

Beyond the Guidebook: Connecting Dots & Building Blocks

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6. Beyond the Guidebook: Connecting Dots & Building Blocks

The first five chapters have provided historical context. To understand where one is going, one needs to understand where one has come from, and how one got here. A corollary is that it is best to judge progress by the distance travelled, rather than the distance remaining to reach the goal.

“It Starts With a Conversation”

“Building blocks and connecting dots – that’s what our story is about,” reflects Tim Pringle. In 2005, it was Tim Pringle who said: “If we are to truly change the land ethic for the better, we need a different approach. So, let’s try having informed conversations with people in local government and the development community, and we will see where a listening approach leads us.”

“The success of Convening for Action in British Columbia is that it starts with a conversation; and conversations ultimately lead to alignment of practitioner efforts to achieve a shared goal. That is the essence of our story.”



*Through experience,
we have learned that....*

To Build Trust & Respect,
It Starts with a Conversation.

Listen, Listen, Listen.

Because...

Conversations →
will lead to Dialogue →
will lead to Consensus

“It takes a conversation to trigger an Ah-Ha moment; and that is the moment when people open their minds and take in new ideas. It is through conversations that we connect the dots.”

“But practitioners also need practical research and tools to enable them to do business differently. This is what we mean by building blocks. A key message is that the research and tools are leading to a desired outcome – and that is, settlement change in balance with ecology. This is the new land ethic,” concludes Tim Pringle.

Chapter 6 sets the stage for Chapter 7 and a new form of ‘watershed governance’.

Contrast with Washington State

By the end of the 1990s, British Columbia and Washington State had the same science and a common understanding of what it meant.

The two had the same point of departure, yet Washington State has followed the prescriptive route, in part because of national end-of-pipe regulations. Their experience provides a contrast with the educational path that BC has taken.

What is Holding Washington State Back: In October 2007, a panel comprising Ed O’Brien and Dr. Gary Minton of Washington State and Rémi Dubé (City of Surrey) and Kim Stephens of British Columbia compared the two differing approaches at a cross-border conference.

“In Washington State, we cannot achieve environmental protection using current methods of development,” bemoaned Ed O’Brien of the State Department of Ecology.



“Not many new developments are applying low impact development techniques. There isn’t a land use dictator who can demand change. It will take public education to instil a culture change for us to have any hope that we can protect aquatic resources in the urban environment.”

Implementing a New Culture in BC

For the past decade, the Action Plan has been incrementally raising the bar and building practitioner capacity to implement a new culture in BC. Next, six outcomes are described. These have resulted from local governments embracing The New Business As Usual:

1. Shared Responsibility Matrix
2. Expectations and Tools for Living Water Smart
3. Okanagan Sustainable Water Strategy
4. Metro Vancouver Integrated Liquid Waste and Resource Management Plan
5. East Coast of Vancouver Island:
“One Market - Cobble Hill to Campbell River”
6. Water Balance Model – Plan for the Future

These are building blocks, and demonstrate how a ‘top down bottom up’ strategy leads to action.

Shared Responsibility Matrix

Shared responsibility is a foundation piece for Beyond the Guidebook 2010. The law and policy component of OCEP produced a decision support tool that was branded as the **Shared Responsibility Matrix**.

Between 2007 and the end of 2009, the Matrix evolved from a set of generic “what we would like to do” questions that were framed through the eyes of practitioners in local government.

Shared Responsibility Explained

“All of us have an impact on the land, on the water, and on the way things look,” states Susan



Rutherford. She represented West Coast Environmental Law Research Foundation on the Green Infrastructure Partnership from 2005 through 2010.

“Policy and legal tools can help developers, regulators and designers collaborate to implement green infrastructure solutions and ensure responsible outcomes. Each party in the process has a responsibility.”

Matrix Purpose: “We developed the Responsibility Matrix (Figure 17) as an holistic way to encourage players with different perspectives to talk candidly with each other about implementation of green infrastructure or other sustainability goals,” continues Susan Rutherford.

“The matrix is structured in two parts. In the first part, the three columns are GOAL, PARTY and TOOL. Our focus is on the linkages – that is, how people interact and/or collaborate to achieve community development sustainability goals.”

“In the second part, the three columns elaborate on the first part: DESIRED OR REQUIRED OUTCOMES, RELEVANT STAFF OR OTHER ACTORS and INSTRUMENTS FOR ACTION. Under desired outcomes, we can define a series of objectives and/or situations – for example, ensuring that the minimum topsoil requirement is achieved and maintained over time.”

Imagine

“Our theme is ‘imagine’. What we have in mind when we say ‘imagine’ is that players would imagine a legal tool or procedure that would ensure that barriers are removed or other parties in the process more effectively fulfil their piece of the sustainable development puzzle.”

“If someone says something is not working – that barriers prevent success - then our challenge for them is: *Think about what would make it work, and what are you going to do to make that alignment of goals happen?*”

Outcome-Oriented: “There are solutions to be found if all parties in the community development process, i.e., staff within local and regional governments as well as private and other actors external to government but no less involved in the development process, simply talk to each other about how they could all work together more effectively, using law reform or other process changes as tools.”

“Once we know what we want our watersheds and neighbourhoods to look like, the next step is to decide *what the tools are that will get us there*. All of us ...whether we are regulators, developers or designers ...need to understand and care about the goal if we are to know our role in relation to it and to create the future that we all want,” concludes Susan Rutherford.

Living Water Smart: “At the end of the day, planners and engineers and other disciplines must come together to determine the issues and solutions,” adds Lynn Kriwoken, a Director in the Ministry of Environment and the Province’s lead person for development and delivery of Living Water Smart, BC’s Water Plan.



“While legislative reform is a foundation piece, collaboration takes place outside the legislative framework.”

“This is why we constantly emphasize that Living Water Smart is about motivating and inspiring everyone to embrace **shared responsibility**. Influencing behaviour and attitudes is at the heart of moving from awareness to action.”

Responsibility Matrix

| Goal | Party | Tool |
|--|---|---|
| <ul style="list-style-type: none"> ▪ Objectives ▪ Situations ▪ Responsibilities | <ul style="list-style-type: none"> ▪ Regional staff and elected representatives ▪ Municipal staff and elected representatives ▪ Private actors (developers, builders, homeowners, stewardship groups, universities and colleges, etc.) | <ul style="list-style-type: none"> ▪ Law ▪ Bylaw ▪ Policy ▪ Procedure ▪ Incentive ▪ Penalty ▪ Security ▪ Budget |
| Desired or Required Outcomes | Relevant Staff or Other Actors | Instruments for Action |

Application of Responsibility Matrix

| Desired Outcome | Relevant Actors | Instruments for Action |
|-----------------------------|---|---|
| Onsite Rainwater Management | <ol style="list-style-type: none"> 1. Regional Government 2. Municipal Government 3. Developer 4. Builder | <ol style="list-style-type: none"> 1. Living Water Smart policy direction; Regional liquid resource management plan 2. Regional targets translated to site level action using Water Balance Model tool and Land Use Planning, site standards; linkage made between watershed plan and development practices/neighbourhood plan; Official Community Plan direction; visible political leadership on issue 3. Bylaws require a) onsite rainwater management facilities b) security for performance c) regular inspection and reporting re: maintenance (e.g. on business license renewal); departments charged and funded to inspect 4. Communication, contractual provisions, occupancy permit |

Figure 17 – Shared Responsibility

Expectations and Tools for Living Water Smart

“Living Water Smart is an idea that people are embracing. The solutions and commitments go beyond what government does,” states **Lynn Kriwoken**. “Living Water Smart is a plan that is as much about land as water....because only with healthy water can we enjoy all the values that we take for granted. Times are changing and the way we do business is also changing.”

“By choosing to live water smart, communities will be more prepared for climate change and their quality of life will be enhanced. If we can show how to get the water part right, then other parts are more likely to follow.”

Implementation Themes

Living Water Smart comprises 45 commitments, which are grouped into five themes:

Living Water Smart - Implementation Themes

1. Governance, legislation, regulatory change
2. Efficiency, outreach, public awareness
3. Science, information & learning
4. Watershed planning & restoration
5. Community planning and development

WSC Delivery Role: “The partnership umbrella provided by the Water Sustainability Action Plan has allowed the Province to leverage partnerships to greatly enhance the profile and resulting impact of Living Water Smart,” continues Lynn Kriwoken. “The WSC is playing a key delivery role (*refer back to page 14*) in two of the five theme areas, namely: community planning and development; and efficiency, outreach, public awareness.”

“In effect, the Action Plan partners and the WSC in particular are functioning as the on-the-ground Living Water Smart implementation arm with local government. The in-kind support from local governments is substantial and growing, and means my team can focus our work effort on legislative reform.”

Build the Vision, Create the Legacy

“The ultimate goal of the Living Water Smart and Green Communities initiatives is to establish expectations that, in turn, will influence the form and function of the built environment. If land and water practitioners are then successful in bringing a water for life and livelihoods vision to fruition by embracing **shared responsibility** (*as explained on p. 56*), this will create a legacy for those who follow in our footsteps,” states Lynn Kriwoken.



“Living Water Smart is about adaptation - that is, collectively what we need to do...to adapt...to prepare for climate change. How we will get there is all about collaboration – that’s my code for *silos jumping*. We must get out of our silos and broaden our perspectives. Learn from others, share with others – that is when we grow.”

Building a Vision & Creating a Legacy

- **Issue:** How We Manage Population Growth
- **Impact:** Growth Resulting in Urban Densification (Land Constraints; Smaller Lots)
- **Sustainability:** *Means Design with Nature*
- **Built Environment:** We Can Improve It
- **Natural Environment:** We Can Protect It
- **Cumulative Benefits:** Accrue Over Time
- **Outcome:** Sustain Community Livability

Cumulative Benefits: “Our immediate objective is to encourage ‘green choices’ that will flow through time, and will be cumulative in creating liveable communities, reducing wasteful water use, and protecting stream health.”

“In urban settings, measures that ‘green’ (and improve) the built environment can also protect or help restore the natural environment. How communities choose to develop or redevelop individual sites has ripple effects at the watershed scale. By designing with nature, this means actions on the ground can add up and result in **cumulative benefits** over time,” concludes Lynn Kriwoken.

Living Water Smart Actions & Targets

Of the 45 actions and targets in Living Water Smart, three in particular serve to establish expectations vis-à-vis how land will be developed (or redeveloped) and water will be used. These three are listed below and are cross-referenced to the three subject areas and page numbers in the Living Water Smart vision document:

- **Doing Business Differently:** 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 (page 43)
- **Preparing Communities for Change:** By 2012, new approaches to water management will address the impacts from a changing water cycle, increased drought and risk, and other impacts on water caused by climate change (page 61)
- **Choosing To Be Water Smart:** By 2020, 50% of new municipal water needs will be acquired through conservation (page 75)

"To make it possible to achieve Living Water Smart targets and actions, the Province has developed a suite of tools (refer to Figure 18 on next page)," reports Ted van der Gulik, the Senior Engineer in the Ministry of Agriculture & Lands. He has been the Province's lead person for development of all but the Water Conservation Calculator.

Web-Accessible Tools: "These tools are all web-based and accessible to anyone with a computer. They are intended to support new approaches to water management. They can be applied on-the-ground by land and water practitioners."



"Our vision is that they will collectively facilitate informed decision-making with respect to climate change adaptation."

"Four of these tools --- the Water Balance Model, the Water Conservation Calculator and the two Irrigation Scheduling Calculators --- are built on a Universal Calculator technology platform."

An Holistic Approach

"We now have the tools that we need to influence practitioner and community behaviour. Also, the programs these tools support are linked. So, in 2010 our mission is to link everything together," continues Ted van der Gulik.

"We are emphasizing the fundamentals of green infrastructure. Topsoil depth is the point of connection between *RAINwater Management* and *Drought Management*. Topsoil depth creates a sponge. The sponge achieves two outcomes: reduce water need during dry-weather periods; and limit runoff during wet-weather periods."

"To help municipal staff and designers advance rainwater management and water conservation goals, the IGP has collaborated with the Green Infrastructure Partnership to develop the **Topsoil Primer Set**. It comprises a Law & Policy Primer and a Technical Primer. The approach is holistic."



Connecting the Dots: "A properly designed water conservation program has the ability to extend the life of infrastructure, reduce repair, treatment and



power costs, reduce power expenses, and defer or eliminate the need for major capital costs," states Liam Edwards, the Director of Infrastructure and Engineering with the Ministry of Community and Rural Development. "Use of the Water Conservation Calculator may become a Ministry requirement as part of the infrastructure grant application process."

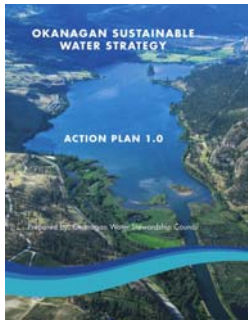


Web-based provincial tools enable
Water-Centric Planning & Living Water Smart

Figure 18

Okanagan Sustainable Water Strategy

Completed in late 2008 by the Okanagan Watershed Stewardship Council, the **Okanagan Sustainable Water Strategy** seeks to ensure



water resources are managed in a broader sustainability framework.

"The Sustainable Water Strategy is grounded in action. Twelve high-level Guiding Principles for water management and policy provide a framework for the Strategy. The key action

items were developed respecting these Guiding Principles," explains Anna Warwick Sears, Executive Director of the Okanagan Basin Water Board (OBWB).

"When Living Water Smart was released, we could not help but notice that it bore a remarkable resemblance to our Water Strategy!"

What 'Convening for Action' Means

"In the Okanagan, we are 'convening for action' at four levels to facilitate valley-wide change," continues Anna Warwick Sears. She identifies these levels as follows:

1. Inter-jurisdictional elected officials convening as OBWB directors.
2. Appointments of key partners to the Board – including First Nations and water suppliers.
3. The Okanagan Water Stewardship Council, a multi-stakeholder technical advisory group
4. The way the OBWB does business.

"The convening for action concept can be expanded to encompass all our activities. The Okanagan Basin Water Board is the hub for water science and policy. Our mandate is to communicate and coordinate. In the process, we are tapping into a huge reservoir of volunteers. This creates the energy and momentum for change."



Build a Vision, Create the Legacy

"The Stewardship Council developed the Okanagan Sustainable Water Strategy over a 30-month period. It literally involved thousands of hours of effort on the part of Council members," reports Ted van der Gulik, who is Vice-Chair.

"The Council is a diverse group. We went through a process of informing and educating each other. We reached a common understanding and consensus on a shared vision for achieving settlement change in balance with ecology."

"The Council's Vision is that the Basin will have clean and healthy water in sufficient abundance to support the Okanagan's natural ecosystems, agricultural lands and high quality of life for perpetuity."

"Accurate, up-to-date water information and scientific knowledge will support community and regional planning. Water will be managed in a spirit of cooperation, and a valley-wide ethic of conservation will create a lasting legacy of sustainable water resources for future generations."

"The Okanagan Sustainable Water Strategy starts the process and has been developed with input from many water professionals. To achieve fruition, the plan will need a coordinated effort from law makers and practitioners and buy in from residents to ensure that changes are made on the ground."

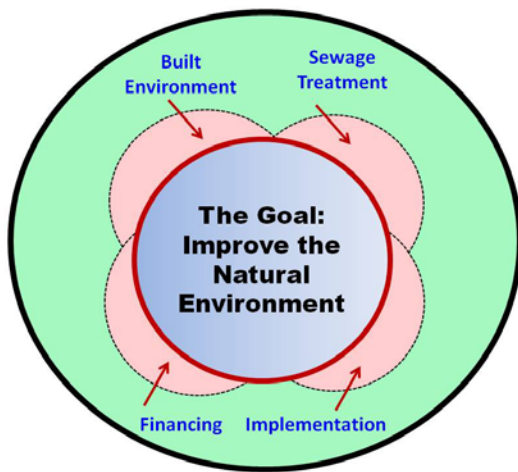
Collaborative Governance Explained: "The story of *Convening for Action in the Okanagan* is really about putting collaborative governance to work," reflects Anna Warwick Sears.

"Water stakeholders and citizens from many different parts of society contribute advice and ideas that influence the decision-making process. At all levels of convening, we are actively undertaking collaboration for action. In short, 'convening for action' reflects a synergy – the whole is greater than the sum of the parts."

"Everyone in the Okanagan agrees on the need to protect our quality of life in a healthy environment with a balanced use of water. The way the OBWB does business is collaborative. Through our grant programs, we are able to maximize partnerships; and in turn increase the convening of community by bringing together the resources to make things happen."

Metro Vancouver Integrated Liquid Waste and Resource Management Plan

Metro Vancouver has developed an Integrated Liquid Waste and Resource Management Plan. Comprehensive in scope, the Plan is aligned with Living Water Smart and other provincial initiatives. It also provides a framework for developing and implementing outcome-oriented watershed plans that have clear linkages with land use planning and development approval processes.



Align Goals, Strategies and Actions

“When the Board met in March 2009, it approved realigning the goals, strategies and actions in the updated Liquid Waste Management Plan (LWMP) to keep current with senior government policies and positions, as well as ensure that Metro Vancouver’s and senior governments’ environmental and fiscal objectives and actions are mutually supportive and successful,” states Lois Jackson, Metro Vancouver Chair.



“The LWMP supports provincial government positions in many areas. Local watershed planning is supported and enhanced through completion and implementation of municipal Integrated Stormwater Management Plans required by the LWMP,” adds Fred Nenninger (Division Manager, Metro Vancouver Policy & Planning)

Advisory Role of Reference Panel

“The Integrated Plan has been influenced for the better by the contributions of the 10-person advisory Reference Panel. The process has demonstrated what can be accomplished when local government staff and community representatives respect each other, share a vision for the region, and are motivated by the common good. It is a powerful example of collaboration in action,” states Johnny Carline, Chief Administrative Officer.



“Appointed in April 2008, the Reference Panel reports directly to the regional politicians. The panel comprises non-government organizations, technical experts and practitioners. They have brought expert knowledge and relevant experience to the table. Through reporting out and ongoing interaction with Metro Vancouver’s Waste Management and Finance committees, the Reference Panel has made an observable difference in stimulating informed discussion about liquid waste/resource and rainwater management issues.”

A Recommended Policy Framework: “The Reference Panel’s *July 2009 Report* was the culmination of several thousand hours of volunteer time and effort. The heart of the report is **A Recommended Policy Framework for Liquid Resource Management in Metro Vancouver**,” states Kim Stephens, Reference Panel Chair. “The Policy Framework is keyed to an educationally-based ‘regional team approach’, one that develops a common understanding and results in consistent expectations region-wide.”



“The Reference Panel has praised the Integrated Plan because it can translate the visionary **Metro Vancouver Sustainability Framework** into tangible actions on the ground. However, it is written as a regulatory document. This limits the extent to which it is able to ‘tell a story’ that will resonate with the public. Therefore, it needs to be read in tandem with the Reference Panel report to create a picture of a desired outcome that will inspire people to strive for constant improvement – **this is what we want our region to look like, and this is how we will get there.**”

One Market – Cobble Hill to Campbell River

Research by the Real Estate Foundation, undertaken by Tim Pringle for the [2009 Comox Valley Learning Lunch Series](#), concludes that real estate development in the mid-region of the east coast of Vancouver Island is a common market.

This one market concept is a significant and material finding. It suggests that communities can choose from among development proposals, and can therefore control their destinies.



Communities Can Pick and Choose

“The *one market* way-of-thinking resonated with those who participated in the 2009 Series,” observes **Geoff Garbutt**, Executive Manager of Strategic and Long-Range Planning with the Comox Valley Regional District.



“It makes sense that mid-Island communities have choices. Knowing this, it means mid-Island communities can establish expectations as to what we want and what we will accept from developers.”

“Because we can pick and choose, we can position the Comox Valley to be a *region of choice* for the *right development in the right place*.”

“An implicit message to the development community is that there is money to be made when *green development* is truly aligned with community values and regional goals.”

Provincial Precedents

“The Cowichan Valley, Nanaimo and Comox Valley regional districts have all established provincial water-centric planning precedents; however, these are at a watershed-scale,” states John Finnie, CAVI Chair.



“Looking ahead, we anticipate that the Bowker Creek Blueprint (*refer to page 23*) will serve as a catalyst to help all three jurisdictions drill down to the local scale and truly integrate water cycle and land use planning. The ‘one market’ concept plus effective integration will help them achieve the *Green Communities Vision* on the ground.”

“The Cowichan Basin Water Management Plan is a provincial case study for watershed governance changes being contemplated as part of *Water Act Modernization*.”

“The Nanaimo Region’s Action Plan for Water created a drinking water and watershed protection service area with taxation authority in an electoral area.”

“The Province intervened in the Comox Valley to both create a new regional district and mandate regional plans that can feed into *An Integrated Watershed Approach to Settlement*.”

Right Development in the Right Place

The ‘one market’ research has culminated in a decision support matrix. It can be utilized as an evaluation tool by local governments to determine the acceptability of developer proposals for large-scale real estate development.

“We have produced three typologies and associated characteristics so that we can compare apples with apples. The three typologies are complete community, master planned community, and tract development,” explains Tim Pringle.

“Stepping back to look at the really big picture, an over-arching question is: *How will communities from Cobble Hill to Campbell River align their efforts to ensure the right development in the right place in the right time?*”

“Answering this question leads us to a regional team approach that is founded on broad and inclusive partnerships and collaboration.”



Premier Gordon Campbell with the Water Balance Model Team
Winners of a 2009 Premier's Award for Innovation and Excellence

- Standing (L to R):** Richard Boase (Co-Chair), Ed von Euw, Premier Campbell, Tim Pringle and Jim Dumont (Engineering Applications Authority)
- Sitting (L to R):** Ted van der Gulik (Chair), Kim Stephens, Laura Maclean (Past Co-Chair) Adrian Irwin, Chris Jensen, and Ben Kangasniemi
- Missing from photo:** Dr. Charles Rowney (Scientific Authority), Rémi Dubé, Jay Bradley, Corino Salomi, David Hislop, John McMahon, Mark Wellman, Glen Brown and Doug Backhouse (Website Architect)

Water Balance Model – The Plan for the Future

In November 2009, the BC Inter-Governmental Partnership (IGP) and the Alberta Low Impact Development Partnership (ALIDP) jointly released a blueprint document titled *Water Balance Model for Canada – The Plan for the Future*.

“*The Plan for the Future* presents a road map for greatly increasing both the computational capabilities of the Water Balance Model and its usability in visioning future alternatives for use of water and land,” explains Ted van der Gulik, Chair of the Inter-Provincial Partnership with Alberta.

“Our mission in making the WBM more robust is to help local governments make informed land use decisions, implement affordable and effective land development strategies, green the urban landscape, and improve watershed health.”



Implementation

“Under a federal/provincial agreement with BC, the federal *Regional Adaptation Collaboratives* program has made a 3-year funding commitment. This financial support will enable the partnership to substantially implement a \$500,000 program. In 2010 we are adding four modules to the WBM engine: Water Re-Use, Stream Erosion, Climate Change and Tree Canopy Rainfall Interception.”

“Among the many enhancements that we will be implementing over the next three years are capabilities not currently available in commercial software,” concludes Ted van der Gulik.

Create a Vision of Future Watershed

“The WBM differs from other drainage simulation tools in three fundamental ways: it is web-based; development is driven by the community of users; and it can help create a vision of the future watershed,” states Richard Boase, IGP Co-Chair.

Scenario Comparison: “The WBM allows the user to create an understanding of the past and compare it to many possible futures. This capability allows communities to assess how watersheds can be altered, for good or bad. Then they can create a vision of where they would like to go and how the watersheds can meet their vision,” continues Jim Dumont, IGP Engineering Applications Authority.

“For the purposes of a WBM simulation, the starting scenario can be the watershed in any state, whether that is forested, existing urban, future planning, or just about any condition that the user may wish to assess. Yet another key message is that the existing watershed condition should not be seen as a limiting condition; rather, it is just one of many potential conditions.”

“This is where the WBM shines as it is not constrained by starting or ending points. It compares whatever the user can envision.”

“Implementation of *The Plan for the Future* will allow a single analysis tool to be used from planning through design; and in this way the flow of intent and information will be seamless, while maintaining integrity in process,” concludes Jim Dumont.

Restoring the Urban Landscape

“Our watersheds have been experiencing death by a thousand cuts as the house footprint has grown larger and larger over the decades,” states Richard Boase.



“The message for local governments is clear: single family properties hold the key to watershed health; we have to do a better job of educating residents about the link between their back yards and stream health; and we need to work directly with homeowners if we are to restore the rainfall capture capacity of the urban landscape.”

