



**the partnership  
for water sustainability in bc**

Convening for Action in British Columbia

# **Land and Water Stewardship: Beyond the Guidebook Initiative Will Help Achieve “Develop with Care 2012” Outcomes**

Integrating the Site with the Watershed and the Stream



September 2012

# Integrating the Site with the Watershed and the Stream

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Beyond the Guidebook Initiative Will Help Achieve “Develop with Care 2012” Outcomes

## Preface

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*The Partnership for Water Sustainability in British Columbia is helping the Province implement the Living Water Smart and Green Communities initiatives in the local government setting. Launched in 2008, these initiatives comprise plans, strategies, targets, actions and tools to reduce the ‘water footprint’ of BC communities.*

*The following article comprises two stand-alone yet interconnected parts. The first part is about the internationally acclaimed ‘Develop with Care 2012’. The second part elaborates on the ‘Beyond the Guidebook’ initiative which is nested within Develop with Care 2012.*

*Develop with Care 2012 is an implementation tool for Living Water Smart, and presents environmental guidelines for urban and rural land development in British Columbia. Looking ahead to 2012, the Partnership will be integrating Develop with Care 2012 into the curriculum for the Vancouver Island Inter-Regional Education Initiative.*

*The two satellite documents (about birds of prey and reptiles/amphibians living in and around urban areas) are now undergoing revision. And the Ministry of Environment’s Air Quality Branch has developed guidelines specifically referenced to Develop with Care 2012. These are also accessed through the Develop with Care 2012 web link.*

*Links for downloading other guidance documents are provided at the end of this article.*



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## 1. Develop with Care 2012

In 2006, the Province of BC released *Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia*. Now, “Develop with Care 2012” replaces the original version of this internationally acclaimed guidance document.

“**Develop with Care 2012** features information on ‘green’ alternatives to typical urban development, riparian protection, climate change, Environmentally Valuable Resources, terms of reference for conducting biological inventories, checklists for streamlining review processes, and much more. It promotes ways to retain and create environmental function and resilience as communities grow,” reports Marlene Caskey, the project lead for both the 2006 and 2012 versions of this joint Ministry of Environment and Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) document.

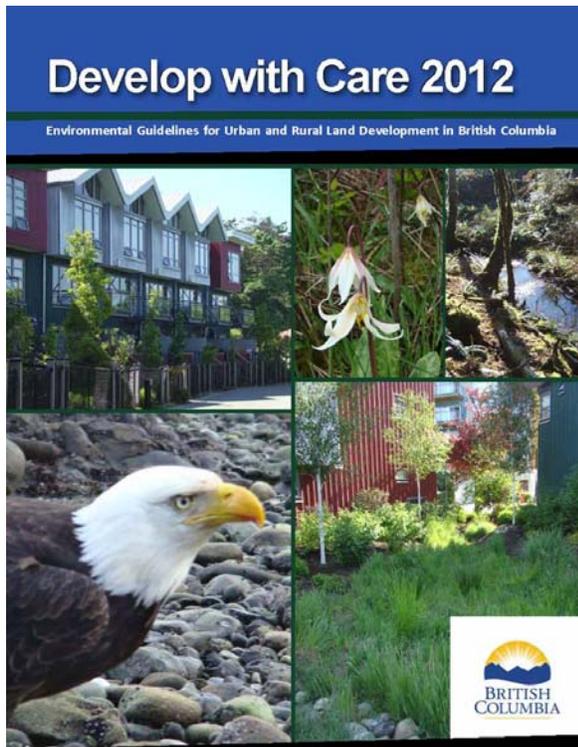


## Province-wide Guidelines

“While its primary purpose is to provide province-wide guidelines, *Develop with Care 2012* also emphasizes how environmental protection and stewardship can benefit the community, the property owner and the developer, as well as the natural environment. *Develop with Care 2012* is a primer on the importance of preserving intact functioning ecosystems as an integral part of the strategy for addressing overall climate change and water wise issues,” adds Marlene Caskey.



“*Develop with Care 2012* provides how-to guidance for maintaining environmental values during land development, whether that be in a suburban or rural setting,” continues Margaret Henigman, MFLNRO, *Develop with Care* team member for both the 2006 and 2012 versions. “This guidance document is written for those who are involved at any and all stages in the land development process – whether that involvement is during planning, reviewing and/or approving, or implementing – and in any of the eight regions of BC.”



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### Internationally Acclaimed

“The 2006 version, which was well received by communities and organizations worldwide, has been revised and updated by enhancing and reorganizing the information to facilitate efficient application of its principles to development proposals,” states Marlene Caskey.

“The 2012 edition has a ‘quick reference guide’ for easier locations of topics, more details about climate change and sea level rise impacts on communities, the long-awaited terms of reference for urban/rural bio-inventories, and many new fact sheets focussed on species at risk,” adds Margaret Henigman.

“I work with many BC local governments to help them achieve their environmental goals. There are a multitude of issues for local governments to deal with, so having *Develop with Care* as a comprehensive place to start makes it an invaluable tool. People also like the links to stories and more detailed information,” states Judith Cullington. She prepared the revisions incorporated in *Develop with Care 2012*. Her experience as an elected representative brought a relevant dimension to the revisions.



**Structure:** *Develop with Care* has five sections:

- SECTION 1 provides an overview describing the Province’s approach to results-based management.
- SECTION 2 features environmental guidelines for community planning.
- SECTION 3 provides environmental guidelines for site level planning and development.
- SECTION 4 describes measures to identify and protect Environmentally Valuable Resources during land development.
- SECTION 5 is comprised of regional information packages describing information specific to each area of the province

To download *Develop with Care*, follow this link: <http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare2012/>

### A Local Government Perspective

“We have found *Develop with Care* to be of immense help in supporting the sustainability goals and objectives of our Official Community



Plan. It has become standard practice to include provisions which encourage developers to implement applicable guidelines and recommendations in all our Environmental Development Permits. We anticipate making even more use of the updated version to supplement and enhance our environmental protection policies,” states Alan Haldenby, Director of Planning with the City of Colwood (in BC’s Capital Region).

**Reduce a Community’s ‘Water Footprint’:** *Develop with Care 2012* is an implementation tool for **Living Water Smart, BC’s Water Plan**. The latter is a call to action on the part of local government to prepare communities for change, do business differently, and over time reduce the ‘water footprint’ of BC communities.

The 45 actions and targets in *Living Water Smart* establish expectations vis-à-vis how land will be developed (or redeveloped) and water will be used. The *Green Communities Initiative* complements *Living Water Smart* and comprises plans, strategies and enabling tools to achieve the land and water stewardship vision. A key message is that water sustainability will be achieved through implementation of green infrastructure policies and practices.

Nested within “*Develop with Care 2012*” is the **Beyond the Guidebook** initiative. This is building on the technical foundation created a decade ago when the Province and Environment Canada jointly released *Stormwater Planning: A Guidebook for British Columbia*. The *Beyond the Guidebook* initiative provides local government with tools and understanding to integrate the site with the watershed and the stream.

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### 2. Beyond the Guidebook: Implementing a New Culture for Urban Watershed Protection and Restoration in BC

“In 2002, *Stormwater Planning: A Guidebook for British Columbia* advanced this provocative premise: land development and watershed protection can be compatible. This radical shift in practitioner thinking resulted from recognition of HOW a science-based understanding could bridge the gap between high-level policy objectives and site design practices. The Guidebook formalized the *Water Balance Methodology* for rainfall capture and runoff control. And it set the stage for defining water sustainability as an outcome of green infrastructure policies and practices,” recalls Peter Law, Chair of the Guidebook Steering Committee (2000-2002) and a founding Director of the Partnership for Water Sustainability in BC.



Formerly with the Ministry of Environment, Peter Law was a member of the ‘Develop with Care 2006’ team. He also contributed content to the replacement ‘Develop with Care 2012’.

#### Green Infrastructure and Stream Health

“Between 2002 and 2007, we observed that practitioners in the local government setting became comfortable with green infrastructure that captures rainfall and reduces runoff. By 2007, it was time to connect the dots between green infrastructure and stream health. The evolution in thinking is captured in *Beyond the Guidebook: Context for Rainwater Management and Green Infrastructure in British Columbia*,” continues Kim Stephens, Partnership Executive Director. He was Project Manager and principal author of the 2002 Guidebook.

#### **Collaboration, Partnerships and Alignment:**

“In 2002, the Guidebook integrated hydrology and aquatic ecology; and demonstrated how local government could apply the *Water Balance Methodology* to establish affordable and effective performance targets for rainfall capture. In 2007, ‘Beyond the Guidebook’ added geomorphology to the mix. This addressed the relationship between volume control and resulting flow rates in streams; and correlated stream health with stream erosion,” continues Kim Stephens.



“Third in the series of guidance documents was *Beyond the Guidebook 2010: Implementing a New Culture for Urban Watershed Protection and Restoration in British Columbia*. Beyond the Guidebook 2010 is the ‘telling of the stories’ of how change is being implemented on the ground in BC. These stories demonstrate that the practitioner and community culture is changing as an outcome of collaboration, partnerships and alignment. Case study experience presented in Beyond the Guidebook 2010 clearly shows that a new land ethic is taking root in BC.”

#### Inter-Regional Education Initiative

The Partnership is leading the Vancouver Island Inter-Regional Education Initiative (IREI). At the heart of the IREI is ‘Beyond the Guidebook’. Four regional boards – Comox Valley, Nanaimo Region, Cowichan Valley and Capital Region – have formally endorsed the IREI.

A guiding principle is that IREI program elements will align with local government priorities and staff workloads. And a program goal is that local governments will leverage more with the same resources.

“Collaboration is the pathway to a consistent approach to water sustainability and green infrastructure policies and practices up and down the east coast of Vancouver Island. The IREI will help all regions bridge the ‘implementation and integration gap’,” predicts Peter Law.

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**Proof of Approach:** To demonstrate how to make inter-regional collaboration tangible, the Partnership for Water Sustainability implemented a ‘proof of approach’ in the first half of 2012. A “sharing and learning” event was held or initiated in each region. In the case of the Comox Valley, this involved an internal workshop series.

“The events comprising the ‘proof of approach’, and the processes driving each event, have yielded invaluable experience. The ‘learning’ gained from each event is informing HOW all the partners will collaborate to move forward with full-scale implementation of the IREI,” reports Kim Stephens.

“We are making the transition from an events-based program to one that is truly education-based. This is significance of what is taking place in the Comox Valley. Four local governments and the stewardship sector have embraced shared responsibility; and are striving to work across boundaries for the common good.”

**Outcome-Oriented:** “The desired outcome in bringing together the four regions is that there will be a common understanding of core concepts for ‘designing with nature’; and those involved in land use and/or water use will utilize those concepts to **reduce their water footprints, protect stream health and adapt to a changing climate,**” explains Kim Stephens.

“The Partnership envisions that the IREI will inform a consistent Vancouver Island approach to ‘integrated rainwater management’ which results in action-oriented Watershed Blueprints. Also, within regions, collaboration will lead to a consistent process complete with common tools for review of development applications that have inter-jurisdictional implications and/or impacts.”

“Looking ahead to 2013, then, the Partnership will be integrating *Develop with Care 2012* into the IREI curriculum,” states Peter Law. “This valuable resource will inform development of Watershed Blueprints. In turn, implementation of local government Action Plans that are holistic in scope will help achieve *Develop with Care 2012* desired outcomes.”

### Watershed Blueprints Explained

The term ‘watershed blueprint’ originated with the Bowker Creek Initiative in the Capital Region. A *Watershed Blueprint*:

1. captures a community’s vision of a desired future watershed condition;
2. 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.
3. ensures that positive changes can happen incrementally, and that opportunities can be capitalized on as and when they arise;
4. identifies specific opportunities to restore watershed function and implement green infrastructure that is ‘built right; and
5. 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 will ensure sound solutions,” observes Kim Stephens.

### “A Watershed Blueprint integrates the Site with the Watershed and the Stream”



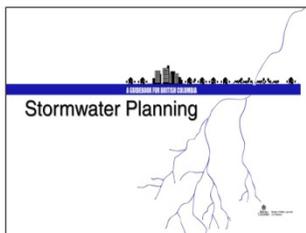
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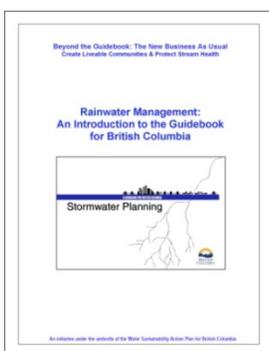
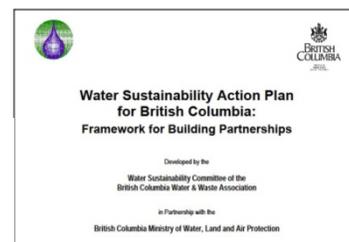
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## Other Guidance Documents



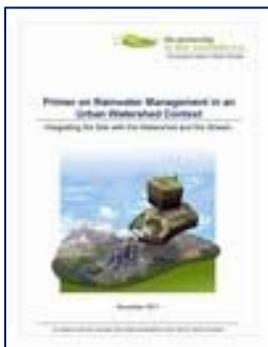
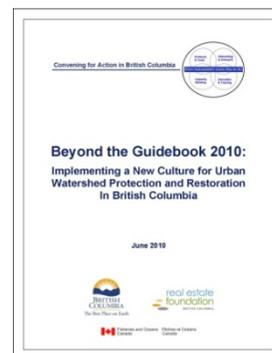
**Stormwater Planning: A Guidebook for British Columbia (2002)** --- Catalyst for action to establish performance targets for watershed protection and restoration  
<http://www.env.gov.bc.ca/epd/mun-waste/waste-liquid/stormwater/index.htm>

**Water Sustainability Action Plan for British Columbia: Framework for Building Partnerships (2004)** --- Goal: encourage province-wide implementation of fully integrated water sustainability policies, plans and programs  
<http://www.waterbucket.ca/cfa/sites/wbccfa/documents/media/81.pdf>



**Rainwater Management: An Introduction to the Guidebook for British Columbia (2008)** --- Provides a broad-brush picture of what is in the Guidebook; written for expert and non-expert audiences  
<http://www.waterbucket.ca/gi/sites/wbcgi/documents/media/197.pdf>

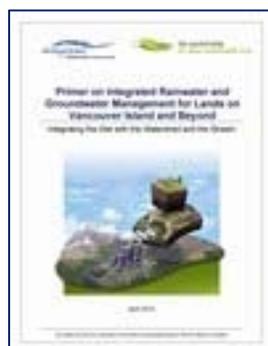
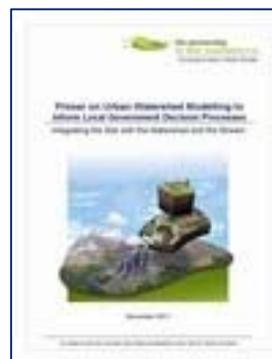
**Beyond the Guidebook 2010: Implementing a New Culture for Urban Watershed Protection and Restoration in British Columbia (2010)** --- Provides guidance for aligning local actions with provincial and regional goals to 'design with nature'  
<http://www.waterbucket.ca/cfa/sites/wbccfa/documents/media/403.pdf>



**Primer on Rainwater Management in an Urban Watershed Context (2011)** --Provides engineers and non-engineers with a common understanding of how a science-based approach to rainwater management has evolved since the mid-1990s.  
[http://bc.waterbalance.ca/files/2011/12/1\\_Primer-on-Rainwater-Management-in-Urban-Watershed-Context\\_November2011.pdf](http://bc.waterbalance.ca/files/2011/12/1_Primer-on-Rainwater-Management-in-Urban-Watershed-Context_November2011.pdf)

**Primer on Urban Watershed Modelling to Inform Local Government Decision Processes (2011)** --- Provides engineers and non-engineers with guidance in three areas: setting performance targets, defining levels-of-service, and application of screening / scenario tools.

[http://bc.waterbalance.ca/files/2012/05/2\\_Primer-on-Urban-Watershed-Modelling-to-Inform-Decision-Process\\_November2011.pdf](http://bc.waterbalance.ca/files/2012/05/2_Primer-on-Urban-Watershed-Modelling-to-Inform-Decision-Process_November2011.pdf)



**Primer on Integrated Rainwater and Groundwater Management for Lands on Vancouver Island and Beyond (2012)** --- Supports implementation of Living Water Smart principles in the local government setting; and introduces the notion of viewing a watershed through a 'Sustainable Service Delivery' lens.  
[http://waterbucket.ca/wp-content/uploads/2012/05/3\\_Primer-on-Integrated-Rainwater-Groundwater-Management-for-Lands-on-Vancouver-Island\\_April-2012.pdf](http://waterbucket.ca/wp-content/uploads/2012/05/3_Primer-on-Integrated-Rainwater-Groundwater-Management-for-Lands-on-Vancouver-Island_April-2012.pdf)