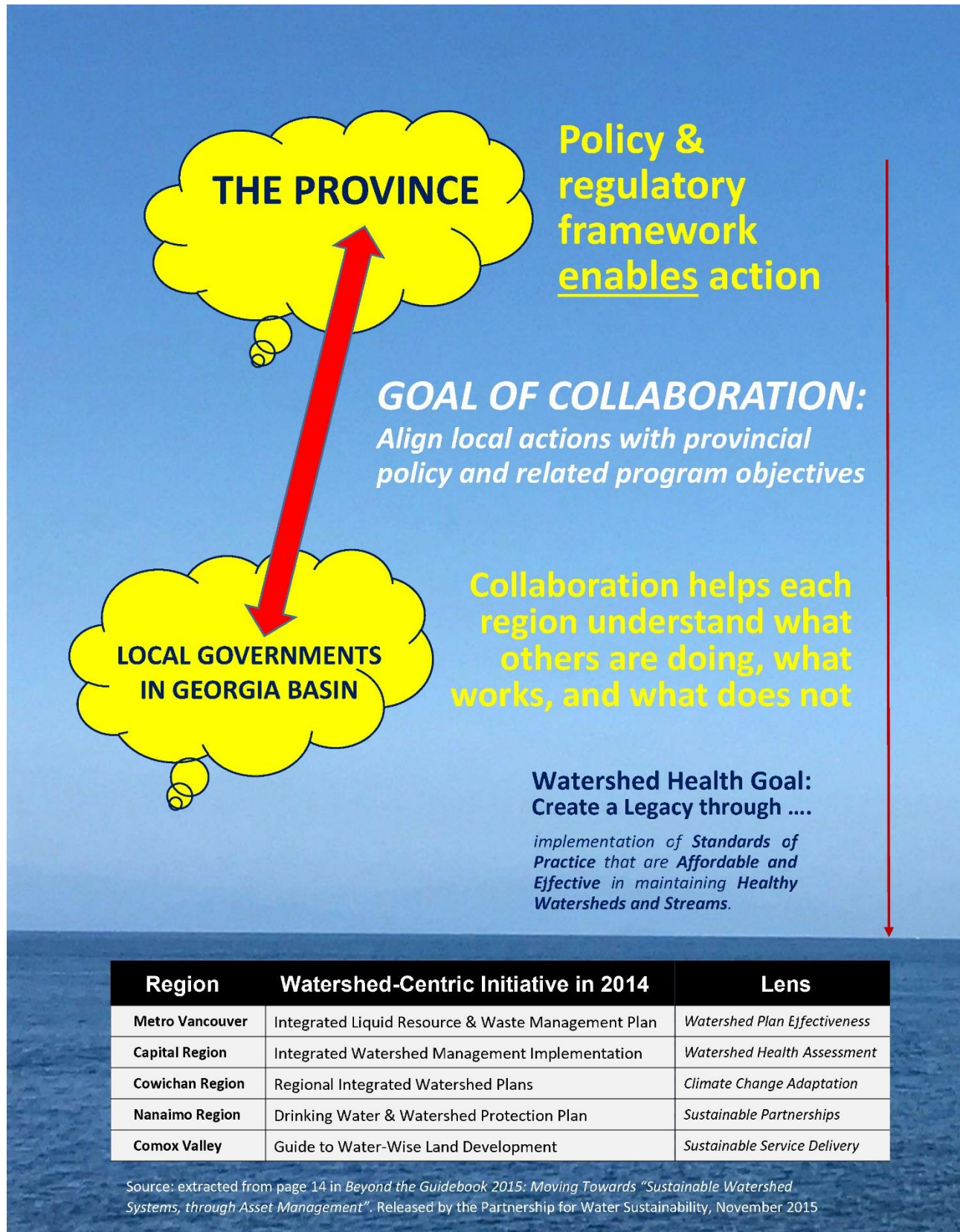
Erik Karlsen (1945-2020)

former Director of Regional Growth Strategies  
Ministry of Municipal Affairs





Figure A2 – Historical Context for Inter-Regional Collaboration



## 2. Towards a Watershed Health Legacy in the Georgia Basin

### Know the History & Understand the Context

In 2012, the Partnership for Water Sustainability asked the five Regional Boards to endorse local government collaboration under the IREI umbrella; and furthermore, to support a grant application to UBCM for a “Gas Tax Fund Capacity-Building Grant”. The grant application was not successful. Nevertheless, the partners carried on because:

**A goal of inter-regional collaboration is to help everyone go farther, more efficiently and effectively.**

### What inter-regional collaboration looks like

In 2012, each region hosted a ‘sharing and learning’ event to initiate the IREI program. Year 1 constituted the ‘proof-of-approach’ for aligning efforts and leveraging more with the same resources. 25 local governments participated.

In 2013, a group of local government champions representing the five geographic regions convened as an “inter-regional leadership team” and committed to working together to achieve this goal: **Restore and/or protect stream and watershed health**. Alignment with provincial policies was deemed to be a critical success factor.

In 2014, the partner regions hosted a series of [Inter-Regional Collaboration Sessions](#). This process aligned with each region’s priorities and individual work plans. Regions shared with, and learned from, each other. [Beyond the Guidebook 2015](#) was the deliverable.

**Collaborating regions view Watershed Health Goal through complementary lenses:** Together, these lenses form a complete picture. This is illustrated by **Figure A3** which expands upon the framework conceptualized as Figure A2.

Figure A3 is the mind-map that guided the program design for the 2014 Inter-Regional Collaboration Series. It shows how all the pieces fit together. It is as relevant in 2023 as it was in 2014.

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#### ***The vision - create an enduring legacy***

*The mantra for inter-regional collaboration is framed in these terms: “Through sharing and learning, ensure that where we are going is indeed the right way.”*

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**Figure A3 – Towards a Watershed Health Legacy in the Georgia Basin**



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## History-at-a-Glance

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A considerable body of inter-regional work provides context and a backdrop for the “Comox Valley water story”. The genesis for the IREI is the original **Georgia Basin Initiative (GBI)** in 1994. Led by the late Erik Karlsen (1945-2020), this was an initiative of the Ministry of Municipal Affairs. He was an amazing individual, and one of a kind.

Erik Karlsen’s career bridged the worlds of municipal affairs and environmental stewardship. He handed the inter-generational baton to the Partnership when he seeded the idea of the IREI as a mechanism to build on initiatives and programs that he started while in government.

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### **The provincial GBI pre-dated the federal initiative**

*“Erik Karlsen and I worked together on the federal Georgia Basin Ecosystem Initiative (GBEI) and he was instrumental in helping to shape the program and bring together many partners and interests that would not normally fall into the federal sphere.”*

*“There has always been a bit of confusion between GBI and GBEI, as they were developed by different governments with differing mandates. Erik was able to help mesh many of the federal programs with more local government needs to provide science and tools that could and would be used by local government to improve the Georgia Basin ecosystem.”*

Bruce Kay, 2020,  
(retired) Manager, Georgia  
Basin Ecosystem Initiative

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**“Erik Karlsen served the public interest – the public hopes and dreams for a better tomorrow, for the environment, for human communities, and for future generations – almost without equal. And, he did it with a style likely not to be seen again for a very long time.”**

Joan Sawicki, a former Speaker of the BC Legislative Assembly and Minister of Environment, Lands and Parks during the period 1991 through 2001

### **Timeline and Milestones**

It was Sir Winston Churchill who said: “The farther back you can look, the farther forward you are likely to see”. This insight provides context for **Figure A4**. The timeline identifies milestones in the building block process for inter-regional collaboration. It provides a perspective on the Partnership’s commitment to support local government champions who strive to achieve the Watershed Health Goal.

**Integrate and apply science-based understanding to develop tools and establish precedents. Learn from experience to successfully implement, through collaboration, an environmentally adaptive approach to community design.**

**Figure A4 – History-at-a-Glance: Timeline & Milestones for Moving Towards a Watershed Health Legacy**



COLOUR CODE: yellow represents a provincial government over-arching deliverable;  
white represents a Partnership for Water Sustainability nested deliverable

## 3. 'Design With Nature' going forward

### A Framework for Bridging Generations

With release of the [Water Sustainability Action Plan](#) in 2004, a 'design with nature' philosophy became an integral part of the branding for green infrastructure, rainwater management and water sustainability in BC. This borrows from the title of the seminal book by Ian McHarg, published in 1969, one of the most influential works of its kind.

### Integration of two foundational concepts

In 1995, UBC's Daniel Pauly wrote a short but impactful article titled the **Shifting Baseline Syndrome**. This concept is a driver for intergenerational collaboration. Environmental baselines shift when successive generations of planners, engineers, and decision-makers do not have an image in their minds of the recent past. Pauly described how a lack of understanding plays out as a 'failure to notice change'.

In 1996, the University of Washington's Richard Horner and Chris May published seminal research that correlated land use changes with the impacts on stream condition. They identified and ranked four limiting factors in order of consequence from an ecological perspective. This ranking is the **Road Map for Protecting Stream System Integrity**.

In 2015, Erik Karlsen showed how to integrate these two foundational concepts. The matrix included as **Figure A5** is the result of his efforts. The matrix conceptualizes how local governments can operationalize the work of McHarg, Pauly, Horner and May and bend the curve upwards to restore a desired watershed and stream condition.

**EAP, the Ecological Accounting Process**, is the latest iteration in the "ecological integration process" initiated by Erik Karlsen.

#### **An example of the Shifting Baseline: riparian ecosystems have been reduced to riparian zones**

*"A stream in a natural condition is supported by a riparian ecosystem. A riparian zone is a fragmented portion of the riparian ecosystem in developed areas. Diminution due to fragmentation results in a loss of a riparian network's ecological services. This has become the norm because the intent of the Riparian Areas Protection Regulation has been compromised over time. This loss is what Daniel Pauly describes as a 'failure to notice change'. We must face up to this situation."*

*Tim Pringle, Chair  
EAP Initiative*



**"I set out to capture three 'states of play' as row headings: naturally functioning, degraded through lack of awareness, and going forward with science-based understanding. The cells contain the actionable points which relate to the row and column headings."**

– Erik Karlsen, 2015

**Figure A5 – Integration of Shifting Baseline Syndrome & Road Map for Protecting Stream System Integrity**

## 'Design With Nature' going forward:

The matrix illustrates how to integrate the work of Daniel Pauly (left column), Richard Horner and Chris May (top row) to apply science-based understanding & adapt to changing conditions:

*From top to bottom - illustrates a watershed's progression through three stages along the Shifting Baseline (before, now and in future).*

*From left to right - describes the implications for each of the four Limiting Factors for stream system integrity at each stage of the progression.*

		Road Map for Protecting Stream System Integrity			
		Watershed Hydrology	Riparian Corridor	Within the Stream	Quality of the Water
Shifting Baseline	Nature As It Was Before Settlement	Clean and clear water supported aquatic habitat, fish lifecycles, and community uses of streamflow	Intact corridor provided multiple functions related to water quality and beneficial nutrients	Instream gravel supported spawning; large woody debris moderated streamflow and sheltered fish	Beneficial water quality, in particular temperature, supported ecosystem functions and community uses of streamflow
	Cumulative Impacts After Development	Changes in water balance distribution resulted in erosion, degrading of habitat, drought, or flooding	Habitat removal exposed fish to interventions and resulted in multiple impacts	Streams no longer support fish lifecycles	Toxic liquid wastes destroyed habitat, killed fish, and impacted community uses of streamflow
	By Designing with Nature	Water balance approach can restore hydrologic integrity & habitat function	Restoration of riparian integrity can restore ecosystem functions	Streams can again support fish lifecycles	Source-controls can prevent toxic liquid wastes from entering streams

Matrix Creator: Erik Karlsen, 2015

Source: "Moving Towards Sustainable Watershed Systems, through Asset Management", published November 2015

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## Twin Pillars of Stream System Integrity

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Richard Horner and Chris May had a clear message for land use and drainage practitioners: changes in hydrology, not water quality, must be the primary focus of their efforts.

In 2015, the “road map” for protecting stream system integrity evolved into the “twin pillars” concept for reconnecting hydrology and stream ecology through asset management, for the “drainage service”.

The top two consequences of **changes in land use** are:

1. short-circuiting of water balance pathways, and
2. loss of riparian integrity.

The consequences of changes to the top two factors then play out as:

3. degradation of aquatic habitat, and
4. deterioration of water quality.

The “twin pillars” of stream system integrity, conceptualized as **Figure A6**, build on this science-based understanding.

### What Happens on the Land Does Matter!

The Water Balance Accounting pillar addresses "changes in hydrology" on the land draining to the stream. The Ecological Accounting pillar addresses "loss of riparian integrity" within a stream corridor.

Linkage of the two pillars would be the over-arching goal of a **Sustainable Funding Plan for the Drainage Service**. Because it determines eligibility for senior government grants, alignment with *Asset Management for Sustainable Service Delivery: A BC Framework* provides local governments with the incentive to go down this path.

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#### Understand the Watershed as a System

*For two decades, Chris May put science into practice in Kitsap County, his living laboratory for testing a hydrology-based approach at multiple scales to cope with an altered flow regime.*

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“The key is understanding the integrated significance of the three flow paths in a watershed. Unlock that key and we can successfully implement appropriate measures so that creek systems are more resilient.”

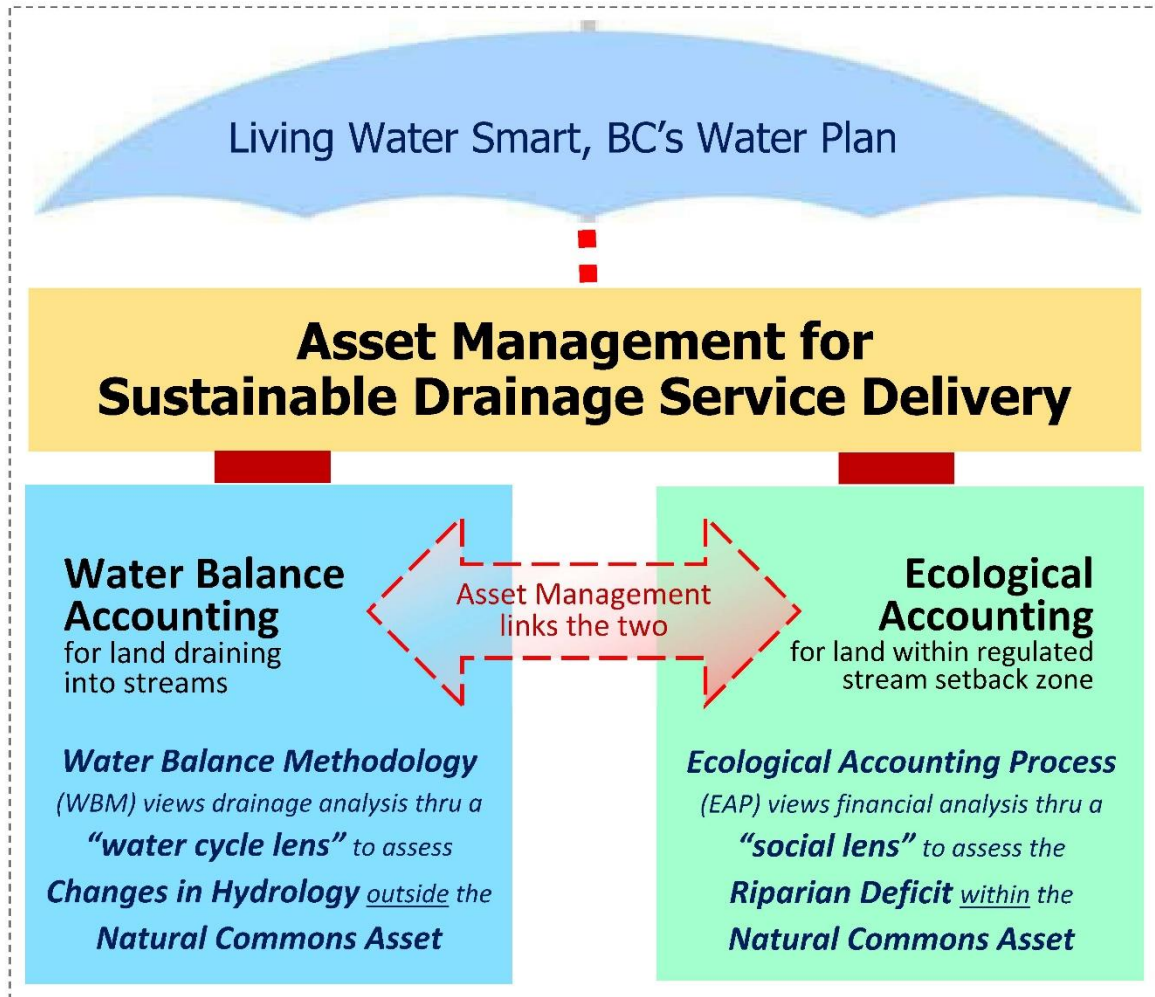
Dr. Chris May

retired Surface & Stormwater Division Director,  
Kitsap County Public Works in Washington State



Figure A6

# Twin Pillars of Stream System Integrity



## Hydrology is the Engine that Powers Ecological Services

Source: The "road map" introduced as Figure 60 on page 156 in *Beyond the Guidebook 2015: Moving Towards "Sustainable Watershed Systems, through Asset Management"*. Released by the Partnership for Water Sustainability, November 2015

## 4. Regional Team Approach

### *The Partnership has a facilitating role on the regional team*

*“Operationally, the Partnership is the hub for a network that is guided by the collaborative leadership model. This approach reflects our genesis.”*

*“Collaborative leadership uses the power of influence to engage and align individuals and organizations to deliver results across boundaries.”*

*“The network holds the key to intergenerational collaboration. It is how we build bridges of understanding and pass the baton.”*

*“To be successful in facilitating changes in practice over the long-term, the groundwork must be done by our partners. This requires that we be aligned with and support their organizational aspirations and objectives.”*

*Derek Richmond, Chair, Ambassadors Program & Director, Partnership for Water Sustainability*

### Community Charter is Enabling Legislation

One size does not fit all. Communities are in the best position to develop solutions which meet their own unique needs and local conditions. This is the essence of the enabling philosophy behind the **Community Charter**. With this understanding as the context, the ‘regional team approach’ is founded on partnerships and collaboration.

The regional team approach seeks to align actions at three scales – provincial, regional, and local. Everyone needs to agree on expectations and how all the players will work together, and after that each community can reach its goals in its own way.

### Guiding principles for successful collaboration

Systemic change is possible, even in the complicated sphere of planning for use and conservation of land. It requires understanding and pursuit of holistic outcomes. Partnership experience is synthesized as the set of 10 guiding principles for success listed in **Figure A7**.

The IREI process involves drilling down from the vision and goals of a regional plan and exploring the ‘how-to’ details of implementation and integration. One can have “implementation” without “integration”; but implementation will likely be ineffective without integration.

Integration means a holistic approach to use and conservation of land and water. It encompasses physical infrastructure, the built environment (land use, development and building design) and the ecosystems within which we work and recreate. And it includes all practitioners whose profession, work, volunteer role or responsibility as a landowner affects land and water sustainability.

“Insertion of the word **team** in ‘regional approach’ has a profound impact on how practitioners view their world. Team implies there is a personal commitment; it also suggests there is a game plan and a coachable context.”

Tim Pringle

Chair, Ecological Accounting Process Initiative  
Partnership for Water Sustainability in British Columbia

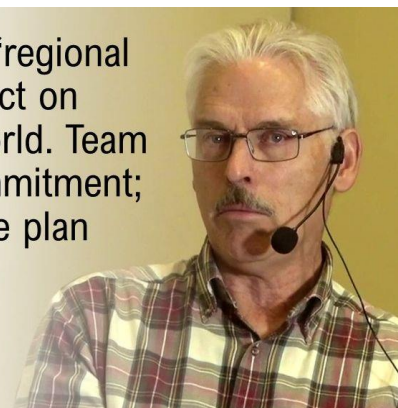


Figure A7 – 10 Principles for Success

**'Convening for Action' experience shows that success will follow when local governments....**

1. Choose to be enabled
2. Establish high expectations
3. Embrace a shared vision
- 4. Collaborate as a 'regional team'**
5. Align and integrate efforts
6. Celebrate innovation
7. Connect with community advocates
8. Develop local government talent
9. Promote shared responsibility
10. Change the land ethic for the better

Source: "Beyond the Guidebook 2010: Implementing a New Culture for Urban Watershed Protection and Restoration in British Columbia", published June 2010

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## Doing Business Differently

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The desired future when ‘convening for action’ is to create desirable communities and at the same time protect stream health. The Partnership mission is to develop tools and inform, educate, train, and inspire those who do business in the local government setting. This is also the goal of the IREI. Creating change must be a shared commitment on the part of all the players.

**Figure A8** provides the reader with valuable historical context for the regional team approach. Coupled with Figure A3, this mind-map is standing the test of time. It guided the work plan for the [2014 Inter-Regional Collaboration Series](#).

### Engagement of community through stewardship

The essence of what the Partnership has learned over the years is distilled into the following set of “mutually reinforcing” outcomes:

TOP-DOWN & BOTTOM-UP collaboration between local governments and the stream stewardship sector is a critical success factor for “getting the local watershed vision right”.

Inter-regional KNOWLEDGE-SHARING, collaboration, alignment, and consistency will allow everyone in local government to go farther, more efficiently and effectively, with implementation.

Achieving desired outcomes for protecting stream system integrity is contingent on regulators, planners, developers, designers, and others embracing SHARED RESPONSIBILITY and aligning their efforts.

**Springboard to EAP:** A cornerstone of collaboration, the 2014 series was followed by **EAP, the Ecological Accounting Process**. Between 2016 and 2022, the 3-stage EAP program of applied research tested, refined, and mainstreamed the EAP methodology and metrics.



*“When citizen talent is aligned with a local government that is both visionary and focused, outstanding achievements are not only possible, but realistic.”*

Eric Bonham, former Director in the BC Ministries of Environment and Municipal Affairs

**Figure A8 – Framework for Inter-Regional Collaboration**

## About the Watershed Health Goal

- A. Since the late 1990s, and largely due to heightened awareness as an outcome of the impact of the “salmon crisis”, governments have recognized the need to restore and protect watershed health.
- ▶ By 2002, looking at rainfall differently led the BC government to adopt the Water Balance Methodology, initiate a performance target approach to capturing rain where it falls, and initiate changes in the ways rainwater runoff is returned to streams.
  - ▶ Released in 2002 to support / facilitate the “rainwater component” of Liquid Waste Management Plans, the underlying premise for “**Stormwater Planning: A Guidebook for BC**” was expressed as:
    - Land development and watershed protection can be compatible.*
    - Science-based understanding bridges the gap between policy and site design.*
  - ▶ The Guidebook presents a framework for implementing an ‘adaptive approach’ to watershed-based actions (i.e., learn by doing; change direction when science-based understanding leads to a better way).
- B. Watershed health is a priority for local governments throughout the Georgia Basin.
- ▶ In 2012, the Regional Boards for the Comox Valley, Nanaimo Region, Cowichan Valley, Capital Region and Metro Vancouver Region agreed to collaborate under the umbrella of the *Inter-Regional Education Initiative*.
  - ▶ All five regions have over-arching plans that are watershed-based and establish a vision.
  - ▶ Everyone is primed to move from talk to “implementation and integration”.
  - ▶ Collaboration will accelerate affordable and effective outcomes within each region.
- C. A core group of local government champions representing the five geographic regions is functioning as an inter-regional leadership team:
- ▶ The vision for collaboration is that a series of working sessions will inform and educate the leadership team and others about watershed health:
    - a. *All regions are dealing with challenges associated with watershed monitoring*
    - b. *Each region is at a different point along the Watershed Health continuum*
    - c. *Each region has something unique to contribute to the mix*
  - ▶ The vision for collaboration boils down to three objectives:
    1. *Share experience on how to measure watershed health, and how to monitor progress*
    2. *Understand what each regional district is doing, what works and what does not*
    3. *Understand the elements of a performance monitoring framework that can be used to adjust actions **and inform community planning** that maintains healthy streams*
  - ▶ The deliverable will be a guidance document that is a compilation of session and series outcomes.
- D. Over the past 15 years, local government leaders have been applying science-based understanding to develop tools, establish precedents and gain the experience necessary to achieve the Watershed Health Goal.
- ▶ Going forward, a guiding principle for collaboration is to leverage “science-based understanding” of the relationship between land use changes and resulting stream health (and also financial liability) consequences in order to influence community planning.
  - ▶ The mantra for the ultimate outcome of the Inter-Regional Collaboration Series is framed this way:  
*“through sharing and learning, ensure that where we are going is indeed the right way”*
- E. Because affordability ultimately drives standards of practice, “Sustainable Service Delivery” is a way to view watersheds through an asset management lens and provide a higher level-of-service at a reduced level-of-cost.
- F. Looking ahead, one of the desired outcomes of collaboration is to galvanize additional champions who will both implement needed changes in practice and maintain the watershed health legacy over time.

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## Asset Management for Sustainable Service Delivery: A BC Framework

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In addition to being a cornerstone of inter-regional collaboration, EAP is a foundation piece for **Sustainable Service Delivery**, a provincial initiative led by Asset Management BC which is co-chaired by UBCM and the Ministry of Municipal Affairs. The Comox Valley has served as the crucible for *Asset Management for Sustainable Service Delivery*.

Launched in the Comox Valley in 2011, the concept was immediately embraced by all four local governments. It was then road-tested by the City of Courtenay under the leadership of David Allen and David Love during the years 2014 through 2020. Their legacy accomplishment is the City of Courtenay's **Asset Management Bylaw** adopted in 2020.

To recognize the central role of asset management in its operations, Courtenay is one of the first municipalities in Canada, and the first in B.C., to enshrine its asset management program in a formal bylaw. Although the bylaw acknowledges the role of natural assets, the implementation focus to date has been on constructed assets.

### Financial Case for Stream Systems

Viewed as a unit, the Comox Valley is a pioneer region for a whole-system approach to Sustainable Service Delivery. The EAP program of applied research included Town of Comox and Comox Valley Regional District case studies. These are building blocks in a process that has proven how to operationalize EAP within the **BC Framework**.

EAP puts the environmental perspective on an equal footing with the engineering and accounting perspectives. The EAP methodology and metrics provide local governments with the starting point for establishing an annual budget for ongoing community investment in stream system maintenance and management (M&M) of streams.

**Land and Water Stewardship:** Under the IREI umbrella, the Comox Valley Regional District is one of 10 organizations involved in peer-based sharing and learning through [Watershed Moments](#), the [Vancouver Island Water Stewardship in a Changing Climate Annual Symposia Series](#). Symposia are inter-regional in scope.

The Watershed Moments team is advancing Blue Ecology, a water-first approach to interweaving two cultures introduced on **Figure A9**, as the pathway to **Water Reconciliation** in British Columbia.

## Figure A9 – Blue Ecology is a water-first approach to interweaving of Indigenous knowledge and Western science



“We can learn from First Nations about the importance of a stewardship ethic. Fortunately, we are starting to make some inroads in changing our attitudes and this is reflected in the discussion of why natural assets are integral to local government asset management.”

David Allen, Executive Director, Asset Management BC  
Past- Chair (2012-2020), AMBC Community-of-Practice  
Chief Administrative Officer (2013-2020), City of Courtenay

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### *Looking after land and water for future generations*

*“We have not done a very good job of recognizing the value of natural assets and of ecosystem function, likely because nobody owns it in the monetary sense. The history of our society is that unless you own something and can sell it in a market to somebody else who will pay money for it, then we do not recognize it as having a value. This is referred to as the **Tragedy of the Commons**.”*

*“Our way of thinking about value contrasts with the First Nations way of thinking. They embrace shared responsibility for looking after land and water for now and for future generations.”*

David Allen

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“Interweaving is about creating a new form of knowledge through collaboration by interweaving useful threads from each way of knowing into a more robust way. Interweaving is not integration. The methodology for Blue Ecology is about the actual work of interweaving the strengths of two cultures to reconcile them.”

Michael Blackstock (aka *Ama Goodim Gyet*)  
Independent Indigenous Scholar, former member of  
UNESCO Expert Panel, and founder of Blue Ecology Institute



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PART B

# **A Window into the Comox Valley Water Journey**



*To prepare the reader for the three parts that follow it, this Part B is structured in five segments:*

- 1. Context for Judging Progress: Decades!***
- 2. Art of the Possible for Water Sustainability***
- 3. Perspectives – Comox Valley Regional District***
- 4. Perspectives – Town of Comox***
- 5. A Perspective – City of Courtenay***
- 6. A Perspective – Comox Valley Stewardship Sector***
- 7. Closing Perspective - Continuity of the Network***



## **A Perspective on the Role of Champions in Leading Change in the Georgia Basin**

Nancy Gothard  
Environmental Planner, City of Courtenay  
Courtenay Representative, Comox Valley-CAVI Regional Team  
July 2014

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Editor's Note: *This essay is reproduced from [Beyond the Guidebook 2015](https://waterbucket.ca/wp-content/uploads/2017/10/Beyond-The-Guidebook-2015.pdf)<sup>1</sup> because of the relevant historical context and foreshadowing it provides for this window into the Comox Valley water journey*

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**“The approach to watershed-based planning and water sustainability is happening through champions** because, apart from some high-level enabling legislation, there is no strong top-down mandate ‘requiring’ that we do these things. I think in most organizations it is not a top-down priority.”

**“Where it has surfaced as a top-down priority, it has been because individual champions have ensured that it was considered at those higher levels.** At the June 2014 Inter-Collaboration Session hosted by Comox Valley-CAVI, I noticed that each participating organization had different champions, from different parts of the organization. In some communities it was the engineering department, or planning or environmental services, etc.”

**“But each organization was where we in the Comox Valley were also at – how to get the other departments on board.** The fact that we are all at the same point on the trajectory in terms of infiltrating these ideas into our organizations suggests that we are indeed on the right path. We each have come to the conclusion that collaboration is critical.”

**“That so many people earnestly working on this have reached the same point suggests that we are on the tipping point of a breakthrough in collaboration.** We will now be eager, I expect, to share just how we permeated these concepts into our own organizations. This is organizational transformation that we are discussing here, not just Water Balance any longer.”

**“I also thought – wow, we are all really supporting each other.** Once we know that we can just get to the work of ‘doing the work’. We are now all on the same page. I don’t have to explain to my other counterparts in other areas what it is I’m trying to do, or where we’re at in the process.”

**“Everyone who has gone through the IREI it seems has been ‘seasoned’ to be nimble and open-minded** in how they approach this transformation to water sustainability, and how to genuinely be of assistance to others.”

**“They have learned to recognize the opportunities for building strengths within process and where weak links in the chain can occur.** I was just so encouraged to see that we in the Comox Valley are not alone and that we now have others who are eager to help. This relationship building is key to accelerating the sharing and learning further and the Georgia Basin approach to water sustainability.”

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<sup>1</sup> <https://waterbucket.ca/wp-content/uploads/2017/10/Beyond-The-Guidebook-2015.pdf>

# 1. Context for Judging Progress: Decades!

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## Look Back to See Ahead

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Part A introduced a set of themes that weave through and unify inter-regional collaboration. A vision for **designing with nature to bend the shifting baseline** influences and inspires “commitment to the mission” among elected representatives, local government staff, and members of community groups. These individuals aspire to make a difference.

Motivated by the common good, such individuals are passionate about achieving water sustainability in the Comox Valley. It is necessary to look back so that we can see ahead. Thus, the value of Part B is the bridge it provides to Parts C, D and E. It lays out a big picture assessment of the journey to date. Parts C and D then provide the details of the sequence of events during the period 2006 through 2017.

## Interorganizational Perspectives

In this Part B, we tell the story of the **Comox Valley Water Journey** through the eyes and words of nine individuals who have been part of the journey for a decade or more. Each person steps back to take reflect on what interorganizational collaboration means to them and how their past experience has primed them for further collaboration. Their reflections are personal and revealing. This provides flavour.

An over-arching takeaway message is that the **journey must be measured in terms of decades** rather than years. And one can only realistically judge progress by looking back to assess how far one has travelled. Then one has the context necessary to see ahead. Two essential ingredients for mission success are intergenerational commitment and oral history. They go hand in hand.

### ***Collaboration is enduring and there is no end to the journey:***

This message flows through each of the conversational interviews that follow in this Part B. Everyone is candid in reflecting on how past collaboration has built trust. With trust, anything is possible.

**What they said in a nutshell:** “Collaboration is not intimidating anymore. It is about figuring out what can be done. We do not have to be exactly the same in what we do, but we need to be consistent in the message. Those past connections and that social contract with each other is part of what greases the wheel and gets stuff done.”

## Regional Growth Strategy and Brooklyn Creek: *Back to the Future*

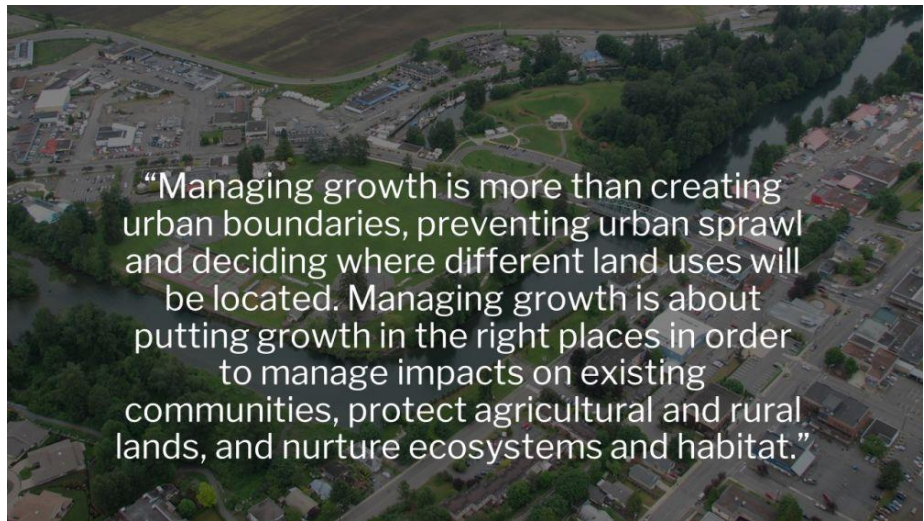
In 2008, the ministerial order that the valley develop a **Regional Growth Strategy** was the trigger action that resulted in the four local governments forming the **CAVI-Comox Valley Regional Team**. The CAVI role was a supporting one, with the focus on achieving “water sustainability outcomes” through collaboration and alignment of efforts. Five years later, in 2013, the CAVI team presented the vision for the **Brooklyn Creek Blueprint** at the **Elected Officials Forum**.

Entering 2013, the Regional Growth Strategy and Brooklyn Creek Blueprint are again on the front burner. This message emerged during interviews. As well, the opportunity for CVRD, Courtenay and Comox to build on past collaboration on both fronts is well-understood.

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*“The Comox Valley Regional Growth Strategy is a shared vision for managing growth and community impacts in diverse urban and rural neighbourhoods. It is a commitment made by the Comox Valley Regional District (CVRD), the City of Courtenay, the Town of Comox, and the Village of Cumberland to work together.”*

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**Brooklyn Creek:** A “watershed blueprint” provides a picture of how policy and legal tools can help developers, regulators and designers collaborate to ensure responsible outcomes. Over the past decade, the Town of Comox has completed the foundation pieces that would underpin a plan for the entire stream system. The Town’s work sets the stage for completion of the Brooklyn Creek Blueprint.



“The Regional Growth Strategy and Comox Valley Sustainability Strategy provide the backdrop for CAVI. The spotlight is on **how to implement the regional team approach** – that is, a unified approach from all levels of government.” – Kevin Lorette, CVRD, 2009

**Figure B1 – Brooklyn Creek / A Beacon of Hope**

**Brooklyn Creek Watershed  
Ours to Protect and Enjoy**

The Brooklyn Creek Watershed has two branches which originate north of Ryan Road and Longlands golf course. It collects rainwater over a land area covering 709 hectares before emptying 10 km downstream into the K'ómoks Estuary. The main waterway is Brooklyn Creek. It is considered by many as a "community jewel" and runs through the City of Courtenay, the Comox Valley Regional District and the Town of Comox. Rainwater from the land feeds into the creek and supports fish and wildlife species including spawning populations of cutthroat trout, coho and chum salmon.

Brooklyn Creek Watershed is an urbanized watershed with ongoing residential, business and agricultural development. It also includes developed and potential green spaces which provide needed habitat for a variety of birds, native plants and small animals including otters and beavers.

**Brooklyn Creek Watershed Society:**

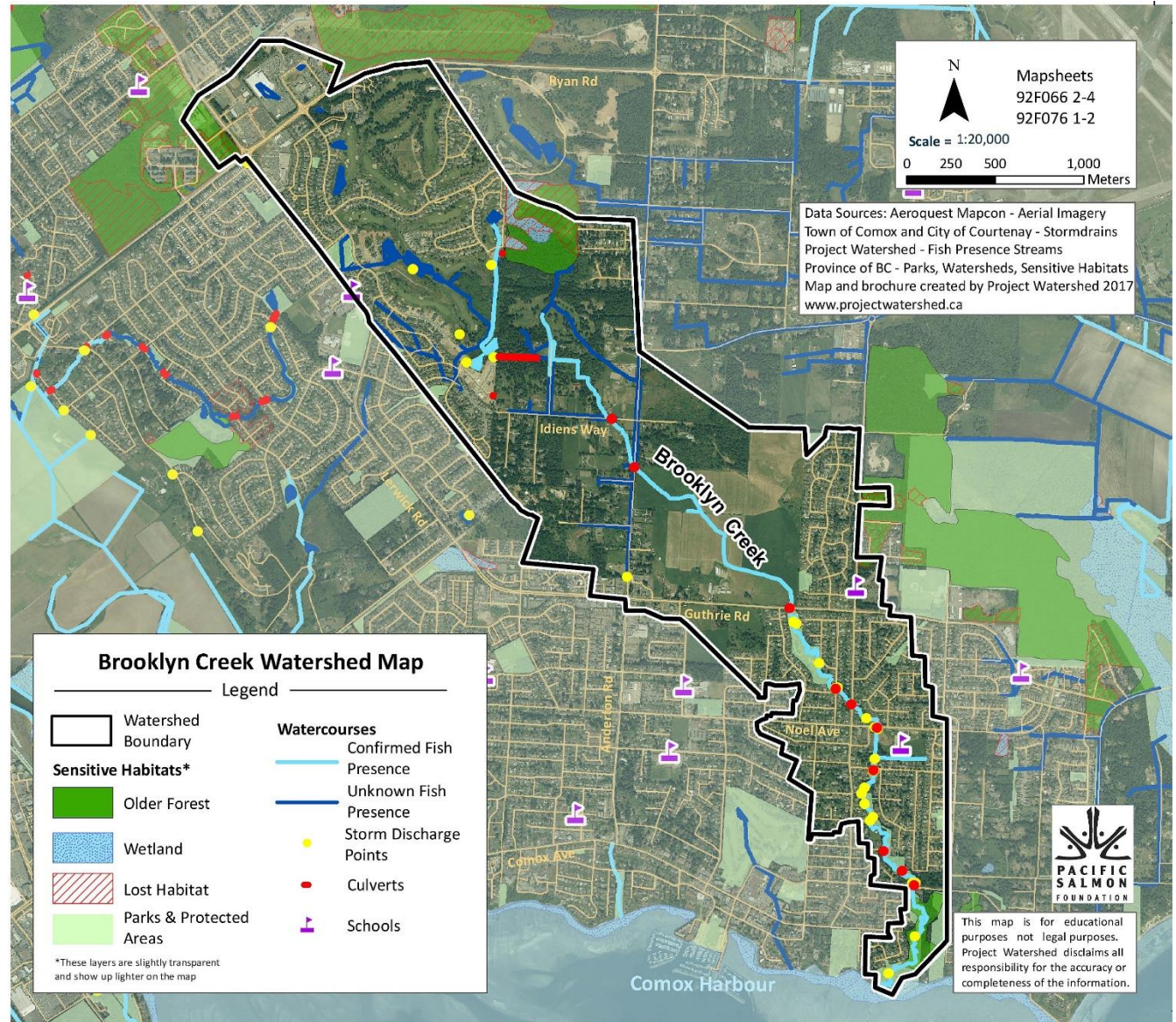


A group of local residents supporting sustainable use and preservation of the watershed through community stewardship activities and education.

Learn more, volunteer or donate at [www.brooklyn creek.ca](http://www.brooklyn creek.ca)

**IF YOU OBSERVE AN IMMINENT THREAT TO THE WATERSHED OR THE CREEK CONTACT:**

-  **Department of Fisheries and Oceans**  
24 hour hotline: 1 800 465-4336
-  **City of Courtenay:** 1 250 338-1525,  
website: [www.courtenay.ca](http://www.courtenay.ca)
-  **Town of Comox:** 1 250 339-2421,  
website: [www.comox.ca](http://www.comox.ca)
-  **Report all polluters and poachers (RAPP):**  
1 877 952-7277



## 2. Art of the Possible for Water Sustainability

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### Convening for Action in Comox Valley

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CAVI is the acronym for [Convening for Action on Vancouver Island–Leadership in Water Sustainability](#). In 2006, a consultation workshop held as an adjunct to the [Water in the City Conference](#) was the event that formally launched CAVI.

In 2006, the bold prediction to kickoff the workshop was that **“by 2010, Vancouver Island would be well on the way to achieving water sustainability”**. After 5 years, CAVI morphed into the Georgia Basin IREI in 2012. CVRD is a founder partner in both initiatives.

**Figure B2** (presented on the next page) parallels the timeline graph included in Part A but drills down to elaborate on Comox Valley leadership and contributions within an inter-regional collaboration setting. The CAVI and IREI program elements listed in the image are described in Parts C, D and E. The value of the image is its function as a visual bridge.

### Over-arching context for the Comox Valley journey

“It is important that we look back to see the ‘art of the possible’. Understanding what this phrase means in practice is critical,” advised Kate Miller of the Cowichan Valley Regional, when she shared words of wisdom from the parallel Cowichan journey.

“We must continuously foster the ability in our contemporaries and successors to look through the lens of what is possible. Can we rebuild, can we restore, can we adapt in such a way that we build additional resilience? That is the question. Institutional barriers are incredibly frustrating. But success depends on breaking them down.”

***Foundation Setting Pieces:*** In this century, the Comox Valley experience is defined by two watershed moments. Both were transformational in terms of what they set in motion. The first occurred in 2008 when the Minister of Municipal intervened to create the Comox Valley Regional District. The ripple effects continue to the present day.

The second watershed moment took place in 2017. The Comox Valley Conservation Partnership and four Comox Valley local governments collaborated to co-host the Eco-Assets Symposium.

**Figure B2 – History-at-a-Glance: Timeline & Milestones for “Convening for Action in the Comox Valley”**



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## The 4Cs: Communication, Cooperation, Coordination and Collaboration underpin a Regional Team Approach

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### **Derek Richmond's Alberta Environment experience was foundational to what he brought to CAVI**

*"I was really lucky during my time as head of the Operations and Maintenance Division at Alberta Environment. There, I was responsible for all provincial water resource projects, with the exception of irrigation."*

*"Working with real-time issues meant thinking on our feet. We had to respond NOW. There was no such thing as working within a silo. We had to reach out and work with everyone, from farmers to municipalities, to make sure water resources were managed in the way they were meant to be."*

*"In terms of the bigger picture, my division had a very close working relationship with the planning division which developed the long-range plans for the major water basins. We worked in the same building and actually talked to each other."*

Derek Richmond,  
Director, Partnership  
for Water Sustainability

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"My involvement from the beginning with CAVI, and then with the Partnership as a whole, resonated with me not from the water sustainability perspective so much, but from what I was already doing on Vancouver Island when I first moved here from Alberta and was working with the City of Campbell River," recalls Derek Richmond, a former Manager of Engineering with the City of Courtenay. Her served as CAVI Chair from 2011 through 2014.

"I carried on what I brought with me from my quote unquote legacy at Alberta Environment. And that was always the issue of going beyond your localized boundaries, your work-related boundaries in terms of office and structure, and **finding out who was doing what and where**. How they were doing those things, what problems were they having, and how they resolved the problems."

"We found out that in all aspects, whether it was a highway issue or a water resources issue or liquid waste treatment issue, the problems were either the same or very similar. Somebody, somewhere, had found a solution to something. And it was through meetings, contacts, and a regular forum that you found those answers."

### **Striving for Commonalities in the Comox Valley**

"I introduced that same approach when I was with both Campbell River and Courtenay. It segued beautifully into the **2008 Learning Lunch Seminar Series**. From the outset, we beat on the drum about the 4Cs. That idea is something that evolved here on the island. I did not have that in my back pocket when I moved from Alberta. I did not think in terms of the 4Cs before I came to Courtenay and focused CAVI on commonalities over boundaries (as conceptualized on **Figure B3**)."



"It was intuitive. It has to be intuitive if you are going to be successful. We just put a label on it as the 4Cs. And that is what took off. And that gave me the fire in the belly to continue with this whole process. The water resources and water sustainability aspect was just icing on the cake for me." – Derek Richmond



Figure B3 – Shift the Paradigm

## Striving for Commonalities

"The 2008 Learning Lunch Seminar Series provided the springboard for bottom-up regional action to communicate, coordinate, cooperate, and collaborate. To be successful, we need to work outside our normal boundaries; and we need to proactively communicate and work with others."

"Man imposes his own boundaries. So, we have an issue of inconsistencies ... or incongruities ... between natural and imposed boundaries which sets up a series of problems. Our challenge is to work around and with boundaries. Ideally, we would like to **shift the paradigm from boundaries to areas of commonality.**"

"If we are to have a team approach, we need to think globally and act locally. We need to think of ourselves as a team, not as individuals within silos; and we need to break down boundaries through communication, cooperation, coordination and collaboration."

Derek Richmond, 2008

**Will it be boundaries or commonalities?**

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## Benefits of a Regional Team Approach

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“When I reflect on the differences in thinking between BC and Alberta, I now recognize that geography has a major influence. It is about scale: big rivers in open country in Alberta versus small mountain tributaries in BC. Working in Courtenay, I felt very much like I was in the tributaries of the tributaries, particularly when I think about my Brooklyn Creek experience,” continues Derek Richmond.

“The health of Brooklyn Creek, a gem in the Comox Valley, depends on decisions made by three of the four local governments. At first, I found the situation frustrating because I could not understand why working together was not par for the course in BC. What was happening in Brooklyn Creek seemed to be so minimalistic.”

“But I eventually came to realize that the political spinoff was great. I really enjoyed that because it was almost like a Lilliputian version of some of the bigger issues that I had dealt with in Alberta.”

### Shared Responsibility

“In 2008, Comox Valley local governments embraced ‘*shared responsibility*’ and the region became a demonstration region for rollout of the provincial Living Water Smart and Green Communities initiatives. Shared responsibility means that everyone has a role to play in accomplishing a community goal (as conceptualized on **Figure B4**).”

“This ‘convening for action’ process launched the **Regional Team Approach** and exploration of what we wished to accomplish together through alignment, partnerships, and collaboration. Once everyone agrees on expectations and how all the players will work together to align local actions with provincial and regional goals, each community can then reach its goals in its own way,” concludes Derek Richmond.

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### Essence of the ‘Regional Team Approach’

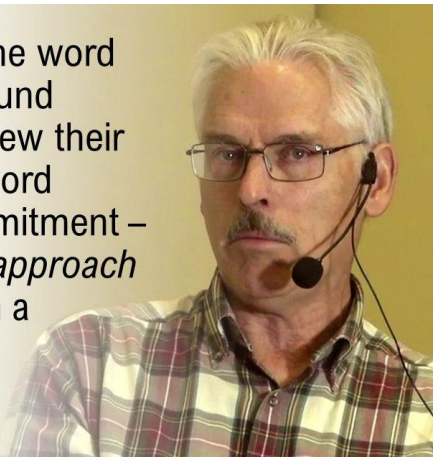
*“All players set their sights on the common good and challenge old barriers of jurisdictional interests.”*

page 22, Beyond the Guidebook 2015

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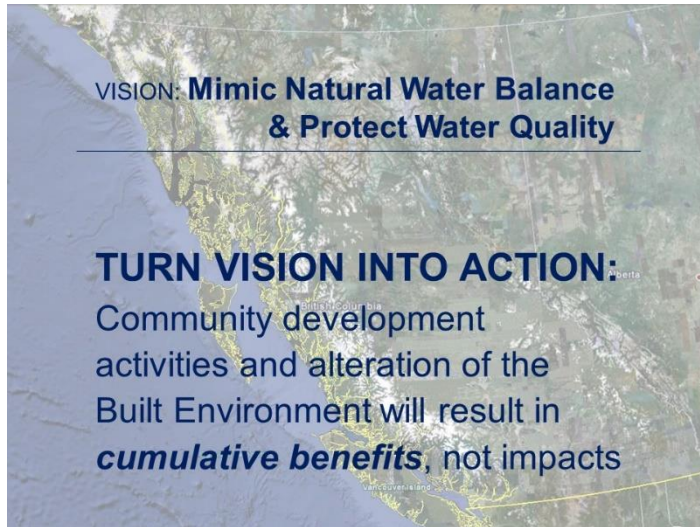
“It is revealing that inserting the word **team** could have such a profound impact on how practitioners view their world. Inclusion of the team word implies there is personal commitment – that is why the *regional team approach* is fundamentally different than a *regional approach*.”

Tim Pringle  
Founding Director and Past-President  
Partnership for Water Sustainability in B.C.



## Figure B4

Essence of the ‘Regional Team Approach’ is that all players set their sights on the common good and challenge old barriers of jurisdictional interests:

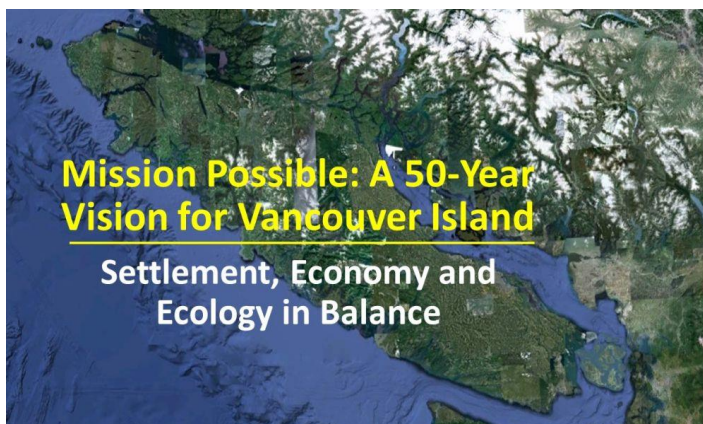


### **WHAT WE STRIVE TO ACHIEVE:**

*“The shared vision is to control our destiny and create a legacy for our children and grandchildren. Having a shared vision means that we will visualize what the regions of British Columbia can look like in 50 years, and today we will set in motion actions that will ripple through time to produce that future.”*

Living Water Smart & Building Greener Communities: Implementing a ‘regional team approach’ in British Columbia, August 2009

Water Sustainability Action Plan for BC



### **Collaboration grows from a shared vision about the future and commitment to action:**

*“Collectively this is what we want to incrementally achieve, and over time, this is how we will work together to get there.”*

Source: Adapted from the “mind map” introduced as Figure 9 on page 22 in *Beyond the Guidebook 2015: Moving Towards “Sustainable Watershed Systems, through Asset Management”*. Released by the Partnership for Water Sustainability, November 2015

## 3. Perspectives - Comox Valley Regional District

### Reflections by Marc Rutten

Marc Rutten joined the Comox Valley Regional District in 2009 and is the General Manager of Engineering Services. His learning curve began with the planning for the **2009 Learning Lunch Seminar Series**, hosted by CVRD.

#### Local government journey meanders like a creek

"I am a project person. I come from a project background and am used to the stages of a project – from conception through budgeting, procurement, construction, and commissioning. It is a very structured spectrum of activities. There is a defined beginning and end," states Marc Rutten.

"But that is not the way it is in the world of water stewardship. It is a bit like a creek. It just meanders all over the place such that you just cannot seem to get things to completion even when the process is a good one. You learn that this is what it means to be on a journey."

"The journey is never-ending, there are any number of ways to work through it. Some come into fashion for a while and some fall out. There is the resource issue. There is also the capacity of the organization to be involved in an initiative at a particular time. All these things must be considered along the way."

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#### **Vision for Brooklyn Creek Blueprint**

*"In the multi-jurisdictional Brooklyn Creek, many of the pieces are already in place to create a 'demonstration blueprint'. Hence, it became the consensus choice for completion under the IREI umbrella."*

page 11, Comox Valley Synthesis Report, 2012

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**Nature has no boundaries:** "It can be frustrating to start on an initiative, like the **Brooklyn Creek Blueprint** in 2013, because we believed it was the right thing to do. We thought the blueprint concept (refer to **Figure B5**) would work really well because other local governments had been successful. But it could not happen at that time. 10 years later, however, we have another opportunity."

"The Town of Comox has continued to do work in the lower reaches. Crown Isle development is ongoing in the upper reaches within the City of Courtenay. And CVRD is in the middle reach where there has been flooding and there is a network of ditches."

"It is interesting how Brooklyn Creek has re-emerged. There is a renewed interest among Courtenay, Comox and CVRD in working together to resume the discussion that we started a decade ago."

## Figure B5 – Vision for Brooklyn Creek Watershed Blueprint



**The term ‘watershed blueprint’ originated with the Bowker Creek Initiative in the Capital Region.** Above, at an inter-governmental Peer Dialogue Session hosted by the City of Courtenay in 2012, Glenn Westendorp of the Town of Comox explained that the blueprint term resonated with the CAVI-Comox Valley Regional Team because it:

- captures a community’s vision of a desired future watershed condition;
- is action-oriented and provides planning staff with the level of detail they need to effectively review individual development applications for conformance with the plan.
- ensures that positive changes can happen incrementally, and that opportunities can be capitalized on as and when they arise;
- identifies specific opportunities to restore watershed function and implement green infrastructure that is ‘built right; and
- is implemented over a period of decades because change can be slow in a developed watershed.

Efficient and effective development of a Watershed Blueprint depends on those with local knowledge being at the “blueprint table” to share their knowledge. Integration of community and inter-departmental perspectives would ensure sound solutions.

## A journey that takes decades

“When we completed the Comox Lake Watershed Protection Plan in 2016, we insisted that it be implementable. It would not sit on a shelf, we said. The plan included a schedule of concrete actions, each with a budget, and we said we would get them done and tick them off one by one,” explains Marc Rutten.

### ***Implementation of Comox Lake Watershed Protection Plan:***

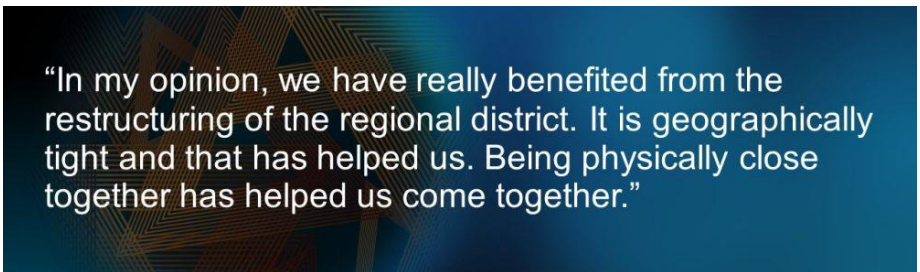
“The process has unrolled in that way. But at the same time, we understand and accept that the plan is also something that will take a long time to implement in its entirety. For example, one of the actions is to collect data. Without data, you cannot make good decisions about land use, riparian areas, or stream restoration work. You cannot connect the activities that you might want to do, to improve the watershed, to the actual quality of the water in Comox Lake.”

“There is a period of time where data collection is the real focus. Initially you need this massive amount of data in order to be able to make good decisions. And because we do not own the watershed, we need the data to be able to educate and convince stakeholders to do things differently than they might do now.”

“In this regard, I see parallels between the immense scope of the inter-regional collaborative effort across the Georgia Basin versus what we are trying to do within the Comox Lake watershed. The latter is much smaller but is still a massive area. It will take a tremendous amount of commitment and time to implement all the actions that comprise the Comox Lake Watershed Protection Plan.”

### ***Reflections on creation of the regional district in 2008:***

Looking ahead, Part D describes how regional restructuring became a catalyst for collaboration because it provided a reason to “convene for action” around several regional growth and sustainability strategies. In reflecting on his tenure with the regional district, Marc Rutten provides this perspective:



“In my opinion, we have really benefited from the restructuring of the regional district. It is geographically tight and that has helped us. Being physically close together has helped us come together.”

## Everything we learned is enduring

“We no longer meet every month like we used to back in 2009. In years past, CAVI meetings were scheduled in our calendars because sharing sessions with other local governments were ongoing. However, everything we learned is enduring,” emphasizes Marc Rutten.

“For example, right now CVRD is doing a watershed stewardship study across the entire regional district to determine whether a watershed stewardship service similar to what is in place for the Nanaimo and Cowichan is something that the Comox Valley community will support.

“Without the knowledge of what has been done in both the Regional District of Nanaimo and Cowichan Valley Regional District, and the contacts that we have made through the IREI, we might have gone a different way or reinvented the wheel. But we do have these models and these contacts as a result of inter-regional collaboration.”


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### ***A journey takes time***

*“That is a big learning, just understanding that it is not a project with a defined beginning and end. It is a journey, and like a creek, it can go in so many different directions.”*

Marc Rutten

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“The work of CAVI is enduring. It brought us together. We developed strong relationships. Working together is about figuring out what can be done. Everything we learned through the CAVI process is enduring and lives on.”

Marc Rutten  
CVRD General Manager of Engineering

***Relationships, trust, and respect go hand-in-hand:*** “I cannot think of anything specific where I can say it was totally successful and we aced it. It almost seems like every initiative that has been started has never quite made it through to completion. We would put a lot of effort into it. Then priorities change. Capacities and resources change.”

“But what I do notice is that we have developed really strong working relationships within the Comox Valley among the four local governments. So, collaborating on a project like Brooklyn Creek is not intimidating anymore. It is not about protecting your jurisdiction. It is all about working together and figuring out what can be done and being open to and eager and ready to go.”

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## Reflections by Kris LaRose

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Kris La Rose, Senior Manager of Water and Wastewater Services, joined CVRD in early 2014. Immediately, he was appointed as the Comox Valley local government representative on the [Georgia Basin IREI Leadership Team](#). His involvement on this team is described more fully in Part D.

**Asset management for sustainable service delivery** is the slice that Kris La Rose brought to the inter-regional mix on behalf of the Comox Valley. He provides this context:

“For the past 7 years, the focus of my engineering responsibilities has been on regional water supply and regional sewers. CVRD has been implementing major projects, including water treatment and a new intake at Comox Lake. The key words are sustainable service delivery, no matter what you do.”

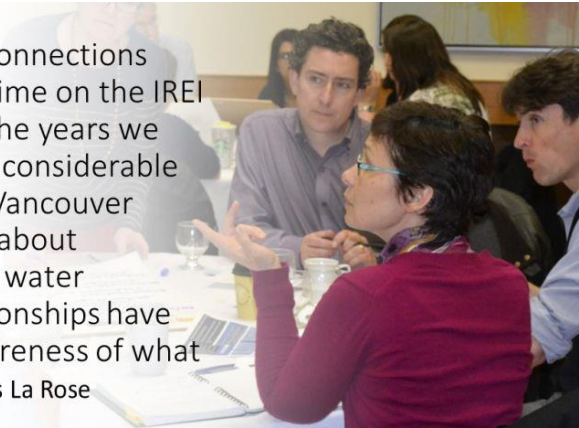
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### **A lasting legacy**

*"Contacts that I made through the early IREI years have been transferable to my current role and responsibilities. So, I view that as a lasting legacy from that time of inter-regional collaboration."*

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“We have built on the connections that I made during my time on the IREI leadership team. Over the years we have continued to have considerable contact with the other Vancouver Island regional districts about watershed and drinking water protection. Those relationships have helped us maintain awareness of what everyone is doing.” - Kris La Rose



### **Sustainable Service Delivery**

“The notion of sustainable service delivery is absolutely fundamental to my viewpoint on managing infrastructure. Whatever we do, we must strive to do it in a sustainable way – whether the engineering objective is extracting water from a watershed or discharging treated effluent into the coastal marine environment or discharging drainage into stream systems. Sustainable service delivery is the crux of what we do.”

“Over the past several years we have worked with local governments, the K’ómoks, and a range of non-profit and private stakeholders in an effort to develop a [Natural Asset Management Plan](#) for the Comox Lake watershed. Working to define and value this massive natural asset has proven challenging, but the process has been very rewarding, and has spun off into smaller related projects. We remain committed to working towards integrating this key natural asset into the CVRD Asset Management Plan.”



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## Reflections by Zoe Norcross-Nu'u

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Zoe Norcross Nu'u, a marine scientist who previously taught at the University of Hawaii Maui College, is in her second decade with CVRD after joining in 2012. Her responsibilities encompass the Comox Lake Watershed Protection Plan which is described more fully in Part D.

Zoe's role is that of a watershed coordinator, and she has been involved since plan inception. Watershed protection is her passion. "My work and my recreation take place in the same place. I feel so fortunate to be able to work in these places that mean so much to me," emphasizes Zoe Norcross-Nu'u.

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### *What it means to have a united front*

*"When the regional districts on the east coast of Vancouver Island present a united front in response to requests from the Province, it is so much stronger than us trying to speak as an individual local government, especially for a small one within a larger provincial context when you are one among many."*

Zoe Norcross Nu'u

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### Comox Lake Watershed Protection Plan

"We recently completed an update to the watershed plan, the first since it was completed in 2016. It is a living document. We made that clear upfront. We also committed to revisiting the content as necessary to keep the plan relevant and to address changing conditions. The **risk ratings** are a big part of the plan because they dictate priorities and how they are addressed. For this reason, the document has become really important in the decision process."

"The CVRD approach to watershed protection has benefitted, and continues to benefit, from relationships that we have developed over years with our peers in other regional districts. These relationships are the result of inter-regional collaboration made possible by the IREI. It is really valuable how the other regions have become an integral part of a coordinated approach in responding to the provincial government."

"When the Province asks us for feedback on regulatory issues, we often share our responses with the other regional districts. Time-permitting, we may also discuss our perspectives, which can be helpful in strengthening our respective responses. We then present a united front in terms of strategies and solutions that we believe would better manage the issues of shared concern."

"INTER-REGIONAL COLLABORATION  
ALLOWS US TO SUPPORT EACH IN  
ADDRESSING PROBLEMS THAT  
TRANSCEND BOUNDARIES. IN A  
PROVINCIAL CONTEXT, WE ARE JUST  
ONE TINY VOICE. WHEN THE  
REGIONAL DISTRICTS ON THE EAST  
COAST OF VANCOUVER ISLAND  
UNITE BEHIND AN ISSUE, OUR VOICES  
CAN BE SO MUCH MORE POWERFUL."

ZOE NORCROSS-NU'U



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## Reflections by Darry Monteith

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Darry Monteith, Manager of Liquid Waste Planning, joined CVRD in 2010 and is therefore well into the second decade of her water journey. When Darry reflected on what she has observed and learned, and how inter-regional collaboration has been helpful, she stated:

“As a result of teaming up with my peers in the other three regional districts to make the [Watershed Moments Video Trilogy](#) in 2020, we know each other. This makes it easier to reach out for advice. We have become a working group. We cooperate and we support each other.”

“It is all about building internal capacity and that takes time,” Darry emphasizes. “This requires an annual budget and the resources to keep the work moving forward. Otherwise, you are limited to one-offs that rely on grant funding. Without a budget and resources, you cannot carry through with all the wonderful action items. That is what CVRD hopes to address through a regional [Watershed Stewardship Service](#) for the electoral areas outside the Comox Lake Watershed.”

### Regional Watershed Stewardship Service

“The idea of a watershed stewardship service is seeded as a main recommendation in two watershed-based reports of significance. The first one, titled [Rainwater Management in the Comox Valley Regional District Electoral Areas: Current Practice and Future Options](#), was completed a decade ago in 2013. The second one, titled [Tsolum River Agricultural Watershed Plan](#), was finalized in 2021.”

“Recognition of the need to establish a local government service to fund and support watershed stewardship efforts is **the thread** that ties the two initiatives together. These things do take time. But CVRD is moving in the right direction,” emphasizes Darry Monteith.

“We did some great work with K'ómoks First Nation through the Tsolum River Agricultural Watershed Plan, completed in 2021. That has really set the stage for a new vision for working together. CVRD is committed to building a relationship with KFN and advancing water reconciliation.”

Darry Monteith



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### How case study experience informs the bigger strategy

*“The Saratoga-Miracle Beach case study has allowed CVRD to show how to work through the details for a Watershed Stewardship Service in a rural area.”*

*“In the Saratoga drainage plan, we bring forward policy and a new way of thinking. When the area begins to grow, we are primed to do things differently than in the past. Jim Dumont has had a key role in guiding us through the process.”*

*“Jim is so knowledgeable and is such a resource for CVRD in rainwater management. Through his teaching of the Water Balance Methodology, he has helped CVRD to integrate that thinking and language into the Official Community Plan. We have built on this to do the Saratoga plan.”*

Darry Monteith

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## Figure B6 – WATERSHED MOMENTS TRILOGY VIDEO 1: BC’s Climate Reality, Inter-Regional Collaboration & Actionable Visions



In November 2020, a dynamic team of five women provided their insider insights into an array of water-centric initiatives and programs underway in four Vancouver Island regional districts, namely: Nanaimo, Cowichan Valley, Comox Valley, and Capital. In each region, water management initiatives are into a second decade and ramping up.

*This local government team kicked off the 2020 Video Trilogy Series with a facilitated conversation about "BC's Climate Reality, Inter-Regional Collaboration & Actionable Visions" > from L to R: Julie Pisani (Nanaimo region), Darry Monteith (Comox Valley), Jody Watson (Capital Region), Kate Miller (Cowichan Valley), and Zoe Norcross-Nu'u (Comox Valley)*



How do you inspire someone over a computer? Addressing this challenge was the starting point for "Watershed Moments, the Video Trilogy Series". It moved well beyond a Zoom webinar by using YouTube to provide a viewer experience that was comparable to viewing an engaging TED Talk.

*An audience has a lot more insight and curiosity once they learn the back stories - who are the players, what they have been doing, and why. Each video in the trilogy opened with individual interviews of team members in a nature-based setting. Such personalized vignettes would never be included in a live event.*

## 4. Perspectives – Town of Comox

### Reflections by Marvin Kamenz

Marvin Kamenz joined the Town of Comox in 2000 and is the Director of Development Services. The Town is a **“beacon of inspiration”** for a water balance approach to land development. Marvin Kamenz and his colleague Shelley Ashfield are champions for a systems approach that reconnects hydrology and stream ecology. The Town has created a regulatory framework that makes this desired outcome possible.

#### **Comox approach is precedent-setting**

*“The Town of Comox has established a provincial precedent in truly applying a whole-system, water balance approach to land development in Northeast Comox. The break from historical drainage engineering practice dates back to April 2012.”*

*“Over the past decade, an approach has taken shape that follows the direction provided by Stormwater Planning: A Guidebook for British Columbia.”*

*“Jim Dumont played a critically important role as the Town’s technical advisor in successfully guiding the Town.”*

page 12, *A Beacon of Hope*, released by PWSBC in 2019

#### **Why the Town of Comox is a beacon of inspiration**

“The Town of Comox journey demonstrates that it takes years of sustained commitment and grinding perseverance to bring about incremental changes in planning and engineering practices. There is no shortcut to ‘getting it right’,” observes Derek Richmond.

“The Town’s experience also demonstrates the value of staff continuity, particularly when that continuity is coupled with an underlying passion for their work, guided by the common good. Also, continuity goes to the heart of the Town’s corporate memory.”

“Another hallmark of the Comox experience is their willingness to be proactive in establishing expectations – for example, the Town held a training course for land development engineers to teach them hydrology fundamentals so that they would know how to **design with nature.**”

“Land use re-zoning is the catalyst for restoration and preservation of stream systems in an altered landscape. When all the municipal departments are at the table from the start, everyone has skin in the game. Alliances are built, and the puzzle pieces fit together to form a neighbourhood plan. Collaboration allows us to move from utopian ideals to pragmatic outcomes.”

– Marvin Kamenz, Town of Comox



## Driver for Action: *Liability Concerns over Flooding*

“When I reflect on my journey with the Town over the past decade, I realize that flooding is a good thing when it triggers people to look into what is going wrong right now with how we design communities,” states Marvin Kamenz.

“The other fundamental is that you need a nurturing corporate environment. You need the direction to be able to look at the natural environment to mitigate risks as part of your job. And then, and this is key, you are allowed to explore what is necessary to do rather than carrying on with past standards.”



### **Where water goes**

*“Jim Dumont’s approach is an intuitive lay person approach: where does the water go now; where will it go afterwards. That is the reframing. A technical person needs to be able to provide answers that make sense to a lay person.”*

*“When you have a policy analysis background, you learn to look at the policy assumptions. They tell you everything. If the assumptions do not reflect reality, it does not matter what the report says.”*

Marvin Kamenz

**Risks, assumptions, responsibility, and accountability:** “With development in Northeast Comox, two things were in play. One was the very clear message from downstream property owners that if the Town did anything that impacted on drainage, we would be sued.”

“The risk of being sued meant that we had to do our homework and figure out what are our responsibilities. In the case of Northeast Comox, we now have a better understanding of the natural situation – that is, 100% forest cover on all parcels. When you can model the natural as the baseline, you can compare it to modeling of the impact of current and proposed development at the points of surface and groundwater discharge to downstream properties.”

“That makes it very clear cut and definitive. This drove the Town’s strategy. The Town retained Jim Dumont, a specialist in rainwater management, to advise us on the critical issues of modeling options, input data, and assumptions; as well as infrastructure options, maintenance implications, performance monitoring and adaptability to adjust the system based on the results of performance monitoring and climate change.”

“At the end of the day, it is the Town that is left holding the “infrastructure bag”. If negative drainage impacts occur the focus will be on the Town to ensure they are corrected.”

## Anderton Corridor Neighbourhood Concept Plan

The image below tells a story in two ways: it shows the comparative sizes of the three creekshed zones that comprise Brooklyn Creek; and it shows the locations of the two development areas in Comox. The area covered by the *Draft Anderton Corridor Neighbourhood Concept Plan* is almost double that for Northeast Comox.

The neighbourhood plan for middle Brooklyn Creek is the culmination of the Town's building blocks process. The ultimate benefit of the Town's water balance approach to stream ecology protection is reflected in the timelines for the two development areas: protracted for NE Comox versus quick for the Anderton Corridor.

"The continuous factor is the Brooklyn Watershed Society," notes Marvin Kamenz. "The streamkeepers were ahead of the Town in the middle zone. With channel enhancement now completed in lower Brooklyn, their focus has shifted to restoring the middle section."

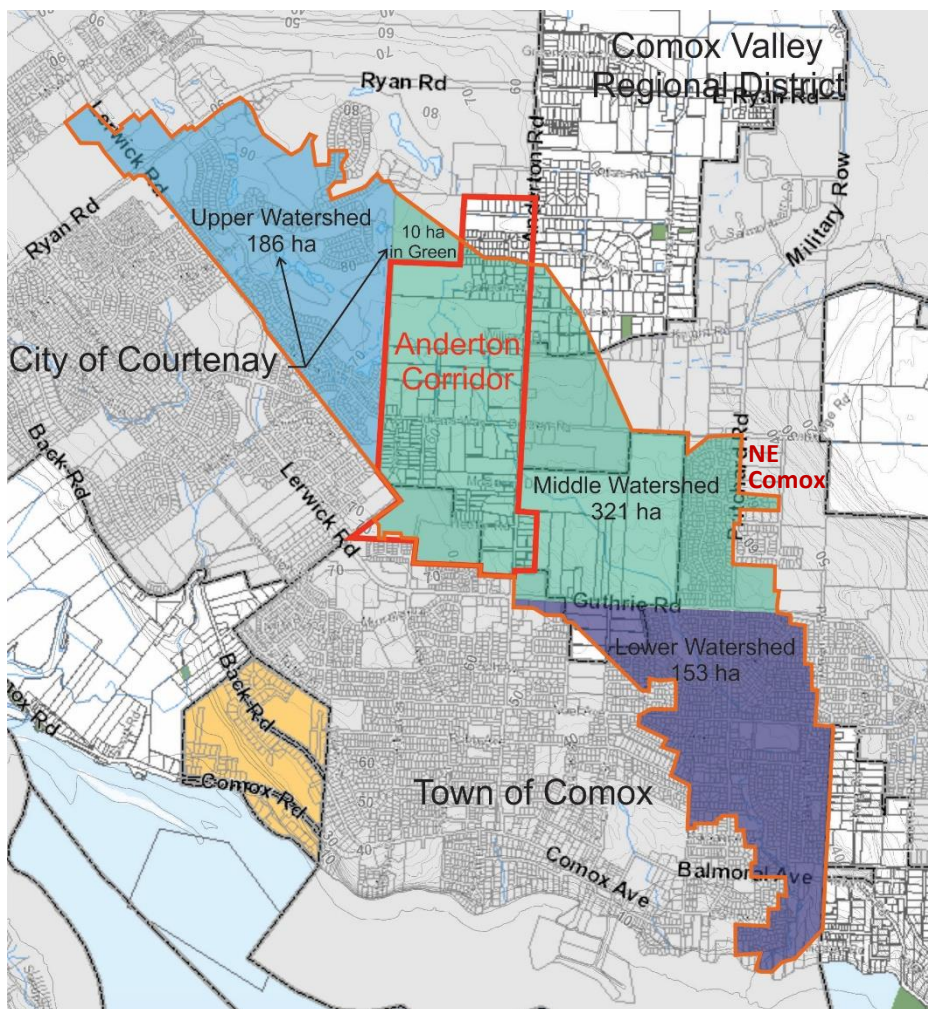
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### Redevelopment creates opportunities

*"The planning profession is increasingly focused on redevelopment. Creation of new neighbourhoods is where the opportunities are for wholesale change. With increased densities, one can move development around through rezoning. When one has the ability to use rezoning as a catalyst, it has to be a holistic approach. Having all the departments at the table opens up the avenue to really expand what one can do for habitat restoration or preservation. At the start, ask what is required here? Align your efforts and the pieces of the puzzle start to fit together."*

Marvin Kamenz

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## What the Town has learned from Brooklyn Creek, Northeast Comox, and the Anderton Corridor

The neighbourhood plan for the Anderton Corridor was the chance for the Town to apply what staff had learned through their lower Brooklyn Creek and Northeast Comox experience. Their journey was also a building blocks process. Each step informed the next.

“In the Town, the change in our approach to rainwater management started with Northeast Comox,” says Marvin Kamenz. “This does not mean other jurisdictions must follow our model. There are different ways to address the issues. The question is, are the rainwater management implications of concern addressed?”

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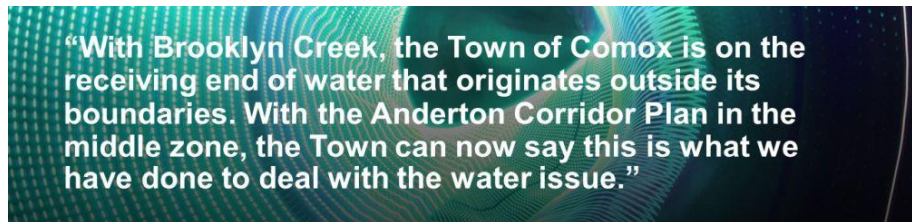
### Overview of what triggered rethinking of the Anderton Plan

*“At the start of the planning process for the Anderton Corridor, lessons learned from NE Comox were top of mind for the Town of Comox. Accordingly, water balance management was driving concept plan development, with an emphasis on detention ponds and infiltration galleries.”*

*“Then, in mid-project, lessons learned from the lower Brooklyn Creek EAP analysis were introduced into the Anderton Corridor planning process. The notion that the neighbourhood plan should focus on protection and enhancement of the Package of Ecological Services resulted in an abrupt rethink by Comox staff and consequent redesign.”*

page 18, *A Beacon of Hope*, released by PWSBC in 2019

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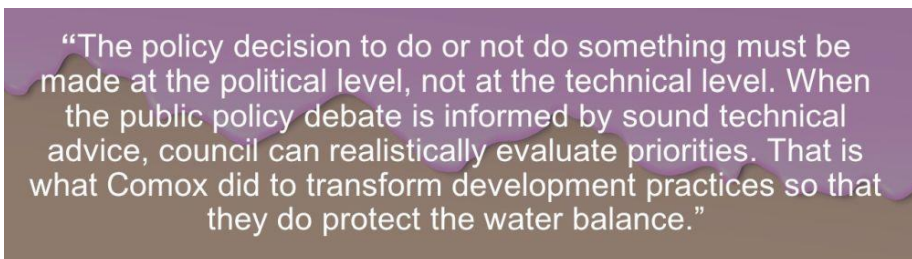


**What it means to walk the talk:** “Local government processes, such as an Official Community Plan, result in statements of good intent. It is then up to staff to say, this is how it can be done. That is what we did in Northeast Comox. We had to re-invent development practices.”

“An important takeaway from the Town’s Northeast Comox experience is that the local government must be the one to establish expectations, set the standards for land development, and decide whether information provided by engineers is adequate.”

“When you have a set of standards but accept designs that do not meet them, you open yourself up to accusations that you approved the deviation to the standard and therefore are responsible for any shortcomings.”

**A closing thought:** “There will be moments when the right thing is to go back to council and say we need to change or re-frame the goal if we are to achieve the outcome envisioned in the OCP. My advice to staff is, don’t censor yourself. That is, don’t say your local government is doing something if or when you know it is not walking the talk.”



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## Reflections by Shelley Ashfield

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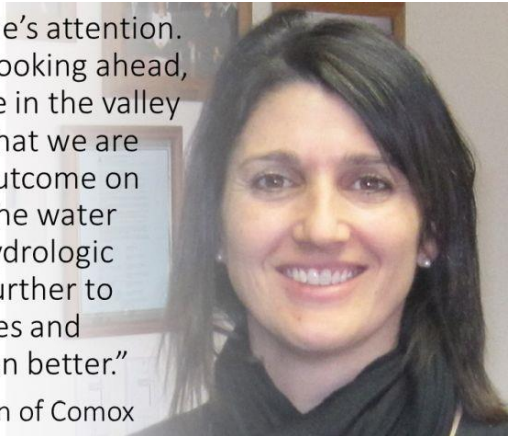
Shelley Ashfield joined the Town of Comox in 2009 and is the Director of Operations. An early adopter of the Water Balance Methodology, she long recognized the need to address the root causes of “changes in hydrology” due to land alteration. Her commitment to reconnecting hydrology and stream ecology is playing out in the land servicing requirements for Northeast Comox and in the Anderton Corridor.

“I am proud of what the Town has accomplished over the past decade. It took hard work though,” states Shelley Ashfield. “Now that the Northeast Comox rainwater management plan is in place, water balance modeling is a requirement, and supporting bylaws help us regulate what developers must do on the ground. All in all, it has been such a huge step for the Town to get to where we have arrived at.”

The Town had to re-invent what have been accepted development practices because drainage design for servicing of land relies on very simple formulae and methodologies to calculate peak rates of surface runoff. Failure by designers to apply the fundamentals of a water balance approach perpetuates degrading of urban streams.

“Climate change has everyone’s attention. No longer can we ignore it. Looking ahead, it would be HUGE if everyone in the valley continues to collaborate so that we are working towards the same outcome on the ground – protection of the water balance and prevention of hydrologic impacts. And if we go even further to share similar design guidelines and standards, that would be even better.”

Shelley Ashfield, Town of Comox



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### What are your assumptions?

*“The Town’s experience is that the weak link in drainage analyses is always the assumptions. A lack of explicit identification and justification of the assumptions and simplifications made in the analysis of stormwater impacts has resulted in stormwater systems that address hypothetical as opposed to actual site characteristics and development impacts.”*

*“Learning from this experience, the Town now requires that assumptions be stated and explained. WHAT is your assumption, and WHY.”*

Shelley Ashfield

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### Getting it right in Comox

How water gets to a stream, and how long it takes, is generally not well understood among land and drainage practitioners. The flow of rainwater from cloud to stream is comprised of **three water balance pathways**: *surface, shallow interflow, and groundwater*.

The latter two as well as time are routinely ignored by designers. The Comox regulatory framework remedies this situation. “The framework accounts for all three pathways, incorporates an Adaptive Management Plan, and is supported by a monitoring program. The plan identifies triggers that would lead to changes,” explains Shelley Ashfield.



## The Challenge: *Bridge an Education Gap*

“In April 2012, Council established a direction for Northeast Comox with three distinct phases of work. A decade later all the pieces are in place, including the adoption of several bylaws. The most relevant include the **Drainage Infrastructure Protection Bylaw** and the **Runoff Control Bylaw**,” explains Shelley Ashfield.

<b>Phase 1</b>	<b>What Do We Have?</b> – <i>How much rain is falling and where does it go?</i>
<b>Phase 2</b>	<b>What Do We Want?</b> – <i>What are the targets for infiltration and detention to mitigate the impact on down slope lands?</i>
<b>Phase 3</b>	<b>How Do We Get There?</b> – <i>What are engineering specifications for infiltration galleries and detention ponds?</i>

“Opening minds to accept changes in practice is challenging, especially when there is no direct regulatory or prescriptive requirement at the provincial level. The situation called for an educational process to bridge a gap in understanding in the engineering community.”

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### ***A push-pull dynamic***

*“Comox experience shows how hard it is to move a profession and an industry in a new direction. The decade it took highlights why there is a cultural and skill-set difference between consulting engineers and a municipal engineer. (The) short-term versus long-term view results in a push-pull dynamic.”*

Marvin Kamenz

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***Water Balance Training for Engineers:*** In 2018, the Town took on the responsibility and organized a training course for local drainage and land development engineers.

Taught by Jim Dumont, the course comprised six sessions over a 3-month period. 20 individuals attended. Voluntary participation required a major commitment of their time. The Town also extended the invitation to attend to all local governments on Vancouver Island.

“The Town hosted this training because the planning and design process is becoming increasingly more complex, and with greater expectations than we have ever applied to drainage infrastructure,” reports Shelley Ashfield.

“It took a huge investment of effort and collaboration between the Town and local development engineers to realize and then understand the different constraints, requirements and abilities of each party; and then, collaborate in the creation of a new approach.”



“The result is an approach where assumptions and simplifications are understood by both parties and where there is mutual agreement as to their applicability to development site characteristics and the rainwater management objectives.”

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## ***The new business as usual in Comox***

*“Many of the currently available hydrologic models have their roots in drainage design where the emphasis is with very large and infrequent rainfall events. In contrast, rainwater management and stream health problems are mostly associated with common and relatively small rainfall events such as would occur on an average daily basis with a return period of much less than a 1 in 1 year return period event. Hence the efforts must be placed in providing quantifiable analyses that demonstrate the impacts upon the stream and the effectiveness of any proposed mitigation works by assessing all rainfall events, both large and small.”*

Anderton Corridor  
Servicing Study, Volume 1  
2022

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## **Changing Climate: *Recognition of a Turning Point***

“We were effectively implementing the Drainage Infrastructure Protection Bylaw before Council formally adopted it,” continues Shelley Ashfield. “Several years ago, we started educating developers and consultants about the requirement to have a biologist on board, along with sediment and erosion control plans, to ensure there would no negative impact on the Town’s infrastructure, including its natural assets.”

“We do get pushback about the bylaws, but not as much as we would have seen a decade ago or even a few years ago. More frequent and intense droughts, severe storms, heat waves, rising sea levels, melting glaciers and warm oceans have everyone’s attention; we need to do things better.”

***The message is getting out:*** “With climate change, I believe communities are definitely at a turning point. We can no longer ignore the need to develop and drain land differently. We have no choice but to make changes on the ground.”

“In the Town of Comox, we now have some tools to implement those changes. To protect stream hydrology, we need to understand all three water balance pathways, not just surface flows.”

“The message is getting out. It is now a 10-year journey. The local engineering culture is changing. A lot of the consultants do see that change is needed in the way flows are analyzed and where the flow from impervious areas is going to go. Engineers are asking for copies of the Northeast Comox report, as well as the Anderton Corridor reports.”

“What is interesting about the story of the Northeast Comox water balance modeling approach, and how we are implementing it, is that you need a team to do it; you need more than just engineers.”



## Collaboration: A Regional Team Approach

“When I joined the Town of Comox in 2009, the idea of regional team approach was something that the four local governments were working towards. Today I definitely see that the collaboration is still there. We learn from each other. I get calls from the other local governments,” states Shelley Ashfield in a reflective moment.

“We do not have to be exactly the same in what we do, but we need to be consistent in the message. The overall output of what we are trying to achieve should be very similar. It should not be completely different from one jurisdiction to the next.”

**A closing thought:** “Comox has really good relationships with CVRD and Courtenay, and with Cumberland too regarding water supply and the Comox Lake Watershed Protection Plan. Development is one thing but protecting the watershed as a whole as well for our drinking water is so important.”

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### The next step

*“In my view, it would be great if the four local governments got down to the next level of detail to create similar design guidelines and drawings, so that we get what we want on the ground and are all achieving the same output. If we can continue to collaborate and work towards that outcome, it would be HUGE. I think this is coming. With time, that is what I would like to see happen moving forward.”*

Shelley Ashfield

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“We are all coming together and obviously working well together. And it seems we are understanding each other’s roles a little bit more. As of 2022, I find that collaboration has really taken off, especially when compared to what it was when I started in 2009.”

“I am excited for the future. For many years, I knew we had to manage stormwater in a different way and believe we are getting there. Change is happening in all organizations; no longer can we ignore it,” concludes Shelley Ashfield.



“And commitment, that is a key word. Everyone seems committed to working together. That makes a huge difference.”

“Looking ahead, it is very much about building on collaboration and being on the same level about the outcome.”

## 5. A Perspective – City of Courtenay

### Commitment to a Career in One Place

*“There is a view out there that professionals should be moving to different organisations and climbing ladders to lead a fulfilling and advancing career. I have not done that. Supervisors have asked me, where is the diversity on your resume?”*

*“My commitment is to the community that I love and so my career strategy has been different. It has meant I may not grow as quickly as I could, but in the passage of time I feel rewarded for staying with one organization. We are currently experiencing rapid change in our organization and priorities. Many staff changes, a re-elected and extremely progressive Council, multiple master plans now in place, and the recent adoption of a guiding vision (OCP) that focuses on climate, reconciliation, equity, and community well-being as cardinal directions.”*

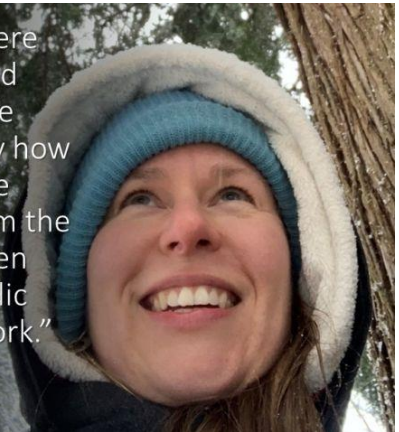
*“With all this change there is a need for institutional memory to provide stability, insight, and rapid response to these new opportunities. Now evolved into a more senior role, I feel the strategy of commitment and patience is allowing me to contribute more decisively and effectively. I know the history, I know the players, there is TRUST. Now we can get to work. As challenging as the work is, it is extremely rewarding.”*

### Reflections by Nancy Gothard

Nancy Gothard joined the City of Courtenay in mid-2010 as the City’s first Environmental Planner. Currently, she is Manager of Community and Sustainability Planning. Nancy is the only person still with the city who was part of the regional team experience under the Partnership umbrella. Her tenure and commitment give her the perspective to reflect on her journey with the city and how what she was part of years ago has influenced what she does in her job today.

*“If anyone wishes to understand where the City of Courtenay is heading, read our new Official Community Plan. We use the compass branding to portray how we chart our future and make course corrections. Our OCP is different from the average OCP. Highly visual, it is written for the lay reader. The more the public wants it, the more we can do this work.”*

Nancy Gothard, Manager of  
Community and Sustainability Planning



### Respect and Trust

“There is a book called the **speed of trust**. The message really resonates with me and guides my professional work. Trust is the currency of collaborative work – which the climate- and every other societal crises requires.”

“The reality now is we cannot keep up with the pace of work and there is a lot of tension in community planning work. Trusting the person on the other side of the call makes a world of difference to being in a productive frame of mind, to not be afraid to test new ideas, and feel comfortable enough to offer constructive criticism. We need this creativity and the safe spaces to explore it as we grapple with levels of complexity our brains have trouble processing.”

“Trust is practiced in the day-to-day actions steadily over time. For example, when someone like Marvin Kamenz of the Town of Comox calls, I want to nurture that trust. We share common goals. He is helpful to me and vice versa. It can be as simple as that.”

## Sustainable Service Delivery

The **Asset Management Bylaw** adopted in 2019 is the shared legacy of David Allen, Chief Administrative Officer from 2013 until 2020, and his aide David Love, Senior Advisor for Strategic Initiatives. The bylaw put the City of Courtenay on the map as a national leader.

“We started talking about many of the City’s functions years back in terms of services that are provided by public assets, and the levels of service we want from those assets. David Allen and David Love brought that language which has become embedded and a shared way to talk about our role across departments. Everyone from staff to councillors use it,” continues Nancy Gothard.

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### **Courtenay’s Asset Management Bylaw**

*“David Allen and David Love helped enculture Sustainable Service Delivery at the City of Courtenay. It is in every council report. It is the way we talk. It has permeated down. And there is a lot of value in that.”*

Nancy Gothard

### **Whole-system approach to Sustainable Service Delivery**

*“The Partnership for Water Sustainability looks at the Comox Valley as a regional unit. Courtenay’s Asset Management Bylaw is a huge accomplishment. But it is only part of the puzzle for Sustainable Service Delivery because of its emphasis on engineered systems. Comox and CVRD have other pieces to make Sustainable Service Delivery whole, especially on the natural side.”*

Derek Richmond  
Partnership Director

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**Re-Imagining Development Services:** “There is no question that asset management for engineered infrastructure is needed but it should not drive all decisions. Along with the wider policy and regulatory environment, society is also changing. There is a new baseline, a new threshold of expectations for the development sector.”

“And now with a firm asset management framework in place, it is Development Services time to get some light shone on it. Now we are talking about the future of housing. We are talking about the future of community growth. We are ready to innovate in these topics as we did when establishing a commitment to asset management.”

“We have a number of vacancies in my department. This is challenging as we were already overworked. But I also see such an opportunity for transformation in our department. When you replace just one role, you are not changing the culture. The rest of the system is just moving. Everybody is used to their patterns. Now that there are so many vacancies, there is a chance to do things differently. And we know we need to.”

## Official Community Plan: *Charting Change*

“The City’s Official Community Plan is something that I have poured my life into over the past two years. It is very progressive. We intend to apply for an award for it. Climate, reconciliation, equity, and community wellbeing are the cardinal directions of it. Running through that, naturally, is a respect for the natural environment,” explains Nancy Gothard. She is passionate about the OCP.

“The OCP is part of our journey. It is a picture of the future. We used the branding of a compass because we are using this idea to chart our change and course correct. The compass is important. If you want to know where Courtenay is going, it is our OCP. And we are protecting natural assets. There is no question. That is a goal.”

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### **Future is promising**

*“If there is a meta-message here, I would not be surprised if Courtenay has the most progressive municipal council in all of BC. In terms of seeing the Comox Valley succeed, we now have the leaders who want BIG things. And that is why I am excited. They are going to push us to innovate and do award-winning work.”*

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***The public has to want something for it to happen:*** “The OCP is my passion. It is written a little differently than the average one. It is explicitly written to be colourful, with images and language to help the lay reader. Because we know the long game with these messages is everyday people. They have to want this stuff. The more they want it, the more we can do this work.”

“The only thing that will get us to where we need to go is the public. There is probably less trust between the public and institutions than ever before. Trust has eroded. That is the next nut to crack. How do we get the public on-side and realize that we are all excited by these visions and trusting us so that we can work on them.”

“Philosophically the OCP is very important to me. It ties together where Courtenay is going. We are on a new path.”

## Comox Valley Regional Growth Strategy

“Pay attention to the updating of the Regional Growth Strategy. We will see where that goes. It has given me the chance to re-engage with Comox, CVRD and Cumberland. Once again, we are sitting around the table, and we are talking about how an implementation committee would move action items forward.”

“The thing too about the **speed of trust** in our community is the stewardship sector and its strength. It has always been strong. And that has long been part of the messaging out of the Comox Valley. Trust is so critical in forming relationships with interested parties such as the stewardship sector. After the years of understanding each other’s perspectives, we can have a conversation about solutions. I can ask them questions because they have ears to ground, and they can ask me about and give input to regulatory changes.”

“We all know who each other is. This approach of course is important with any strategic partner, like the development community as well which we’re committed to forming positive working relationships with as well. That will take time, and trust, but I believe we are getting there.”

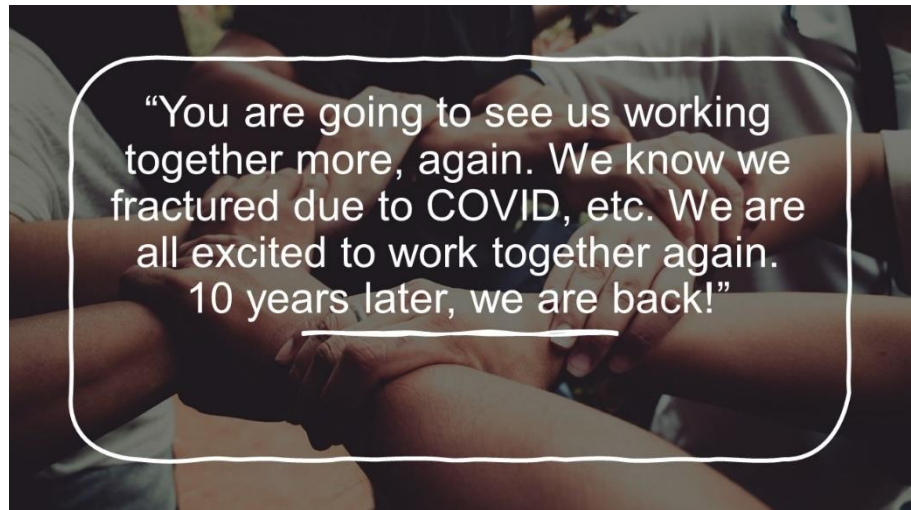
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### **Trust is the currency of collaboration**

*“I have been with the city for 12 years and cannot wait for the next four years. With this council and CAO, plus a new leadership team in Development Services, watching what the City of Courtenay does in the future will be worth doing.”*

Nancy Gothard

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**A closing thought:** “I am excited. The tree that grew from the seed looks nothing like the seed. You have to go through a breaking point to create something new. I respect what is going on right now even though it is very hard due to so many vacancies. It is very stressful.”

“But I am willing to look through that because what I want is on the other side and it could be very promising. The other way to look at it is very stressful and very fearful in that we are losing everyone. But I do not see it that way,” concludes Nancy Gothard.

## 6. A Perspective – Comox Valley Stewardship Sector



### **Collaboration with community leads to desired outcomes**

*“Engagement of community through stewardship is a credible formula to be encouraged and mainstreamed at every opportunity.”*

*“Collaboration, teamwork, and a recognition that the whole is greater than the sum of its parts is the energy that stokes creativity and determination.”*

*“When this combination of citizen talent is aligned with a local government that is both visionary and focused, outstanding achievements are not only possible, but realistic.”*

Eric Bonham, founding member, Partnership for Water Sustainability

### **Reflections by Jack Minard**

Jack Minard played a leadership role in the Comox Valley stewardship sector for more than 20 years. He was the first Executive Director for two landmark initiatives: the Tsolum River Restoration Society, where he served from 1997 through 2014; and the Comox Valley Land Trust, where he served from 2004 through 2015. He retired in 2016.

Jack Minard’s vision and commitment brought together a coalition of 26 community and stewardship groups to form the **Comox Valley Conservation Partnership** in 2008. This gave him the mandate to represent the stewardship sector at the CAVI and IREI tables.

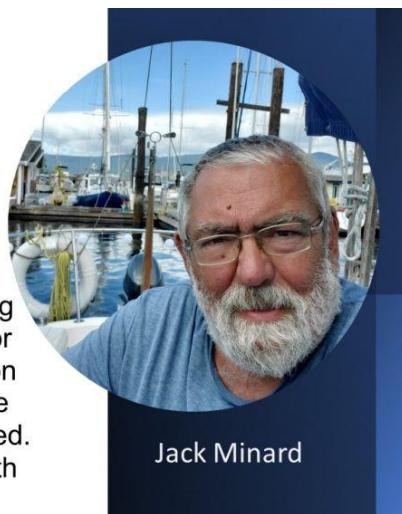
“All through the time that I was in the Comox Valley, my efforts went into bringing people together. If I am proud of anything that I left behind, it is that building of those partnerships and relationships. They have endured,” states Jack Minard.

“I was not going to leave the Comox Valley until I had my replacement. Tim Ennis was my guy. It took 8 months to talk him into it. I handed the baton to 3 people – Tim Ennis, David Stapley, and Meghan Cursons. Some of the things I started have snowballed. And that is very satisfying. I feel good.”

“All those years we were building relationships inside municipalities and the regional district. And that is where the rubber really hit the road as far as I am concerned. But it is also where it fell apart.”

“The loss of **organizational memory** was a distinct problem in all my years of attempting to work with the system. Huge pieces we had worked towards, relationships that were productive, people we had brought along in understanding - all disappeared with one month’s notice.”

“No budgets for shadowing or mentoring from someone who had done the job for 20 plus years only to have a new person with no sense of who we were, what we were up to, what had been accomplished. All gone, only to start all over again, with more often than not less success.”



Jack Minard



## Environmental Generational Amnesia

“You are always fighting two things. The first is amnesia and lack of any kind of historical memory. The second is the social construct that favours short-term wealth generation over the environment. Structural, cultural, societal barriers to our work are real,” continues Jack Minard.

“It is something that I have started to write about. It is something that people need to hear. It is like environmental amnesia is prevalent on Vancouver Island, especially among young people. I say you should have seen this place when I was 16. This is nothing.”

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### Art of the possible

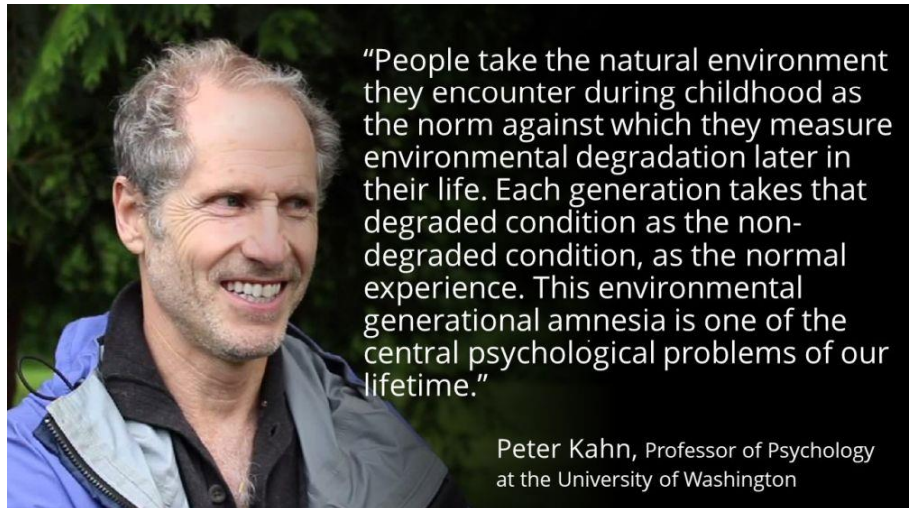
*“I always tried to be polite and understanding, always listened carefully to where others were at, tried to understand where they were coming from. And I don’t think I ever brought anything to confrontation. I would steer away from that. I would talk to my colleagues to find another way to approach a difficult situation.”*

*“That was a good strategy. It paid off because even people who were difficult would talk to me. I kept on trying. And I made inroads, and I made friends. And I made colleagues and people joined the various partnerships.”*

*“If I was good at anything, it was making those partnerships come together and work together and actually solve some problems.”*

Jack Minard

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**Judging progress when on a journey:** “Fighting amnesia is real. The advantage we have now is the ability to look back and say we have made progress. There have been lots of ups and downs and missed opportunities, but the trendline is up in terms of how we collaborate and work together.”

“At first it was exciting. It was a challenge. I had projects on the go. As I got more and more involved in trying to solve the political background to have people in government support all this wonderful stewardship work, I saw that the idealists were not going to rock the boat because they have families and mortgages to worry about.”

“The reality is that changing a mindset takes decades. It helps to recognize that you are not starting from scratch every time. It is not a case of going back to square one. Perhaps square two or three, but not square one!”

“You are not after an end. A project ends. What you are doing with government people is a journey. It is an arduous journey. It is not easy. Yes, the trendline is up. But the dangers are terrifying.”

## 2008 Comox Valley Learning Lunch Seminar Series

The third seminar in the 2008 Comox Valley Learning Lunch Series hosted by the City of Courtenay was Jack Minard's baptism as a member of the newly formed CAVI-Comox Valley Regional Team. Jack's participation was at the instigation of Tim Pringle, then the Executive Director of the Real Estate Foundation of BC.

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### PRINCIPLE: *Use and conservation of land are equal values*

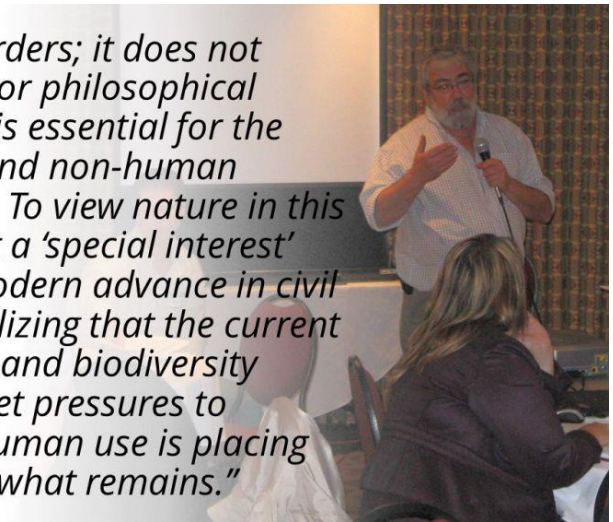
*"The Real Estate Foundation had provided grants over multiple years to build the capacity of the Comox Valley stewardship sector to carry out projects. This including funding Nature Without Borders. In addition, and in collaboration with the provincial government, the Foundation was co-funding the CAVI local government program. So, it made eminent sense to suggest that Jack be invited to sit at the CAVI table and thus align the two programs. The Foundation believed this would be a good way to bring to the forefront the Foundation's guiding principle that use and conservation of land are equal values."*

Tim Pringle  
Partnership Director

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"The learning lunch seminar series was so bottom-up. It spoke for itself," recalls Jack Minard. "It was just an honour for me to present the **Nature Without Borders** story at the third seminar. This is the title of the report that lays out a community vision for the **Comox Valley Conservation Strategy**, released in July 2008."

*"Nature has no borders; it does not recognize political or philosophical boundaries and it is essential for the health of human and non-human communities alike. To view nature in this way represents not a 'special interest' approach but a modern advance in civil society. We are realizing that the current loss of ecosystems and biodiversity cannot continue, yet pressures to develop land for human use is placing huge demands on what remains."*



**Nature Without Borders:** "In 2008, the four Comox Valley local governments agreed to a regional-based approach to conservation planning; and by Joint Resolution formally endorsed the Regional Conservation Strategy."

"Looking back, the story of how the Joint Resolution came about is an early application of the regional team approach. We brought together the four planning departments as an advisory board during the preparation of Nature Without Borders."

"My understanding is that this was the first time in valley history that all four were in the same room at the same time for a shared purpose. It took us three working sessions to build trust and foster collaboration; and at the end of #3, we had a Joint Resolution that they took back to their politicians for adoption."

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## ***Kus-kus-sum restoration on the Courtenay River***

The Field Sawmill was once the economic heart of the Comox Valley. It was the centrepiece of the local forest industry. The decommissioned sawmill site is being transformed into a valuable habitat corridor. Kus-kus-sum is an example of why it takes time to move an idea forward.

*“I purposefully passed the torch but always knew what the projects were. Bit by bit, I let those go too. Kus-kus-sum, the old sawmill site. I wrote a report, had maps made, and showed how that restoration could all be done. It was about 2008 or 2009 when I put the whole thing together and handed it off to others to take forward. It really didn’t go anywhere, and there wasn’t the passion behind it. Then, in 2018, I see it resurrected. And now there is work on the ground for the past 3 years. It does seem to take that decade from an idea to THE BEGINNING of some kind of fruition.”*

Jack Minard

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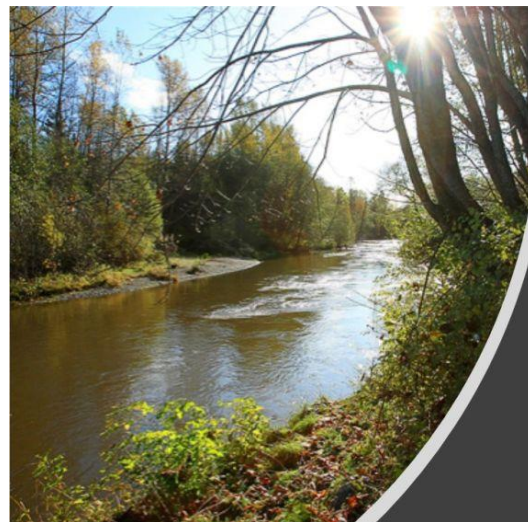
## **Tsolum River Partnership brought the salmon back**

“Not getting over the goal line is the story of my career. Except for the remediation of the mine site at Mount Washington which then enabled restoration of the Tsolum River. It literally was a watershed moment,” laments Jack Minard.

“Looking back, I now realize that it was my inability to capitalize on opportunities that still bothers me. I knew where the opportunities were to be found. In fact, I developed some of the opportunities. But I did not have the ability or wherewithal or resources or know how to use the resources to seize the moment. So, a lot of them limped away.”

“Mount Washington, however, is a shining success story because the Tsolum River Partnership reduced copper contamination and brought the salmon back. As of 2009, a benchmark year after remediation, copper levels had been reduced by about 80% and there were more pink salmon in the river than had been seen in the previous 50 years.”

“In 2011, the work of the Tsolum River Partnership was recognized with a **Premier’s Award for Excellence and Innovation.**”



*“To save the Tsolum River they first had to go to the top of the mountain. And if that sounds like something of a biblical pilgrimage, then consider this – one of the first leaders of the movement was a Roman Catholic hermit priest and the journey took decades.”*

Mark Hume, Vancouver Sun columnist, 2011

**A Closing Thought:** “Yes, I had something to do with the Comox Valley Land Trust, but it was an amazing group of people that did all the work. The people in the Land Trust, the people in Project Watershed. It was a HUGE effort by a lot of people. All I managed to do is get excited about it and keep it active. Some of the things I started have snowballed. It did not have that much to do with me,” concludes Jack Minard in an understatement.

## 7. Closing Perspective - Continuity of the Network

### Reflections by Derek Richmond

“Connecting with Dr. Jane Wei-Skillern has helped us understand why and how growing the network such as the IREI is all about a culture change,” states Derek Richmond in providing a closing perspective for this Part B. “Based on her research, advancing this cultural agenda in the social impact space requires a different mindset, a different way of working, and most importantly, a commitment to something bigger than ourselves and our organizations.” Refer to **Figure B7** for an overview.

### Collaborative Leadership

“Of all Dr. Jane’s wise quotes, the one that resonates with me most of all is that the collaborative leadership is about the constellation. It is not about individual stars. That is the proof of the pudding. It is what keeps us moving along. I believe other people get that. Not in terms of the quote directly. But intuitively they do understand that their success depends upon them being part of a constellation, rather than shining above all the others as the best performer in the group.”

“What really got me excited about Dr. Jane is that when we searched her out in the context of are we doing the right thing, Dr Jane said, you guys are doing everything right. And our response was, we did not work at a formula. It is intuitive. We have that gut feeling from our experience and knowledge that we are doing the right thing. It was great to hear that validation from Dr. Jane.”



## Figure B7 – Power of Collaborative Leadership

### **Knock down barriers**

*“In the early 2000s, when I was on the faculty at the Harvard Business School, I began my research into the concept of a networked approach that is more focused on network-building and trust-based relationships, and less about building an organization to get to your mission impact.”*

*“I find that many people who are network leaders are often swimming upstream, struggling, and fighting an uphill battle. That is such a waste of time and energy. They are the unsung heroes, who should be free to catalyze and build the network to get the work done without so many senseless barriers getting in the way.”*

*“Much of the work that I am doing is with an eye toward how we remove barriers that are keeping people from building thriving networks.”*

Jane Wei-Skillern

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

“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  
HAAS SCHOOL OF BUSINESS,  
UNIVERSITY OF CALIFORNIA BERKELEY

**Dr. Jane Wei-Skillern has identified  
four Guiding Principles for  
Collaborative Leadership**

**Focus on mission before organization**  
**Manage through trust, not control**  
**Promote others, not ourselves**  
**Build constellations, not stars**

“It was exciting to hear about the work of the British Columbia Partnership for Water Sustainability and how their approach has exemplified network leadership as I have conceptualized it.”

“When members of the Partnership were sharing their experience with me, I kept nodding my head in agreement because it was so similar to what I have seen in my research. It is also rewarding to see these ideas validated in practice time and time again.”

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## PART C

# Convening for Action from 2006 thru 2011



*To orient the reader about the importance of knowing one's history, this Part C is structured in ten segments:*

- 1. Meeting of the Minds: Genesis for CAVI***
- 2. Leadership for Water Sustainability on Vancouver Island (2007)***
- 3. Showcasing Green Infrastructure Innovation on both sides of the Salish Sea***
- 4. Dialogue About 'A Positive Settlement Strategy' for Vancouver Island & Coastal Communities***
- 5. Design With Nature to Create Liveable Communities and Protect Stream Health (2008)***
- 6. Getting Ahead of the Wave: An Integrated Watershed Approach to Settlement (2009)***
- 7. Comox Valley Developers Dialogue: A Bridge to the 2011 Series***
- 8. A Regional Response to Infrastructure Liability***
- 9. CAVI Forum with the Vancouver Island Summit: The Public Infrastructure Dilemma***
- 10. Change the Land Development Culture to Protect and Restore Watersheds***

**Figure C1 – History-at-a-Glance: Convening for Action in the Comox Valley between 2006 and 2011**





# 1. Meeting of the Minds: Genesis for CAVI

## Look Back to See Ahead

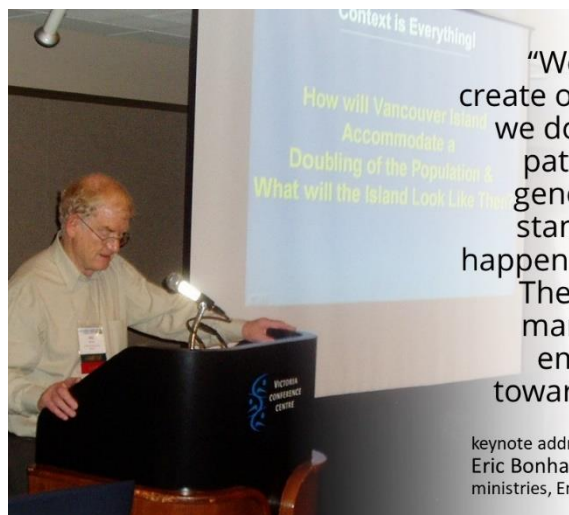
### *Convening for Action in the Comox Valley from 2006 to 2011*

*Figure C1 is adapted from the timeline introduced in Part B. It highlights inter-regional contributions by Comox Valley local governments during this 5-yr period.*

“Commencing in 2005, the Partnership initiated and cross-fertilized ‘convening for action’ programs in three regions: Vancouver Island, Okanagan, and Metro Vancouver,” recalls Tim Pringle. In 2005, he was Executive Director of the Real Estate Foundation, a co-funder of those programs. “Each regional initiative had its own vision and road map. However, a commonality was a desire for a Regional Team Approach founded on partnerships and collaboration.”

“The South Okanagan was the pilot for testing ‘convening for action’ at a sub-regional scale. Starting in September 2006, South Okanagan experience was successfully adapted by the CAVI initiative as a demonstration program at an Island-wide, inter-regional scale. The path forward was trailblazed by the leadership of Eric Bonham. While still in government, he spearheaded the [Meeting of the Minds](#) idea.”

**Call to Action:** “In September 2005 and again in May 2006, we held what we called ‘Meeting of the Minds’ workshops in the City of Parksville. We invited individuals who were committed to action. Our goal in convening was to **build an effective long-term communications network**. We re-branded Meeting of the Minds as CAVI at the [2006 Water in the City Consultation Workshop](#). During workshop program development, it was Mac Fraser of the Islands Trust who suggested the CAVI acronym. It stuck,” explains Eric Bonham. His keynote presentation at the 2006 launch of CAVI was a call to action.



“We have it in our hands to create our future, because what we do on the ground sets the pattern of development for generations. Also, change in standard practices does not happen overnight. It takes time. Therefore, it is important to manage expectations when embarking on this journey towards water sustainability.”

keynote address at 2006 CAVI launch event by Eric Bonham, a former Director in two ministries, Environment and Municipal Affairs

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## Engagement of partners who 'buy-in' to a vision

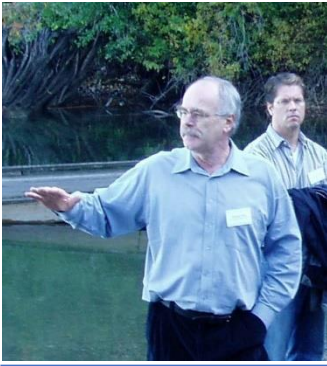
Figure C2 conceptualizes the extent of the CAVI network during the first 5-year period

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## CAVI Genesis / Filling a Vacuum

"This all started in 2002 when I was still with the Ministry of Municipal Affairs," recalls Eric Bonham, a founding member of the CAVI Leadership Team. His reflections on CAVI are published in [Beyond the Guidebook 2010](#).

"I had the opportunity to travel the length and breadth of Vancouver Island and talk to people about the issues of concern to them. I would ask, *where are we going on Vancouver Island?* It became clear through these conversations that there was a shared concern: there was no forum for discussing the future of Vancouver Island. Filling a vacuum provided the impetus for CAVI."



### Comox Valley representation

Graeme Faris, General Manager of Operational Services with the former Comox-Strathcona Regional District, represented the Comox Valley at Meeting of the Minds.

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"You will not find CAVI listed in the Yellow Pages. CAVI is a process. CAVI is a vision. CAVI is you and me and everyone else. That is the strength of this grass-roots initiative. It is a collective effort to see where we can go on Vancouver Island and do it in a way that is a little bit different. We are doing this as a genuine team."

"The big issues are settlement change and ecology. What we have is precious and unless we have a vision now, 50 years down the road we will end up where we do not want to be. The strength of the CAVI approach on Vancouver Island is the engagement of our partners on a one-on-one basis who 'buy in' to the vision of water-centric planning. The process is accumulative, as others from diverse backgrounds are drawn to the common goal of achieving water sustainability."

**Comox Valley representation:** Kevin Lagan and Derek Richmond, City of Courtenay, carried on after Graeme Faris retired. They carried provided local leadership over the next decade.

Derek's involvement began with the 2006 CAVI Consultation Workshop, held as an adjunct to the [Water in the City Conference](#) in Victoria. During the period 2006-2011, Derek and Kevin were joined by representatives from Comox, Cumberland, and the new Comox Valley Regional District on the CAVI-Comox Valley team. Derek served as the overall CAVI Chair from 2011 through 2014.

**Figure C2 – Water Sustainability – Convening for Action Network (during the period 2006 through 2011)**

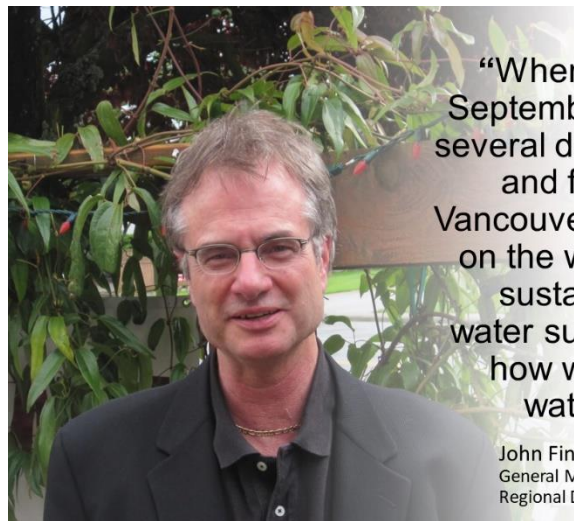


## 2. Leadership for Water Sustainability on Vancouver Island (2007)

### What Will Vancouver Island Look Like?

Two workshops set CAVI in motion as a network for inspiring change. The first, in September 2006, had a consultation focus and challenged participants to visualize what they wanted Vancouver Island to look like in 50 years. The second, in June 2007, initiated the process to influence local governments to adopt “**Design With Nature**” as the preferred process of approving land development applications.

“**Water Sustainability will be achieved by implementing Green Infrastructure policies and practices.** How we get there relies on a change in mind-set. The CAVI role is to facilitate that change,” stated John Finnie, CAVI Chair, when he opened each workshop.



“When we launched CAVI in September 2006, we identified several desired outcomes. First and foremost, that by 2010 Vancouver Island would be well on the way to achieving water sustainability. CAVI defines water sustainability in terms of how we use water, and how water drains off the land.”

John Finnie, CAVI Chair (2006-2011) and former General Manager, Regional & Community Utilities, Regional District of Nanaimo

### Workshop 1 - Towards Water Sustainability

**Figure C3** is the Program Overview for the CAVI launch event. In 2006, it was seen as a bold move to frame a local government forum around the question, *what will this place look like in 50 years*. The heart of the program was the segment led by Erik Karlsen on **leading and managing change**. At the time, he was a sessional instructor in the topic at Royal Roads University after his retirement from government and appointment as Chair of the Agricultural Land Commission.

**Figure C3 – “Towards Water Sustainability on Vancouver Island” (2006) – Program Overview**

Segment Theme	Scope of Discussion: <i>Help Us Help You Help Us</i>
<p><b>Convening for Action: Context is Everything</b> (Mac Fraser, Eric Bonham, Kim Stephens)</p>	<p><b>Setting the Scene</b> - context &amp; desired outcomes for workshop:</p> <ul style="list-style-type: none"> <li>▪ <b>The Issue:</b> How will Vancouver Island accommodate a doubling of the population; and what will the Island look like in 50 years?</li> <li>▪ <b>Context:</b> <i>Meeting of the Minds</i> initiative has morphed into a <i>Convening for Action</i> pilot</li> </ul>
<p><b>Roundtable Sharing: Water-Centric Innovation - Who is Doing What &amp; What Has Worked (or Not)</b> (John Finnie &amp; Cori Barrclough, facilitators)</p>	<p><b>WHAT</b> is an example of water-centric innovation in your community? Because many Island communities are “doing it” -</p> <ul style="list-style-type: none"> <li>▪ What is your experience on the barriers to implementing new approaches and standards?</li> <li>▪ What lessons can be learned from the experiences of your communities?</li> <li>▪ How can other Island communities build on regional case study successes?</li> </ul>
<p><b>Implementing Change: If You Can Measure It, You Can...</b> (Erik Karlsen)</p>	<p><b>SO WHAT</b> are the ways we inform, inspire and enable people to work together through partnerships to act now?</p>
<p><b>Breakout Groups &amp; Roundtable Input for: A Water-Centric Protocol for Streamlining Environmental Approvals – What Would It Look Like?</b></p>	<p><b>NOW WHAT</b> would a water-centric protocol look like in order to provide certainty and reward innovation? Any time a land use decision is made, it creates a legacy.</p> <ul style="list-style-type: none"> <li>▪ What can Vancouver Island communities do better or differently to achieve <i>water-centric sustainability</i>?</li> <li>▪ What can new developments on Vancouver Island do to integrate and harmonize the development footprint within the watershed context and achieve water sustainability as a condition of land development approval?</li> <li>▪ How could local governments implement a water-centric protocol to reward innovation?</li> </ul>
<p><b>Next Step: A Report on the Workshop</b> (John Finnie)</p>	<p><b>THEN WHAT</b> - moving from concept to policy to implementation:</p> <ul style="list-style-type: none"> <li>▪ The workshop outcomes provide the framework for moving forward</li> <li>▪ You have provided insights and there are potential tools that you can use</li> </ul>

## Implementing Change: *Inform, Inspire, Enable*

After the breakout groups reported out in a plenary session, CAVI Chair John Finnie closed the workshop with a look ahead:

“This first workshop has served a useful purpose in getting the ball rolling for a Vancouver Island pilot program. It is the first step in an educational and consultative process. ‘Towards Water Sustainability’ is now formally launched.”

“The next step of the organizing committee is to design a workshop for local government, sometime in 2007. The spotlight is on local government because implementing new practices will need clearly defined standards and regulatory models. Also, willing municipalities will be invited to pool resources under a partnership framework.”

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### **Workshop set stage for moving Green Value from concept to practice**

*“We had an excellent mix of people from local government, provincial agencies, First Nations, and the private sector – including Corix, TimberWest and the real estate industry. Because we believe that how land is developed within the domain of local government holds the key to achieving settlement in balance with ecology, the CAVI Leadership Team is excited that we had representation from five regional districts and fifteen municipalities. We are also excited that the Songhees and Esquimalt First Nations were represented by Michael McCarthy.”*

John Finnie, 2007

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## **Workshop 2 – Creating Our Future**

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**Figure C4** is the Program Overview for the second CAVI event, held as an adjunct workshop to the [Gaining Ground Summit](#) in Victoria, the second in a series of seven urban sustainability conferences organized by Gene Miller, founding publisher of Monday Magazine.

The workshop was the venue for announcing a new program, the [Showcasing Green Infrastructure Innovation Series](#), which was inter-regional in vision and scope.

“By 2007, the actions of early adopters in local governments on the Island and Lower Mainland demonstrated that there was an appetite to influence the practitioner culture through collaboration, partnerships, and alignment. But a mechanism was needed to share approaches, experiences, and lessons learned. We adopted the showcasing and celebrating approach that the Green Infrastructure Partnership pioneered in Metro Vancouver,” recalls John Finnie.



**Figure C4 – “Creating Our Future: What will Vancouver Island look like in 50 years?” (2007)**

Program Overview (Kim Stephens, Moderator)	
<b>Desired Outcomes in Convening for Action on Vancouver Island</b>	<ol style="list-style-type: none"> <li>1. Influence Vancouver Island local governments to adopt Design with Nature as the preferred process of approving land development applications.</li> <li>2. Facilitate the move from <i>awareness</i> (interest) to <i>action</i> (practice) in changing the way land is developed and water is used on Vancouver Island.</li> </ol>
<b>Introduction of the Green Vocabulary Hierarchy</b>	<p><b>Green Value</b> is an over-arching concept; and encompasses market, social and environmental values.</p> <p><b>Design with Nature</b> is one approach to achieve Green Value and is supportive of community goals that relate to building social capacity.</p> <p><b>Green Infrastructure</b> is the on-the-ground application of Design with Nature standards and practices.</p> <p><b>Water Sustainability</b> is achieved through Green Infrastructure practices that reflect a full and proper understanding of the relationship between land and water.</p>
<b>An action arising from the <i>Water in the City Workshop</i> (Sept 2006)</b>	<p>The Water in the City Workshop was the first step in an educational and consultative process. The workshop was by invitation and had a broad cross-section of representation. A workshop specifically for local government was identified as the logical “next step” because:</p> <ol style="list-style-type: none"> <li>1. Implementing new practices would need clearly defined standards and regulatory models.</li> <li>2. Willing municipalities would be invited to pool resources under a partnership framework.</li> </ol>
<b>Desired Outcomes for the <i>Creating Our Future Workshop</i> (June 2007)</b>	<ol style="list-style-type: none"> <li>1. Participants would embrace the vision for being leaders in water sustainability.</li> <li>2. Participants would have absorbed the vocabulary of <i>green value, convening for action, designing with nature, water sustainability, and green infrastructure.</i></li> <li>3. Participants would commit to showcasing on-the-ground innovation in their communities and participating in the <b>Green Infrastructure Leadership Forum</b> in Fall 2007</li> </ol>

### 3. Showcasing Green Infrastructure Innovation on both sides of the Salish Sea

#### 2007 Comox Valley Showcasing Day

"The goal in showcasing innovation and celebrating successes was to promote networking, build regional capacity, and spur the move from awareness to action. In 2007, practitioners in local government were not always aware of the significance of their own innovation, let alone what was going on in other jurisdictions. When people are so busy in their own worlds, it takes a third party to connect them. That was the role that CAVI played," recalls John Finnie.

#### Network and Relationship-Building on Vancouver Island and in Metro Vancouver

"CAVI teamed with the Metro Vancouver-based [Green Infrastructure Partnership](#) in 2007 to deliver the Showcasing Series on both sides of the Salish Sea. Launched the year before in Metro Vancouver as a provincial pilot, the program concept was an instant success."

"We held events both on Vancouver Island and in Metro Vancouver on alternating Fridays throughout September and October. We asked each Vancouver Island regional district to partner with its largest member municipality to co-host a day. The resulting collaborative process was team building in action."

**Figure C5** is the program-at-a-glance for the companion series on both sides of the Salish Sea.

#### Celebration of innovation by local governments

*"There are a lot of good things happening in communities throughout Vancouver Island, but those stories had not been getting out. Through many one-on-one conversations, we found those stories; and then we pulled together a partnership of three regional districts and their member municipalities to host a series of one-day events."*

Kim Stephens, 2007

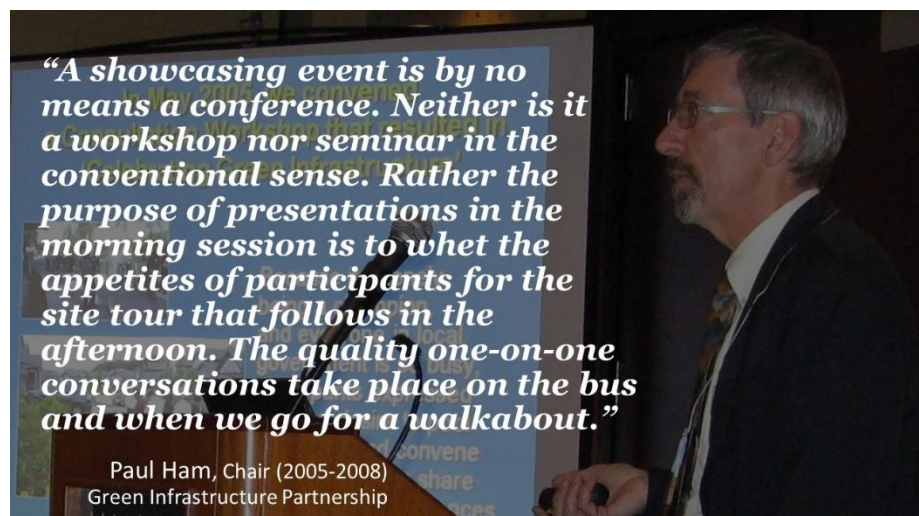


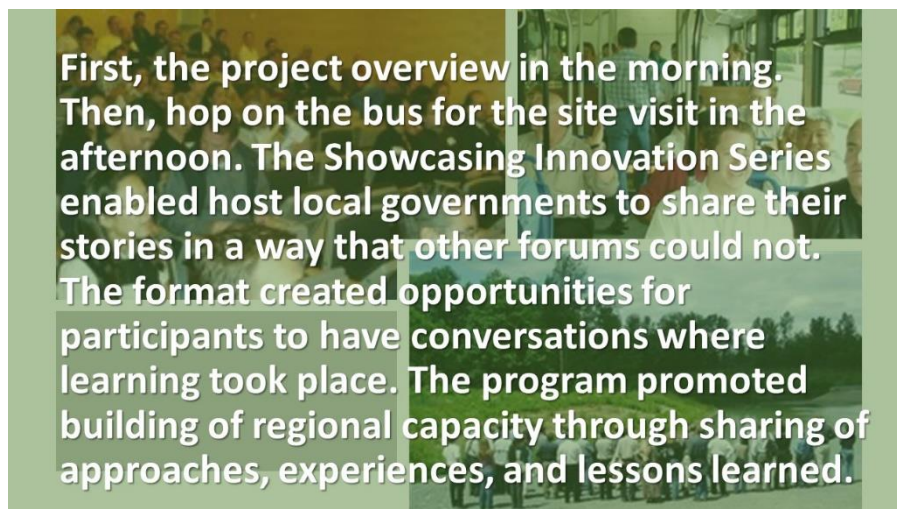


Figure C5 – “Showcasing Green Infrastructure Innovation on both sides of the Salish Sea” (2007) – Program Overview



**2007 Vancouver Island Series**  
Network and Relationship-Building

- **Nanaimo Region** - *Designing with Nature*
- **Cowichan Valley** - *Partnerships & Collaboration - moving from Concept to Reality*
- **Comox Valley** - *Connecting to Sustainability*



First, the project overview in the morning. Then, hop on the bus for the site visit in the afternoon. The Showcasing Innovation Series enabled host local governments to share their stories in a way that other forums could not. The format created opportunities for participants to have conversations where learning took place. The program promoted building of regional capacity through sharing of approaches, experiences, and lessons learned.



**2007 Metro Vancouver Series**  
How land is developed determines how water is used and runs off the land

- **Corporation of Delta** - *Greener Developments, Roadside Rainwater Management, and the Urban Forest*
- **Township of Langley** - *Harmony & Integration*
- **UniverCity at Burnaby Mountain**  
*A Partnership in Action: from Vision to Implementation*

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## Comox Valley Showcasing Theme: Connecting to Sustainability

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**Figure C6** is the Program Overview. Co-hosted by the Comox-Strathcona Regional District and City of Courtenay, their focus was on communication, collaboration, cost-sharing as key ingredients for progressing to sustainability.

**The program showcased two provincial precedents:** 1) the first watershed assessment under the [Comprehensive Drinking Water Source to Tap Assessment Guideline](#); and 2) the first application of deep-well injection in BC for returning rainwater runoff to the ground to mimic the water balance pursuant to the [Stormwater Guidebook](#).



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### Great mix of people and perspectives

*“Once the program details were announced, the response was immediate, and we very quickly reached the bus capacity (40) for the field portion of the day.”*

*“When we look at who registered, we were struck by the audience diversity. It included representatives of 13 local governments, 2 provincial ministries, NGOs, several private sector companies, and the Clearbrook Waterworks District from the Fraser Valley.”*

Ron Neufeld, 2007  
Comox-Strathcona  
Regional District

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### Help Us Raise the Bar

“Local government leaders are telling our staffs that we want to be a sustainable community tomorrow. We are not being so unrealistic as to ask for this yesterday,” stated Regional Board Chair Starr Winchester. In her welcoming remarks, she referred to the Premier’s call to action several weeks earlier at the UBCM Annual Convention. Her remarks set the context for the day.

“We want to keep our rural areas rural, yet we are faced with many people coming into the valley, especially now that we have an international airport. We are experiencing phenomenal growth. So, we are really depending on the practitioners to keep us grounded and realistic so that growth will be sustainable.”

Mayor Winchester concluded by referring to the position of her Council on sustainability: “Two years ago we made a resolution to raise the bar, and that’s why you are here today, to help us further raise the bar so that we can ensure a sustainable future for the Comox Valley.”



**Figure C6 – Showcasing Innovation in the Comox Valley (2007)**  
*Connecting with Sustainability*

PROGRAM OVERVIEW (Kim Stephens, Moderator)	
<p><b>Municipal Collaboration – Making it Happen at the Operational Level</b></p> <p>Through communication and collaboration, the Regional District, Courtenay and Comox have made progress on the ground. Examples illustrated how efforts were being integrated and resources were being pooled.</p>	<p>Kevin Lagan, City, &amp; Graeme Faris, CSRD</p>
<p><b>Comox Lake Watershed Assessment – from Awareness to Action</b></p> <p>Continued urbanization within the Comox valley coupled with competing land uses and recreational interests within the Comox Lake watershed led to shared concerns and co-operative actions aimed at managing watershed uses to ensure water quality is preserved.</p> <p>The watershed assessment process showed how a range of interested parties – including numerous governments - can work cooperatively towards common watershed protection objectives.</p>	<p>Graeme Faris &amp; Ron Neufeld, CSRD</p>
<p><b>Innovation in the Comox Valley: First Wal-Mart, Then Home Depot</b></p> <p>Both Wal-Mart and Home Depot capture rainwater runoff, treat it and retain it in the catchment area.</p> <p><b>Wal-Mart</b> was the first big box store to come to Courtenay. This development precipitated the beginning of a major change in how the City administers the zoning/development/approval process, collaborates with other agencies, and manages the rainwater resource.</p> <p><b>Home Depot</b> established a BC precedent when it implemented a deep deep-well system for injecting rainwater runoff and recharging the underlying groundwater aquifer. A unique partnership with other commercial property owners resulted in an innovative plan for sustaining water supply pressures without relying on BC Hydro.</p>	<p>Kevin Lagan, City</p>
<p><b>Absorbent Soil for Rainwater Management - Lessons Learned</b></p> <p>Courtenay was the first BC municipality to adopt a policy requiring developers to provide a minimum soil depth on building sites as a rainwater management tool. The challenge is in how to ensure that developers and house builders fulfil their obligations to provide and preserve the minimum required depth.</p>	<p>Sandy Pridmore, City</p>
<b>Field trip to</b>	
<p><b>Field tour on a transit bus that has Internet access!</b></p> <ol style="list-style-type: none"> <li>1. Veterans Memorial Parkway</li> <li>2. Muir Road Development</li> <li>3. Comox Lake</li> <li>4. Compost / Skyrocket Plant</li> </ol>	

## 4. Dialogue About *A Positive Settlement Strategy* for Vancouver Island & Coastal Communities

### *Springboard to the 2008 Learning Lunch Seminar Series*

*“Although this high-profile event was a success, in our debriefing for the Leadership Forum we concluded that there had to be a more effective way to inform and educate those who would benefit most. That realization led us to sound out several local governments about an idea we had for inter-departmental learning that would result in a shared understanding of green infrastructure challenges and solutions.”*

*“The Green Infrastructure Leadership Forum was the genesis for the Vancouver Island Learning Lunch Seminar Series, launched in 2008 in the Cowichan Valley and Comox Valley.”*

John Finnie, 2008

### **2007 Green Infrastructure Leadership Forum**

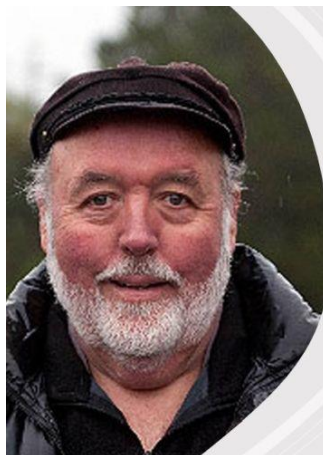
The Showcasing Innovation Series served as the springboard to the [Green Infrastructure Leadership Forum](#) in December 2007. In turn, the forum was the springboard to the next phase of building capacity. **Figure C8** is a Program Overview which highlights the City of Courtenay contribution to the sharing and learning process.

Co-hosted by CAVI and the Association of Vancouver Island Coastal Communities (AVICC) in Nanaimo, the forum goal was to initiate an Island-wide dialogue around a vision for achieving **settlement in balance with ecology**. AVICC and CAVI called this desired outcome [A Positive Settlement Strategy for Vancouver Island & Coastal Communities](#).

### **Desired Outcome: *Benefits Exceed Liabilities***

It was Tim Pringle who coined the phrase **A Positive Settlement Strategy** to provide a frame-of-reference for dialogue. “Simply put, it means benefits exceed liabilities. Settlement and ecology are equal values, and they must be as much in balance as possible for the wellbeing of human and natural systems. We are convening for action so that we can provide practitioners with the tools and experience to implement *Design with Nature* policies and practices,” he explained.

“The conversations at the Forum can evolve into a dialogue about Why, Where and How development should occur so that settlement is in balance with ecology,” added Rod Sherrell, then the AVICC President.



**“We can create our future because local government controls land use. Elected representatives and staff at the local government level clearly have the opportunity, and responsibility, to make decisions that support *A Positive Settlement Strategy for Vancouver Island.*”**

Rod Sherrell, President of the Association of Vancouver Island Coastal Communities, in his opening statement at the Green Infrastructure Leadership Forum, Dec 2007

**Figure C7 – “A Positive Settlement Strategy - What could it look like?”**

<p><b>Program Overview</b> (John Finnie, Moderator)</p>
<p><b>We Can Create Our Future</b></p> <p>In a fully integrated landscape, water is the unifying element. When we get the water part right, other parts are more likely to follow. The purpose of the Leadership Forum was to start the conversation as to what <b>A Positive Settlement Strategy for Vancouver Island and Coastal Communities</b> might look like, and how it could be implemented through regional growth strategies and official community plans.</p>
<p><b>Showcasing Green Infrastructure Innovation on Vancouver Island: The 2007 Series</b></p> <ol style="list-style-type: none"> <li>1. <b>Inland Kenworth in Nanaimo:</b> “Where <i>Designing with Nature</i> meets <i>Green Value</i>”</li> <li>2. <b>Reporting Out:</b> “The Culture of Doing &amp; Lessons Learned”</li> <li>3. <b>Roundtable Sharing:</b> “What Else is on the Drawing Board?”</li> <li>4. <b>Beyond the Guidebook 2007:</b> “Designing with Nature to Create Liveable Communities that Protect Stream Health” - <i>Chris Jensen, Ministry of Community Development</i></li> </ol>
<p><b>Creating Our Future in Ucluelet: from Vision to Implementation</b></p> <p>Felice Mazzoni &amp; Geoff Lyons explained how, through careful planning and strong local political support, the District of Ucluelet had successfully implemented ‘smart growth’ sustainable planning tools such as density bonusing, alternative design standards, affordable housing policies, public access, comprehensive development zoning, and mandatory LEED construction.</p>
<p><b>Regional Growth Strategies and Official Community Plans: How can they be aligned with A Positive Settlement Strategy?</b></p> <p>Two inter-regional case study examples provided a frame-of-reference for breakout groups:</p> <ul style="list-style-type: none"> <li>▪ <b>Theme 1 – Aligning Regional Growth Strategies:</b> The <i>South Okanagan Regional Growth Strategy</i> helped participants think about how to provide policy direction.</li> <li>▪ <b>Theme 2 – Aligning Official Community Plans:</b> The City of Courtenay Official Community Plan helped participants think about how to translate policy into actions on the ground.</li> </ul>

## 5. Design With Nature to Create Liveable Communities and Protect Stream Health

### 2008 Comox Valley Seminar Series


The Vancouver Island Learning Lunch Seminar Series initiated a Partnership-led outreach program for Living Water Smart, British Columbia's Water Plan, released in June 2008. The series tested a peer-based approach to professional development. The desired outcome was inter-departmental alignment and a consistent regional approach to implementing the **New Business As Usual**.

Both the City of Courtenay Council and Cowichan Valley Regional Board and voted unanimously to sponsor and host series in the Comox Valley and Cowichan Valley, respectively.

#### Inter-departmental idea morphed into inter-governmental

*"Initially we were thinking in terms of a small group setting, perhaps 12 to 15 people drawn from the various departments within a willing local government. The jump in scope from inter-departmental to inter-governmental had major implications for the curriculum design. Now we had the challenge of designing a program that would hold the attention of a group of 50-plus over an extended period of time. The dynamics of the two situations are totally different."*

John Finnie, 2008

A photograph of Dale Wall, Deputy Minister, speaking at a podium. He is wearing a grey suit jacket and glasses. Behind him is a banner with the text "Whole-C Change" and "ump".

*"We are using the slogan 'The New Business As Usual' to convey the message that, for change to really occur, practices that until now have been viewed as the exception must become the norm moving forward. We have to build regulatory models and develop models of practice and expertise to support The New Business As Usual."*

Dale Wall, Deputy Minister, statement about CAVI program at 2008 Gaining Ground Summit

#### Inter-Governmental Commitment

"Council recognized that a common understanding of challenges and solutions would result in consistent expectations at municipal front counters across Vancouver Island. Council also recognized that hosting the series would have a better payback than selectively sending a few staff to conferences. In the current financial climate, the operative phrase is stay local," stated Courtenay's Kevin Lagan

"The Learning Lunch Series complemented what the City was already doing in terms of organizing an ad hoc Municipalities Group with membership crossing multiple regional district boundaries. In hosting the series, we wanted to drill down to the nuts-and-bolts of green infrastructure implementation," added Derek Richmond.

**Figure C8 – 2008 Vancouver Island Learning Lunch Seminar Series**  
 “Design With Nature to Create Liveable Communities and Protect Stream Health”

BEYOND THE GUIDEBOOK / THE NEW BUSINESS AS USUAL:	
<p>The series was the first step in building a regional team approach so that there would be consistent messaging regarding on-the-ground expectations for rainwater management and green infrastructure.</p>	
Seminar Themes	Scope of Each Seminar
<p><i>Today's Expectations are Tomorrow's Standards</i></p> <p><b>EVOLUTION</b> (What)</p>	<p><b>Session #1 traced</b> the evolution of rainwater/stormwater management policies and practices over the past two decades. This provided a frame-of-reference and a common understanding for subsequent sessions.</p> <p>The <i>2002 Stormwater Guidebook</i> and the <i>Water Balance Model</i> were introduced so that participants would understand the purpose and application of performance targets.</p> <p>A desired outcome was that participants would understand <b>WHY</b> drainage practice comprises a continuum of paradigms, and communities progress at different rates along the continuum.</p>
<p><i>Legal and Policy Strategies to Support Green Infrastructure</i></p> <p><b>TOOLS</b> (So What)</p>	<p><b>Session #2 introduced</b> the extensive and very specific tools available under the Local Government Act so that they can proactively manage the complete spectrum of rainfall events: from light showers to heavy rain to extreme storms.</p> <p>The <i>Green Infrastructure Guide</i> was explained so that participants would know how to use it effectively as a resource.</p> <p>A desired outcome was that participants would understand <b>WHAT</b> bylaw and policy tools enable incorporation and retrofitting of engineered green infrastructure into development plans.</p>
<p><i>Nature Knows No Boundaries</i></p> <p><b>TARGETS</b> (Now What)</p>	<p><b>Session #3 elaborated</b> on a performance target approach to land development that makes sense, meets multiple objectives, is affordable, and results in net environmental benefits at a watershed and/or regional scale.</p> <p>A framework for 'bringing it all together' was introduced so that participants could explore a regional team approach that ensures a common understanding and consistency at the front counter.</p> <p>A desired outcome was that participants would understand <b>HOW</b> a Design with Nature approach to rainwater management (i.e., using infiltration and trees) will influence the greening of the built environment and protect stream health.</p>

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## Program Design for the 2008 Seminar Series

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**Figure C8** is a Program Overview for the 2008 Seminar Series. The curriculum was spread over three sessions and the series was conducted as a cumulative process, from philosophy to tools. The Comox and Cowichan series were guided by a common template.

“We drew on a set of provincial guidance documents and made them interesting and relevant to a mixed audience. Five resources ultimately formed the curriculum backbone: the *Stormwater Planning Guidebook for BC*, *Beyond the Guidebook*, *Develop with Care*, and *A Guide to Green Choices*, as well as the *Green Infrastructure Guide* by Susan Rutherford of West Coast Environmental Law,” explains the Cowichan Valley’s Kate Miller.

“The Partnership also produced a *Guide to the Guidebook*. Written for both expert and non-expert audiences, it provided a broad-brush picture. The emphasis was on core concepts. We hoped to interest readers in learning more by delving into the 2002 Guidebook.”

### Beyond the Guidebook Context

The evolution of planning for water sustainability by implementing green infrastructure achieved a milestone with release of [Beyond the Guidebook: Context for Rainwater Management and Green Infrastructure in British Columbia](#) in June 2007. This was followed by the first Beyond the Guidebook Seminar, organized by the Green Infrastructure Partnership in November 2007 in Metro Vancouver.

“The announcement by Deputy Minister Dale Wall at the Gaining Ground Summit in May 2008 underscored provincial commitment. But it was the release of [Living Water Smart, BC’s Water Plan](#) in June 2008 that provided clear provincial policy direction for doing business differently,” recalls CAVI Chair John Finnie.



“By 2008, one of the lessons we had learned from our Guidebook outreach implementation experience was the need for a program that would ensure province-wide consistency in understanding of approaches and desired outcomes. This is why a premise underpinning the Learning Lunch Seminar Series is that consistency is best achieved by taking a continuing education program into the places where local government practitioners work.”

2008 quote by Peter Law, Ministry of Environment & Chair, Stormwater Guidebook Steering Committee

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### Living Water Smart, BC’s Water Plan

*“We designed the Learning Lunch curriculum to help local governments determine how they will achieve the provincial policy statement on page 43 in Living Water Smart.”*

*“By 2012, all land and water managers will know what makes a stream healthy, and therefore be able to help land and water users factor in new approaches to securing stream health and the full range of stream benefits.”*

*“In early 2008, the provincial government’s Speech from the Throne provided a timely impetus for branding **Beyond the Guidebook as The New Business As Usual** and rolling it out through the Learning Lunch Series.”*

Kim Stephens, 2008

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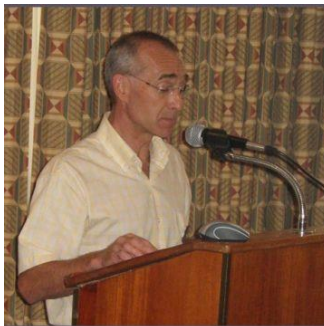
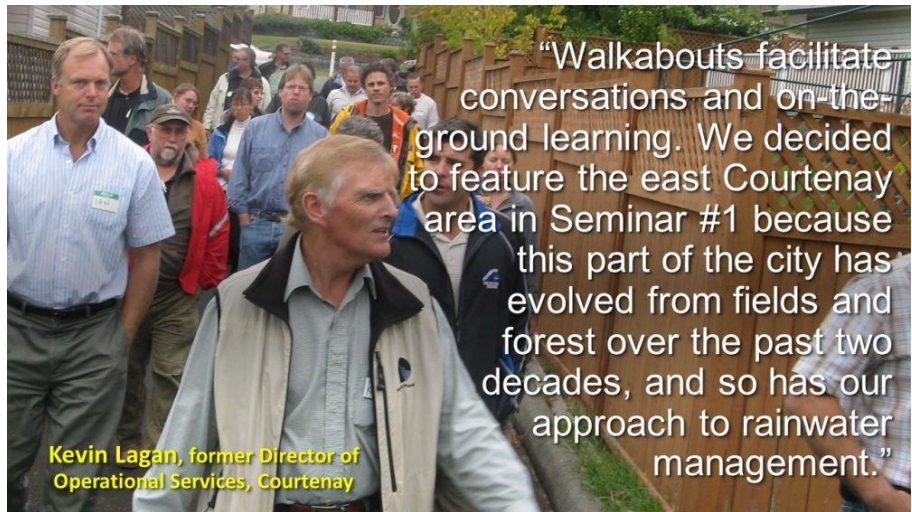


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## Today's Expectations, Tomorrow's Standards

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The seminar program was developed through collaboration by an inter-regional group representing Courtenay, the Cowichan Valley Regional District, North Cowichan, Duncan, and Partnership for Water Sustainability. This group represented the spectrum of departmental perspectives within local government, namely: environmental planning, engineering, development services, and building inspection.



"IF WE ARE TO HAVE A TEAM APPROACH, WE NEED TO THINK GLOBALLY AND ACT LOCALLY. WE NEED TO THINK OF OURSELVES AS A TEAM, NOT AS INDIVIDUALS WITHIN SILOS; AND WE NEED TO **BREAK DOWN BOUNDARIES THROUGH COMMUNICATION, COLLABORATION, COOPERATION AND COORDINATION.**"

Derek Richmond  
former Manager of Engineering, Courtenay

***High-level endorsement for a 'regional team approach'*** was provided when Mayors and Chief Administrative Officers representing the four Comox Valley local governments dropped in to show their support for the Learning Lunch Seminar Series.



"We are thrilled by the work of CAVI. It is a tremendous initiative. The cooperation that is taking place around a consistent approach to development is very critical to all of Vancouver Island."

Sandy Gray  
former Chief Administrative Officer, Courtenay



## 6. Getting Ahead of the Wave: *An Integrated Watershed Approach to Settlement (2009)*

'Mind map' for 2009 Series

Call to Courage!

One Market –  
Cobble Hill to Campbell River

Mission Possible!

Connect to the Landscape



### Power of the Series

*"As I see it, the power of the series results from the fact that it is internally driven by staff. As a result, the process of organizing the series and developing the curriculum is already enabling people in all four local governments to work together."*

Judith Walker, 2009  
Village of Cumberland

### Call to Courage: Demonstrating the 'Regional Team Approach' in Comox Valley

"The theme, **Getting Ahead of the Wave**, defines what needs to be accomplished by the 2009 Series in building on the 2008 foundation," stated Courtenay's Kevin Lagan. "The goal is a truly integrated approach to land use planning, one that is founded on a water-centric way of thinking," added Jack Minard, Executive-Director of the Comox Valley Land Trust. The process to develop and deliver the program was a year-long, collaborative effort by the four Comox Valley local governments and Land Trust. The Partnership facilitated the process.

### Curriculum Design

The Program Overview and Curriculum are included as **Figures C9 and C10**, respectively. These provide valuable historical context. "We envision that the 2009 series will provide us with the springboard to achieve integration of current regional initiatives in subsequent phases of collaboration," foreshadowed Courtenay's Kevin Lagan.

**Reaching beyond the Comox Valley:** In the months leading up to the series in Fall 2009, the Partnership released seven preview stories (which are posted on [waterbucket.ca](http://waterbucket.ca)) to progressively profile and foreshadow the curriculum and attract a provincial audience from within the Georgia Basin to participate. Subsequent stories summarized what was accomplished at each seminar.

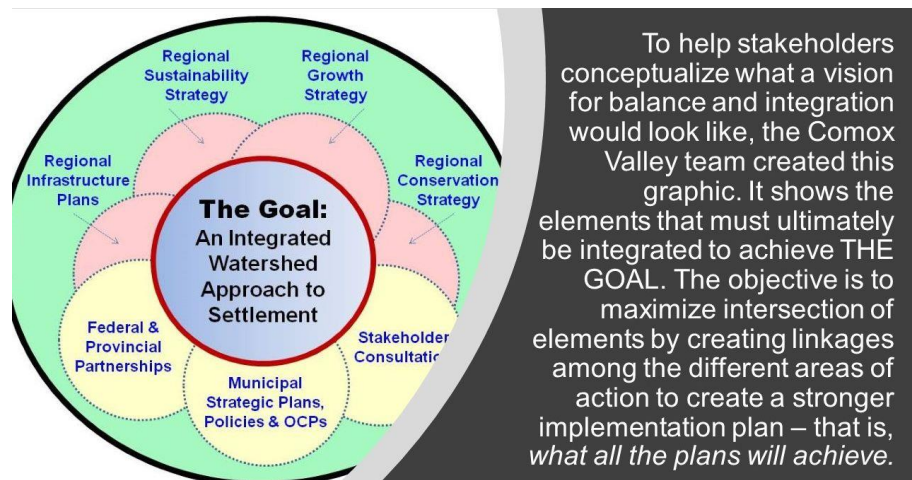


Figure C9 – Program Overview for 2009 Comox Valley Series

<b>Getting Ahead of the Wave: <i>An Integrated Watershed Approach to Settlement</i></b>	
<b>Context</b>	<ul style="list-style-type: none"> <li>• The <b>Living Water Smart</b> and <b>Green Communities</b> initiatives provided a framework for <b>convening for action</b> to improve the way that land is developed, and water is used.</li> <li>• Convening for action means bringing together those who plan and regulate (<i>local government</i>), those who build (<i>developers</i>), those who provide the legislative framework (<i>the Province</i>), those who advocate conservation of resources (<i>the stewardship sector</i>), and those who do research (<i>universities and colleges</i>).</li> <li>• Through CAVI, Vancouver Island was the pilot region for implementing a ‘regional team approach’ that aligns local actions with provincial goals to achieve sustainable solutions: <b>What do we want Vancouver Island to look like in 50 years and beyond?</b> Making this happen requires partnerships, collaboration, innovation, and integration.</li> <li>• The Comox Valley Learning Lunch Seminar Series was an important cornerstone towards integration across the Island. The series was a forum for bringing together people who share a vision for adopting sustainability practices, so that they could focus on solutions and generate positive energy and passion that results in commitment, because commitment leads to action and implementation.</li> <li>• In 2008, the initial CAVI objective was to test an approach to providing continuing education where people work. The Learning Lunch Series then went beyond that objective because it created the springboard for a <b>“Comox Valley regional team approach”</b>.</li> <li>• In 2009, the <b>Regional Growth Strategy</b> and <b>Comox Valley Sustainability Strategy</b> provided the backdrop for the second Comox Valley Learning Lunch Seminar Series. The focus was on <b>how to implement the regional team approach</b> (i.e., “a unified approach from all levels of government”).</li> </ul>
<b>The Challenge</b>	<p><i>How do we simultaneously work together as staff within a municipality and as a region AND externally with the stewardship sector, developers, and other private sector players, to ensure we implement sustainable approaches to development?</i></p>
<b>Meeting the Challenge</b>	<p>The theme, <b>Getting Ahead of the Wave</b>, defined what would be accomplished by the 2009 Series in building on the 2008 foundation. The series:</p> <ul style="list-style-type: none"> <li>• Built on the water-centric credibility and strengths of the 2008 Series to raise the bar in addressing <b>Settlement in Balance with Ecology</b> in a pragmatic way: <i>“Here is what it looks like; this is where it is going.”</i></li> <li>• Served as the springboard to advance <b>integration</b> of Comox Valley regional initiatives in 2010. The unifying theme was: <b>“What all the plans will achieve.”</b></li> <li>• Served as a “springboard beyond the Comox Valley” to demonstrate what <b>A Positive Settlement Strategy for Vancouver Island</b> could look like.</li> <li>• Was for implementers. It captured what was in the regional processes and brought it back to local government staff who must implement the regional plans.</li> <li>• Addressed the Water/Energy Cycle in the context of Climate Change Adaptation.</li> </ul> <p>The goal was a truly integrated approach to land use planning, one founded on a water-centric way-of-thinking and acting, and that would achieve watershed protection and enhancement objectives.</p>

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## Living Water Smart framed the learning outcomes

*“Fifty percent of new municipal water needs will be acquired through conservation by 2020.”*


P 75, Living Water Smart, BC’s Water Plan

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## One Market – Cobble Hill to Campbell River

The **call to courage** by the Comox Valley regional team underscored the passion and commitment of the local government players. Through their actions, they demonstrated what the regional team approach looks like. The series spotlight was on working with existing legislation to achieve integrated outcomes.

Whereas the 2008 Series was built around drainage and stream health impacts, the 2009 Series had a dual focus: 1) understanding what drives settlement along the east coast of Vancouver Island; and 2) understanding risk and uncertainty related to the **Water OUT = Water IN** equation. to ensure a safe and adequate water supply.



*“Water is the underpinning of the community. Water is a key component for all the regional strategies. All will have to be integrated into one plan. At the core is growth. When we move into the action phase, it will not be one organization doing it. Everyone has a role in implementation. If we all work together, we will be that much more effective.”*

Kevin Lorette, (former) General Manager of the Property Services Branch, Comox Valley Regional District

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## The 4Cs

*“To be successful, we all need to work outside our normal boundaries; and we need to proactively communicate and work with others. We need to think of ourselves as a team, not as individuals within silos; getting there means we will have to break down boundaries through **communication, collaboration, cooperation, and coordination.**”*

Derek Richmond, 2009  
City of Courtenay

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**What Drives Settlement:** “There is one market for large-scale real estate development in the mid-island region, from Cobble Hill to Campbell River,” stated Tim Pringle when he presented his research findings and matrix-type **Development Evaluation Tool** for apples-with-apples comparisons. “Communities can choose from among development proposals and can therefore control their destinies. They need only accept ones that are aligned with community values.”



*“The **one market** way-of-thinking resonates. It makes sense that mid-Island communities have choices. Communities can establish expectations as to what we want and what we will accept from developers.”*

*“The Comox Valley can really differentiate itself with our strong environmental focus and our emphasis on *quality of place*. We can position the Comox Valley to be a *region of choice* for the *right development in the right place.*”*

Geoff Garbutt, (former) Executive  
Manager of Strategic and Long Range Planning,  
Comox Valley Regional District

**Figure C10 – Curriculum for 2009 Comox Valley Series**

Seminar Theme	Seminar Scope
<p><b>1 Understand the Dynamics of Settlement Changes</b></p> <p><b>WHAT</b></p>	<p>a. Session #1 started where the 2008 Series ended by posing this question: <i>How will we implement a regional team approach in the Comox Valley, and how can this inform <b>A Positive Settlement Strategy for Vancouver Island</b></i>? This question provided a frame of reference for exploring <i>Water for Life and Livelihoods</i> and ‘settlement in balance with ecology’.</p> <p>b. Research findings for this question were shared: <i>What are key factors that drive large-scale real estate development projects on Vancouver Island?</i> The implications for the Comox Valley were explored from three perspectives, namely: community values, provincial policy, and regional strategies/plans.</p> <p>c. A desired outcome was that participants would understand <b>WHY</b> the notion of “sustainable” communities begins with a discussion of values that communities declare or reflect as changes occur in their landscapes.</p>
<p><b>2 Regional Plans – Pathway to Water Sustainability</b></p> <p><b>SO WHAT</b></p>	<p>a. Session #2 introduced a <b>Water OUT = Water IN</b> framework for achieving water sustainability; coupled with a <i>design with nature</i> approach to climate change adaptation.</p> <p>b. Lessons learned by the Regional District of Nanaimo (<i>Drinking Water &amp; Watershed Protection Action Plan</i>) and Metro Vancouver (<i>Liquid Resource Management Plan</i>) were shared so that participants could apply the universal principles.</p> <p>c. A desired outcome was that participants would understand <b>WHAT</b> alignment of regional processes with local actions looks like on-the-ground: <i>What all the plans will achieve.</i></p>
<p><b>3 Commitment to the Regional Team Approach</b></p> <p><b>NOW WHAT</b></p>	<p>a. Session #3 introduced integration: <b>WHO</b> will do it, and <b>HOW</b> it will be done.</p> <p>b. The series outcomes were synthesized: <i>How we simultaneously work together as staff within a municipality and as a region AND externally with the stewardship sector, developers, and other private sector players.</i></p> <p>c. A desired outcome was that participants would COMMIT to a regional team approach which results in implementation of <b>An Integrated Watershed Approach to Settlement.</b></p>

## 7. Comox Valley Developers Dialogue: *A Bridge to the 2011 Series*

### Do Things Right at the Front-End and Everyone will Save Time and Money

In December 2010, the City of Courtenay hosted the Comox Valley Developers Dialogue as a bridging event between the 2009 and 2011 series. It was conducted as a town-hall sharing and learning session.

"The purpose was to build a shared understanding among the various sectors who contribute to land development. A shared understanding is essential if we are to truly create the **'new business as usual'** that embraces environmental factors into decision making about the land," stated Nancy Hofer, Environmental Planner with the City of Courtenay.


"We invited the development community to come prepared to talk about how local government can make the development application process more transparent and faster. We also invited them to share their ideas on green infrastructure innovations. In our communication, we emphasized that the Dialogue is the first step in a process."

**Developer Perspective:** Kip Keylock, a local developer and director of the Comox Valley Chamber of Commerce, praised the event with these observations: "The CAVI Developers Dialogue event was no doubt, one of the best meetings to date. Key issues such as understanding the needs, wishes and requirements of our local governments and the developer community were addressed."

#### **A conversation with the development community**

*"CAVI is a joint effort by four local governments and Comox Valley Land Trust and is about collaboration. We would like the development community to be part of this process," stated Derek Richmond in his welcoming remarks.*

*"The end-product is a successful project. But what we really want to focus on is the process – that is, the process of how we can work with the development community. We all know that if we do things right at the front-end, the end-result will be a lot better. Everyone will wind up saving time and money and the end-product will have added value."*



"Protecting the environment will require significant effort and commitment from all parties. The transition is not going to be easy, but there is no turning back. Dialogue will help to build trust leading to a coordinated effort to achieve shared goals. The 2011 Series theme, *A Regional Response to Climate Change*, defines the desired outcome. This shows how far we have come as a regional team."

Glenn Westendorp, Town of Comox  
& Chair, 2011 Comox Valley Series

Figure C11 – 2010 Comox Valley Developers Dialogue



“The format was excellent for ‘stirring the pot’ as it allowed for a variety of ideas, questions and comments to flow easily and freely. The non-formal setting made everyone comfortable in sharing comments, whether positive or negative. This is certainly appreciated among the building and development community. The fact that many of the staff and administration from the local municipalities were present, and participated, was a testament to the positive strides being made in the Comox Valley.” – Kip Keylock

## 8. A Regional Response to Infrastructure Liability

### Towards Sustainable Service Delivery

**Figure C12** shows the program at-a-glance for the 2011 Seminar Series, hosted by the Town of Comox in Spring 2011. Comox Valley experience was then showcased at the State of Vancouver Island Summit in Fall 2011. The unifying theme for the 2011 Series was:

**Water sustainability is more likely to be achieved when land use planning and climate change adaptation are integrated with infrastructure asset management.**

#### ***“Asset Management for Sustainable Service Delivery” as first conceptualized***

*“An integrated approach involving **planning, engineering and finance** to effectively manage existing and new municipal infrastructure in a sustainable manner to maximize benefits, reduce risk and provide satisfactory levels of service to the community user in an **environmentally and ecologically responsible manner.**”*

National Asset Management Working Group, 2010

NOTE: *Bolded words were Glen Brown’s input*

#### **A Paradigm-Shift for Asset Management**

Seminar #1 in the 2011 Series was the venue where Glen Brown, Ministry of Community Development, first used the term Sustainable Service Delivery and foreshadowed a future requirement to view watersheds and watershed health through an asset management lens:

“Asset management is sometimes only considered after infrastructure is built. The challenge is to think about what asset management entails BEFORE the asset is built. This paradigm-shift starts with land use planning and determining what services can be provided sustainably, both fiscally and ecologically.”

“Sustainable Service Delivery describes a life cycle way of thinking about infrastructure needs and how to pay for those needs over time. The link between asset management and protection of a community’s natural resources is emerging as an important piece.”

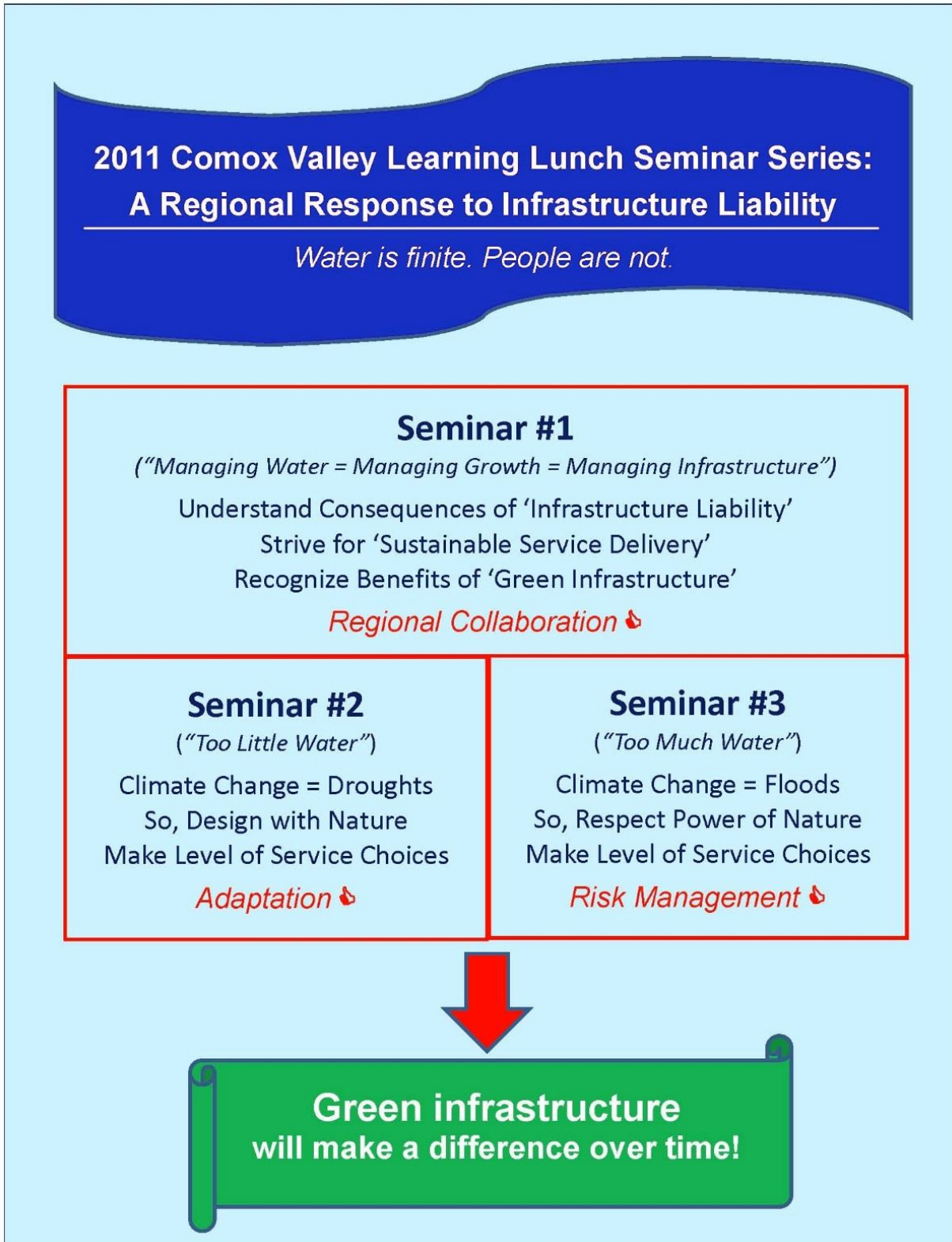
“Land use planning in British Columbia may be significantly improved when integrated with asset management planning in local governments. The legislative authority for integration of land use planning and asset management, including financial management, already exists within the Local Government Act and Community Charter.”

Glen Brown, Executive Director,  
Ministry of Community Development





Figure C12 – Program Overview for 2011 Comox Valley Series



## Curriculum for 2011 Comox Valley Series

Glenn Westendorp (Town of Comox), 2011 Series Chair, described the vision in committing to the regional team approach in these terms:

“The four Comox Valley local governments, together with the Comox Valley Land Trust and TimberWest, are ‘convening for action’ around a water-centric approach to land development.”

“A desired outcome is that water sustainability will be achieved through implementation of green infrastructure practices. We believe this can be accomplished through sharing of experiences and pooling of resources to achieve more with less.”

### Plan It Right at the ‘Front-End’

*“We know that the time to shape future life-cycle costs is at the infrastructure planning ‘front-end’; and we recognize the importance of thinking at a watershed scale. Protection of a community’s natural resources is an important piece in Sustainable Service Delivery, both fiscally and ecologically.”*

*“Because nature has no borders, the four Comox Valley local governments are exploring how we can align and integrate our efforts at a watershed scale. We can achieve that outcome within the existing governance framework.”*

Kevin Lorette

### Seminar #1– Collaboration on Comox Valley Regional Initiatives

Seminar #1 built on the Developers Dialogue, held in December 2010. It painted a picture of the ‘legacy liability’ of existing hard infrastructure – that is, roads and pipes. ***The spotlight was on why all those involved in land development have a role to play in Sustainable Service Delivery.*** A desired outcome was that participants would understand why there is a link between infrastructure asset management and protection of a community’s natural assets.

### Seminar #2: Adaptation – ‘Design with Nature’ to Achieve Rainfall Capture and Water Conservation Goals

Seminar #2 dealt with green infrastructure and ‘sustainable urban drainage’. The focus was on urban watershed protection and restoration issues, with emphasis on a ‘design with nature’ approach to climate change adaptation: ***These are the values of importance to everyone; and this is the community standard that we wish to build to.*** A desired outcome was that participants would understand how a ‘design with nature’ approach integrates rainwater management and drought management.

### Seminar #3: Risk Management - Respect the Power of Nature

Seminar #3 addressed floodplain and flooding issues, with emphasis on a ‘risk management’ approach to sea level rise and climate change adaptation: ***Because we have a limited ability to engineer change, we need to be cautious and anticipate nature’s extremes.*** A desired outcome was that participants would understand how a common-sense approach to determining ‘risk tolerance’ would inform the Comox Valley regional response to climate change and infrastructure liability.

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## Infrastructure Liability: A Driver for Action in the Comox Valley

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"In the 2011 Series," stated Glen Westendorp, "the value and importance of a regional team approach crystalized once the team began to grapple with an issue that confronts all local governments:

**The initial capital cost of municipal infrastructure is about 20% of the life-cycle cost; the other 80% largely represents a future unfunded liability."**

"The unfunded liability (deficit or gap) is the driver to consider longevity, focus on what happens after developers hand-off municipal infrastructure, get it right at the front-end, and prepare for the future."

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### Three dimensions to infrastructure liability

*"As the discussion swirled during a town hall sharing session at Seminar #1, it became clear that framing the infrastructure liability issue in terms of three dimensions or categories would help everyone's understanding."*

*"So, to promote a holistic approach to Sustainable Service Delivery, we crystallized three objectives for Sustainable Service Delivery."*

*"One, pay down the legacy cost of existing hard infrastructure."*

*"Two, reduce the life cycle cost of new hard infrastructure."*

*"Three, shift from gray to green to protect downstream values, whether environmental and/or agriculture."*

Kevin Lagan

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**"The Comox Valley Regional Growth Strategy and Comox Valley Sustainability Strategy together provide a starting point for making better long-term decisions."**

Mike Zbarsky, Manager of Transit & Sustainability, Comox Valley Regional District



### A Regional Response

"The CAVI-Comox Valley Regional Team developed an infrastructure evaluation tool that we introduced at Seminar #1 to set the context for a town hall sharing session," explained Mike Zbarsky. "Geoff Garbutt and I co-presented on the big picture background for the regional growth and sustainability strategies. Our focus was on infrastructure policies, we said, and how they would both assist with infrastructure liability and lend themselves to a 'checklist' as an evaluation tool."

"The two study teams have worked in close tandem to make sure information flows back and forth," added Geoff Garbutt.



**"Both strategies look to the future and both strategies are about improving the quality of life and the environment in Comox Valley. The two sets of strategies are complementary." – Geoff Garbutt**

## 9. CAVI Forum within the Vancouver Island Summit: *The Public Infrastructure Dilemma*

### A Springboard to Island-wide Action

“The 2011 Vancouver Island Summit was our opportunity to showcase how the Comox Valley regional team is striving to work across boundaries, align efforts, and apply the ‘4Cs’ – that is, communicate, cooperate, coordinate. and collaborate,” stated Glen Westendorp.

“It also gave us a platform to start an Island-wide conversation about the **“20-80 Rule”** for infrastructure liability and what this means for sustainable service delivery,” added Derek Richmond.

The CAVI Forum within the Summit connected the dots to the **Linking Island Leaders Project**, an initiative of the Vancouver Island Economic Alliance (VIEA). “The Link Team found that a groundswell is building up and down Vancouver Island for regional collaboration,” stated Rick Roberts, VIEA Past-Chair.



#### ***Sustainable Service Delivery Means Integrate Land Use Planning and Infrastructure Asset Management***

*“The change in approach starts with land use planning and determining what infrastructure and services can be provided sustainably, both fiscally and ecologically. Another key message is that all those involved in land development have a role to play in achieving Sustainable Service Delivery.”*

Judith Walker, 2011




**“VIEA collaboration with CAVI creates an opportunity for early success in moving forward with the Link Project. The ‘Forum within the Summit’ can provide us with a springboard to Island-wide action. Just imagine the strength of committed individuals all working towards a common focus.”**

### 2011 – A Turning Point Year


The CAVI Forum within the Summit marked a turning point. From 2008 through 2011, the program of annual seminars was open to all local governments and others on Vancouver Island. The focus was primarily on ‘sharing & learning’ for the purpose of professional development. After the 2011 Summit, the program changed to internal working sessions. The purpose was to explore what integration and implementation of regional policies would look like in practice.

**Figure C13 – CAVI Forum with the 2011 Vancouver Island Summit**



Vancouver Island Economic Alliance  
  
**2011 VIEA SUMMIT**

**THE ROAD AHEAD COULD GET BUMPY...**  
 IT WOULD BE GOOD TO BE PREPARED



**5th Annual - STATE OF THE ISLAND ECONOMIC SUMMIT**  
 Vancouver Island Conference Centre, Nanaimo, BC • October 18 & 19, 2011

**The Public Infrastructure Dilemma**  
*How will we sustain our water, our streets, and ourselves?*

Hosted by Convening for Action on Vancouver Island (CAVI) and the VIEA Sustainability Task Force, this session will focus on solutions to the “infrastructure liability” confronting all local governments. The Comox Valley is a provincial demonstration region for a regional and replicable approach to Sustainable Service Delivery. The Comox Valley regional team will tell their story and provide a context for open dialogue about challenges and solutions.

THE PRESENTATION TEAM will include Kim Stephens, Executive Director, Partnership for Water Sustainability, Tim Pringle, President, Partnership for Water Sustainability, Eric Bonham, CAVI Leadership Team, Jack Minard, Executive Director, Comox Valley Land Trust, Domenico Iannidinardo, Manager of Environment and Resource Integration, TimberWest Forest Corporation, and key Engineering, Public Works, Property Services and Planning staff from Courtenay, Comox, Cumberland, and the CVRD.

## **Sustainable Service Delivery**

*“When the CAVI team started to talk about asset management in 2011, everyone quickly grasped the need to incorporate ecological values. This awareness has influenced how the Town of Comox looks at development. For example, we calculate the revenue that it will generate over time because we understand the implications of the 20/80 principle - the initial gift of a development only covers the initial 20% of the total infrastructure cost. The other 80% is a deficit, including the cost to fix drainage impacts.”*

Glen Westendorp, 2011 Chair  
 Town of Comox

*“As volunteer Stewards of our precious and rare freshwater resources we have the ability and passion to speak for the intrinsic values. There is a shared responsibility for every level of government, every consultant, and every landowner to understand those values. Water is life before it is a commodity.”*

Jack Minard, Executive Director  
 Comox Valley Land Trust

## 10. Change the Land Development Culture to Protect and Restore Watersheds

### How to Move from Education to Action and Implementation

*Beyond the Guidebook 2010* includes a section titled **Changing the Culture**. This places in context the understanding and perspective gained through CAVI program experience. The synopsis provides a bridge to Part D which deals with the years 2012 through 2017.

### Process for Leading and Managing Change

*Beyond the Guidebook 2010* explains WHY and HOW changing the land development culture depends upon a 5-step process:

- First, Inform & Educate
- Second, Empower a Team
- Third, Define the Goal
- Four, Build the Vision
- Fifth, Create a Legacy

The potential for creating change revolves around three basic ingredients described in the sidebar.

### Collaboration, Partnerships and Alignment

**Figure C9** illustrates the multiple pathways for moving from education to action and implementation through collaboration, partnerships, and alignment. Leading and managing institutional change is a function of putting three principles into play while also having a long-term horizon:

- **Principle #1 - Melt the Opposition:** Obtain commitment from key stakeholders to support change (i.e., new values and beliefs).
- **Principle #2 - Implement the Change:** A good idea is immediate, but preparation for implementation can take 5 to 10 years, or longer. Change will then take place quickly.
- **Principle #3 - Re-Freeze:** Reinforce new values and institutionalize the change.

Operationalizing these principles is achieved through collaboration that builds consensus and aligns all levels of government. Four factors that are foundational for success are also identified on Figure C9.

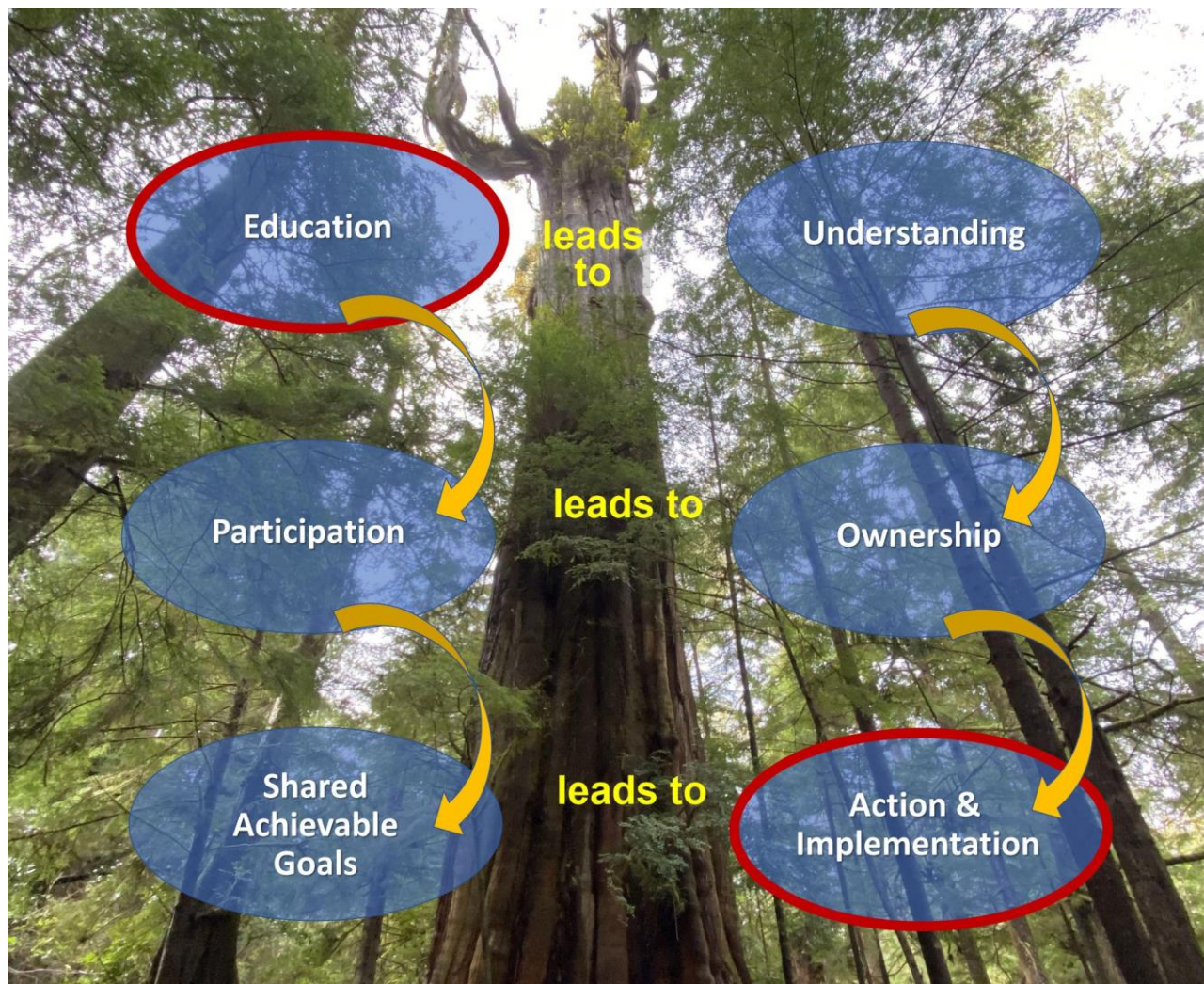
#### Ingredients for creating change

*First, start with a unifying concept that makes sense to audiences (for example, Design With Nature).*

*Secondly, develop a supporting methodology that is science-based and pragmatic in reflecting a whole-system approach (for example, Water Balance Methodology).*

*Thirdly, implement a multi-audience outreach and continuing education program that is consistent in explaining the first two in plain language.*

**Figure C14 –Education Leads to Action and Implementation:  
*Inform, Educate, Inspire***



Source: Figure 11-3 in *Stormwater Planning: A Guidebook for British Columbia, 2002*

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## PART D

# Convening for Action from 2012 thru 2017



*To provide the reader with a sense of how the Comox Valley has benefitted from and influenced inter-regional collaboration, this Part D is structured in eight segments:*

- 1. Different Points of Understanding Along the Watershed Health Continuum***
- 2. Annual Water Sustainability Forums within the State of the Island Economic Summit***
- 3. Inter-Regional Collaboration for Water Sustainability & Watershed Health***
- 4. Regional District Restructuring, a Catalyst for Collaboration in the Comox Valley***
- 5. Asset Management for Sustainable Drainage Service Delivery (2016)***
- 6. Comox Lake Watershed Protection Plan (2016)***
- 7. Eco-Asset Symposium (2017): Genesis for the Watershed Moments Initiative***
- 8. Implementing Change: Moving a Big Idea from Genesis to Mainstream***

**Figure D1 – History-at-a-Glance: Convening for Action in the Comox Valley between 2012 and 2017**



# 1. Different Points of Understanding Along the Watershed Health Continuum

## What Have We Learned: *Look Back to See Ahead*

During the period between 2006 and 2011, the CAVI program served as a “proof of approach” for collaboration within a region. By 2012, the partner regions were primed for formal collaboration between regions. Creation of the IREI, supported by Regional Board Resolutions, was a bold leap forward in 2012. This unique mechanism for inter-regional collaboration seeks to bridge the “implementation and integration gap”. It does this through a **peer-based, collaborative education process**.

### Inter-regional sharing & learning helps everyone

The Partnership asked five Regional Boards to endorse and support the IREI through commitment of staff resources because “collaboration would result in alignment and a consistent approach to [Rainwater Management in a Watershed Sustainability Context](#). This would help everyone to go farther, more efficiently and effectively.”

#### *Convening for Action in the Comox Valley from 2012 to 2017*

*Figure D1 is adapted from the timeline introduced in Part B. It highlights inter-regional contributions by Comox Valley local governments during this 5-yr period.*



**Benefits of Collaboration:** The IREI concept resonated because benefits were clear and outcome-oriented:

- Align workloads.
- Share tools and resources.
- Achieve more with the same resources.

The “proof of approach” in 2012 revolved around a “sharing and event” open to all in each region. In the case of the Comox Valley, however, the proof of approach was undertaken as an internal workshop series.

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## IREI spotlight is on bridging the “Implementation and Integration Gap”

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“The purpose of the IREI is to learn and apply what *‘designing with nature’* looks like in practice. The process involves drilling down from the vision and goals of a regional plan to explore the *‘how-to’* details of implementation and integration,” stated the Partnership’s Tim Pringle in 2012.

“ONE CAN HAVE ‘IMPLEMENTATION’ WITHOUT ‘INTEGRATION’; BUT IMPLEMENTATION WILL LIKELY BE INEFFECTIVE WITHOUT INTEGRATION.” – TIM PRINGLE

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**Ian McHarg, ‘father of GIS’, pioneered the concept of ecological planning. He advocated this principle:**

*“The shaping of land for human use ought to be based on an understanding of natural process.”*

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**“Integration means a holistic approach to use and conservation of land and water.** It encompasses physical infrastructure, the built environment, and the ecosystems within which we work and recreate. And it includes all practitioners whose profession, work, volunteer role or responsibility as a landowner affects land and water sustainability.”

### Regional Water and Watershed Initiatives

**Figure D2** identifies the set of regional initiatives that formed the foundation for inter-regional collaboration. Each region was at a different point of understanding on the watershed health continuum.

Prior to 2012, each IREI partner region had typically established its **vision and goals** for water and watershed sustainability through a community consultation process.

“Each region faces implementation challenges due to the gap between awareness of what should be done versus ensuring action on the ground. Bridging the gap is the IREI focus for the 5-year period 2012 through 2017. A program goal is to help all regions move forward with consistent and effective *‘implementation and integration’* on the ground,” Tim Pringle explained.

**“Through sharing and learning, ensure that where we are going is indeed the right way”**

Jody Watson  
CAPITAL REGIONAL DISTRICT, 2014



Figure D2 – Georgia Basin Regional Water & Watershed Initiatives



### Explanatory Notes – Provincial Significance in 2012

- 1** The provincial government intervened in the Comox Valley in 2008 to both create a new regional district and mandate regional plans. The *Comox Valley Sustainability Strategy* and *Comox Valley Regional Growth Strategy* provided the planning framework for implementing **An Integrated Watershed Approach to Settlement**.
- 2** The Nanaimo Region’s **Drinking Water & Watershed Protection Plan** created a drinking water and watershed protection service area with taxation authority in the region’s electoral areas. Because the scope had been expanded to include the member municipalities, this meant the plan had a regional function.
- 3** The **Cowichan Basin Water Management Plan** was a provincial case study for watershed governance changes being contemplated as part of *Water Act Modernization*. Co-governance with First Nations had been identified as a primary condition for success in managing water resources.
- 4** In the Capital Region, the Bowker Creek Watershed Blueprint and District of Sooke Rainwater Management Plan were demonstration initiatives for **Integrated Watershed Management**. Both are founded on partnerships that enabled community groups and municipal staffs to coalesce around a shared vision: *What do we want this watershed to look like in 100 years, and what steps will we take to get there?*
- 5** Metro Vancouver’s **Integrated Liquid Waste & Resource Management Plan** established the framework for moving beyond regulatory compliance to transitioning the region to an approach where management of liquid discharges and rainwater resources is planned and implemented within a broader, sustainability framework.

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## 'Proof of Approach' in the Comox Valley

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During the period December 2011 through June 2012, the Comox Valley 'proof of approach' involved 'convening for action' as follows:

- Three monthly planning meetings - in December, January, and February
- Three internal workshops - in March, April, and May.
- A peer 'dialogue session' – in June.
- Progress reports – submitted to the four Chief Administrative Officers (CAOs) in January and in June.

The decisions and actions that flowed from the planning meetings created a mind-map (summarized in sidebar) for the workshop series. The top two and bottom photos in **Figure D3** showcase the internal workshops and peer session, respectively.

### Benefits of Inter-Regional Sharing

In 2012, the Comox Valley process benefitted from timely inter-regional sharing vis-à-vis precedents established by local governments in the Capital and Nanaimo regions. Similarly, communication across boundaries meant that local governments in the other regions were informed about the Comox Valley process, progress, and successes.

In Workshop #2, the defining moment occurred because the Capital Region shared a working draft of the Developer's Guide that supported implementation of the *Bowker Creek Blueprint: A 100-Year Action Plan for Watershed Restoration*. Inspired by Bowker Creek precedent, the Comox Valley regional team customized a **Landowner's Guide for Water-wise Development in the Comox Valley**. Over the next two years, the team worked on improving the content and layout.

"The Water-Wise Guide can be viewed as a communication tool. But more than that, it is both a call to action - for the community, but also for us - as well as a road map for that action."

Nancy Gothard, Environmental Planner, City of Courtenay



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### Convening for Action in the Comox Valley

**2012 Program Theme:**  
*Sustainable Rainwater Management: What Does It Look Like?*

**Series Goal:** *Create a picture of what a 'Comox Valley Integrated Rainwater Management Plan' would look like.*

**Guiding Philosophy:** *"Our shared responsibility is to look after the land, the goal is to protect watershed and stream health, and the outcome will be reduced 'flashiness' in watersheds."*

**Desired Outcome:** *"The 2012 Series will inform a consistent Comox Valley regional approach to 'integrated rainwater management' that results in Watershed Blueprints; and it will lead to a consistent process complete with common tools for review of development applications that have inter-jurisdictional implications and/or impacts."*

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## Figure D3 – 2012 Comox Valley ‘Proof of Approach’



*The idea, content and format for a Water-Wise Guide evolved over a period of months through an internal workshop process*



**AT THE 2012 PEER DIALOGUE SESSION** (below): *First, the regional team presented the Guide to WaterWise Land Development and elaborated on a range of initiatives that would add depth to the Guide over time. Then, participants contributed their ideas on how to implement and communicate those initiatives.*



### **Process & Deliverables**

*During the period 2007-2011, the Comox Valley regional team hosted annual seminar series and/or events that were open to all. In 2012, however, the process was an internal one. This resulted from a commitment by all jurisdictions to move from talk (awareness) to action (practice).*

*Meetings were conducted as ‘working sessions’ and were outcome oriented.*

*The three planning meetings were informed by a Briefing Document prepared by the Partnership and the curriculum developed by the Partnership for “A Course on How to Develop a Watershed Blueprint”.*

*These documents helped the regional team by providing the members with a starting point for collaborative action. Then, they leveraged the experience of others to customize a framework that successfully guided the three workshops. The team produced two noteworthy deliverables: a map of Comox Valley watersheds; and a guide for water-wise development.*

## 2. Annual Water Sustainability Forums within the State of the Island Economic Summit

### Just Imagine

#### *“Mission Possible” storyline evolved over four Summits*

*2010: Water for Life &  
Livelihoods*

*2011: The Public  
Infrastructure Dilemma*

*2012: Economy and  
Ecology in Balance*

*2013: Mission Possible  
Update*

The Vancouver Island Economic Alliance (VIEA) holds an annual [State of the Island Economic Summit](#). As an outcome of CAVI participation in the 2010 Summit, the VIEA Board adopted a 3-Year Plan which made collaboration with CAVI a high priority. VIEA then hosted a **“CAVI Forum within the Summit”** in each of 2011, 2012 and 2013.

“By aligning VIEA with the Partnership, we can play a role in building strong communities and ensure that careful stewardship of our natural resources is preserved,” stated George Hanson, VIEA President.

The in-kind support by VIEA enabled the Partnership to reach beyond the local government sector and share our *Mission Possible: Settlement, Economy, and Ecology* message with the business sector. **Figure D4** illustrates the level of VIEA commitment. It features the cover of the summit supplement published by Douglas newsmagazine.

### Comox Valley approach featured at 2013 Summit

At the 2013 Summit, Courtenay’s Derek Richmond led the 4-person CAVI panel that presented the **Mission Possible Update**.

“Collaboration among local governments and consistent application of outcome-oriented actions across boundaries can accelerate restoration and/or protection of Watershed Health up and down the east coast of Vancouver Island. Brooklyn Creek in the Comox Valley illustrates what we believe is possible,” stated Derek Richmond.

“Brooklyn Creek flows through three jurisdictions. This creates the opportunity for us to develop a demonstration template for protection and restoration of at-risk watersheds in the Comox Valley.”

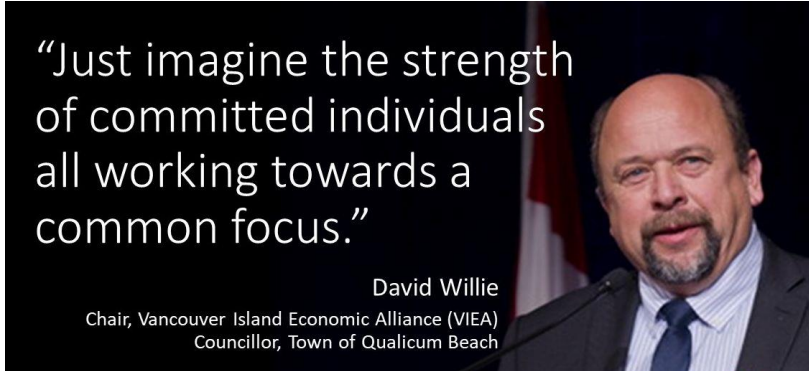
Derek Richmond, City of Courtenay  
and CAVI Chair, 2013





**Figure D4 – Water Sustainability Forum within the 2012 Summit**

*“Economy and Ecology  
– A Necessary  
Partnership for Water  
Sustainability” →  
A Future Vision for  
Vancouver Island*



*“The Partnership’s initiative-based approach has helped VIEA recognize how important it is to bring participants to the table, and to develop plans and strategies that will help identify and protect sustainable resources. And VIEA fully recognizes that we cannot have effective watershed management if we do not have all parties buying into that perspective.”*

Marianne Stolz, 2012  
VIEA Director

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## An introduction to the vision for the Brooklyn Creek Watershed Blueprint (2013)

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Partnership for Water Sustainability interest in Brooklyn Creek dates back to 2008, when it was included in the curriculum for the first annual [Comox Valley Learning Lunch Seminar Series](#). The Town of Comox was then in the early stages of implementing the [Brooklyn Creek Channel Enhancement Project](#).

The Partnership drew attention to Brooklyn Creek as a provincially significant case study in the [Primer for Integrated Rainwater and Groundwater Management for Lands on Vancouver Island and Beyond](#), released in April 2012. Brooklyn Creek illustrates the financial impact when the Water Balance is short-circuited.

**Glenn Westendorp provided this description:** “Our Brooklyn Creek experience provides a graphic illustration of an infrastructure liability that is the consequence of NOT designing with nature. The unforeseen \$1.8 million price tag to stabilize and restore the creek became the driver for doing business differently in Comox. This was the cost to the Town of not protecting the Water Balance.”

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**Principles guiding the ‘blueprint process’ are timeless, but actions to get there will take time**

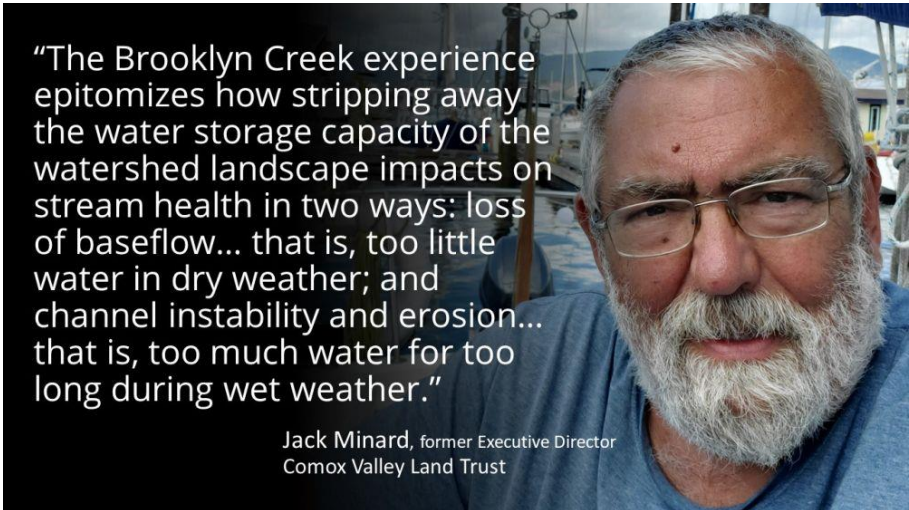
*Land planning is founded on ‘ground truthing’.*

*Benefits from the input of the community as partners.*

*Provides reach-by-reach guidance about the details.*

*Operates at an ecologically meaningful scale.*

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“The Brooklyn Creek experience epitomizes how stripping away the water storage capacity of the watershed landscape impacts on stream health in two ways: loss of baseflow... that is, too little water in dry weather; and channel instability and erosion... that is, too much water for too long during wet weather.”

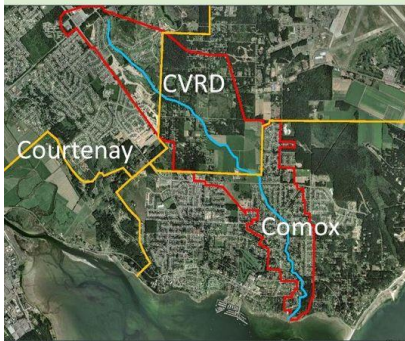
Jack Minard, former Executive Director  
Comox Valley Land Trust

### Elected Officials Forum

“In October 2013, CVRD hosted an elected officials forum (**Figure D5**). This was the regional team’s opportunity to layout the vision for the Brooklyn Creek Watershed Blueprint. By 2013, the linkages between the natural Water Balance, stream health, and infrastructure liability had emerged as important pieces in ensuring ‘sustainable drainage infrastructure’, both fiscally and ecologically,” recalls Derek Richmond.

## Figure D5 – Brooklyn Creek Blueprint presentation informed the Comox Valley Elected Officials Forum (September 2013)

A "watershed blueprint" is the catalyst for coordinated action



Comox Valley leadership team has been informed by Capital Region and North Vancouver "blueprint" experience

### Key messages for rainwater management in a watershed sustainability context

*"In 2002, the Province provided clear direction for land development: mimic the natural Water Balance"*

*"A decade ago, at the 2003 UBCM Annual Convention, BC politicians embraced Water Balance thinking and Design With Nature"*

*"Align efforts at 3 scales to achieve watershed goals: provincial, regional and local"*

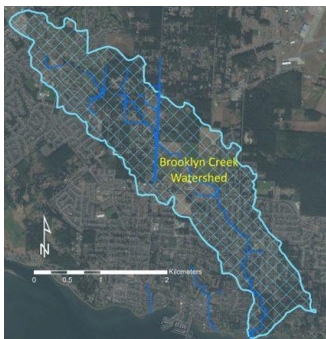
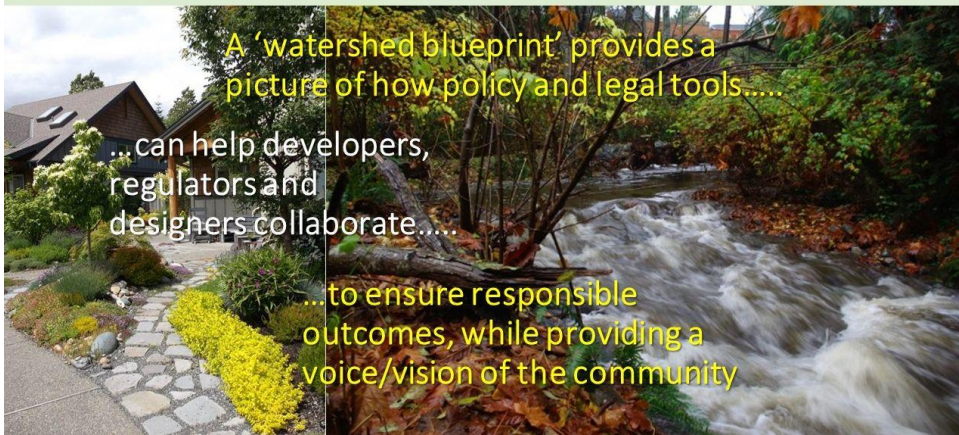
*"We are sharing resources, information and expertise through the Georgia Basin Inter-Regional Education Initiative"*

*"Communication, collaboration, cooperation and coordination underpin a regional team approach"*

*"Each year, the Learning Lunch Seminar Series has built on the previous year's outcomes"*

*"Brooklyn Creek Watershed Blueprint would be the 'go-to' document for achieving integration, guided by principles that are timeless"*

What do want our community to look like in 50 years? 100 years?



Through collaboration, the four local governments are striving for:

- Coordinated approach across boundaries
- Consistent application of strategies & tools
- Ease & transparency in development process

## 3. Inter-Regional Collaboration for Water Sustainability & Watershed Health

### Inter-Governmental Alignment

Building on the success of the IREI launch in 2012, the five partner regions formed an [IREI Inter-Regional Leadership Team](#) in 2013. This decision set in motion a 3-step planning process:

- **Step One**, the Capital Regional District hosted the first local government team-building session in June 2013. The session crystalized desired outcomes for inter-regional collaboration.
- **Step Two**, an inter-ministry working session, followed in July 2013. During the session, it became clear that [Sustainable Service Delivery](#) as a requirement for infrastructure grants would be the ultimate driver for influencing local government actions.
- **Step Three**, the Ministry of Community Development hosted a joint working session in October 2013.

In 2014, the team delivered a year-long [Inter-Regional Collaboration Series](#). **Figure D6** is a synopsis of the work plan elements.

### Springboard Session held in Victoria

The Ministry of Community Development hosted the Springboard Session that launched the series in January 2014. The Metro Vancouver members of the team provided the program content. The Ministry's Glen Brown established context for the series with a storyline titled [Provincial Policy Framework Enables Action](#). "An aspect of my involvement in the initiative is looking at the financial aspect as a potential driver to help support implementation," he stated.

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#### **Affordability ultimately drives standards of practice**

*Sustainable Service Delivery is a way to view watershed protection through an "asset management lens", with a goal of providing a higher level-of-service at a reduced level-of-cost.*

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*"Our Ministry's goal, and one of our mandates, is to support local government in moving forward with innovation, new ideas and better governance that will lead to evolving standards of practice. One of those outcomes should be protection of watersheds and restoration of watershed health."*

Glen Brown, former Executive Director  
Ministry of Community Development



## Figure D6 – Synopsis of 2014 IREI Work Plan

<b>WHY</b>	<ul style="list-style-type: none"> <li>▶ Watershed/stream health and rainwater/stormwater management are priorities for communities on the east coast of Vancouver Island and in the Lower Mainland region</li> <li>▶ Communities have been struggling with the question of how best to move forward on the Watershed Health issue, particularly in light of a changing climate and financial drivers to provide higher levels-of-service at reduced levels-of-cost</li> <li>▶ Inter-regional collaboration is helping each region understand what the other regions are doing, what works and what does not</li> <li>▶ Collaboration will help everyone better deliver on regulatory requirements, especially for the watershed/rainwater component of Liquid Waste Management Plans (LWMPs)</li> </ul>
<b>WHAT</b>	<ul style="list-style-type: none"> <li>▶ The collaborating regions view the Watershed Health issue through complementary lenses that together form a complete picture</li> <li>▶ Each region has something unique to contribute to the mix:             <ol style="list-style-type: none"> <li>1. <b>Metro Vancouver</b> – <i>watershed plan effectiveness</i></li> <li>2. <b>Capital Region</b> – <i>water quality assessment</i></li> <li>3. <b>Cowichan Valley</b> – <i>climate change adaptation</i></li> <li>4. <b>Comox Valley</b> – <i>sustainable service delivery</i></li> <li>5. <b>Nanaimo Region</b> – <i>sustainable partnerships</i></li> </ol> </li> <li>▶ The inter-regional deliverable is a workbook on application of performance monitoring approaches that are affordable, effective and adaptive</li> </ul>
<b>SO WHAT</b>	<ul style="list-style-type: none"> <li>▶ The vision is that collaboration would result in implementation of standards of practice that are affordable and effective in maintaining healthy watersheds and streams</li> <li>▶ The mantra for inter-regional collaboration is framed in these terms: <i>Through sharing and learning, ensure that where we are going is indeed the right way</i></li> </ul>
<b>NOW WHAT</b>	<ul style="list-style-type: none"> <li>▶ Organize a series of Inter-Regional Collaboration Sessions:             <ul style="list-style-type: none"> <li>□ <b>Springboard Session</b> – January in Victoria - <i>hosted by the Province, featured Metro Van</i></li> <li>□ <b>Capital Region</b> – March in Victoria</li> <li>□ <b>Cowichan Valley</b> – May in Ladysmith</li> <li>□ <b>Comox Valley</b> – June in Courtenay</li> <li>□ <b>Nanaimo Region</b> – September in Nanaimo</li> </ul> </li> <li>▶ At each regional session, inform and educate the local audience about necessary actions to fulfil regulatory objectives, commitments, and requirements in the host region</li> </ul>
<b>THEN WHAT</b>	<ul style="list-style-type: none"> <li>▶ Document the set of session outcomes in <b>Beyond the Guidebook 2015: Moving Toward “Sustainable Watershed Systems, through Asset Management”</b> <ul style="list-style-type: none"> <li>□ This would inform anyone involved in a watershed health monitoring process</li> <li>□ This would be the starting point for sharing, learning and adapting over time</li> <li>□ This may be used by local governments to adjust actions, inform community and watershed planning, and create a legacy (i.e., healthy watersheds &amp; streams)</li> </ul> </li> </ul>

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## Go farther together, more efficiently and effectively

*“All regions are dealing with challenges associated with watershed monitoring. Each region is at a different point along the Watershed Health continuum. Each region has something unique to contribute to the mix. Our vision for collaboration is that the series of working sessions will inform and educate the leadership team and others about watershed health.”*

Kate Miller, 2014  
Cowichan Valley R.D.

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## IREI Leadership Team

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**Figure D7** presents the members of the 2014 IREI Leadership Team. The cities of Coquitlam and Surrey represented the Metro Vancouver region and reported back through the Stormwater Interagency Liaison Group (SILG). Local government and stewardship sector members jointly represented the CAVI-Comox Valley Regional Team.

The team framed the mantra for the [Inter-Regional Collaboration Series](#) this way: *“through sharing and learning, ensure that where we are going is indeed the right way.”*

## Adaptive Management Framework

Coquitlam’s Melony Burton chaired SILG as well as the interagency working group tasked with developing an [Adaptive Management Framework](#) (AMF), a weight-of-evidence performance measurement approach.

“The AMF is meant to be a *living document*, adaptively managed itself, and updated as required to reflect advances in rainwater management, monitoring techniques, and to build on the accumulated experience of stakeholders,” stated Melony Burton at the IREI Springboard Session.

“The AMF enables Metro Vancouver municipalities to report out biannually to the Ministry of Environment, pursuant to the requirements of the region’s [Integrated Liquid Waste and Resource Management Plan](#), on the effectiveness of watershed-based planning initiatives and the health of their watersheds,” she added.



Figure D7

## 2014 Georgia Basin Inter-Regional Education Initiative Leadership Team

<b>Capital Region</b>	<b>Metro Vancouver</b>	<b>Cowichan Valley</b>	<b>Nanaimo Region</b>	<b>Comox Valley</b>	<b>Partnership for Water Sustainability</b>
					
<b>Dale Green</b>	<b>Melony Burton</b>	<b>Kate Miller</b>	<b>Mike Donnelly</b>	<b>Kris LaRose</b>	<b>Kim Stephens</b>
<b>Capitol Regional District</b>	<b>City of Coquitlam</b>	<b>Cowichan Valley Regional District</b>	<b>Regional District of Nanaimo</b>	<b>Comox Valley Regional District</b>	
					
<b>Jody Watson</b>	<b>David Hislop</b>	<b>Keith Lawrence</b>	<b>Julie Pisani</b>	<b>Jack Minard</b>	<b>Peter Law</b>
<b>Capitol Regional District</b>	<b>City of Surrey</b>	<b>Cowichan Valley Regional District</b>	<b>Regional District of Nanaimo</b>	<b>Comox Valley Land Trust</b>	

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## **Comox Valley Collaboration Session: Moving Towards Sustainable Service Delivery**

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When the Comox Valley hosted the fourth in the Inter-Regional Collaboration Series, in June 2014, the regional team chose [Moving Towards Sustainable Service Delivery](#) for the session theme. The agenda shown as **Figure D8** was designed to achieve two outcomes.

First, it provided the Comox Valley-CAVI Regional Team with a driver and a milestone for showcasing progress while also raising local awareness of the benefits of collaboration. This allowed the team to reflect on their journey since 2011. It also articulated the destination (outcome resulting from collaboration across jurisdictional boundaries),

Secondly, the June 2014 event had legacy value. It provided a springboard for championing asset management that connects land use planning, lifecycle costing, and watershed-based solutions - with the **goal of reducing unfunded infrastructure liabilities**.

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### **Think like a Watershed to Reduce Infrastructure Liability**

*The session introduced the notion of progressing along the ‘asset management continuum’ to achieve the goal of Sustainable Service Delivery. Two local government CAOs, David Allen and Emanuel Machado, both of whom are asset management champions in BC, provided a picture of what can be. They articulated the vision for integration of natural systems thinking and adaptation to a changing climate into asset management.*

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### **Asset Management is Systems Thinking**

David Allen, City of Courtenay Chief Administrative Officer, introduced the audience to the **Umwelt** concept. This is the German word for ‘environment’ or ‘surroundings’. He set the scene for his CAO perspective on the strategic context for municipal asset management that achieves the vision for Sustainable Service Delivery.

**The Umwelt of Asset Management:** “Although the surrounding environment is common to all, each organism experiences the environment in a different way. Applied to asset management, this means that the *Umwelt* is larger in scope than the triple bottom line,” stated David Allen.

“We cannot look at individual municipal services in isolation. Asset management is about a much bigger *Umwelt*. Climate change, for example, correlates with the impacts of what has typically been called stormwater management. The shift to the term rainwater management is great because it reflects a ‘systems thinking’ approach. Asset management is a ‘systems thinking’ method applied to organization-wide problem solving.”



David Allen, 2014



## Figure D8 – Agenda for 2014 Comox Valley Collaboration Session

### Module 1 – “Regional Team Approach to Collaboration Across Boundaries”

*Comox Valley is a demonstration region for “Living Water Smart, BC’s Water Plan”. The CAVI-Comox Valley Leadership Team described the evolution of the “Regional Team Approach” over the 7-year period 2007-2014.*

- ▶ **Get It Right at the Front-End for Watershed Sustainability** – Kim Stephens  
Focused on the application of the 4Cs - collaboration, cooperation, communication and coordination
- ▶ **Nature Without Borders: Align Efforts at a Watershed Scale** – Jack Minard, Comox Valley Land Trust  
Elaborates on the role of the stewardship sector and future responsibilities for watershed health monitoring
- ▶ **Tsolum River: Partnership-Building to Restore Watershed Health** – Chris Cole, TimberWest  
Told the story of how broadening the scope of collaboration to achieve a shared goal resulted in success

### Module 2 – “A Guide to Water-Wise Land Development in the Comox Valley”

*The CAVI-Comox Valley Leadership Team learned from and adapted the experience of other regions. The team was working on strategies and tools for protecting and/or restoring watershed function. They elaboratde on why and how the Guide established expectations for achieving the Watershed Health Goal over time.*

- ▶ **About the Guide** – Nancy Hofer (City of Courtenay) & Judy Walker (Village of Cumberland)  
Explained purpose, scope, development and intended use of the Guide to establish watershed expectations
- ▶ **Coquitlam’s Building Better Campaign Celebrates Implementation** – Melony Burton, Coquitlam  
Illustrated how to move from a Guide to action by showcasing purpose-built features which mimic nature

### Module 3 – “Springboard to Watershed-Based Solutions”

*Sustainable Service Delivery integrates Asset Management and Watershed Management principles to determine what services and levels-of-service are affordable, both now and over time. All those involved in land development have a role to play in ‘achieving Sustainable Service Delivery by designing with nature’.*

- ▶ **Integrated Rainwater Management for Electoral Areas** – Marc Rutten & Kris La Rose, CVRD  
Overview of regional rainwater management initiatives and importance of collaboration across boundaries
- ▶ **Look at Watersheds Through a “Sustainable Service Delivery” Lens** – Glenn Westendorp, Comox  
Contrast Brooklyn Creek & NE Comox experiences to illustrate the benefits of mimicking the water balance

### Module 4 – “Think Like a Watershed to Reduce Infrastructure Liability”

*Sustainable Service Delivery connects land use planning, the “20-80 rule”, and watershed-based solutions to ensure that infrastructure services are sustainable over time, both fiscally & ecologically.*

- ▶ **Asset Management and Level-of-Service Choices** - David Allen, CAO, City of Courtenay  
Level-of-service is the integrator for everything that local government does
- ▶ **Nature is Our Most Valuable Infrastructure Asset** – Emanuel Machado, CAO, Town of Gibsons  
The Town brought together asset management and nature’s services

## 4. Regional District Restructuring, a Catalyst for Collaboration in the Comox Valley

### Water is the Unifying Element

#### ***In 2008, three defining moments aligned to spur collaboration***

*First, the provincial government divided the former Comox-Strathcona Regional District into two new jurisdictions, one being the CVRD; and mandated development of a Comox Valley Regional Growth Strategy and a Regional Water Supply Strategy.*

*Secondly, CVRD and three member municipalities agreed to a regional-based approach to conservation planning and formally endorsed **Nature Without Borders: Comox Valley Regional Conservation Strategy**.*

*Thirdly, at the conclusion of the inaugural Learning Lunch Seminar Series, Mayors and CAOs representing all four members publicly endorsed regional collaboration.*

A seminal moment in the recent history of the Comox Valley occurred in 2007 when the Minister of Community Development intervened and mandated regional district restructuring. In her notice of intervention, Minister Ida Chong stated, “The Regional Growth Strategy will have a very strong environmental focus and deal with urban intensification.” A year later, the [CAVI-Comox Valley Regional Team](#) was up and running,

#### **Regional strategies provided a reason for aligning efforts and actions**

From the beginning, it was understood by all parties that both the process and progress for inter-governmental collaboration would be incremental, and hence would require a multi-year commitment by all. During the 5-year period from 2012 through 2017, three regional strategies provided a policy framework as well as drivers for action:

- Nature Without Borders (2008)
- Regional Growth Strategy (2010)
- Regional Sustainability Strategy (2010)

Advancing the regional strategies meant there was much for municipal staffs to absorb and digest about doing business differently, while at the same time keeping the wheels of government rolling to meet community expectations. **Figure D9** identifies regional team members.

*“Rainwater management is a board strategic priority, and asset management is an important component of the financial plan for every group in the CVRD engineering services branch. Both topics are key elements of the IREI and continued participation and collaboration with other regional districts will help us to achieve our goals in these areas.”*

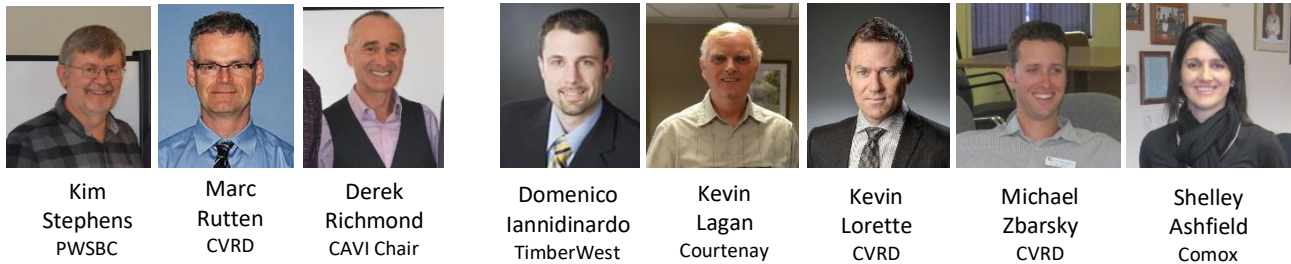
*Kris La Rose, CVRD, 2015*



## Figure D9 – Comox Valley–CAVI Regional Team: members during the period 2012 - 2016



From left to right: Glenn Westendorp (Town of Comox), Larry Park (Ministry of Transportation & Infrastructure), Judy Walker (Village of Cumberland) Chris Cole (TimberWest), Kris La Rose, (Comox Valley Regional District), Nancy Gothard (City of Courtenay), Jack Minard (Comox Valley Land Trust)



founding members of the Regional Team  
(during the period 2008 – 2013)



Other members in 2015-2016  
who are not in the photo above

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## Collaboration is a Building Blocks Process

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Bridging the “implementation and integration gap” through a regional team approach depends on a long-term commitment to collaboration. **Figure D10** illustrates the Comox Valley time arc for the years 2007 through 2017. Beginning in 2012, and with the shift to internal capacity-building, the spotlight shifted from talk to action (outcomes).



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### Joint Announcement

*“Finalized in December 2015, the Water Wise Guide is visually engaging, easy to read and has front counter ‘branding’ consistent to all four local government planning counters – with tips for applicants on how to prepare successful plans that will reduce financial and environmental risk, improve watershed health and fulfill regulatory objectives. The Water-Wise Guide had its genesis in the 2010 Developers Dialogue.”*

May 2016

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### A Guide to Water-Wise Land Development

The [IREI Collaboration Session](#) in June 2014 was the venue for the soft launch of the Water-Wise Guide. The hard launch took place in December 2015 when CVRD hosted a [Joint Staff Workshop](#). This primed local government staffs for the public rollout in mid-2016.

[The Water-Wise Guide served multiple purposes](#). First, and perhaps foremost, the document itself showcased the collaborative effort of the four Comox Valley local governments, the Comox Valley Land Trust and TimberWest. And at the same time, as shown by **Figure D10**, the Guide explained the provincial context for the *regional team approach*.

Secondly, the Guide served an important function as an educational tool to inform the development community about local government expectations for **“design with nature”** solutions.

Thirdly, it drew attention to an array of initiatives underway in the Comox Valley during the period 2012 through 2016. Initiatives included the Water Balance Express, Comox Lake Watershed Protection Plan, and the vision for **“watershed blueprints”** that would guide action to restore stream health in urban creeks.

**Figure D10 – Guide to Water-Wise Land Development**

# THE BIGGER PICTURE: WE EACH HAVE A ROLE TO PLAY

The strategies and tools that are being used and developed in the Comox Valley to manage watershed health work together within a larger, Provincial context of valuing water as a renewable resource. This collective work is directed by the following strategies and programs.

## BC's Water Plan & Green Communities

The local collaborative approach is informed by targets and actions as set out in *Living Water Smart: BC's Water Plan, the Green Communities Act, the Water Sustainability Act and Develop with Care* community development guidelines.

These provincial initiatives paint the vision for land and water stewardship and are a *call to action* of multiple sectors.

They establish expectations as to how land will be developed and water will be used.

Together they provide a picture of what our regions can look like if local governments build greener communities.

Learn more: [www.livingwatersmart.ca](http://www.livingwatersmart.ca)



## Land Owner

As a land owner you have a critical role to play to help ensure that the guiding policy and *Call to Action* is implemented on the ground.

Local Governments are here to help but we need everyone on board. Learn more about how you can be a part of the solution by using the tools, tips and strategies discussed on the following pages.

## Convening for Action on Vancouver Island

CAVI provides a forum for intra and inter-regional sharing and learning, facilitates a *regional team approach*, and promotes consistent application of *design with nature* principles.

The regional team approach is founded on partnerships and collaboration; and seeks to align actions at three scales – provincial, regional and local.

Learn more: [www.waterbucket.ca](http://www.waterbucket.ca)

## Comox Valley Sustainability Strategy & Regional Growth Strategy

Both the CVSS and RGS are regional in scope and aim to manage growth so that it contributes to the quality of life values that are important to the community.

Local Governments derive their powers from the Province, which encourages the *design with nature* approach. Both acknowledge that nature knows no borders, and that collaborative and diverse approaches are required to managing for watershed health. Learn more: [www.comoxvalleyrd.ca](http://www.comoxvalleyrd.ca)

## Local Government Plans & Regulations

Official Community Plans set the longer term vision for the community. Local Governments also have broad powers to regulate specific activities.

The OCP must be consistent with the RGS over time. Regulatory tools must be consistent with the OCP. All four local governments are working towards designing with nature in various forms.

Contact information for the four local governments on page 7.

Visit [waterbucket.ca](http://waterbucket.ca) to learn more about the 'design with nature' approach to land development!

## 2015 Joint Staff Workshop on Water-Wise Land Development

The Joint Staff Workshop hosted by CVRD on December 10, 2015 was a seminal moment in the story of the Comox Valley-CAVI Regional Team. The workshop had a dual focus – the Guide and the Express. **Figure D11** provides an impression of the event.

### In 2016, a thank you from the four CAOs

*“The Comox Valley chief administrative officers (CAO) acknowledge the work of the Convening for Action Vancouver Island (CAVI) team since its inception. The leadership shown by the members, both past and present, in developing a shared learning environment and in developing best practices is commended.”*

*“Collectively the Comox Valley CAOs support continued collaboration on educational opportunities and other special projects as needed to continue to build cross jurisdictional knowledge and capacity as it relates to "Natural Capital and BC Asset Management Framework.”*

David Allen, Courtenay  
Richard Kanigan, Comox  
Sundance Topham, Cumberland  
Debra Oakman, CVRD

### AGENDA

Local regional team, inter-regional and stewardship perspectives
Breakout Activity: identify the watershed where you live and work
Presentation of the Water-Wise Guide: intent, context and history
Presentation of the tools within the Guide
Introduction of the Comox Valley Water Balance Express
Case Study Application of the Express: Coach house in Comox
Breakout Activity: Water-Wise Principles

“The passion of the regional team came through in their individual presentations. Their enthusiasm infected the audience in a good way. The moment everyone broke into discussion groups one could feel the energy in the room. At the workshop conclusion, it was clear that the session had achieved a transformative outcome,” observed Derek Richmond, former Manager of Engineering with the City of Courtenay.

### Four CAOs provided oversight and direction

The four Chief Administrative Officers were actively engaged in the process. Each year, the CAVI regional team would prepare a joint report and debrief the four about collaboration successes, priorities and next steps.

“By collaborating in CAVI, Comox Valley local governments are striving for a coordinated approach to rainwater management across jurisdictional boundaries, a consistent application of related strategies and tools, and ease and transparency in the development process.”

Debra Oakman, 2015



**Figure D11 – 2015 Comox Valley Joint Staff Workshop**



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## **What Next**

*“Clearly, we achieved our objectives in holding the Joint Staff Workshop. All four local governments participated. Other members of staff are now part of the conversation. Now it is matter of implementing ideas for continuing the conversation so that staffs in all four jurisdictions will have a shared understanding of watershed health issues and solutions.”*

Kris La Rose, Chair  
Comox Valley RD

*“Rainwater management and drainage is a challenge our Ministry deals with all the time and is a topic that we chat about on a regular basis. The workshop went really well and the two MOTI Area Managers who attended with me found it very useful.”*

Anne Molony, Ministry of  
Transportation & Infrastructure

*“The Water-Wise Guide identifies strategies and tools to achieve watershed goals.”*

Nancy Gothard  
City of Courtenay

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## Water Balance Express: A tool to help restore ‘water balance’ in urbanizing areas

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In 2002, the provincial government released [Stormwater Planning: A Guidebook for British Columbia](#). This established a new direction for urban hydrology and drainage engineering. Introduction of the **Water Balance Methodology** enabled the setting of performance targets for rainfall capture, runoff control and groundwater recharge:

***If we manage the annual runoff volume, and if we mimic the natural flow-duration pattern in streams, then we can prevent increased stream erosion, prevent increased risk of flooding, and sustain aquatic habitat.***

The east coast of Vancouver Island is a demonstration region for showcasing how to apply the Water Balance Methodology at a regional scale, and then downscale water balance performance targets to the site scale. “Performance targets provide the foundation for implementing common sense solutions that eliminate the source of rainwater-related problems,” states the Guidebook on page 6-1.

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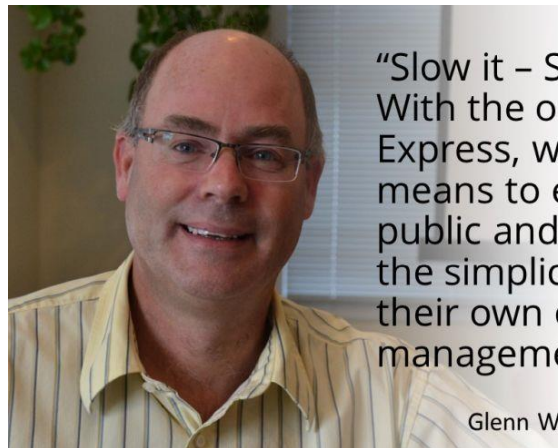
### Comox Valley Water Balance Express

*The guiding principle for application of the Water Balance Methodology is to maintain the proportion of rainwater volume entering the stream via each of three pathways.*

*In coastal BC, interflow accounts for about 60% of the total annual volume. Historically, interflow has been eliminated when land development alters the landscape. What is the implication? It means the volume of surface runoff to be conveyed would be increased up to 7-fold.*

<https://comox.waterbalance-express.ca/>

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“Slow it – Sink it – Spread it. With the online Water Balance Express, we finally have a means to engage the general public and educate them on the simplicity of implementing their own onsite rainwater management tools.”

Glenn Westendorp, Town of Comox, 2015

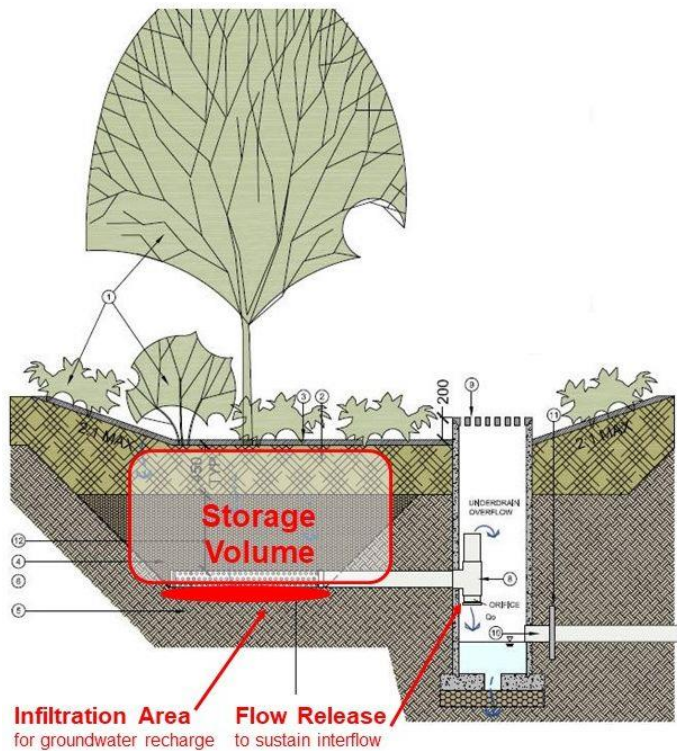
### Application of Performance Targets

Over the years, Comox Valley local governments have demonstrated willingness and leadership to apply science-based understanding, evidence, strategies, criteria and tools in a continuing effort to influence Water Balance outcomes.

In 2015, for example, CVRD funded a case study to develop **Water Balance Performance Targets for the Comox Valley**. These became inputs to the [Water Balance Express for the Comox Valley](#), an online tool. **Figure D12** explains targets and illustrates how they are implemented. Part E elaborates on CVRD and Comox experience.



## Figure D12 – Performance Targets for Maintaining Water Balance



*Image Source: Stormwater Source Control Design Guidelines 2012 (Final Report), Metro Vancouver*

### Downscale Targets to Design at the Site Level:

The Water Balance Methodology accounts for all three flow paths. Each flow path is associated with one of these three design parameters: volume, area and flow rate.

The objective in setting targets is to keep the three flow paths in balance – by not infiltrating too much, while allowing interflow to occur and to discharge the water to the stream within a season.

An easy way to visualize the application of performance targets is to consider this typical cross-section view for a properly designed rain garden (opposite).

### How Performance Targets for Storage, Infiltration and Flow Release are incorporated in a Rain Garden Design

Watershed-Specific Performance Targets			
Target Parameter	Water Balance Function	Units of Measurement	Example Target Values*
Base Flow Release Rate	Interflow Replicator Rate	litres per second per hectare of drainage area	0.5
Storage Volume	Interflow Storage Replicator	cubic metres per hectare of hardened land surface	300
Infiltration Area	Groundwater Storage Recharge	percentage of project site area in contact with native ground	3%

\*represents expected order-of-magnitude of target value

#### Reference:

[http://waterbucket.ca/wp-content/uploads/2012/05/Primer-on-Water-Balance-Methodology-for-Protecting-Watershed-Health\\_February-2014.pdf](http://waterbucket.ca/wp-content/uploads/2012/05/Primer-on-Water-Balance-Methodology-for-Protecting-Watershed-Health_February-2014.pdf)

### What the Guidebook says about Performance Targets:

*“For a performance target to be implemented and effective, it must be quantifiable.”*

*“It must also have a feedback loop so that adjustments and course corrections can be made over time.”*

*“To be understood and accepted, a performance target needs to synthesize complexity into a single number that is simple to understand and achieve yet is comprehensive in scope.”*

## 5. Asset Management for Sustainable Drainage Service Delivery (2016)

### Restore Watershed Hydrology and Re-Set the Ecological Baseline

In 2015, all five Regional Boards passed resolutions of support for the IREI. They did so again in 2016 with a 5-year commitment to collaboration through 2021 when the Partnership secured senior government funding for the IREI program. The IREI track record of success during this period is summarized below:

Year	Milestone
2012	IREI 'proof-of-approach' initiated
2013	IREI Leadership Team formed
2014	IREI Inter-Regional Collaboration Series delivered
2015	<i>Moving Towards "Sustainable Watershed Systems, through Asset Management"</i> released
2016	IREI partners embarked upon a 5-year program to achieve <i>Integration of Natural Systems Thinking and Adaptation to a Changing Climate into Asset Management</i>

### Sustainable Watershed Systems, through Asset Management

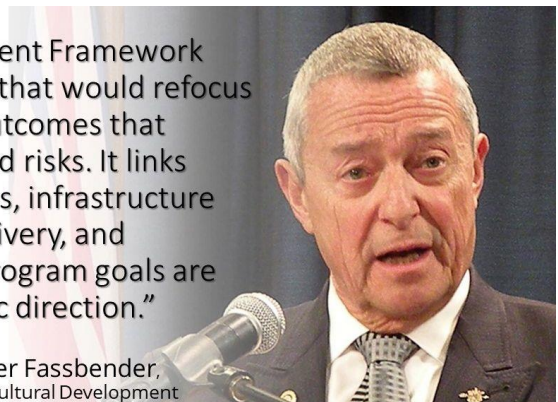
In 2016, the five regional districts provided bridge funding to initiate the 5-year program while waiting for the funding announcement in 2017 by the governments of Canada and British Columbia. **Figure D13** introduces a foundational concept for integration of natural systems thinking and climate adaptation into asset management.

*"Successful implementation provincewide of Sustainable Watershed Systems, through Asset Management, would represent an evolution in how infrastructure is planned, financed, implemented and maintained in British Columbia."*

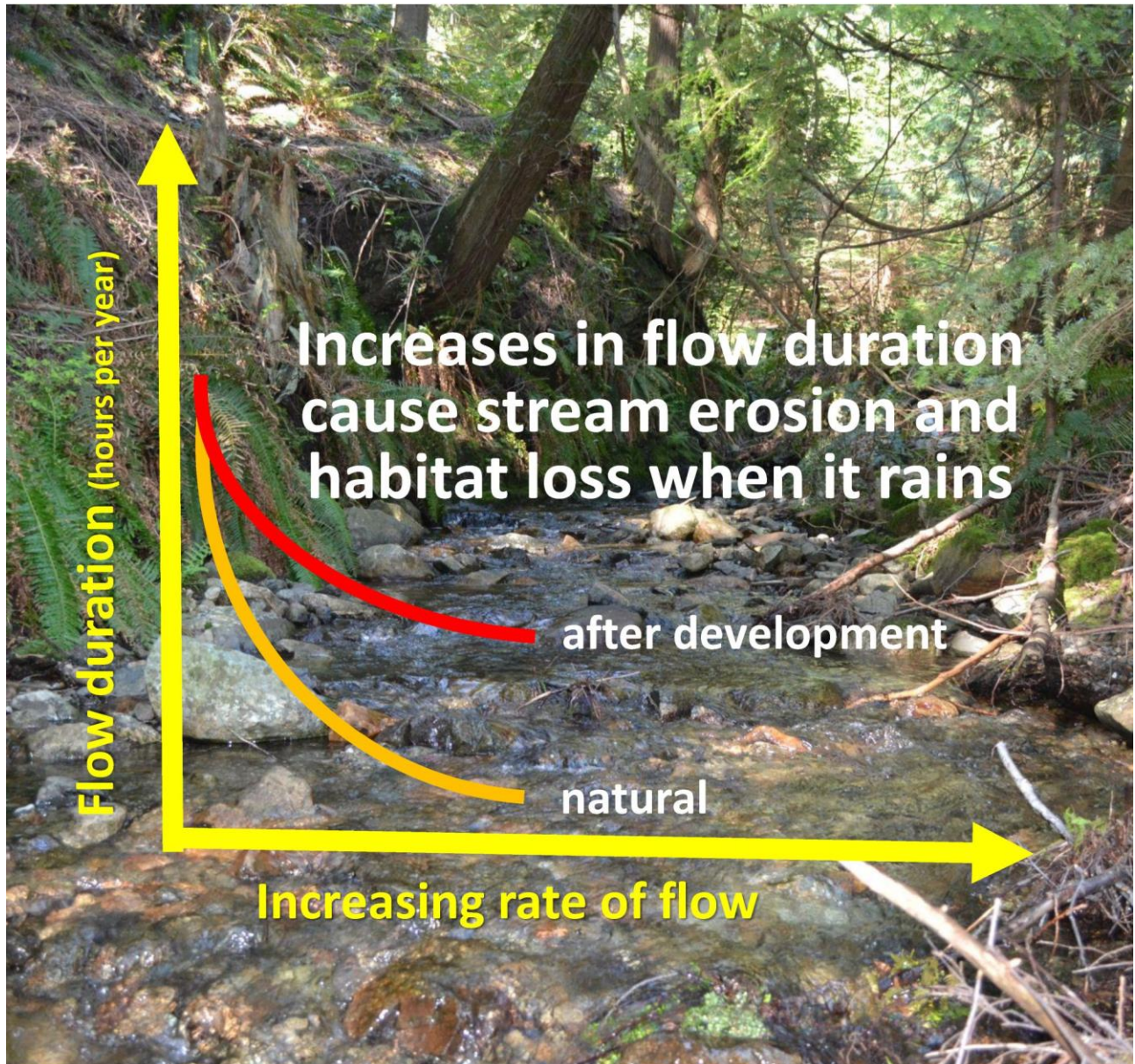
Minister Peter Fassbender  
March 2017

"The BC Asset Management Framework sets a strategic direction that would refocus business processes on outcomes that reduce life-cycle costs and risks. It links local government services, infrastructure that supports service delivery, and watershed health. IREI program goals are aligned with this strategic direction."

March 2017 announcement by Peter Fassbender,  
Minister of Community, Sport and Cultural Development



**Figure D13 – Foundational concept for restoring watershed hydrology and re-setting the ecological baseline**



Urban development increases streamflow duration by a factor of 10 or more!

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## Urban Watersheds as Infrastructure Assets

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With release of [Beyond the Guidebook 2015: Moving Towards “Sustainable Watershed Systems, through Asset Management”](#) in November 2015, the Partnership launched an educational process to reframe how local governments look at urbanizing watersheds.

The reframing is captured in **Figure D14**. Alignment with [Asset Management for Sustainable Service Delivery: A BC Framework](#) is the context. The IREI focus is on the **Water Balance Methodology**.

Beyond the Guidebook 2015 includes a section titled [Convening for Action in the Comox Valley](#). Rollout of Beyond the Guidebook 2015 included a presentation to the CVRD Board to update the Directors about the progress of inter-regional collaboration. At that time, they were introduced to a new paradigm that states: **“Functional watersheds are (your most important) infrastructure assets”**.



### Unfunded drainage liability is a driver for action

The Drainage Service is the neglected service. The consequence of neglect is an accumulating financial liability to fund creek channel stabilization and riparian corridor restoration in urban and rural settings. The urgency of the drainage liability issue spurred the analytical process that linked municipal asset management and stream health as **“cause-and-effect”**, for better or for worse.

**Hydrology is the engine that powers ecological services:** The three pathways by which rainfall reaches streams --- over the land surface, shallow horizontal interflow through the soil layer, and deep vertical to groundwater --- are **“drainage assets”**. These pathways provide **“water balance services”** that sustain ecological services.

The Water Balance Methodology is about managing the whole rainfall spectrum and providing benefits to the stream through the wide range of stream needs - from sustaining baseflow to flood mitigation. The Water Balance Methodology bridges all ranges in rainfall and streamflow events.

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*“Sustainable Watershed Systems, through Asset Management” applies to land uses that local government regulates and is founded on an understanding of how the Water Balance Methodology integrates the Site with the Watershed, Stream, and Groundwater Aquifer*

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**Figure D14 – Creeksheds & Water Balance Services**

With release of **Beyond the Guidebook 2015**, an educational goal:

*Those who are involved in municipal land use and drainage would understand the vision for.....*

## **“Sustainable Watershed Systems, through Asset Management”**

**THE NEW PARADIGM –**  
*“Creeksheds as Infrastructure Assets”*

A creekshed is an **integrated system**.

The **three pathways** by which rainfall reaches streams are ‘infrastructure assets’.

The three pathways provide **‘water balance services’**.



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## Desired Outcome: A Sustainable Funding Plan for the Drainage Service

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### Teach, Train, Mentor

*“The IREI program is demonstrating how to integrate whole-system, water balance thinking and climate adaptation into drainage infrastructure asset management.”*

*“Benefits would include less flooding, less stream erosion, and more streamflow during dry weather when needed most. These water balance benefits would ultimately translate into lower life-cycle costs and a water-resilient future.”*

*“The Partnership’s job is to teach, train and mentor practitioners so that they are ready for that next step which is to account for the Water Balance Services provided by nature’s assets.”*

Ted van der Gulik, April 2017  
Partnership President

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The IREI program is guided by the **Watershed Health Goal**, which is:

*“Create a legacy through implementation and integration of standards of practice that are affordable and effective in maintaining healthy watersheds and streams.”*

IREI alignment with **Asset Management for Sustainable Service Delivery: A BC Framework** means emphasis is placed on striving for financial sustainability. Introduced in Part A, **Figure D15** illustrates the twin pillars concept. Linking the two should be the over-arching goal of a **Sustainable Funding Plan for the Drainage Service**.

### Pillars of Stream System Integrity

The IREI program for asset management for sustainable drainage service delivery has three components; they are:

1. Water Balance Methodology, Model, and Express
2. Ecological Accounting Process (EAP),  
a BC Strategy for Community Investment in Stream Systems
3. Peer-based Education and Outreach

**Benefits of local government collaboration:** “We have all benefitted from the tools, professional development and working relationships made possible through our membership in the Partnership for Water Sustainability in BC,” stated Chair Jon Lefebure, speaking on behalf of the partners, when he announced that senior governments had awarded funding for the IREI in March 2017.

“We have identified the challenges regarding drainage due to development and the need for a whole-system, water balance approach to get it right. Through the IREI program, we can explore and test solutions. The IREI enables local governments to leverage resources for common activities such as education, research, and policy development.”

“The focus of the IREI work plan is to promote integration of service, natural asset and financial sustainability through an asset management process to achieve a healthy watershed.”

“Other regions recognize BC as a leader in this area. They perceive BC moving in the right direction with integration of watershed systems thinking and climate change adaptation into asset management,” concluded Chair Jon Lefebure.

Figure D15

# Twin Pillars of Stream System Integrity



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## A BC Strategy for Community Investment in Stream Systems (2016)

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In 2016, the Partnership embarked upon a 6-year program of applied research to evolve **EAP, the Ecological Accounting Process**. The second application was Brooklyn Creek.

The 3-stage program to test, refine and mainstream the EAP methodology and metrics involved 9 case studies and 13 local governments and yielded 19 “big ideas” or foundational concepts. **Figure D16** identifies cascading core concepts leading to the **Riparian Deficit**. This way of thinking is game changing.

### Brooklyn Creek “Big Ideas”

Each EAP case study has resulted in breakthroughs in building an understanding of what matters and what matters most. Completed in 2017, the Brooklyn Creek process is characterized by three “big ideas”.

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#### Case Study Outcome

*The Brooklyn Creek process resulted in a breakthrough in philosophy and approach vis-à-vis valuation of ecological services. Looking through the **worth lens**, to understand how communities decide how much to invest in creekshed restoration, proved transformational.*

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**BC Assessment data is a proxy for financial value of a setback zone** (*Big Idea #3*): Local governments need real numbers to deliver outcomes. Use of BC Assessment data eliminates debate over whether numbers are reality-based or hypothetical.

**Investment in stream restoration is a measure of stream worth** (*Big Idea #4*): Local governments need a metric that is tangible and validates what is a reasonable amount for M&M investment. This resulted in the **1% Benchmark Guideline**.

**Package of ecological services is the range of community of uses** (*Big Idea #5*): Local governments need plain language that describes an abstract concept, ecological services, in a way that makes sense to elected representatives and the public.

The idea for framing the range of uses desired by the community - *drainage, habitat, recreation, and enjoyment of property* - as a “**package of ecological services**” clicked when Marvin Kamenz, Town of Comox planner, pointed out that a strategic plan that supports this diversity would appear worthwhile to the greatest number of interested parties.





**Figure D16 – Cascading Concepts underpin the Ecological Accounting Process, a BC Strategy for Community Investment in Stream Systems**



## 6. Comox Lake Watershed Protection Plan (2016)

### Peer-based Learning

*“The outcome of our public engagement process provided a backdrop for the sharing and learning session in April 2017 with the Regional District of Nanaimo (RDN) and Comox Valley Regional District. Those regions provide a range of experience that we can learn from: the RDN has a true region-wide service function; and Comox Valley has a watershed-based service.*

*“The RDN and Comox Valley presentations to our Regional Board were of high quality and relevant. Board members were fully engaged. A common thread was collaboration and bringing all parties to the table. Learning from each other is motivating and powerful.”*

Brian Carruthers, 2017  
CAO, Cowichan Valley

### Peer-based Learning is Powerful

In April 2017, the Cowichan Valley Regional District hosted a session which resulted from relationships forged through IREI collaboration. Comox Valley and Nanaimo regional district staffs shared their successes and challenges in protecting water resources at the watershed and regional scales. What made the session unique was that the audience comprised Cowichan Valley elected representatives!

The session informed and educated the Cowichan Regional Board about a range of approaches to watershed management functions and watershed protection plans on Vancouver Island. Participants also reflected on current practices and future directions for rainwater management and liquid waste management plans.



### Collaborative Process = Community Support

“Comox Lake provides drinking water for 45,000 people in the Comox Valley. The essence of the story that we shared with our peers is that the Watershed Advisory Group (WAG) delivered a Watershed Protection Plan that is fully implementable, and WAG did it within a year,” stated Marc Rutten, General Manager of the CVRD’s Engineering Services Branch. To learn more, refer to **Figure D17**.

“The Comox Lake Watershed Protection Plan is truly a collaborative outcome. And most importantly, it is fully funded. It will not sit on a shelf. The process fostered relationships and built trust among the many stakeholders, including all four local governments.”

**Figure D17 – Comox Lake Watershed Protection Plan (2016)**



*“The document is presented in a user-friendly format which further encourages ease of implementation. This collaborative process and its positive outcome is something that the Comox Valley is proud of, and we were honoured to be asked to share the details of our process with our neighbouring Nanaimo and Cowichan regional districts.”*

Zoe Norcross-Nu’u



“The plan content was developed by a comprehensive group of stakeholders representing a broad variety of interests. As such, plan implementation has a very high level of community support.”

“We have been looking to the Cowichan Valley and RDN to help streamline our own process and avoid trying to re-invent the wheel.”

“Coming together as neighbouring regional governments has strengthened our relationships and increased inter-regional communication and sharing of methodologies, ideas, strategies and information—all our communities are benefitting!”

Zoe Norcross-Nu’u  
Watershed Coordinator, 2017

## 7. Eco-Asset Symposium (2017): Genesis for the Watershed Moments Initiative

### Discovering Nature's Infrastructure Potential



#### David Stapley

Program Manager,  
Comox Valley Conservation  
Partnership

*"The VALUE of watershed ecosystem services is not well understood. Therefore, these services are not currently considered in land use planning decisions."*

Organized by the Comox Valley Conservation Partnership in March 2017, the [Comox Valley Eco-Asset Symposium](#) showcased a fresh approach, described on **Figure D18**. Undertaken in collaboration with the four Comox valley local governments, this signature event attracted interest and delegates from Vancouver Island and beyond.

The Partnership for Water Sustainability provided core content for the Eco-Asset Symposium, as well as two keynote presentations. The event was high energy and this generated excitement and enthusiasm.

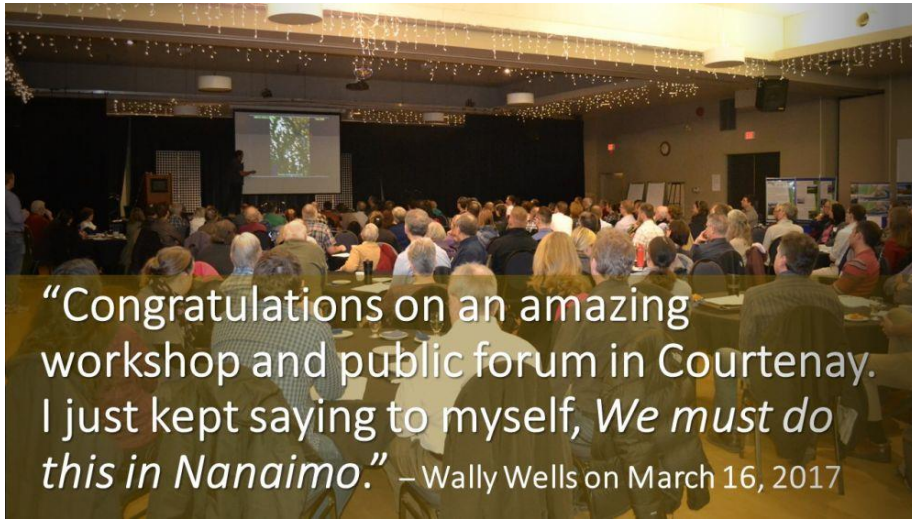


### Watershed Moments, an unforeseen outcome

Two days after the symposium, Wally Wells of Asset Management BC sent an email to the Partnership expressing his desire to do something similar in Nanaimo. His action is an example of a **"ripple effect"** because it instigated the [Watershed Moments Symposia Series on Water Stewardship in a Changing Climate](#), beginning in 2018.

Watershed Moments is a flagship initiative under the IREI umbrella. The team is drawn from around the Salish Sea and has a mix of government and non-government members. CVRD represents the Comox Valley.

**Figure D18 – Thinking Like a Watershed**



CLIMATE CHANGE, NATURE'S SERVICES &  
**THINKING LIKE A WATERSHED**

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FREE COMMUNITY PRESENTATION  
**TUESDAY MARCH 14, 7:00 PM**  
Florence Filberg Centre

INFO AT  
Comox Valley  
**LAND TRUST**  
& Conservation Partnership  
cvlandtrust.ca

Nature can play a critical role in helping communities to address major challenges resulting from climate change and land use legacies. When we 'think like a watershed' we see how nature provides services from mountain top to ocean floor.

*“The stewardship and conservation sector has traditionally focused on habitat restoration and protection of lands with high ecological values. With cumulative impacts from climate change, urban and resource development escalating, these groups have now become community leaders in educating and supporting improved land use practices.”*

*“To address these escalating challenges, the Eco-Asset Symposium promotes measures that capture the value of ecological assets to address infrastructure and climate change issues by integrating them into land use planning and practice.”*

David Stapley, March 2017

## 8. Implementing Change: Moving a Big Idea from Genesis to Mainstream

### THE BIG IDEA: *Natural Asset Management for Sustainable Drainage Service Delivery*

#### *A Perspective on Creating Our Future*

*“The ‘convening for action’ initiative is the best example of peer driven innovation that I have ever seen. It has led to nothing less than a quiet revolution in how we approach the design and construction of human settlements in British Columbia. When I see an urban stream coming back to life or an innovative approach being taken to new infrastructure, I think of the networks of innovative professionals that not only stand behind this work but also continue to create positive change. I firmly believe that this ability to creatively innovate in support of sustainable practices will enable us to meet a host of future challenges.”*

Dale Wall, November 2015  
Deputy Minister (retired),  
BC Municipal Affairs

Everyone learns from stories and the most compelling ones are based on the experience of the champions who are leading implementation of watershed-based solutions. When the Partnership released [Beyond the Guidebook 2015](#), we framed an over-arching goal for the IREI program as follows in our presentations to Regional Boards:

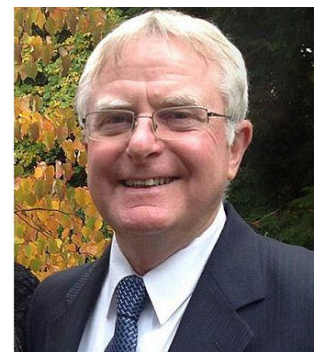
By 2017, all local governments would learn from each other’s experience and would understand **how** natural systems support municipal services and would be able to fully **integrate** this understanding and associated methodologies into programs, planning and funding.

This was a modest goal. It was viewed as achievable because it recognizes how an idea or innovation is adopted or accepted. **Figure D19** illustrates the process of adoption of a new idea or innovation. Progress in leading and implementing change takes time, oftentimes decades. It requires commitment, perseverance, and patience.

The process is incremental, which is why **playing forward the oral history** is so critical. The goal has not yet been fully realized in BC, but communities are progressing. The experience of the Comox Valley over a long period of time is inspirational.

*“Inter-regional sharing, collaboration, alignment and consistency will accelerate effective implementation of watershed protection objectives within each regional district. The regions are linked by common interests, but are not dependent on each other.”*

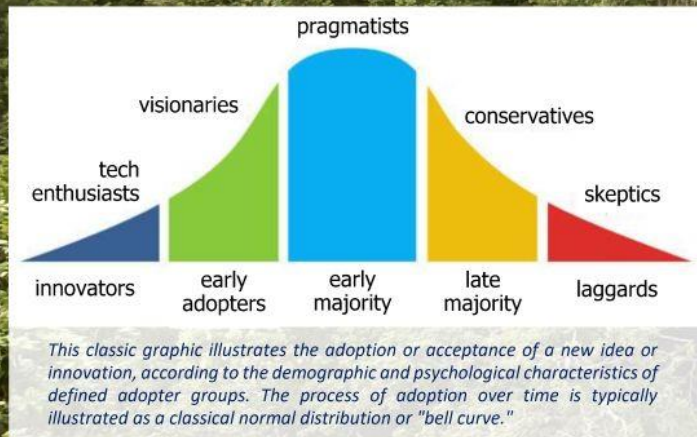
Edwin Grieve, Past-Chair (2012),  
Comox Valley Regional District



**Figure D19 – THE BIG IDEA: Natural Asset Management for Sustainable Drainage Service Delivery**

**A municipal Drainage Service has two interconnected components – one is the constructed infrastructure and the other is the stream system**

**Moving an idea from Genesis to Mainstream**



Creating Change	Leading Change	Implementing Change
✓ <b>Genesis</b>	✓ Innovators	✓ Early Majority
✓ Idea	✓ Early Adopters	✓ Late Majority
✓ Invention	✓ Fast Followers	✓ <b>Mainstream</b>
	✓ Performance Tuners	✓ Laggards

Derived from Senge (1991); Gladwell (2000) and Oracle Corporation (2005); Source: "Change: Challenges & Strategies" – a presentation by Erik Karlsen, May 2005

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PART E

# Springboard from 2017 Symposium



*To provide the reader with an objective look at how the “process for change” is unfolding in the Comox Valley, this Part E is structured in five segments:*

- 1. Climate Change, Nature’s Services and Thinking Like a Watershed***
- 2. Watershed Moments Symposia Series on Water Stewardship in a Changing Climate Annual***
- 3. Town of Comox – A ‘Beacon of Hope’ for a Water Balance Approach to Land Development***
- 4. City of Courtenay – A Leader in Asset Management for Sustainable Service Delivery***
- 5. CVRD – A Leader in a Whole-System Approach to Community Investment in Stream Systems***

**Figure E1 – History-at-a-Glance: Convening for Action  
in the Comox Valley between 2018 and 2023**



# 1. Climate Change, Nature's Services and Thinking Like a Watershed

## What Have We Learned: Look Back to See Ahead

The [Eco-Asset Symposium in 2017](#) put the Comox Valley on the map. It attracted a capacity crowd of 160 delegates from as far as away as the East Kootenays and many were reluctantly turned away. The symposium was a collaboration of the Comox Valley Conservation Partnership and four local governments and included a public event.

The symposium was the first high-profile event on Vancouver Island, if not British Columbia, to draw attention to **Natural Asset Management** and the potentially powerful and cost-effective role that ecosystem services can play in an infrastructure strategy. In effect, it served as the springboard to so much that has subsequently unfolded.

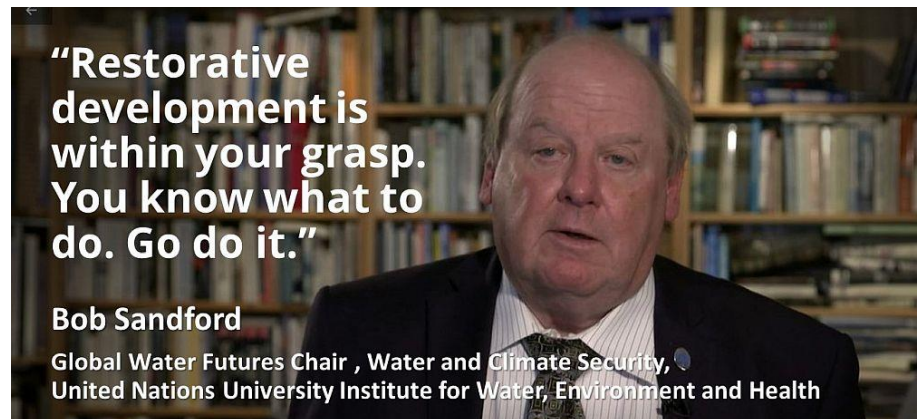
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### Convening for Action in the Comox Valley from 2018 thru 2023

*Figure E1 is adapted from the timeline introduced in Part B. It highlights inter-regional contributions by Comox Valley partners during this 5-yr period.*

*Ongoing collaboration with IREI partners has a dual focus – Blue Ecology and EAP.*

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### Hard Work of Hope

Bob Sandford, representing the United Nations, delivered the keynote speech at the public event and closing thoughts at the symposium.

“I travel widely, but I have never heard a conversation like what I have heard at the Symposium,” stated Bob Sandford in his re-cap. “And while I am often part of very positive conversations, what was unique (about the Symposium) was the atmosphere of possibilities and hope that I have witnessed here. Investment must now be shifted towards restoration that uses the forces of nature itself to help build more efficiently integrated infrastructure.”

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## Asset Management for Sustainable Service Delivery in a Changing Climate

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Being an early adopter of the vision for Sustainable Service Delivery also put the Comox Valley on the map. “In 2011, the regional team was ahead of the curve when we turned our minds to the challenge of a regional response to infrastructure liability,” Derek Richmond informed the Comox Valley Regional Board in October 2017.

The Comox Valley Regional Board has 10 members, of which 7 represent the 3 municipalities



“When one reflects on how understanding of how the goal of **Assessment Management for Sustainable Service Delivery: A BC Framework** has evolved in BC, it is evident that the Comox Valley has played an important and significant role as a catalyst for action.”

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### **4Cs mantra guides Comox Valley regional team approach (Fig E2)**

*“The four local governments in the Comox Valley embraced a ‘regional team approach’ when a convergence of interests created an opportunity for all the players to set their sights on the common good, challenge the old barriers of jurisdictional interests, and make water sustainability real.”*

Derek Richmond, 2017

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### **Communication, Cooperation, Collaboration, Coordination:**

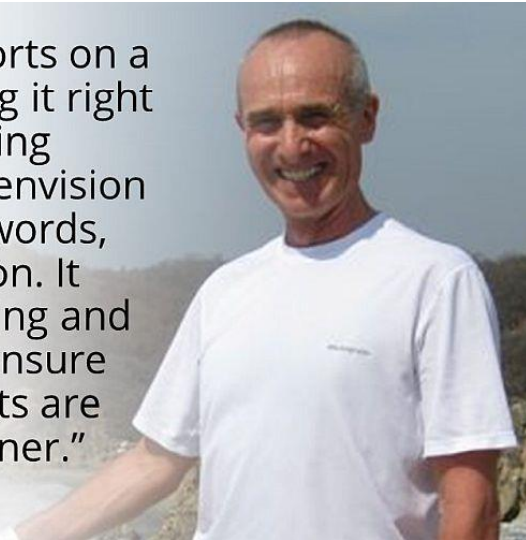
“We are honouring retired CAO Debra Oakman because she was instrumental in helping to lay the foundation for the IREI,” continued Derek Richmond. “Recognition of Debra Oakman goes beyond an individual to also recognize the achievements and efforts of municipalities, singularly and collectively in the Comox Valley, whose collaborative and cooperative approach to water sustainability resulted in a number of successful initiatives. These demonstrated what could be achieved through collaboration and a regional team approach.”



**Figure E2 – The 4Cs are the mantra for a Regional Team Approach:  
Communication, Cooperation, Collaboration, Coordination**

“If you are going to align efforts on a watershed scale, then getting it right at the front-end means looking beyond your boundaries to envision the bigger picture. In other words, global thinking for local action. It means you are communicating and cooperating with others to ensure that your collaborative results are coordinated in a timely manner.”

Derek Richmond



“We are NOT saying that every community must follow the same formula; what we are saying is that everyone needs to agree on expectations and how all the players - regulators, developers, designers and so on - will work together, and after that each community can reach its goals in its own way.”

Eric Bonham, former Director in the  
Ministries of Environment and Municipal Affairs



## 2. Watershed Moments Symposia Series on Water Stewardship in a Changing Climate

### Building a culture of stewardship

*“The Symposia programs are built around success stories – inspirational in nature, local in scale, and precedent-setting in scope and outcome. In short, these precedents can be replicated and/or adapted in other communities. Now, more than ever, it is essential that we look beyond short-term responses and figure out how we will learn from these success stories; and build a sustaining culture of stewardship so that communities do adapt to a changing climate.”*

Paul Chapman, Chair

### About the Series

Inspired by the 2017 Comox Valley Eco-Asset Symposium, **Nanaimo 2018** was a ‘call to action’. The theme? Build on the good outcomes that flow from local government and stewardship sector collaboration!

Building on the energy that was released in Nanaimo, the theme for the 3-day **Parksville 2019** program was: *Restorative land development would result in sustainable stream restoration.*

The month before **Comox Valley 2020**, the COVID 19 pandemic changed everything. Planned for almost a year in collaboration with the Comox Valley Conservation Partnership, it had to be reimaged.

### Sustainable is Attainable

The over-arching message shown on **Figure E3** for the Vancouver Island series is applicable to any region. Simply put, it is to focus on improving where people live through implementation of good strategies. These will provide communities with a path to success.

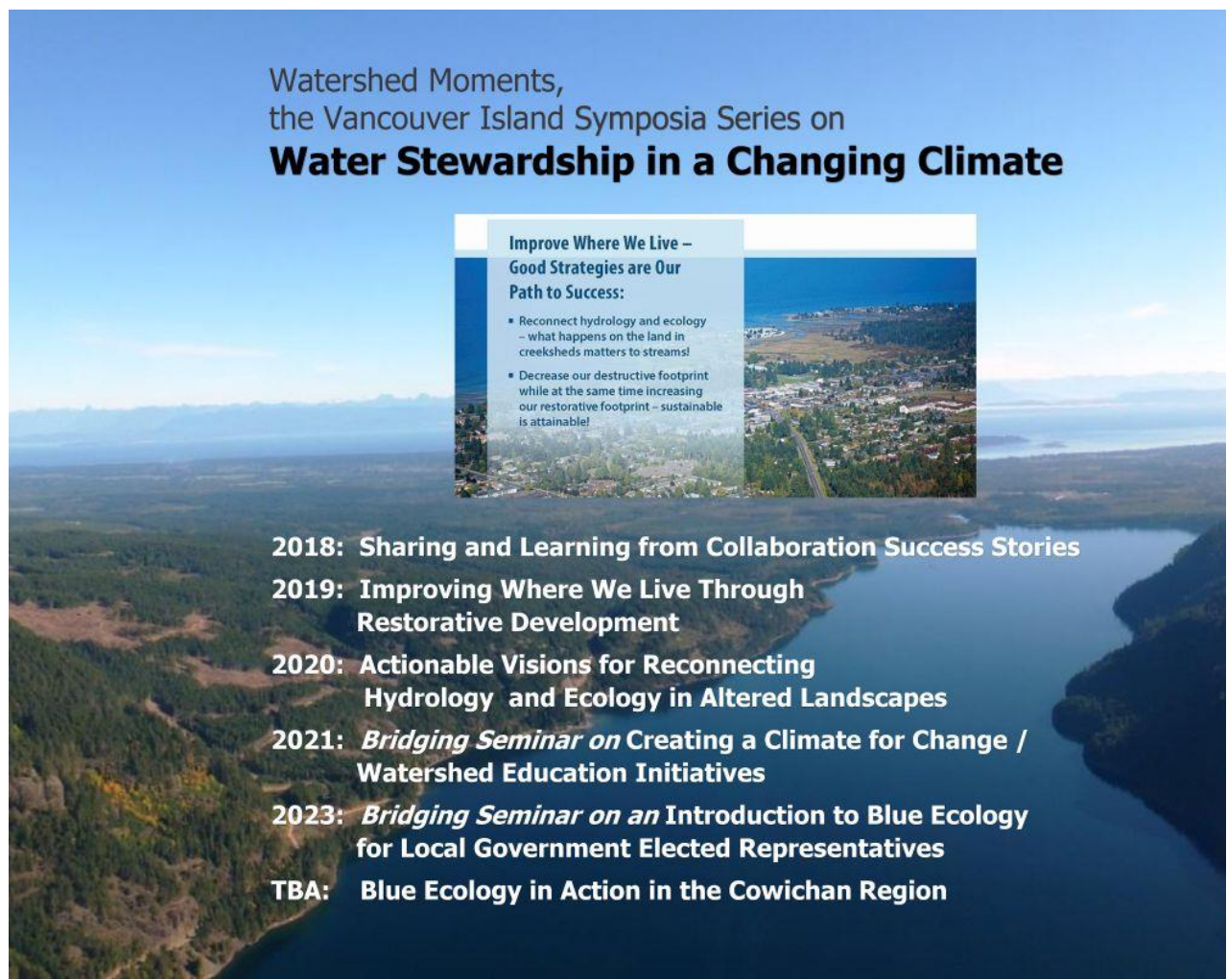
**There are two guiding principles:** First, reconnect hydrology and ecology – because what happens on the landscape matters to streams! Second, shrink our destructive footprint while growing the restorative footprint – because sustainable is attainable.

At Parksville 2019, CVRD’s Marc Rutten was part of a 5-person team. They primed the audience with overview-type presentations about long-term and emerging initiatives in regional districts on the east coast of Vancouver Island. In telling their stories, panelists described how key breakthroughs have been achieved.



“Collaboration in the Comox Valley – we have come a long way. Yet we have so far to go. The Comox Lake Watershed Protection Plan is truly a collaborative outcome. But a plan is nothing without follow-through and implementation.” – Marc Rutten

**Figure E3 – Watershed Moments Series at-a-Glance**



Watershed Moments,  
the Vancouver Island Symposia Series on  
**Water Stewardship in a Changing Climate**

**Improve Where We Live –  
Good Strategies are Our  
Path to Success:**

- Reconnect hydrology and ecology – what happens on the land in creeksheds matters to streams!
- Decrease our destructive footprint while at the same time increasing our restorative footprint – sustainable is attainable!

**2018: Sharing and Learning from Collaboration Success Stories**  
**2019: Improving Where We Live Through Restorative Development**  
**2020: Actionable Visions for Reconnecting Hydrology and Ecology in Altered Landscapes**  
**2021: *Bridging Seminar on Creating a Climate for Change / Watershed Education Initiatives***  
**2023: *Bridging Seminar on an Introduction to Blue Ecology for Local Government Elected Representatives***  
**TBA: Blue Ecology in Action in the Cowichan Region**

*Watershed Moments is a building blocks process.  
Each event builds on the last and points the way to the next.*

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## 2020 Watershed Moments Video Trilogy

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### Story behind the story of the trilogy

*The Watershed Moment Team represents 10 organizations. This includes four layers of government – federal, provincial, regional district and municipal. In less than 6 months, this remarkable team produced not one but THREE documentaries, with each one being two hours in duration.*

*This is a remarkable accomplishment. Consider that the time from start to finish to produce a single feature-length documentary is typically about one year.*

*When Shaw Cable saw the high production quality, they jumped at the chance to broadcast the trilogy on their Vancouver Island network of community channels. And now, anyone in the world with an Internet connection can view the Watershed Moments trilogy on YouTube.*

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In 2020, the COVID 19 pandemic created a new reality for everyone on Planet Earth. Adapting to this new reality resulted in decoupling of the original 2-day program planned for **Comox Valley 2020**. Pre-pandemic, the Comox Valley Conservation Partnership and the Watershed Moments Team would have delivered Days One and Two, respectively, at an in-person event.

Under the pandemic response plan, the Watershed Moments Team pivoted and reimagined an approach that combined elements of a TED Talk with Zoom and YouTube technology. The result is a set of legacy video educational resources (**Figures E4 and E5**) that showcase stories and inspire collaboration for some time to come.

The team pulled off this feat with the proverbial shoestring budget – a single \$5000 grant from the Real Estate Foundation of BC. The total in-kind contribution by all team members was a staggering \$188,000.



### BC's Climate Reality, Inter-Regional Collaboration, and Actionable Visions

In the first 90-minute video in the series, **Darry Monteith and Zoe Norcross-Nu'u represented CVRD** on an inter-regional team. Five dynamic women shared the breadth of experience for very different situations in four regions. Filmed in a studio setting, the five reflected on local government water stewardship initiatives and the growing networks of collaboration between regional districts and stewardship organizations on the east coast of Vancouver Island.

**KEY MESSAGE:** "What happens on land matters to water bodies. An actionable vision for land and water is driven by leadership that mobilizes people and partnerships, a commitment to ongoing learning and innovation, and so importantly - a budget to back it up."



Figure E4 – Modules in the 2020 Watershed Moments Video Trilogy



**3<sup>rd</sup> Annual Vancouver Island Symposium on Water Stewardship in a Changing Climate**  
**Actionable Visions for “Reconnecting Hydrology and Ecology” in an Altered Landscape**

**Video Trilogy Series**

- BC’s Climate Reality, Inter-Regional Collaboration & Actionable Visions**
- Natural Assets as Ecological Systems and Services**
- International Year of the Salmon – Will Lightning Strike Twice?**

**Watch. Be inspired.**

*“Every team member is passionate about what she or he does. This is what we hope and believe will inspire series viewers to apply what they absorb from each of the team conversations. But the video series is not a magic wand. It won’t result in overnight change. Humans are not wired that way. It is best to view the series as an important milestone in a journey. We hope to bring others along with us.”*

*“Success will follow because the series will have seeded participants with information that allows them to carry on and follow a path that is right for them. Each participant will have reached their own conclusions based on what they got out of the three sessions, and what resonated with them individually.”*

Richard Boase, moderator

To watch the trilogy on YouTube, click on the playlist link >  
<https://www.youtube.com/playlist?list=PLXtWNmTxdXhBTZn4-8VL8T03k3T8fcVyK>

## Figure E5 – Watershed Moments Team for 2020 Trilogy



**Richard Boase**  
North Vancouver District  
Series Moderator




**David Mackenzie**  
NALT Volunteer  
Director / Videographer / Editor




**Paul Chapman**  
Executive Director, NALT  
Series Co-Producer




**Kim Stephens, P.Eng.**  
Executive Director, PWSBC  
Series Co-Producer




**Julie Pisani**  
Regional District  
of Nanaimo




**Jody Watson**  
Capital Regional  
District




**Kate Miller**  
Cowichan Valley  
Regional District




**Darryl Monteith**  
Comox Valley  
Regional District



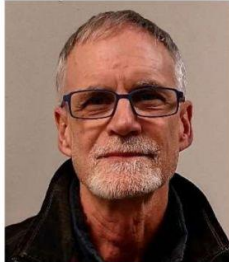
**Zoe Norcross-Nu'u**  
Comox Valley  
Regional District




**Emanuel Machado**  
Town of Gibsons




**Dr. Kim Hyatt**  
Department of Fisheries & Oceans




**Nick Leone**  
Department of Fisheries & Oceans



**Tim Pringle**  
Partnership for  
Water Sustainability



**Dr. Peter Tschaplinski**  
Ministry of Environment & Climate Change



**Neil Goeller**

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## Blue Ecology: Interweaving of Indigenous Knowledge and Western Science

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The next evolution in the reimagining process for the Watershed Moment Series is collaboration with First Nations, with **Cowichan 2023** representing a window of opportunity to build a bridge between the two cultures through Blue Ecology, a water-first approach.

**Watershed Moments 2021**, the first of two “bridging seminars”, is the event of record for launching Michael Blackstock’s **Blue Ecology Institute**. CVRD is participating in the Blue Ecology journey because it can learn and share through the process.

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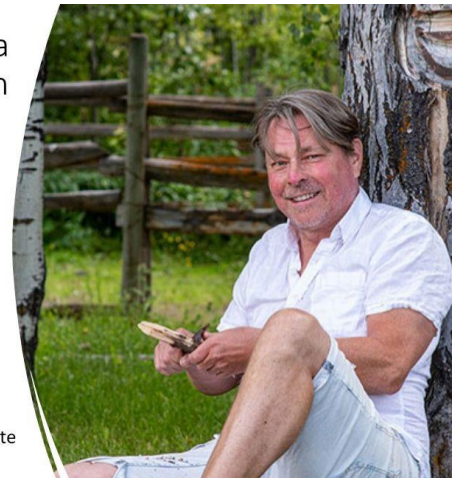
### Water Reconciliation

*“We have landed at the crux of two of the most important issues facing Canadians – relationships with First Nations and relationships with water. 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 Team*

“Interweaving is about creating a new form of knowledge, through collaboration, by interweaving useful threads from each way of knowing. Blue Ecology augments Western science hydrology rather than displacing this knowledge.”

Michael Blackstock (aka *Ama Goodim Gyet*)  
Independent Indigenous Scholar, former member of  
UNESCO Expert Panel, and founder of Blue Ecology Institute



### Build a bridge through “Water Reconciliation”

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 for Water Sustainability held the **Blue Ecology Workshop** to begin the process of mainstreaming Michael Blackstock’s work and ecological philosophy into the local government setting.

**“Blue Ecology in Action” in the Cowichan Region:** The Cowichan Valley Regional Board, acting on behalf of the Watershed Moments team and the Partnership, has initiated a conversation with First Nations in their region. The purpose is to explore how the Blue Ecology framework applies in their territories and whether there is potential for Blue Ecology to achieve water reconciliation through interweaving of Indigenous knowledge and Western science.



## 3. Town of Comox – A 'Beacon of Hope' for a Water Balance Approach to Land Development

### Collaboration with Stream Stewards

#### Truly a Team Effort

*"When I look at the definition of partnership and put it into the context of how it applies to the Brooklyn Creek storyline, the word that resonates most with me is participation."*

*"Council members are passionate about what they see and are supportive of funding requests. The Town's financial commitment then leverages other sources of funding. This has a snowball effect. More citizens get involved when they see volunteers working in the creek."*

Al Fraser, 2019  
Parks Superintendent



In 2019, the Partnership for Water Sustainability identified Comox as a **beacon of hope** (Figure E6) because the Town's experience shows what is possible when a local government does two things: has a strong working relationship with the stewardship sector: leads by example to implement responsible water balance management.



Christine Hodgson, Director  
Brooklyn Creek Watershed Society

"Our motto - 'Uniting Communities' - speaks to both human and other living creatures that use the creek corridor and watershed as their home."

### Building Blocks in an Ongoing Process

The Town's journey comprises three building blocks. Experience gained and lessons learned through the Lower Brooklyn Creek channel enhancement project and Northeast Comox land development planning process were integrated into the [Draft Anderton Corridor Neighbourhood Concept Plan for Middle Brooklyn Creek](#).

The Concept Plan was precedent-setting. It demonstrated how application of the EAP approach helps managers change practices and adopt new strategies for protection and enhancement of ecological systems in the stream corridor and riparian zone.

The Town is reconnecting hydrology and stream ecology through a systems approach that includes amending bylaws, training staff, educating the development community and homeowners, creating new procedures, and formalizing roles and responsibilities.

In doing all this, Comox is moving along a pathway that ultimately leads to a water-resilient future where flood and drought risks would be reduced, and ecological services would be sustained.

**Figure E6 – Storyline for “Town of Comox - A Beacon of Hope”**

Town of Comox – A ‘Beacon of Hope’ for Citizen Science in Action & Reconnecting Hydrology and Ecology through a Water Balance Approach to Land Development	
Section Theme	What the Reader will Learn
<b>Living Water Smart in the Town of Comox</b>	Brooklyn Creek is a creekshed of provincial interest. For the past decade, the Town’s journey related to changing land development practices, valuing ecological services, and investing in stream restoration has been guided by BC’s <i>Living Water Smart</i> vision. The journey is ongoing and is a building blocks process for incremental change.
<b>Brooklyn Creek Channel Enhancement</b>	Brooklyn was a Stage 1 demonstration application for testing the <i>Ecological Accounting Process</i> (EAP) concept. The process resulted in a breakthrough in philosophy and approach vis-à-vis valuation of ecological services: look through the <b>worth lens</b> to understand how communities decide how much to invest in creekshed restoration.
<b>Northeast Comox Land Development</b>	Risk management is the over-riding objective. Opening minds to accept changes in practice is challenging. So, the Town took on responsibility for providing <i>whole-system, water balance</i> training for engineers. What is unique about NE Comox is the Adaptive Management Plan for performance monitoring and making operating changes.
<b>Middle Brooklyn Creek Urban Design Concept Plan</b>	The <i>Draft Anderton Corridor Neighbourhood Concept Plan</i> integrates lower Brooklyn Creek and Northeast Comox building blocks experience. In mid-project, the results of the Brooklyn EAP analysis led to a rethink, such that the plan focus is now on enhancing the <b>package of ecological services</b> (environment, recreation, drainage).
<b>Creeksheds As Local Government Infrastructure Assets</b>	The Comox experience provides working examples of what <b>reconnecting hydrology and ecology</b> looks like. Asset management has traditionally been about hard engineered assets such as waterlines, sanitary and storm sewers, and roads. Yet, creekshed systems are also ‘infrastructure assets’ that provide core services.
Download a copy: <a href="https://waterbucket.ca/rm/wp-content/uploads/sites/5/2019/09/Comox-Beacon-of-Hope_Sep2019.pdf">https://waterbucket.ca/rm/wp-content/uploads/sites/5/2019/09/Comox-Beacon-of-Hope_Sep2019.pdf</a>	

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## Northeast Comox Land Development

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In April 2012, the Town of Comox established a provincial precedent when it broke from historical drainage engineering practice and Council approved Terms of Reference for the **Northeast Comox Storm Water Management Plan**. The Town followed the [Stormwater Planning: A Guidebook for BC](#) and applied a whole-system water balance approach to land development. **Figure E7** distills the three distinct phases of work and is reproduced herein because it is key to understanding the context for, and importance of, **“getting it right”**.

### The Challenge: Change Engineering Practice

“Risk management issues raised by the Queens Ditch lawsuit (1997) were the main drivers in changing the approach from stormwater to rainwater management,” emphasizes Marvin Kamenz. “What is unique about Phase 3 is the Adaptive Management Plan. It may be the first of its kind. It applies guiding principles spelled out in the Guidebook.”

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#### What are your assumptions?

*“The Town’s experience is that the weak link in drainage analyses is always the assumptions. Learning from this experience, the Town now requires that assumptions be stated and explained. We are saying WHAT is your assumption, and WHY.”*

Shelley Ashfield

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*“The development approval process for NE Comox could have been done in 1 or 2 years. Instead, it was an 8-year journey. The Town’s experience shows how hard it is to move a profession and an industry in a new direction.”*

*“The time it took highlights why there is a cultural and skill-set difference between consulting engineers and a municipal engineer. One has a short-term view; the other long-term.”*



**The End of the Beginning:** “The past 8 years have been hard work. Along the way, the Town followed an incremental process that allowed us to overcome challenges and hurdles. Yet, when all is said and done, we have only just begun,” stated Marvin Kamenz in 2019.

“As we proceed with next steps, the most challenging will be educating staff, developers, consultants, and homeowners of the new standards, procedures, policies and guidelines,” added Shelley Ashfield. “Changing engineering standards is a journey in itself, so that assumptions and simplifications are understood by both parties and there is mutual agreement as to their applicability to development site characteristics and the rainwater management objectives.”

**Figure E7 – Synopsis of the Northeast Comox Process for Water Balance Management**

**Getting It Right in NE Comox**

*“The plan for managing the water balance in NE Comox came out in three reports. Because I am a lay person, there were some things that I just assumed would be done automatically by engineers. To my surprise, this was not the case,” stated Marvin Kamenz at Parksville 2019.*

*“For example, engineers like to use what is called a ‘design storm event’. But it is hypothetical. Instead of accepting that approach for NE Comox, the Town insisted on the use of hourly data over a 42-year period. This was done for simulation modelling in Phases 1 and 2.”*

*“Phase 3 then established the requirement that, to ensure their success, all infiltration galleries and detention ponds will be operated by the Town and located on Town lands.*

*“A design requirement is that galleries and ponds can be easily modified, either to increase or decrease their capacity, by up to 20% to mimic the actual hydrology. System performance will be continuously monitored to determine whether systems are performing as modelled. And if not, system operation will be modified.”*

<b>Phase 1</b>	<b>What Do We Have?</b> How much rain is falling and where does it go?
	Phase 1 identified impacts from developments and identified general methodologies to mitigate the impacts and risks to the Town, properties, and residents.
<b>Phase 2</b>	Phase 1 concluded that land development within the Town had, until very recently, utilized traditional “pipe and pond” stormwater management techniques. The migration to a more holistic water balance approach requires a significant commitment by the Town, development community, and eventual owners of the properties
	<b>What Do We Want?</b> What are the targets for infiltration and detention to mitigate the impact on down slope lands?
<b>Phase 3</b>	Phase 2 identified physical characteristics of potential mitigation measures to mitigate potential impacts; ownership and location of these physical systems, whether on municipal lands or privately owned properties; and legal and administrative processes required to allow design, construction and operation of the systems.
	Phase 2 evaluated potential strategies and tools to mitigate effects of development on hydrological system; and requirements for new resources, processes and bylaws; with necessary changes including development of staff expertise, training of public work staff, formalizing of roles and responsibilities, and bylaw enforcement.
<b>Phase 3</b>	<b>How Do We Get There?</b> What are engineering specifications for infiltration galleries and detention ponds?
	Phase 3 resulted in selection of appropriate and cost-effective measures for implementation; a location plan; design criteria and details to be used during subdivision and lot design; and an Adaptive Management Plan for monitoring and making changes.
	“The Adaptive Management Plan is essential to the successful development and the mitigation of all impacts resulting from development. “The Plan describes the monitoring program needed to verify the operation of the mitigation systems is within the expected range demanded by the design criteria. “Should constructed works fail to provide the intended benefits of mitigation, the Plan will identify triggers that lead to changes in the Plan for implementation to ensure that mitigation is successful.”

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## Middle Brooklyn Creek Urban Design Concept Plan

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At the start of the planning process for the [Draft Anderton Corridor Neighbourhood Concept Plan \(Figure E8\)](#), lessons learned from NE Comox were top of mind for the Town of Comox. Accordingly, water balance management was driving concept plan development, with an emphasis on detention ponds and infiltration galleries.

Then, in mid-project, lessons learned from the lower Brooklyn Creek EAP analysis were introduced into the Anderton Corridor planning process. The notion that the neighbourhood plan should focus on protection and enhancement of the **Package of Ecological Services** resulted in an abrupt rethink by Comox staff and consequent redesign.

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### UBCM 2020 Excellence in Sustainability Award

Draft Anderton Corridor Neighbourhood Concept Plan was runner-up

*“Everything was proceeding quite fine until Tim Pringle completed the EAP analysis for lower Brooklyn Creek,” stated Marvin Kamenz at Parksville 2019. “That was the moment when we realized that ecological services are not just an add-on. They are, in fact, core services. We then asked ourselves, [how can we do things better?](#) We stopped work and changed the plan focus to the package of ecological services.”*

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*“The Town was not willing to entertain any development in middle Brooklyn unless there was a demonstrated program that would eliminate any increased risks to the Town; be they flooding or environmental.”*

*“When the EAP analysis connected Brooklyn Creek to the concept of it being an asset of the Town, this provided Staff with one more way to link the stream to the health of the community.”*

Shelley Ashfield

### What Triggered the Rethink

Marvin Kamenz singled out this statement in the EAP report to explain what resonated with the Town, and so changed the Town’s approach to development:

***“The package of ecological services concept refers to the combined range of uses desired by the community. Thus, a strategic plan that supports this diversity will appear worthwhile to the greatest number of interested parties.”***

In the case of Brooklyn Creek and its riparian corridor, intervenors and residents want this landmark ecological system in their community and they want to continue enjoying the services it provides.

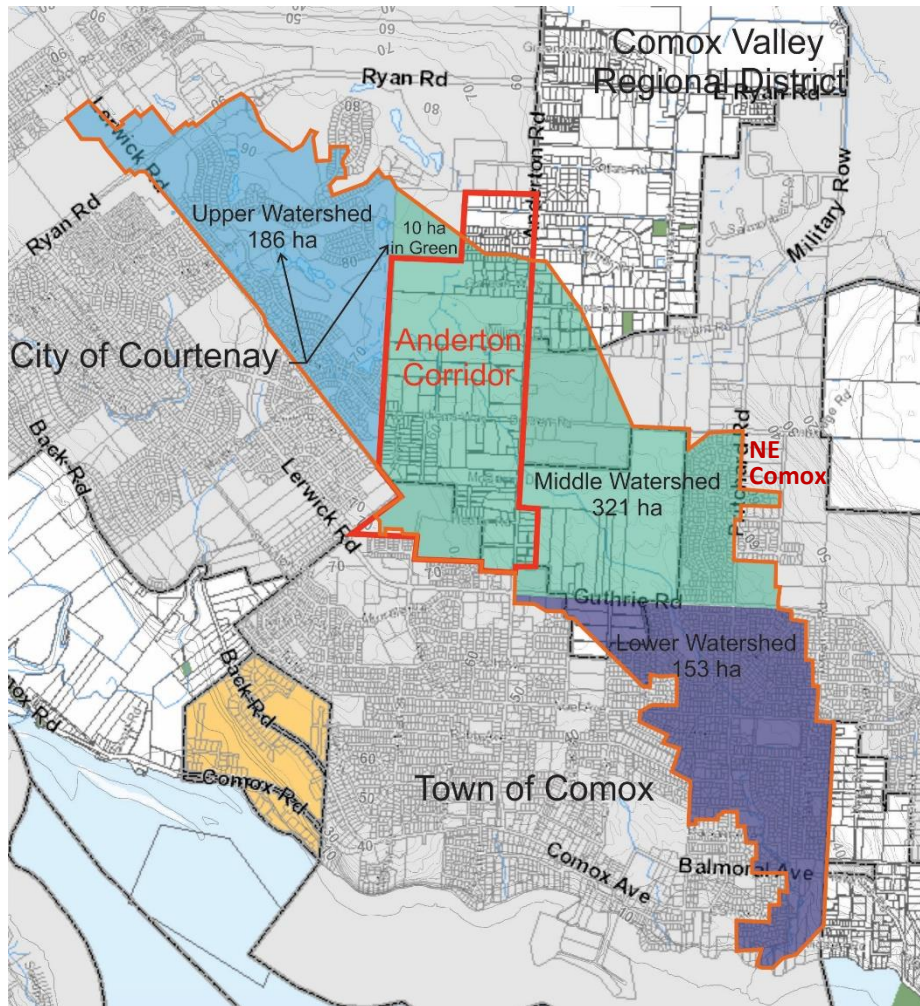
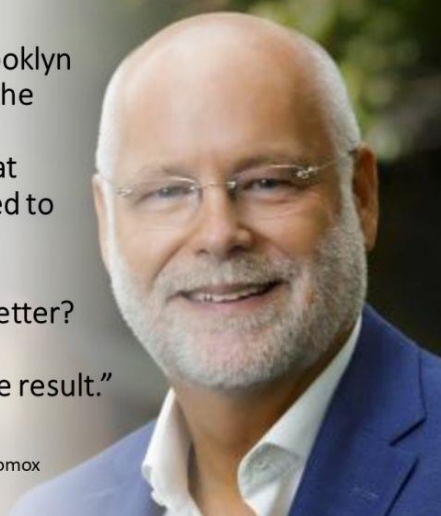
“The continuous factor is the Brooklyn Watershed Society,” observed Marvin Kamenz. “The streamkeepers were ahead of the Town in the middle zone. With channel enhancement now completed in lower Brooklyn, their focus has shifted to restoring the middle section.”



## Figure E8 – Draft Anderton Corridor Neighbourhood Concept Plan

“The ecological services within Brooklyn Creek are integral components of the Town’s core services of rainwater management, parks and fish habitat protection. Once the Town switched to viewing ecological services as core municipal services, we then asked ourselves: how can we do things better? The Draft Anderton Corridor Neighbourhood Concept Plan is the result.”

Russ Arnott (1963-2022), former Mayor of Comox



The image tells a story in two ways: it shows the comparative sizes of the three creekshed zones; and it shows side-by-side locations of the two development areas.

The area covered by the Draft Anderton Corridor Neighbourhood Concept Plan is almost double that for NE Comox - 150 versus 80 hectares.

The ultimate benefit of the Town’s building blocks process is reflected in the timelines for the two development areas: **protracted versus quick**. Also, the EAP analysis accelerated a creekshed restoration vision.

## 4. City of Courtenay – A Leader in Asset Management for Sustainable Service Delivery

### Life-Cycle Context for Making Decisions

An issue confronting all local governments is the ‘unfunded infrastructure liability’ or ‘infrastructure gap’, and how to pay for it. All four Comox Valley local governments were early adopters of a vision for [Asset Management for Sustainable Service Delivery](#) (Figure E9)

#### **BC’s first Asset Management Bylaw**

*In 2019, the City of Courtenay adopted a bylaw that requires consideration of full life-cycle costs in its decision-making!*

At the 2011 State of Vancouver Island Economic Summit, described in Part C, the **‘forum within the summit’** showcased how Comox Valley local governments envisioned tackling the challenge. This was the catalyst for an Island-wide conversation about a whole-system, life-cycle approach to asset management.

Looking back, the arrival of David Allen in 2013 as Courtenay’s Chief Administrative Officer created the momentum necessary to move from awareness to action. A champion of Sustainable Service Delivery, David Allen presented a vision of what could be. Successive municipal councils embraced the vision.

David Allen served as Co-Chair of the Asset Management BC Community-of-Practice from 2012-2020.

In July 2022, he succeeded Wally Wells as Executive Director.



“A strong corporate culture creates the foundation for asset management that achieves the goals of Sustainable Service Delivery. For organization-wide implementation to be effective, however, it must be led by the CAO and supported by Councils and Boards.”

It was then a five-year journey for council and staff. Step by step, Courtenay operationalized asset management (AM) organization wide. In so doing, Courtenay basked in the glow of provincial recognition for having created the foundation for a corporate culture that would achieve the goals of Sustainable Service Delivery.

**Figure E9 – BC Framework for Sustainable Service Delivery**



**Takeaway Message:  
Focus on Outcomes**

Released in December 2014, and updated in 2019, the BC Framework has redefined the context for deciding how infrastructure is planned, financed, implemented, and maintained in British Columbia. It raises questions about how communities would service urbanizing and redeveloping areas in future.

The BC Framework points the way to a holistic and integrated approach to asset management. Nature, and the ecosystem services that it provides, are viewed as a fundamental and integral part of a community’s infrastructure system.

**Community Charter defines responsibility for stewardship of infrastructure and services – reflections by David Allen**

*"Anecdotally, one could generalize and suggest that potentially up to 40% of CAOs may recognize the value and necessity of organization wide asset management. But most CAOs still say that is not my primary role."*

*"Countering this mindset is where Glen Brown of UBCM and Wally Wells, my predecessor, have shone in my view. They ask the question, **what is the actual role of local government?** Section 7 of the Community Charter states that the roles and responsibilities are about 'providing for stewardship of the public assets of the community'. That defines the asset management purpose!"*

*"At the end of the day, it really is about Sustainable Service Delivery. That is what it comes down to. The Community Charter does not explicitly state it in those terms, but sustainable service delivery is clearly the intent from the language used in the legislation."*

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## Political Commitment to “Get it Right”

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“We’re pretty proud of our progress. We’ve moved steadily towards a proactive maintenance model, which we know is more cost-effective in the long run than costly and unexpected reactive repairs,” says Courtenay Mayor Bob Wells.

“It’s our responsibility to maintain these essential assets; our citizens depend on these services. Establishing this in a formal bylaw reflects how important this is, not only for our current residents, but as our commitment to future generations as well.”

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*Under Bob Wells’ watch, the sustained commitment by Council to taking a transformational idea and bringing it to fruition in the form of the AM bylaw personifies what this saying means in practice: “A vision with a task is the hope of the world”.*

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***“Asset management has been a top strategic priority for several years. Establishing this in a formal bylaw reflects how important this is.”***

Mayor Bob Wells  
City of Courtenay

### A Vision with a Task

“In setting out to create an Asset Management culture,” reports David Allen, “the City discovered that a ‘Condition Assessment’ of our staff was necessary, too. The ‘Condition Assessment’ of our people (the who, where, what, how, etc.) proved to be achievable using conventional human resources practices.”

“The process also required thinking broadly to imagine some new form of organizational structure that would support the singular aim of Sustainable Service Delivery. Under the new structure, **working groups were organized in terms of future, present and past tenses**, we implemented the new structure ‘en masse’ in 2016.”

“Municipal asset management – the maintenance of infrastructure large and small, including roads, utilities, and facilities – is one of a local government’s most significant responsibilities. To recognize the central role of asset management in its operations, the City of Courtenay is of the first municipalities in Canada, and the very first in B.C., to enshrine its asset management program in a formal bylaw.”

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## Goal is “Sustainable Service Delivery”

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“The City of Courtenay adopted an asset management policy in 2015,” continues David Allen. “The policy set guidelines for implementing organization-wide Asset Management processes to meet the asset-intensive Sustainable Service Delivery needs of the City.”

“The bylaw took the policy one step further, and formally stipulates that decisions on the renewal, upgrade, and acquisition of the City’s assets must consider the full cost throughout the expected lifespan of the asset. As infrastructure ages, maintenance costs typically increase. And failure to maintain assets can dramatically shorten their lifespans, potentially resulting in the need for costly upgrades.”

“The goal of asset management is achieving sustainable service delivery: ensuring that current community services are delivered in a socially, economically, and environmentally responsible manner that does not compromise the ability of future generations to meet their own needs.”

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### How the bylaw achieves simplicity

*“Overall, the bylaw assigns the practice of Asset Management principles and advice related to Council decision-making to the CAO and staff. Internally, staff operational responsibilities are assigned via CAO Directives.”*

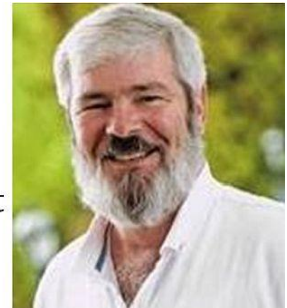
*“The Council role is to receive and consider the information and advice, then express their collective decisions via adoption of strategic priorities and approval of the five-year financial plan.”*

David Love, 2019

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“The Asset Management Bylaw is the first in British Columbia. This meant it was critical to carefully draft the content so that it rests upon a solid legal foundation, stays within Council’s authority, is readily understood and is consistent with existing legislation, policies and bylaws.”

David Love, Senior Advisor for Strategic Initiatives



### Breaking New Ground to Establish ‘A BC First’

“In March 2019, a Council Resolution had directed staff to develop the bylaw. The first step in our research to meet the Resolution was to identify the distinction between a policy and a bylaw. This was particularly important because there was little experience across Canada, and none in BC, at writing an Asset Management bylaw,” reports David Love, former Senior Advisor for Strategic Initiatives.

“After much discussion, the legal foundation and scope of Council’s authority were identified. The aim of achieving bylaw simplicity was partially confounded because certain concepts either contained within the existing policy or others newly desired, have not been defined in existing law. These issues were overcome by defining the terms within the bylaw – thus adding minimal complexity to its understanding – and assigning appropriate responsibility to meet them within the Bylaw.”

## Asset Management for Sustainable Service Delivery is a Process, not a Function

“The wheel in the BC Framework logo embodies the idea of a continual, cyclical process of improvement,” states David Allen. “You do not necessarily have to ‘start here’ to ‘get to there’. You can start anywhere, and at any level. But just start. And then move along and look at ways to improve, refine, learn, and repeat.”



### It is a core part of the job; it is not an add-on

“There has been a growth and a broadening and deepening of asset management knowledge among asset management practitioners, champions, and other communities of practice,” observes David Allen. To provide relevant context, **Figure E10** comprises quotable quotes by three asset management thought leaders, including David Allen.

“But we still need to get all CAOs on board. In my mind, **effective asset management (AM) is organization wide**. This means the people in key leadership roles must be fully on board and in fact leading the AM program so that it is truly and effectively organization wide.”

**Community Charter defines responsibility for sustainable service delivery:** “Potentially up to 40% of CAOs may recognize the value and necessity of organization wide asset management. But what about the other 60% or more? We must inspire or motivate those who have not made the commitment or leap of faith to recognize organization wide asset management as the foundational element, or *raison d’être*, for why we do what we do in local government.”

### Leadership starts at the top with the CAO

*“Those in local government leadership roles must be fully on board plus lead the Asset Management program. Only then can a cultural shift be truly and effectively embedded organization wide.”*

David Allen

## Figure E10 – Thought Leader Perspectives on Sustainable Service Delivery

“Different local governments will always be at different points and different levels of maturity along the asset management continuum. This is why we focus on outcomes and do not prescribe what to do in BC.”

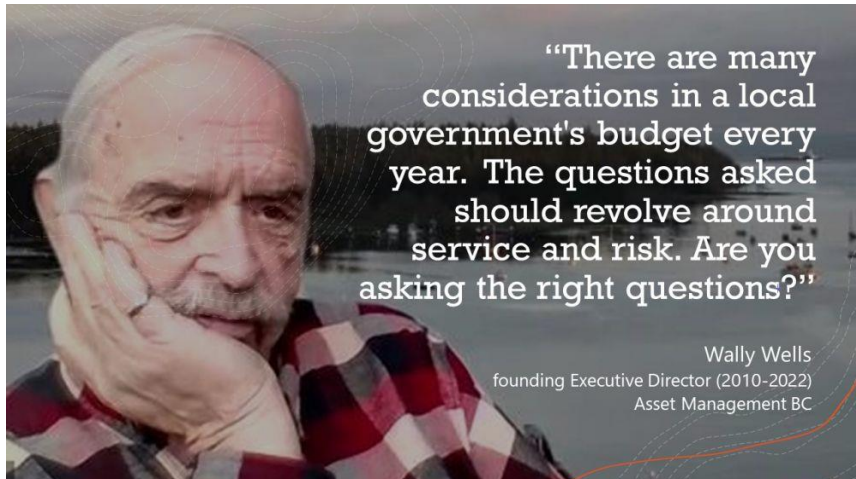
Glen Brown, Chair of Asset Management BC, June 2016 in Sitalines magazine



*The BC Framework emphasizes the paramount nature of the services that constructed infrastructure assets provide. The BC Framework also shines the spotlight on what the life-cycle costs are over time to maintain, renew or replace the assets.*

“There are many considerations in a local government's budget every year. The questions asked should revolve around service and risk. Are you asking the right questions?”

Wally Wells  
founding Executive Director (2010-2022)  
Asset Management BC



*If you look at the role of corporate culture, that is where leadership is so essential. You also need the governance structure and the organization set up in a way that is the right fit for the community. Along with corporate buy-in, you need to communicate internally as well externally.*

### **4Cs are Collaboration, Capacity, Culture & Council**

“After becoming CAO of the City of Courtenay in 2013, we began exploring how to implement an Asset Management Program. It led to us eventually conclude that operationalizing AM would involve four separate, interconnected initiatives that would be the pathway for our journey toward Sustainable Service Delivery. We describe them as the 4Cs.”



David Allen

*30 years after mandating AM, Australia has many of the same challenges as BC due to a lack of leadership and integration across local government organizations. Their experience speaks to the universal problem in embedding change. You cannot legislate a process.*

## 5. CVRD – A Leader in a Whole-System Approach to Community Investment in Stream Systems

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### Saratoga-Miracle Beach Area

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In 2019, CVRD stepped forward to be a partner in the EAP initiative. The [Saratoga-Miracle Beach Local Plan Area](#) (**Figure E11**) is the second Comox Valley demonstration application.

The study area is defined by its **“water assets”**. The predominant features are Black Creek and two high-value wetland complexes - the Saratoga (Clarkson) wetlands, and the wetlands surrounding the Black Creek slough. Black Creek is a highly productive fish-bearing stream.

Almost half of the existing 603 parcels are within 200 m of a water asset. The presence of wetlands differentiates the [Saratoga Miracle Beach EAP Project](#) from the other EAP case studies, and thus added a new dimension to the EAP analysis.

Other EAP case studies looked at a single stream channel and a riparian setback zone. For Saratoga, the **“water assets”** distinction required breaking the study area into five sub-areas to examine quantifiable changes in land use and riparian / woodland areas.

### Framework for operationalizing “the Twin Pillars”

The EAP analysis built on existing references and research, notably the [Saratoga Miracle Beach Master Drainage Plan](#), completed in 2019. This is a foundational document. It provides an understanding of hydrological realities plus a path forward for implementation of water balance performance targets for replicating hydrologic function.

Operationalized as a package to protect stream and water asset integrity in the study area, the “twin pillars” of [Water Balance Accounting](#) and [Ecological Accounting](#) (introduced in Part D) would provide the whole-system framework complete with metrics for offsetting **changes in hydrology** and **loss of riparian integrity** in the study area.

The appropriate implementation mechanism to operationalize the plan for protecting stream and water asset integrity would be a [Saratoga Miracle Beach Drainage Service Area](#).

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### Operationalizing the Twin Pillars

In December 2019, a CVRD staff report recommended a path forward. It states that:

*“This (EAP) process would provide metrics to establish the ‘worth’ of natural assets (streams, riparian areas, wetlands, etc.) and the ecological services that they provide. This work will be used, together with the Master Drainage Plan and flood mapping work, to inform the development of new regulatory tools and to assist in communicating the value of these natural assets to the public during future community engagement efforts.”*

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**Figure E11: Location of Saratoga-Miracle Beach Study Area**



**PROJECT CONTEXT:** *Saratoga Miracle Beach is one of three “settlement nodes” designated in the Regional Growth Strategy. It is anticipated to experience increased development in coming years - if community servicing is provided. Accordingly, the Comox Valley Regional District (CVRD) has invested in research to provide or update information about natural assets in the landscape, infrastructure challenges, as well as engineered and natural drainage. This research includes an application of EAP, the Ecological Accounting Process.*

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## Context for applying EAP to establish the ‘Financial Case for Stream Systems’

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A top-down and bottom-approach drives implementation of the BC Framework. A vision for a ‘new business as usual’ has emerged. This vision extends beyond traditional municipal infrastructure to encompass services that nature provides, and the implications for hydrologic integrity and creekshed health.

In 2019, UBCM and the Ministry of Municipal Affairs formalized an expectation that local governments applying for provincial grants would integrate “natural assets” into their asset management processes. **EAP shows them how to do it for stream systems and water assets (such as wetlands) within a creekshed.**

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*“The land supports assets that provide services. And decisions are made at the parcel scale. Thus, we are tied to the past through historical subdivision of land. This means we must understand the biology of land use. The human analogy is DNA. Only EAP deals with the parcel.”*

Tim Pringle

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### Asset Management Continuum

The BC Framework recognizes that asset management for sustainable service delivery occurs alongside associated evolution in community thinking. It is a continuous quality-improvement process.

Management of “natural assets” within a local government’s **Asset Management Strategy** is an idea whose time has come. This statement sounds good but what does “managing natural assets” actually mean in the local government setting? **Figure E12** conceptualizes a local government’s “asset management journey” as a continuum of steps, with EAP being Step Three.

**EAP is a methodology and metrics for:** 1) integrating Natural Assets, notably stream systems, into *Asset Management for Sustainable Drainage Service Delivery*; and 2) establishing line items in annual budgets for stream maintenance and management (M&M).

“EAP findings will be valuable as we continue to develop a framework for protection of water assets in the Saratoga Beach area. The findings will assist in communicating the value of natural assets to the community.”

Darry Monteith  
Manager of Liquid Waste Planning  
Comox Valley Regional District



Figure E12

## Integration of Stream Systems into “Asset Management for Sustainable Drainage Service Delivery”

# ‘Continuum of Steps’



Branding logo for  
Asset Management for Sustainable Service Delivery:  
A BC Framework, released December 2014

### WHAT is the issue (Ground Zero):

There is no **Asset Management Strategy**. There is an ‘*unfunded infrastructure (gap, deficit, liability)*’.

### SO WHAT can be done (Step One):

Embrace the **BC Framework**. Focus first on constructed assets (pipes & buildings). Implement an *Asset Management Strategy / Program*.

### NOW WHAT can we do (Step Two):

Life-cycle approach and **Sustainable Service Delivery** are standard practice for maintenance and management (M&M) of constructed assets.

### THEN WHAT will we do (Step Three):

“Twin Pillars” for protection of stream system integrity is standard practice for the drainage service. Apply **EAP, the Ecological Accounting Process**, to quantify *Riparian Deficit* values and establish annual budgets for ongoing stream corridor M&M.

As understanding of the **Local Government Finance Strategy** grows, communities progress incrementally along the Continuum

*At the Partnership’s Annual Water Sustainability Workshop held in December 2015, the Chair of Asset Management BC (UBCM’s Glen Brown) introduced the Asset Management Continuum in the module titled **Sustainable Service Delivery for Watershed Systems**.*

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## EAP Building Blocks & Outcomes

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Master drainage planning, integrated stormwater planning, and other processes at best pay lip-service to the role of the streamside protection zone within a stream system context, the condition of native vegetation and woodlands cover, and the need for restoration. Now, EAP provides the reason to ask the question, **why aren't these factors considered and given equal weight to engineering considerations?**

What gets measured gets managed (or could be). The challenge for local governments is how to determine financial values for ecological services and the natural systems that deliver them. The community expectation that these assets will be maintained and managed is the impetus for changes in accounting systems used by local governments.

### Applied Research: Stage 3 Mainstreaming

In 2016, the Partnership embarked upon a 6-year program of applied research to evolve EAP through a 3-stage building blocks process of testing, refining, and mainstreaming the methodology and metrics. The program involved 9 case studies and 13 local governments and yielded 19 “big ideas” or foundational concepts.

In 2020, five willing local governments stepped up to participate in Stage 3. Each identified local streams for analysis. The capsule summaries in **Figure E13** describe the outcomes for the five projects. The sequencing of projects was fortuitous, resulting in insights which improved the research process.

With the perspective of hindsight, each local government took a leap of faith that EAP would fit into their strategic directions. Every participating local government has benefitted from the building blocks approach to applied research.

### Target-based Strategies for Riparian Restoration

Now, with EAP as a foundation piece, these local governments have a rationale and a metric to do business differently via multiple planning pathways to achieve the goal of “natural asset management”.

The **Riparian Deficit**, a measurable metric, would allow them to change their internal asset management conversations and begin the process of engendering community support for a target-based strategy for systematic M&M investment over decades, as opportunities arise, to restore riparian woodlands and native vegetation for the full 30m width of the regulated streamside protection setback zone.

**Figure E13 – Case Study Outcomes of EAP Mainstreaming**

Creek Case Studies and Local Government Collaborators	Where and how EAP fits into a Strategic Direction
<p><b>Millstone River</b> in the City of Nanaimo &amp; Regional District of Nanaimo</p>	<p><b>Corporate Asset Management Planning &amp; Regional Riparian Spatial Analysis:</b> EAP aligns with Strategic Priorities for environmental stewardship and growth management, and the findings are informing corporate asset management planning as well as how to prioritize investment in riparian and woodland restoration.</p>
<p><b>Bowker Creek</b> in the municipalities of Saanich, Victoria, and Oak Bay in the Capital Region</p>	<p><b>Bowker Creek Blueprint &amp; Daylighting Feasibility Strategy:</b> EAP provides a financial methodology to approximately value the land within either an existing or potentially recreated stream corridor; and the City of Victoria reports that the EAP analysis and numbers added substance to the City’s grant application.</p>
<p><b>Bings / Menzies Creek</b> in the Municipality of North Cowichan &amp; Cowichan Valley Regional District</p>	<p><b>North Cowichan Biodiversity Protection Policy Project:</b> EAP supports the case for strategic action to strengthen management of environmental assets within North Cowichan; and informs the <a href="#">Regional Collaboration Framework</a> as it pertains to ecosystem stewardship and biodiversity conservation.</p>
<p><b>Saratoga Miracle Beach Planning Area</b> in the Comox Valley Regional District</p>	<p><b>Saratoga Miracle Beach Drainage Service Area:</b> EAP findings inform the strategy for local area planning of a “settlement node” identified in the <a href="#">Regional Growth Strategy</a>, and also support the case for a <a href="#">Drainage Service Area</a> that would operationalize the “twin pillars” of Water Balance and Ecological accounting.</p>
<p><b>Bertrand Creek</b> in the Township of Langley</p>	<p><b>Langley Ecological Services Initiative:</b> EAP provides a real number for <a href="#">Payment of Ecological Services</a> to compensate rural parcel owners who are willing to commit areas of their land to riparian and woodland maintenance and/or enhancement to restore stream integrity.</p>

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## PART F

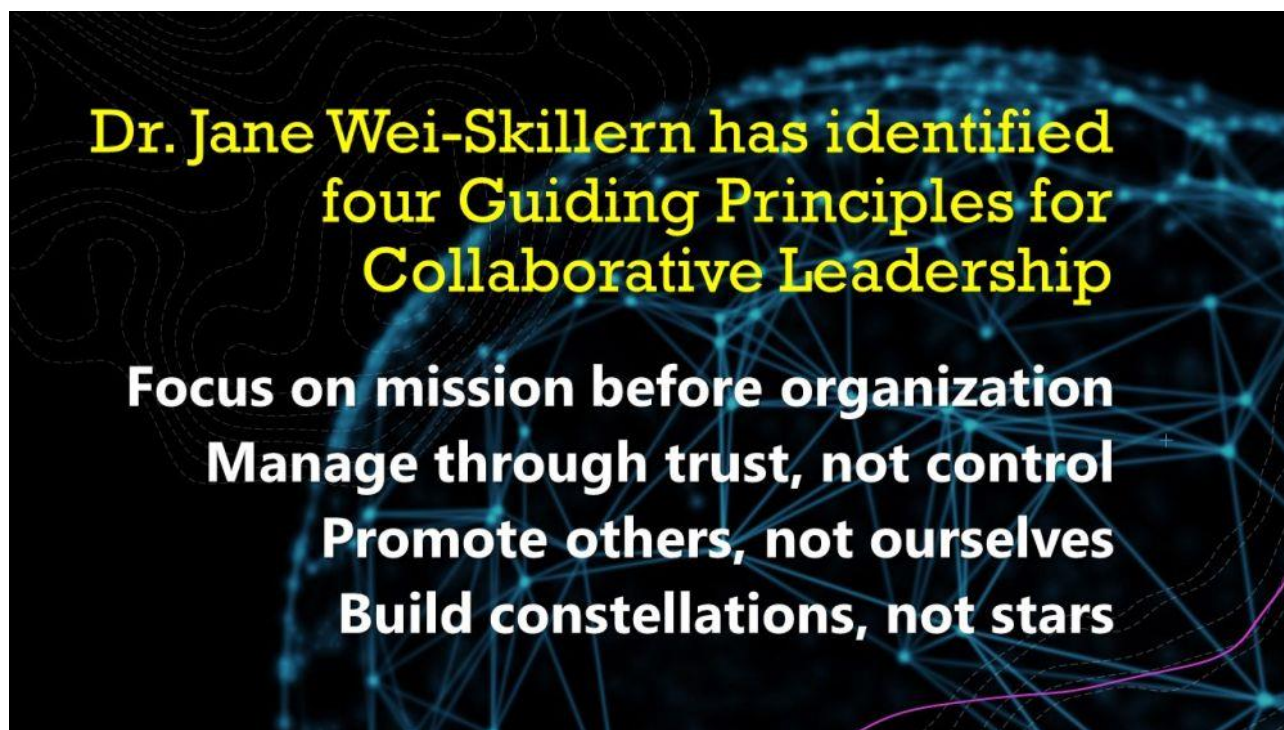
# A Look Ahead: The Next Five Years



*To provide the reader with a picture of how the “process for change” is anticipated to play out in the Comox Valley in the years ahead, this Part F is structured in six segments:*

- 1. How the Future Might Unfold***
- 2. Marc Rutten, Comox Valley Regional District***
- 3. Michelle Mason, Village of Cumberland***
- 4. Jordan Wall, Town of Comox***
- 5. Geoff Garbutt, City of Courtenay***
- 6. Closing Thoughts on Comox Valley Collaboration***

**Figure F1** – Comox Valley is a demonstration region for  
*“Collaborative Leadership in Action”*



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*“Collaborative leadership uses the power of influence rather than positional authority to engage and align individuals and organizations within a network. Collaborative leadership delivers results across organizational boundaries. Growing and sustaining a Comox Valley regional team powered by collaborative leadership is very much about finding those to whom successive generations of local government staff can pass the intergenerational baton.” – Derek Richmond*

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## How the Future Might Unfold

### Comox Valley is An Experiment in Collaboration and Collaborative Leadership

Part B presented reflections by a group of individuals who have been part of the Comox Valley water sustainability journey for a decade or longer. They put the journey in perspective to bridge to the details of the journey. Parts C, D and E then weaved the story of initiatives and events in 5-year increments that were building blocks in a process.

In this concluding Part F, a representative of each Comox Valley government ponders this question: *Based on what you have experienced, how might the near-term future unfold in the Comox Valley?* Three of the four have primary leadership roles because they are Chief Administrative Officers – for the municipalities of Courtenay, Comox and Cumberland.

Representing the Comox Valley Regional District is Marc Rutten, whose General Manager responsibilities encompass the regional water supply, wastewater treatment and solid waste management utilities. Marc Rutten has been part of the journey since 2009 when the four Comox Valley local governments agreed to be part of an experiment in collaboration. His continuity provides him with a unique perspective.

#### Collaborative Leadership delivers results across organizational boundaries

“The Partnership for Water Sustainability describes the Comox Valley experience as an experiment in collaboration because there was no way to guarantee the outcome at the outset. In 2008, when Courtenay stepped up to host the first of the Learning Lunch Seminar Series, it was a leap of faith on the part of all the players that we would be successful,” reflects Derek Richmond, Comox Valley resident and a CAVI Past-Chair. **Figure F1** identifies a set of guiding principles.

“Now, with the passage of time, we can state the obvious. The Comox Valley experiment is a success. The collaborative spirit has taken root. When the Partnership made the decision to concentrate our efforts in the Comox Valley, we believed the stars were in alignment. So, we portrayed the valley as the provincial demonstration region for a **regional team approach founded on collaboration**. The four local governments have shown that our faith in them was justified.”

#### A Perspective on the Power of a Network

*“Regional collaboration in the Comox valley is a testament to the value and strength of the network, which was initially created by the Partnership as a sharing and learning opportunity. Now, it has evolved into one of the many stars within the network’s galaxy and has become an essential, wider, and expansive tool that thrives on intuition amongst its partners to ensure their success.”*

Derek Richmond

## Marc Rutten, Comox Valley Regional District

"I see a ton of potential for positive change in the immediate future. The learnings are there from the work we did in the past. We are in the middle of a climate crisis, and this is an opportunity to do business differently. It is a teachable moment," says Marc Rutten.

"Local governments are recognizing that and shifting some of their focus to deal with it. Yes, there are other crises that occupy our attention. But our board members definitely have it in their sights and want to do as much as they can to deal with the climate crisis."

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### Climate crisis is an opportunity

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#### Teachable versus reachable moments

*"We usually refer to teachable moments as opportunities to raise awareness and influence attitudes or behaviour."*

*"A reachable moment is when you can actually do something because there is a will to do it. The crisis is when you have everyone's attention. This ties back to oral history and Marc Rutten's comment that we know what we need to do. We have known for two decades and longer. We have been missing that last push to get us over the goal line."*

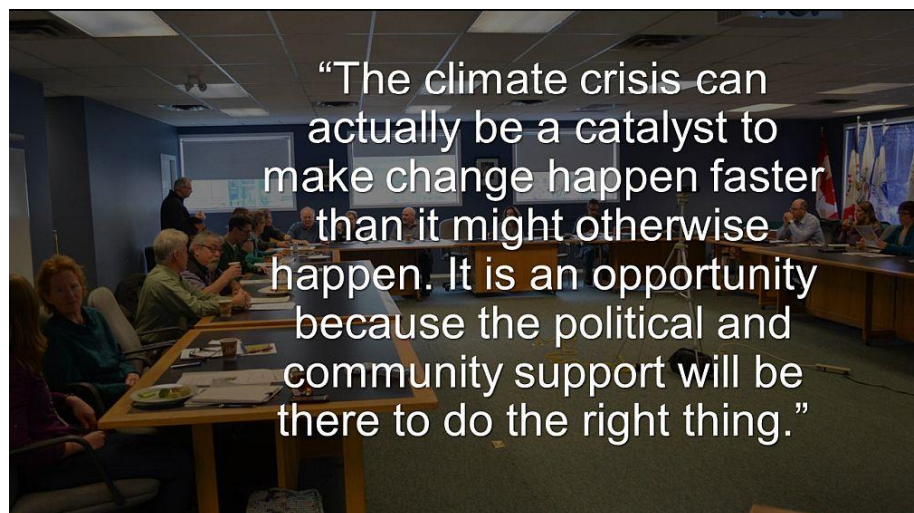
Kim Stephens

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"A big part of what communities need to do is get beyond the short-term actions so that we address floods and droughts with long-term solutions. Consider that the Comox Valley is in a winter drought. It is amazing. We had very little rain this fall. The precipitation is coming as snow and reservoirs are not replenishing as they normally would."

#### We know what the right things are to do

"We know how to develop land in a responsible way. We know how to protect the water cycle. The flip side of a problem is an opportunity. Viewed through that lens, the climate crisis can actually be a benefit in that it provides local governments with the impetus to implement changes in practices."



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## Moving towards Asset Management for Sustainable Service Delivery

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“CVRD is slowly implementing asset management,” continues Marc Rutten. We are following the Asset Management BC guidebook on a service-by-service basis. The asset inventory work is pretty much done. And we have implemented software from an equipment maintenance management perspective.”

“Although we have implemented some aspects of asset management policy, we need to do more policy work around sustainable service delivery, including natural assets. That is the final goal. Right now, we are at the aspirational stage. We lost momentum when we lacked the dedicated resources to do the job. But we are back on track.”

### Saratoga Miracle Beach Planning Area

“The Saratoga Miracle Beach EAP case study is important because of what CVRD staff have learned about making the financial case for a Drainage Service Area for maintenance of water assets. It is the kind of work that we have to do. But it is complicated, and it involves getting the Ministry of Transportation and Infrastructure onboard.”

“That is another example of being on a journey. It was 2011 when CVRD initiated a process that we hoped would result in a Memorandum of Understanding with the Ministry to address issues related to rural development, drainage, and infrastructure. This continues to be a work in progress.”

**A closing thought:** “I came into this world of local government with a private sector, industrial perspective. In that world, it is about projects that have a defined beginning and end. Not so in the world of local government where you learn what it means to be on a journey.”

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### Rainwater management in electoral areas

*In August 2011, the Comox Valley Regional Board passed a series of resolutions pertaining to an integrated watershed approach to rainwater management. These resolutions highlighted the need for province-wide action related to how drainage is regulated by the Ministry of Transportation and Infrastructure in electoral areas within regional districts.*

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“Working here at the CVRD is an incredible set of dedicated, hard-working employees unmatched by anything I have seen in my career experience. Lots of good people trying to do the right thing. And the other local governments within the IREI network collaborate with us and provide peer support. Those relationships are enduring, both within and beyond the Comox Valley. The whole is indeed greater than the sum of the parts.”

## Michelle Mason, Village of Cumberland

### Look Back to See Ahead

Two decades ago, the Village of Cumberland played a leadership role in organizing the two Meeting of the Minds workshops that explored the possibility of establishing a communications network for the Vancouver Island region.

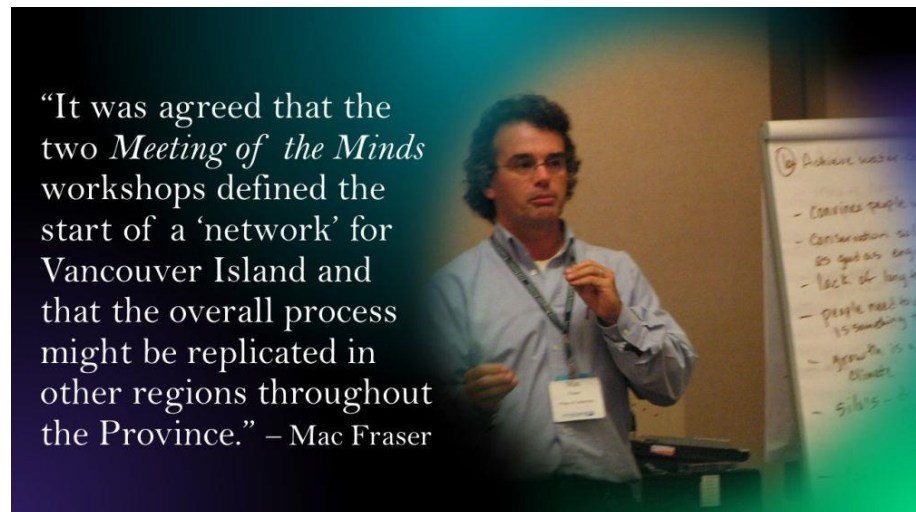
At the conclusion of the second workshop held in Parksville in May 2006, Cumberland CAO Mac Fraser was named Co-Chair of the initiative that within a few months morphed into [CAVI-Convening for Action on Vancouver Island](#).

It was Mac Fraser who coined the CAVI acronym. He subsequently passed the baton to Judith Walker, Village Planner, who was a valued member of the [CAVI-Comox Valley Regional Team](#) for almost a decade.

#### From Gray to Green

*“The phrase ‘gray to green’ is becoming part of the language of land use professionals. Viewed from space, the urbanized landscape appears to be mostly gray. This reflects the impact of roads, rooftops and paved surfaces. The need to shift from gray to green is implicit in the working definition of Sustainable Service Delivery.”*

Judy Walker, as quoted in an article submitted by the Comox Valley regional team, and published in the Asset Management BC Newsletter, June 2011



*“It was agreed that the two Meeting of the Minds workshops defined the start of a ‘network’ for Vancouver Island and that the overall process might be replicated in other regions throughout the Province.” – Mac Fraser*

“We have learned that the change in approach starts with land use planning and recognizing that infrastructure and services can be provided sustainably, both fiscally and ecologically. Another key message is that everyone involved in land development has a role to play in achieving sustainable service delivery.”

Judy Walker (2011)



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### ***A top-down and bottom-up model for collaboration***

*“Cumberland has been really lucky to have really progressive and smart Councils. Their direction to staff through their priorities has created what we have now. We are always learning from past developments and creating land use regulations that will help Cumberland develop sustainably.”*

*“How people in the community are engaged is the education piece. The more they engage, the more they can be part of the solution because they understand the restrictions that we operate under as local government. It becomes quite a collaborative upbringing you could say! I would not want to live anywhere else.”*

*“Partnering with the other local governments helps us with the bigger issues which none of us should be handling on our own, such as the regional park service where we can come together.”*

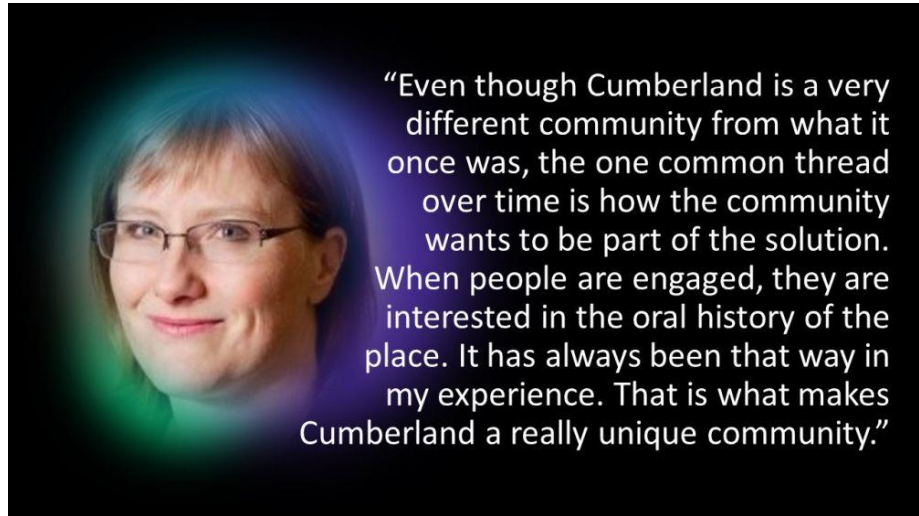
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## **Managing growth in Cumberland**

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Michelle Mason has lived in Cumberland for close to 30 years. She joined the Village in 2009 as Deputy Financial Officer and progressed to CAO. This timeframe provides her with an informed perspective on the changes associated with the population almost doubling to 4500 by the time of the 2021 Census.



*“Even though Cumberland is a very different community from what it once was, the one common thread over time is how the community wants to be part of the solution. When people are engaged, they are interested in the oral history of the place. It has always been that way in my experience. That is what makes Cumberland a really unique community.”*

### **Regional team influence on Cumberland’s Official Community Plan**

“Judy Walker’s involvement with the CAVI team influenced Cumberland’s Official Community, which the Village adopted in 2014,” states Michelle Mason.

“The OCP has high requirements for environmental protection and standards for development. We believe the base for that was influenced by regional collaboration. Having said that, it was very much community driven. Timing is certainly everything. The CAVI initiative brought ideas forward at the right time. The community was ready.”

“People really liked our OCP. It has some really great content in it that was quite innovative at the time (2014). But now it is time for the community to update it and add things like site adaptive planning and some of the newer sustainability and land protection ideas.”

“Other processes are our Urban Forest Management Plan, completed in 2019, and adopted by Council. We are now working on a Tree Protection Bylaw.”

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## Perseverance Watershed Initiative

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“We have had such significant growth. But we are still a small municipality. We have had to manage this fast-growing community with limited abilities to raise funds in the short term still because our tax base is quite small,” continues Michelle Mason.

“It is really important as a smaller municipality to partner with other Comox Valley local governments and with local community groups, some of which have taken on interesting initiatives.”

“The Perseverance Watershed Initiative is a unique partnership between the Village, Cumberland Forest Society and Mosaic Forest Management. It is focused on integrated watershed planning and management in support of long-term sustainability and resilience of the Perseverance Creek watershed. We have also invited K’ómoks First Nation to the table as well because that relationship is super important.”

“We are just in the beginning phases of the initiative. Collaboration on watershed protection is so important because only 25% of the watershed is protected. The other 75% is managed by private timber.”

### A Replicable Precedent

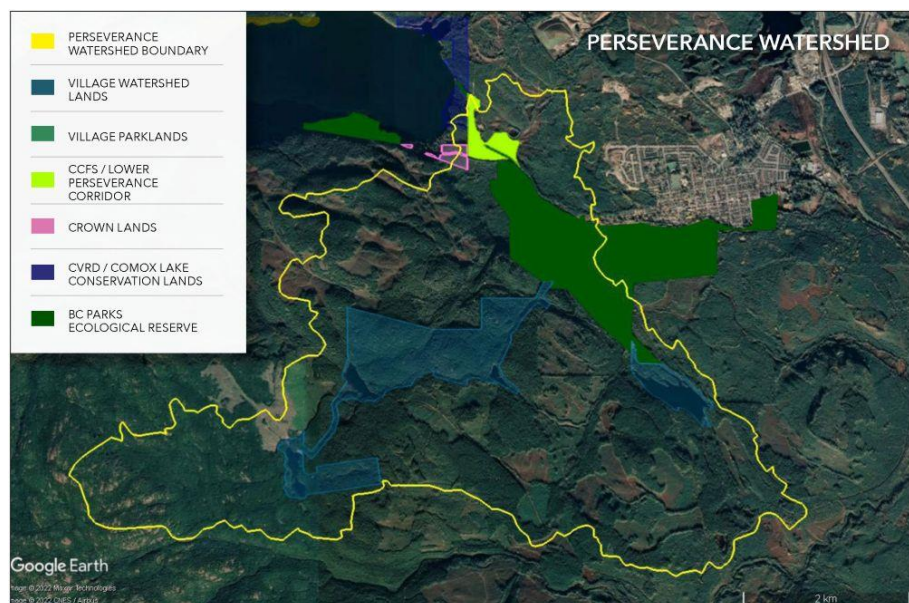
“An Initiative like PWI is critical to build positive relationships with private landowners in our watershed . But really, it has a bigger picture because many other eastern Vancouver Island communities are in a similar situation. And that is, their water source is in a watershed where the land is largely owned by a private forestry company. Hopefully some of the work that we are doing with PWI can inform others.”

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### Perseverance Watershed Initiative

*“The purpose is to move away from the historic pattern of acting on forest harvesting concerns and other issues in the watershed on a block-by-block and case-by-case basis. Instead, the PWI brings together private forest industry, conservation leadership, and the Village to develop a collaborative strategy for integrated watershed management in support of long-term resiliency of the Perseverance Creek watershed.”*

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## Jordan Wall, Town of Comox

“With all the work that has been done over the years in the Town of Comox to improve Brooklyn Creek, the key now is to maintain the commitment of stakeholders. Community partnerships and experience are significant,” states Jordan Wall in reflecting on the role played by the stewardship sector in collaborating with the Town. Jordan Wall has been the Town’s Chief Administrative Officer since 2020.

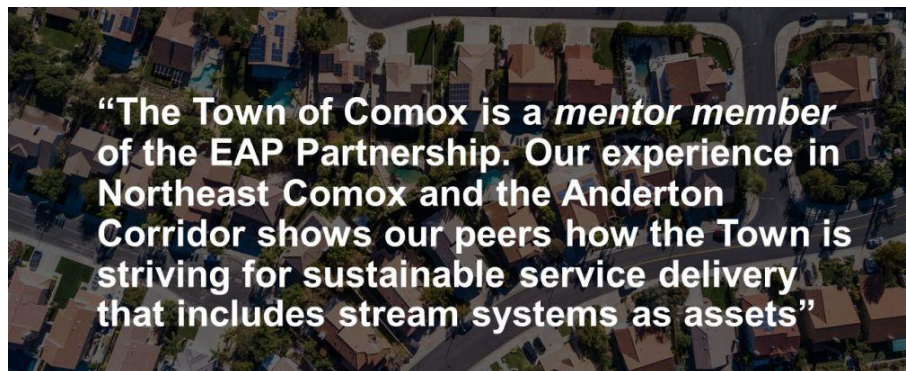
“We rely on our community partners to help us identify and implement opportunities for continuing incremental improvement of conditions in Brooklyn Creek. Also, it is important to the Town that Brooklyn Creek was one of the first two case studies in the EAP program and we continue to be involved.”

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### ***The work of local government is like being on a journey***

*“We are beginning the final step of the pre-steps. In local government you think you have done all the work, but you really have only just started. That is why I say we are beginning the final step of the pre-steps. In February, we will present to Council our overall infrastructure deficit, the actual dollar amount of what it will be, and the hard work of decision making will start.”*

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### **Moving towards Asset Management for Sustainable Service Delivery**

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“We are proud that the Town of Comox embraced the idea of *sustainable service delivery* and ecological accounting practices well before they became an accepted part of the local government vocabulary. Now that asset management is a requirement for provincial grants, we have taken the first couple of steps in working with Council, with the next milestone being in February 2023.”

“We will help Council members with understanding the different ways they can set our asset health scores by asking a few questions, such as --- At what level do you want these assets maintained? Are you willing to let them go past their service expectancy? Are you willing, for example, to have potholes in the road? We will find out at what level they want infrastructure maintained at.”

## Working towards the SSD Goal

“After the February session with Council, it will be onto the Funding Strategy. Here is the gap we have and how many years do we want to take before we eliminate. And then, looking at that strategy, it will be a matter of figuring out how big will the deficit grow until the Town reaches the point where the deficit is no longer growing,” explains Jordan Wall.

“At that point, the question for Council is, do you want to start paying that deficit down or is it acceptable to ride with that level? Those are the discussions that we will be having. These are big, big concepts that we will be exploring with Council.”

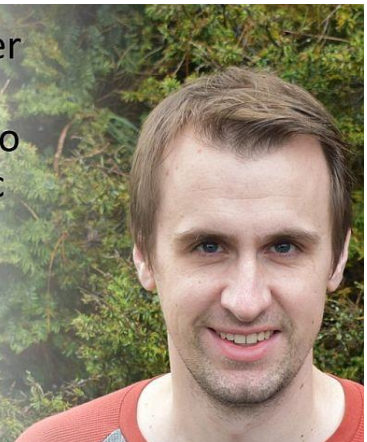
“THE FUNDING STRATEGY IS A PROCESS AND WE ARE PRETTY EXCITED ABOUT IT. COMOX IS AT A DEFINING MOMENT. FROM MY CAREER PERSPECTIVE, I BELIEVE IT WILL PROVE TO BE THE MOST IMPACTFUL DECISIONS AND PROJECT THAT I WILL EVER HELP A COUNCIL COME TO TERMS WITH.”

## Precision vs accuracy; psychology of numbers

“We need to help Council understand what strategic options and impacts are in front of them. Adding decimal places does not help that understanding at all. Adding decimals draws people down into thinking that the decision they must make is too complex.”

“What we are doing is the opposite strategy of what you see at the grocery store. Why would we want to use a system that is meant to confuse the consumer? Round the numbers off. Make it easy for Council to deal with them. Make the tough decision an easy one to understand.”

“Administrators must remember that Council is not making technical decisions. Our job is to help them understand strategic options and impacts. Adding decimal places does not help that understanding at all. Decimals are not needed for strategic decisions.”





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## Collaboration and knowing who to contact

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Being part of the IREI network makes it that much easier to reach out to other local governments to tap into the experience and wisdom of peers who are also on the sustainable service delivery journey. The District of Oak Bay has emerged as a leader because of its [Sustainable Funding Plan](#).



### ***Moving Towards a 'Finance Strategy'***

*"To bridge the infrastructure funding gap requires an intergenerational commitment. There is a special type of courage that Council needs to have to say, 'give us the naked truth'. There is not a lot of political upside to shining a light on infrastructure challenges."*

Christopher Paine, CFO  
District of Oak Bay

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### **Cross-fertilization of experience**

"Oak Bay is demonstrating what a difference it makes when municipal staff have clear direction from Council to achieve two outcomes. So, we reached out to Christopher Paine, Oak Bay's Director of Financial Services, to see what we could learn from Oak Bay experience," reports Jordan Wall.

"Oak Bay's first objective is to stem the incremental erosion of levels of service in the short-term. Their second objective is to translate an intergenerational perspective into a **life-cycle plan of action for perpetual infrastructure renewal.**"

"In developing their Sustainable Funding Plan, we learned that Oak Bay has gone to a really high service level where they are looking to recover all of the costs on their assets during the projected usable life, without using debt. And they are looking to pay down their infrastructure deficit as well. They are going to be in a very strong financial position if they continue on the path that they are walking on."

"It is not likely that Comox is going to go to that extent. More likely is that we will try to strike a balance between present and future. My guess is that where Comox settles out will be kind of even-steven. We pay for what we are using. You pay for what you will use in the future."

"An appealing aspect of what Oak Bay is doing, and Comox can do it too, is to put money in the bank. The advantage of that strategy is that a local government can use the interest earned to pay for the inflationary costs of infrastructure replacement."

"If a local government does not put money in the bank now, then the future generation has to pay for the inflationary premium on infrastructure when it is replaced. Given where inflation now seems to be trending, that is certainly not a philosophical difference. It is a significant one."

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## Context for a focus on ‘Service Levels’

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“District of Oak Bay experience gave us perspective about a process that results in everyone pointing in the right direction strategically. We learned that a unique aspect of the Oak Bay story is that engineering and finance are so much in lockstep on a unified vision for sustainable service delivery,” continues Jordan Wall.

“Council and community typically question why utility rates are what they are, or why rates are increasing, what does that get you and so on. Answering these questions comes down to educating everyone about **levels of service** and the need for a local government to invest in sustaining a desired level of service. So, it will be our job to go out and explain the Town’s Funding Strategy and explain it well.”

“Our Council will have tough decisions to make. And we are going to have to do our best to help them understand that. When presented with the issues and the level of service reasons why we need to do this, will for the most part be accepting of it.”



### ***There is no free infrastructure***

*“In just 3 years, through incremental increases to funding reserves, Council reduced the 100-year gap by \$460 million. That’s 3 to 4 years of their governance decisions. If they had waited until Chris arrived to develop the financial plan, they’d be \$10 million behind just in the current election cycle, let alone how much that translates to over the next 100 years.”*

Daniel Horan, Director of Engineering & Public Works, District of Oak Bay

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### **This is just the beginning!**

“The current CVRD sewer conveyance project is a reminder of a local government reality. Just as we finally thought we were done; we were reminded that all our effort was just to get the project started. The construction is next.”

“In my world, you have to remind yourself not to be fooled when you have this big feeling of relief that you have done everything that needs to be done. In reality, you have just prepared the rocket for launch. The real exciting part is still to come, and that is what in store for us with the Funding Strategy for achieving sustainable service delivery.”

### ***A closing thought by Jordan Wall:***

*“It is a really rare thing to have municipal staff say that we are working with a group that actually brings value and helps out, rather than the other way around. Thus, I echo the comments by Shelley Ashfield - They say it takes a village to raise children. Similarly, it takes a village to deal with stormwater! The Town of Comox appreciates everything that the Partnership for Water Sustainability has done to support us and guide us since 2009. We have come a long way with your help.”*

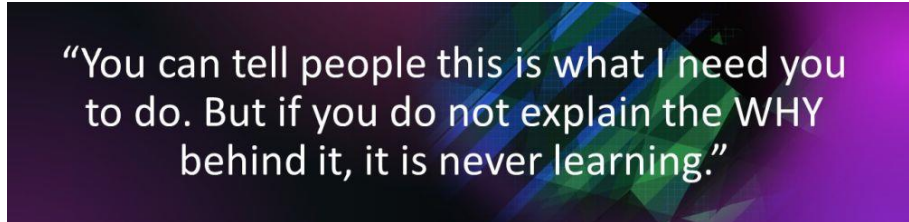


## Geoff Garbutt, City of Courtenay

A resident of the Comox Valley since 2000, Geoff Garbutt joined the City of Courtenay as a planner shortly after. This experience was followed by long-term stints with the Regional District of Nanaimo and the Comox Valley Regional District. He rejoined the City of Courtenay as City Manager in early 2021.

“This community has been good to me,” says Geoff Garbutt, “I wanted to come back to the City of Courtenay because I saw the impact that an organization can have on the built environment, natural environment, recreation, and lives of people.”

In recent decades, the Comox Valley has had rapid and large population growth combined with a significant turnover in senior staff. Thus, Geoff Garbutt is faced with this existential challenge in his leadership role: *if they do not know what they do not know, how do you open their minds so that they will want to know what they do not know?*



“You can tell people this is what I need you to do. But if you do not explain the WHY behind it, it is never learning.”

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### Importance of Oral History

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#### **Oral History – Understand the Why**

*“To be successful, you do have to understand the WHY. What makes the community tick, what makes the organization tick? You do not really know that unless you are either listening or interacting or sharing or being flexible yourself.”*

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“We have been doing a lot of organizational development on understanding why things are happening in our city and what is the history is. When I came back, staff were drafting the Official Community Plan. It was a good time for us to reflect back on some of the whys.”

“If you do not know what to do, I can help you find that out. You are only going to know what to do by understanding the background. That is what I have been doing since I got back. As City Manager, I have been asking people if they know why they are doing what they are doing, and then helping them understand why or explaining why. And after that, letting them create their own plans and move forward.”

“It is really important organizationally for us to be clear and communicate values and experiences back to our staff. We do that through storytelling. We do that through mentoring. We do that by bringing a historical context to project development. We did that, for example, with the first Strategic Plan that I did with Council.”

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## Kus-kus-sum Project on the Courtenay River is a model for “Water Reconciliation”

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“I really like the people development part of my job as city manager,” continues Geoff Garbutt. “The City of Courtenay has some amazing young professionals, and I am super proud of the team that we are building. Understanding the WHY is foundational to the organizational culture and how we are dealing with the issue of staff turnover.”

His approach to instilling and interweaving an understanding of oral history into the City of Courtenay organizational culture aligns with the intergenerational perspective that First Nations bring to collaboration.

Geoff Garbutt is enthusiastic about reconciliation with First Nations and points to the Kus-kus-sum project as an inspirational model for interweaving Indigenous knowledge and Western science to transform a former sawmill site back into its original wetland habitat, while also honoring the historical presence and use of the site by K’ómoks First Nation. This project could be seen as “water reconciliation in action”.

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### ***Kus-kus-sum site restoration on the Courtenay River***

*“The decisions we are making in the Comox Valley are leading edge. There have been other brownfield projects elsewhere. But just seeing the joint work and cooperation and forethought and partnerships that happened between KFN, Project Watershed (a non-government organization) and the City of Courtenay to make that change on the former sawmill site... it is astonishing actually.”*

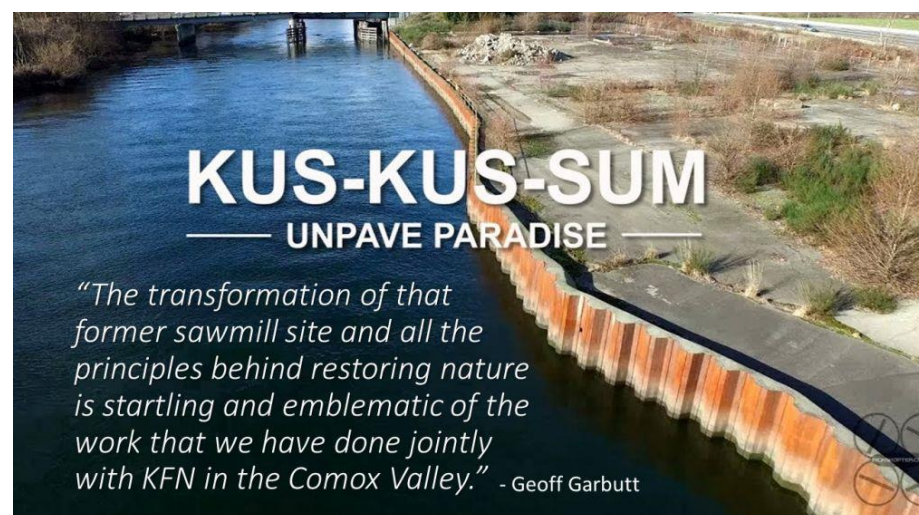
Geoff Garbutt

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### **Purchasing policy change reflects reconciliation**

“Alignment with First Nations core values is something that is really important to me. And I believe there is a great opportunity for non-Indigenous people to build on partnerships with K’ómoks First Nation (KFN) for cultural prosperity as well as economic prosperity, environmental protection, etc. in the Comox Valley.”

“In this spirit, the City of Courtenay just brought forward a purchasing policy that has an Indigenized component. And the policy looks at partnerships with KFN as well as Indigenous businesses. So, it gives a priority to that outcome. At the same time, we have always looked for shared interests and how we can work together.”



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## What intergovernmental collaboration looks like in the Comox Valley

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### **A perspective on Courtenay-Comox collaboration**

*“I cherish the work that we are now doing with Comox. I think we are going to really benefit from doing more. It is a great opportunity for two similar organizations to support one another and to benefit from each other’s experience.”*

*“Some of the history that I have been sharing is one direction. But Comox staff have so much experience on their engineering and planning side in the area of watershed planning to share back with us. I think it is a great partnership. I am looking forward to continuing to work with them.”*

*“There is a great opportunity to look at the Brooklyn Creek corridor together and from a range of perspectives. The other leg of the stool is working with CVRD, the third jurisdiction in this shared watershed.”*

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“Within the City of Courtenay, what has also been really great at the staff level is the collaboration,” states Geoff Garbutt. “And it is not collaboration for the sake of collaboration. It is genuine. There is a real interest among staff in working together.”

“Layered over internal collaboration, there is a spirit of collaboration among the four Comox Valley local governments. And it starts at the top. Amongst the four CAOs, we share a strong desire to work together. Carrying on and fostering that culture of collaboration is something that I think is critical for all of us to move forward.”

### **INTERGOVERNMENTAL COLLABORATION:**

**“Open communication and building relationships among the four Comox Valley local governments helps us come to better decisions and find pathways to solve problems collectively.”**



### **Lines of communication are open**

“With four local governments in the Comox Valley, how do we stay on the same path? Our shared vision developed through the Regional Growth Strategy has us working together, with shared principles, and are rowing in the same direction. With this backbone, then collaboration can be really powerful. A lot of that rowing in the same direction is going to be supported by our focus on the natural environment, environmental management, climate adaptation.”

“The four CAOs have diverse backgrounds which include individual and group strengths in financial management, economic development, governance, services and planning. We are working closely together, and those lines of communication are open. We are looking for shared service models.”

“Courtenay and Comox are closely involved because we have a lot of common issues. We are looking at opportunities to develop a level of consistency to manage a variety of issues. And we are looking to tackle them in a common way. One of the goals from our OCP is to incorporate similar rules from the different jurisdictions. The objective is to be consistent while also helping our development community.”

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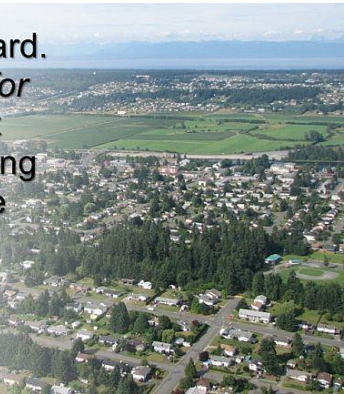
## Evolving what Asset Management for Sustainable Service Delivery looks like

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“In my mind, the phrase [Asset Management for Sustainable Service Delivery](#) is a euphemism for make the right decisions, think about the future, and then take action,” states Geoff Garbutt. “It is much more than just the physical infrastructure. It is more than just setting some money aside for infrastructure replacement. It must be comprehensive and integrated in linking the past, present and future.”

“And furthermore, *Asset Management for Sustainable Service Delivery* has got to evolve because the future is NOT the past. We need to evolve how are we going to accommodate, for example, community goals such as active transportation.”

“We also need to adapt moving forward. So, that means *Asset Management for Sustainable Service Delivery* has got to reflect where the community is going as well. If you are only going to make decisions that maintain your assets as they are, that is insufficient. The process needs to evolve to meet the community’s changing needs.”



### West Courtenay culvert issue illustrates what “adaptive asset management” looks like

“We had a failing culvert and the situation was compounded by the presence of the endangered and infamous lamprey, a blood sucking leech! It would have been a \$2M project to replace the culvert. To put this in context, a 1% tax increase is \$250,000. That’s a sustainable service delivery question right there!”

“Our approach to *Asset Management for Sustainable Service Delivery* was to say, should we fix that culvert?”

“I said to my staff, let’s unpack this from a systems perspective. What does this asset look like for us, and could it be something different? We concluded that we need not and would not spend \$2M to replace that culvert. We had other options.”

“We decided to leave the culvert in place and turn it into a pedestrian connection as an element of the active transportation strategy. I was super proud of our team for coming up with a creative solution. On top of that, it was my first financial plan with Council. So, it was important to get these approaches right.”

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### Strive for integrated solutions!

*“The West Courtenay culvert issue illustrates why I look at the Asset Management concept as being about adaptation and innovation as well as simply maintaining things. Everything has a purpose. When you bring your policy focus together, integrated solutions result.”*

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## Closing Thoughts on Comox Valley Collaboration

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### Story of the Journey is a Legacy Resource

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“Knowledge is passed on verbally and we learn through stories. This is the big picture context for the Partnership for Water Sustainability initiative in creating this legacy resource. Thus, this story behind the story of the region’s journey through time is the Partnership’s gift to the four Comox Valley local governments,” states Derek Richmond, a founding Partnership director as well as Comox Valley resident.

“It is our hope that having this record of their oral history - because that is what it is - will serve to inform and inspire future generations of local government staffs. At the end of the day, there are three takeaway messages from this successful experiment in collaboration.”

#### **Message #1 – Each local government has contributed something of value to the big picture.**

“Everyone cannot do everything. What really stands out about the Comox Valley is that each local government has developed an area of expertise or strength that is provincially significant. The combination is potentially quite powerful in terms of shaping the future of the valley. But only if there is an enduring commitment to walk the talk.”

#### **Message #2 – Collaboration is the gift that keeps on giving over time.**

“Collaboration helps everyone better deliver on policy goals and outcomes. But one has to believe, truly believe, in collaboration to make it so. Lip service does not cut it. What this means is that collaboration must be embedded in an organization’s culture. There is no other way. It must be a commitment, a guiding principle.”

#### **Message #3 - Understand the WHY!**

“Collaboration is all well and good as a desire. But it must be founded on an understanding of oral history in order to pass the baton. For lack of a better phrase, it means successive generations of local government staffs must **understand the WHY**. Learn from these words of wisdom by G.K. Chesterton (1874-1936) who said, ***don’t ever take a fence down until you know the reason it was put up.***”

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the partnership  
for water sustainability in bc

## ***A 3-Year Transition Strategy for Ensuring Continuity of the Partnership Network***

### **Annual Report 2022**

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TO LEARN MORE, VISIT:

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## **About the Partnership for Water Sustainability in British Columbia**

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The long-term success of the Partnership for Water Sustainability in BC is founded on recognizing when there is either a need or a watershed moment, and then creating a self-fulfilling prophecy. The Partnership has done this repeatedly over the years and decades.

In October 2022, the Partnership leadership team convened in Nanaimo, reflected on how to ensure the continuity of the Partnership network, and emerged with the concept for a 3-year transition strategy to create a self-fulfilling prophecy once again.

The Partnership itself is a unique approach to collaboration because the emphasis is on growing the network within a constellation of networks. A foundational idea is that we are not building a “PWSBC organization” per se. But there will always be the need for an “engine” or guiding force, which is the Partnership leadership team.

Growing and sustaining the network is very much about finding those to whom the Partnership can pass the baton. At the end of the day, ensuring continuity of the network is really about how organizations continue within the network.

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