

Convening for Action on Vancouver Island  
Leadership in Water Sustainability



## Comox Valley Local Governments Showcase “A Regional Response to Infrastructure Liability”

ADAPTATION is the theme for Seminar #2 in the 2011 Comox Valley Series



**Convening for Action in the Comox Valley:**  
Visualize What We Want Our Region to Look Like in 50 years

**Create a Legacy:  
Settlement Change in Balance with Ecology**

- 1. Influence choices by individuals and organizations*
- 2. Use the term “sustainability” as a lens for considering approaches that influence choices*

# 2011 Comox Valley Learning Lunch Seminar Series

## A Regional Response to 'Infrastructure Liability'

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### Preface

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*The initial capital cost of infrastructure is about 20% of the life-cycle cost; the other 80% largely represents a future unfunded liability. Each year, the shortfall grows.*

*In addition, local governments bear the entire financial burden to stabilize and restore watercourses impacted by the cumulative impacts of increased rainwater runoff volume after land is initially developed or redeveloped to a higher density.*

*Through a program of professional development, the four Comox Valley local governments are striving for a consistent regional approach to **Sustainable Service Delivery**. The focus of the 2011 Seminar Series is on how all those involved in land development have a role to play in integration of land use planning and infrastructure asset management.*

*The scope of the 2011 Series is encapsulated in the image opposite. The Agenda for Seminar #2 follows on the next page.*

*This article is the tenth of a series posted on the Water Bucket website to provide a written record of the 2011 program. In the years to come, it is hoped that these articles will prove to be a valuable resource.*

*Tim Pringle, President  
Partnership for Water Sustainability in British Columbia  
May 2011*



**BRITISH COLUMBIA**  
The Best Place on Earth

### So What is Sustainable Service Delivery?

- It integrates all the principles of Asset Management
- It understands the value of land-use planning
  - And it understands the impacts land-use planning has on service delivery
- It integrates the 'Design with Nature' philosophy
  - Nature is a valuable asset that must be 'maintained' in order to 'operate' effectively
  - Nature's assets often appreciate rather than depreciate – What can we do to leverage this?
  - Nature provides multiple 'services' – some similar to traditional community services – i.e. Rainwater Management
  - Nature, and many of the resources it provides, are finite

**2011 Comox Valley Learning Lunch Seminar Series**  
A Regional Response to 'Infrastructure Liability'

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**2011 Comox Valley Learning Lunch Seminar Series:  
A Regional Response to Infrastructure Liability**

*Water is finite. People are not.*

**Seminar #1**

*("Managing Water = Managing Growth = Managing Infrastructure")*

Understand Consequences of 'Infrastructure Liability'

Strive for 'Sustainable Service Delivery'

Recognize Benefits of 'Green Infrastructure'

*Regional Collaboration* 🏡

**Seminar #2**

*("Too Little Water")*

Climate Change = Droughts

So, Design with Nature

Make Level of Service Choices

*Adaptation* 🏡

**Seminar #3**

*("Too Much Water")*

Climate Change = Floods

So, Respect Power of Nature

Make Level of Service Choices

*Risk Management* 🏡



**Green infrastructure  
will make a difference over time!**

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A Regional Response to 'Infrastructure Liability'

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Agenda for Seminar #2 on May 19  
Adaptation – 'Design with Nature' to Achieve Rainfall Capture  
and Water Conservation Goals

1000 - 1215	<p align="center"><b>Establishing Expectations – This is what we want our valley to look like!</b></p> <ol style="list-style-type: none"> <li><b>1. Look Beyond Our Municipal Boundaries</b> <ol style="list-style-type: none"> <li><b>(a) Regional Response to Infrastructure Liability: What We Learned At Seminar #1</b> <i>(Glenn Westendorp &amp; Kim Stephens) (15 minutes)</i> Explain the three dimensions to the unfunded 'infrastructure liability'</li> <li><b>(b) Nature Without Borders: Align Efforts at a Watershed Scale</b> <i>(Jack Minard &amp; Kevin Lorette) (15 minutes)</i> Introduce the Tsolum River case study</li> </ol> </li> <li><b>2. Rainwater Management in a Watershed Context: 'Do More With Less &amp; Achieve Stream Health Benefits'</b> <i>(Jim Dumont) (~1¼ hours)</i> Explain how watershed targets can be met at the development and site scales</li> </ol>
<b>LUNCH</b>	<b>Take an extended break and continue the conversation! (60 minutes)</b>
1315 - 1500	<p align="center"><b>Delivering on Expectations – This is how we can/will get there!</b></p> <ol style="list-style-type: none"> <li><b>3. Look Within Our Municipal Boundaries</b> <ol style="list-style-type: none"> <li><b>(a) Changes to the Built Environment in the Comox Valley: Understanding Where Northeast Comox Fits Into the Big Picture</b> <i>(Tim Pringle) (15 minutes)</i> Examine NE Comox through the lens of the <i>Comparative Land Use Typologies &amp; Matrix</i></li> <li><b>(b) Rainwater Management in Northeast Comox: Vision for Green Infrastructure</b> <i>(Glenn Westendorp) (15 minutes)</i> What we want to achieve through green infrastructure – "maintain the water balance"</li> <li><b>(c) Town-Hall Sharing Session: Rainwater Management in Northeast Comox: Implementation of Green Infrastructure to Use Less Water and Prevent Runoff</b> <i>(facilitated by Kim Stephens) (70 minutes)</i> Explore how the Town could establish and implement rainfall capture and runoff control targets</li> </ol> </li> <li><b>4. A Look Ahead to Seminar #3</b> <i>(Glenn Westendorp) (5 minutes)</i></li> </ol>

# 2011 Comox Valley Learning Lunch Seminar Series

## A Regional Response to 'Infrastructure Liability'

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### A Provincial Perspective on Climate Change

"Mitigation and adaptation are both necessary and complementary strategies to cope with the climate change challenge. If mitigation is about CARBON, then adaptation is about WATER," stated MLA John Slater, Parliamentary Secretary for Water Supply and Allocation in the BC provincial government. He made this statement in his opening remarks at the *From Rain to Resource: Managing Stormwater in a Changing Climate Workshop*, held in October 2010 in Kelowna.

"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. Rainwater management is at the heart of designing with nature."

#### A Perspective on Climate Change

*"If mitigation is about CARBON,  
then adaptation is about WATER."*



John Slater, MLA  
Parliamentary Secretary for Water Supply and Allocation (to the Minister of Environment)  
Province of British Columbia  
October 2010

### Water for Life and Livelihoods

Local governments in the Comox Valley are convening for action around this paradigm: Water is the finite resource; however, management of development is the control.

"When you think about it, water truly is the unifying element for the myriad of regional strategies and plans that have been under development for the past few years," reflects Michael Zbarsky, Manager of Transit and Sustainability with the Comox Valley Regional District.



### Water OUT = Water IN

"In 2005, we introduced the Water OUT = Water IN mind map (see next page) to help practitioners and others think holistically about water issues. It was a way to portray complexity in a way that we believed people could intuitively understand," explains Kim Stephens, Executive Director for the Partnership for Water Sustainability in British Columbia. He is the moderator for the 2011 Comox Valley Series.



"The equation is deceptively simple, yet it embodies the basic principles and concepts for dealing with uncertainty and managing risk. It allows us to draw attention to the elements of the water cycle, how we allocate and use water, and make the point that water and land uses are interconnected."

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#### Reduce Water Need & Limit Water Runoff

"In a nutshell, climate change on the West Coast means less snow and more rain in the winter months; it also means longer and drier summers. While it rains a lot in coastal BC, we generally don't have an abundance of supply when the demand is greatest. Because mountain watersheds are typically storage-constrained, the issue is already one of **under-supply**. Climate change is therefore aggravating an existing vulnerability."

"Maintaining the natural storage capacity of the watershed landscape is important to people and fish. If we need less water for lawn and garden irrigation, then our water supply sources will be better able to carry us through a drought. At the same time, slow release of water from the landscape to streams will sustain baseflow for fish," concludes Kim Stephens.

"So, if we are vulnerable on the IN side of the equation, then we must build in resiliency on the OUT side. That means we have to look for the little things that will yield cumulative benefits - for example, a topsoil sponge on development sites reduces **water need** and also limits **water runoff**."

### 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***

