

The 2011 Comox Valley Learning Lunch Seminar Series

Organized by:

Convening for Action on Vancouver Island Leadership in Water Sustainability



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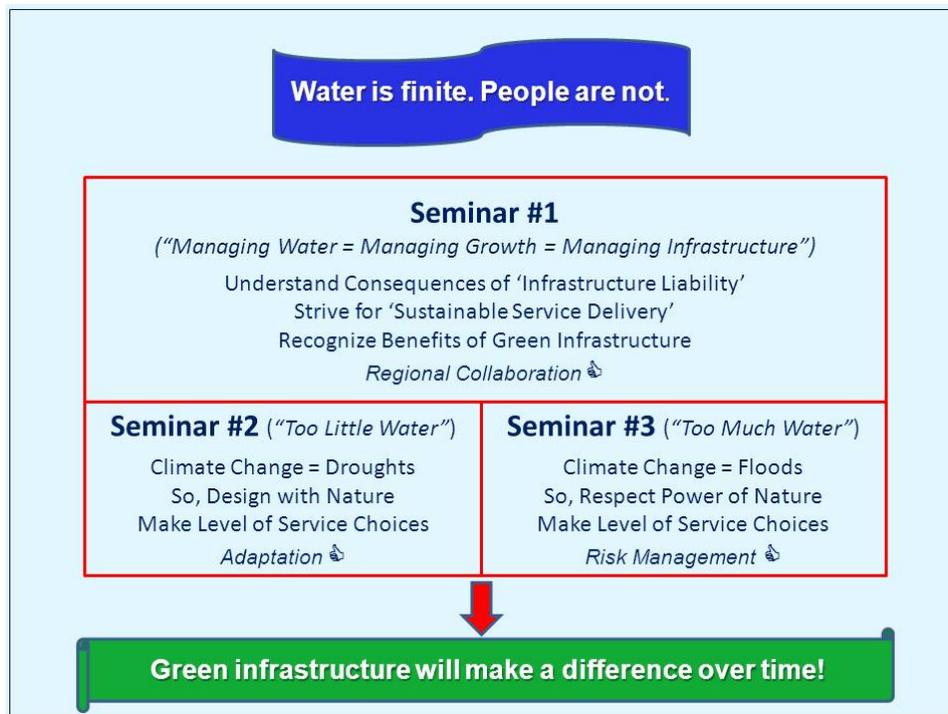
Under the umbrella of the Water Sustainability Action Plan for BC



2011 Comox Valley Learning Lunch Seminar Series

A Regional Response to Infrastructure Liability
Through Collaboration, Adaptation and Risk Management

Date of this Draft: 21-February-2011



Series Abstract

History shows that local governments are very good at planning ahead, but not-so-good at looking ahead – for example: *The initial capital cost of municipal infrastructure is about 20% of the life-cycle cost. The other 80% is an unfunded liability, and is increasing year after year.*

The unfunded ‘infrastructure liability’ is a driver for local governments 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. Climate change is part of the liability equation - adaptation has level-of-service implications for infrastructure.

Thus, the unifying theme for the 2011 Comox Valley Learning Lunch Seminar Series is this: *Water sustainability is more likely to be achieved when land use planning and climate change adaptation are integrated with infrastructure asset management.*

Tackling the unfunded infrastructure liability involves a life-cycle way of thinking about infrastructure needs and how to pay for those needs over time. This holistic approach is described as **Sustainable Service Delivery**.

The link between infrastructure asset management and the protection of a community’s natural resources is emerging as an important piece in Sustainable Service Delivery. By ‘designing with nature’, a local government could make a very strong case for having a higher level of service, at a lower life-cycle cost, with ‘assets’ that appreciate, not depreciate.

TARGET AUDIENCE: Land use and infrastructure professionals

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Seminar Program Outline

Local governments in the Comox Valley are ‘convening for action’ around a water-centric theme:

- *Water is the finite resource; however, management of development is the control.*
- **Water OUT = Water IN** *is the mind-map for an holistic approach (refer to graphic on page 4)*
- *Water sustainability will be achieved through implementation of green infrastructure practices*

DESIRED OUTCOME: The four local governments will prepare a Joint Report that: summarizes the 3-year seminar program; describes how the regional team approach has developed leadership capacity; and proposes a policy framework for resolving the unfunded infrastructure liability.

| Seminar Theme | Seminar Scope |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1 Collaboration – Comox Valley Regional Initiatives</p> <p>SO WHAT</p> | <p>a. Session #1 will build on the Developers Dialogue. The spotlight will be on the existing unfunded ‘infrastructure liability’, and why all those involved in land development have a role to play in Sustainable Service Delivery.</p> <p>b. The session will explore this premise: <i>Water sustainability is more likely to be achieved when land use planning and climate change adaptation are integrated with infrastructure asset management.</i></p> <p>c. A desired outcome is that participants will understand why the link between infrastructure asset management and the protection of a community’s natural resources is emerging as an important piece in Sustainable Service Delivery.</p> |
| <p>2 Adaptation – Design with Nature to Achieve Rainfall Capture & Water Conservation Goals</p> <p>NOW WHAT</p> | <p>a. Session #2 will focus on urban watershed protection and restoration issues, with emphasis on a ‘design with nature’ approach to climate change adaptation: <i>These are the values of importance to everyone; and this is the community standard that we wish to build to.</i></p> <p>b. Northeast Comox will serve as a case study to test the application of ‘green infrastructure’ and ‘green value’ approaches embodied in the <i>Water Balance Model</i> and the <i>Comparative Land Use Typologies & Matrix</i>, respectively.</p> <p>c. A desired outcome is that participants will understand how a ‘design with nature’ approach integrates rainwater management and drought management.</p> |
| <p>3 Risk Management – Respect the Power of Nature</p> <p>THEN WHAT</p> | <p>a. Session #3 will focus on floodplain and flooding issues, with emphasis on a ‘risk management’ approach to sea level rise and climate change adaptation.</p> <p>b. Recent flood overflows due to the combination of high river and high tide levels provide context for identifying guiding principles for a regional risk tolerance framework: <i>Because we have a limited ability to engineer change, we need to be cautious and anticipate nature’s extremes.</i></p> <p>c. A desired outcome is that participants will understand how a common-sense approach to determining ‘risk tolerance’ would inform the Comox Valley regional response to climate change.</p> |

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Collaboration, a 'Design with Nature' approach, and re-use of resources are keys to mitigation of unfunded infrastructure liability and adaptation to climate change

To achieve higher levels of stream, wetland and marine environment protection:

- Protect and restore urban 'green' space
- Strive for a lighter 'water footprint'
- Re-use and recycle water, energy & nutrients from liquid wastes
- Develop compact, complete communities

Water for Life & Livelihoods:

This deceptively simple equation embodies principles and concepts for dealing with uncertainty and managing risk; and implementing an holistic approach to **Drought Management & Rainwater Management**

The Water Balance

$$OUT = IN$$

IN = f (hydrology, weather, time, infrastructure...)

OUT = Uses + F_{safety}

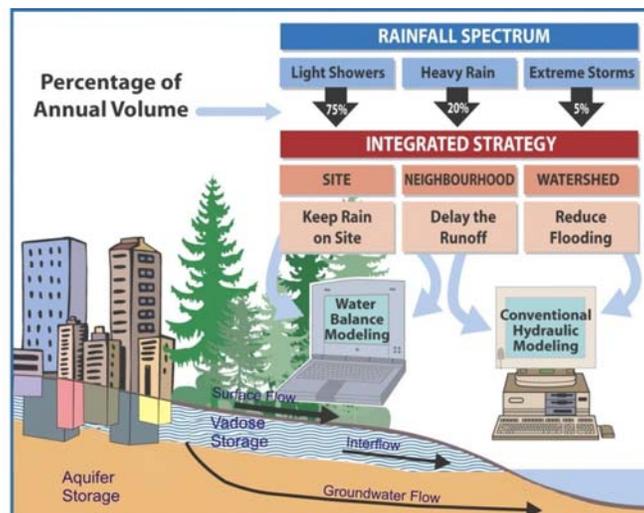
OUT = ($U_{essential} + U_{excess}$) + F_{safety} Over time, the safety factor has been decreasing

where...

$U_{essential} = f$ (population, ecology, industry, time ...)

$U_{excess} = f$ (wealth, society, technology...)

and ... both sides of the equation are variable!



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Background on Series Evolution During the Period 2008 - 2011

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| <p>Context</p> | <ul style="list-style-type: none"> • The Province’s Living Water Smart and Green Communities initiatives provide a framework for convening for action in order to improve the way that land is developed, water is used, and infrastructure is renewed and financed over time. • 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>), those who grow food (<i>the agricultural sector</i>), and those who do research (<i>universities and colleges</i>). • Through CAVI, Vancouver Island is the demonstration region for implementing a ‘regional team approach’ that aligns local actions with provincial goals to achieve sustainable solutions: <i>What do we want Vancouver Island to look like in 50 years and beyond?</i> Making this happen requires partnerships, collaboration, innovation and integration. • The Comox Valley Learning Lunch Seminar Series is an important cornerstone towards integration across the Island. The series is a forum for bringing together people who share a vision... so that they can focus on solutions and generate positive energy and passion that results in commitment that, in turn, leads to action and implementation. • 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 “Comox Valley regional team approach”. • In 2009, the focus was on how to implement the regional team approach. This resulted in three tangible outcomes: formation of ‘CV-OPS’ (<i>Comox Valley Inter-Governmental Engineering/Operations Liaison Group</i>), concept for an <i>Engineering & Planning Collaboration Protocol</i>, and an ‘integration theme’ for the 2011 Series. |
| <p>The Challenge</p> | <ul style="list-style-type: none"> • <i>How we will 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 a regional stewardship approach to land and water resource uses.</i> |
| <p>Meeting the Challenge</p> | <ul style="list-style-type: none"> • The 2011 theme, <i>A Regional Response to Infrastructure Liability</i>, defines what is to be accomplished by building on the foundation provided by the two previous series. • Address the “needs of the funders” in demonstrating that Comox Valley collaboration is a provincially significant initiative. • Continue to advance the regional team approach consistent with “the 4Cs” (i.e. communicate, collaborate, cooperate and coordinate) to meet the collective vision. • Leverage the <i>2010 Developers Dialogue</i> ‘bridging event’ to facilitate alignment of the efforts of local government and the development community at a watershed scale. • Build on the water-centric credibility and strengths of the 2009 Series to demonstrate how a ‘<i>Design with Nature</i>’ approach to land development supports <i>Sustainable Service Delivery</i> and can produce a ‘<i>Settlement Change in Balance with Ecology</i>’ outcome. • Focus on a land development project as a case study (i.e. to make the integration process real). • Learn from the case study application and validate tools that will help the regional team make progress towards this over-arching goal: <i>An Integrated Watershed Approach to Settlement</i>. • Serve as a “springboard beyond the Comox Valley” in order to contribute to water sustainability in the Georgia Basin. |