

7. Developing Outcome-Oriented Watershed Plans

This chapter provides local governments with 'how to' guidance for developing **outcome-oriented** urban watershed plans. Chapter 1 introduced ten Guiding Principles that provide a framework for a successful implementation process:

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.

The case study experience introduced in previous chapters shows that a new land ethic is taking root in BC. Changing the culture requires a process. This takes time to complete. There is no short-cut; however, lessons learned by those who have done it can help those who want to do it.

A Municipal Perspective: "Our municipality can learn and borrow from the other successful case studies, municipal experiences, and resources that are readily available to us," notes Rodney Stott, Environmental Planner with the District of Maple Ridge. "We are at an important cross roads where we are ready to make some minor amendments to our municipal tool kit that can lead to some significant improvements with respect to our current planning, engineering, operations, and building practices."



"There are quite a few communities in British Columbia that have been implementing higher level design and construction standards which can lead to more attractive and functional solutions. It has been proven out by others that this can be done in a way that doesn't have to be too prescriptive."

What 'Outcome-Oriented' Means

"Outcome-oriented planning is a problem-solving PROCESS. It is not a procedure. It is not a matter of applying a regulation or a checklist," states Tim Pringle. "Going through a process becomes *talent development*. Participants have to be committed to the outcome. To get there, they have to function as a team. It is the talent development process that enables development of outcome-oriented plans. It is very definitely a grounded approach."

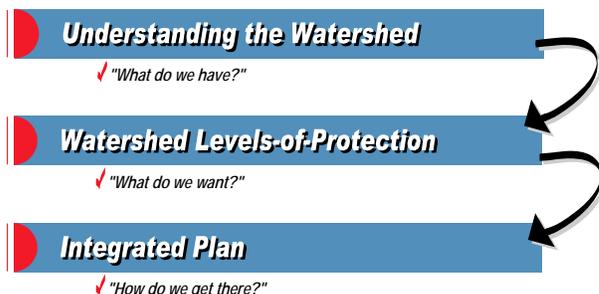


Planning Framework: According to Tim Pringle, the 'convening for action' experience has demonstrated that four ingredients will be in the mix when practitioners in a local government setting undertake to develop outcome-oriented plans. The participants will have to collaborate to:

1. Define the problem
2. Declare the community's values
3. Select and apply the right tools
4. Wrestle with the solutions

"This is not high-level or theoretical language. It is about hard work and applying common sense. Mutual support and the shared process are also critical. This is what we have learned from successful outcome-oriented processes such as the Bowker Creek Blueprint. Focus on values and actions. Keep it simple. Find a starting point that is intuitive to everyone. Ensure actions are practical and easy to implement," he concludes.

Planning Framework



Leading and Implementing Change

A pattern is emerging. Local governments in BC are embracing outcome-oriented approaches. This chapter introduces and profiles those who are applying the ten Guiding Principles and establishing 'design with nature' precedents:

1. Bowker Creek Blueprint (*refer to p. 23*)
2. Comox Valley Regional Team (*refer to p.50 -52*)
3. Vancouver Island Municipalities (*Nanaimo, Campbell River, Ucluelet, Langford, View Royal, Central Saanich, Sooke*)
4. Metro Vancouver Municipalities (*Surrey, North Shore, Langley Township, Delta, Vancouver*)
5. South Okanagan Partnership

A New Form of Governance: "The Bowker Creek Blueprint is all about what I call a new form of governance. It is quiet, silent and very effective. It starts with a vision. It is about turning the whole game plan around to a new way of doing business," observes Eric Bonham, a founding member of CAVI and a former Director in two provincial Ministries.



"What I like about the Bowker Blueprint is the temerity, the audacity, to have a 100-year vision. We need to have a 100-year vision because it takes time to turn things around when one is talking about watershed health. If we do not implant the long-term vision, we will end up with the usual death by a thousand cuts."

"The Bowker Blueprint is about reclaiming what was lost due to our past indifference. We are now talking about how to reverse the trend and bring settlement back into balance with ecology."



Achieving Watershed Outcomes

Table 2 identifies what municipalities will need to do to create liveable communities and protect or restore stream health. These outcomes require a truly integrated process that is founded on the ten Guiding Principles (*refer back to pages 1 and 67*).

The methodology embedded in the Water Balance Model powered by QUALHYMO enables a watershed target to be established; it also enables the user to assess how to meet the watershed target at the site scale (*refer to pages 44 and 65*).

There must be clear linkages between the targets and development approval processes. Financial and legal tools must also be in place to ensure implementation of outcome-oriented strategies.

Integrated Stormwater Management Plans: When the Green Infrastructure Partnership and the IGP developed Table 2 in 2008, a key objective was to provide local governments with a bridge from the Guidebook to Beyond the Guidebook. The need for this bridge had resulted from local government experience in undertaking Integrated Stormwater Management Plans (ISMPs).

As explained in Chapter 1 of the Guidebook, "Use of the ISMP term is unique to British Columbia. The City of Kelowna first used the term in 1998 to make a clear distinction between 'suburban watershed management' and the Province's 'integrated watershed management' process for natural resource management in wilderness watersheds. This is an important distinction. Local government typically has control over stormwater in residential, commercial and industrial land uses. It does not necessarily have control over watersheds."

Chapter 9 in the Guidebook elaborates on how to develop and implement an ISMP.

Unintended Consequences: The intent of an ISMP is two-fold in scope: integrate engineering, planning and environmental perspectives; and facilitate holistic solutions to protect natural resources that are at risk. The unintended consequences of ISMPs completed to date have informed the course correction described in Beyond the Guidebook 2010.

Table 2

**Developing Outcome-Oriented Watershed Plans:
Framework for Moving from Planning to Action**

Action	Level of Commitment
<p>Complete and implement integrated rainwater/stormwater management plans that are affordable and effective in protecting or restoring Watershed Health</p>	<ul style="list-style-type: none"> ▪ Local governments, in collaboration with senior governments, develop Integrated Plans that enable implementation of integrated strategies for greening the built environment; and include establishing watershed-specific runoff targets (for managing the complete rainfall spectrum) that make sense, meet multiple objectives, are affordable, and result in net environmental benefits at a watershed scale. <p><i>(Note: To date, “integrated drainage plans” have typically been called “ISMPs” pursuant to the nomenclature established in Chapter 9 of the 2002 Guidebook. The time has come to describe truly integrated plans as “IRMPs” to reflect the paradigm-shift from pipe-and-convey ‘stormwater’ to landscape-based ‘RAINwater’)</i></p>
	<ul style="list-style-type: none"> ▪ Local governments, in collaboration with senior governments, establish watershed targets that are characteristic of actual conditions in watersheds, recognizing that there will be different strategies for already developed versus partially developed watersheds.
	<ul style="list-style-type: none"> ▪ Local governments, in collaboration with senior governments, evaluate the acceptability of watershed-specific runoff targets on the basis of an evaluation framed by these three questions: <ol style="list-style-type: none"> 1. What target will achieve the watershed health objective? 2. What needs to be done to make the target achievable? 3. Do the solutions meet the test of affordability and multiple objectives?
	<ul style="list-style-type: none"> ▪ Local governments, in collaboration with senior governments, implement green infrastructure solutions that result in effective rainfall management at the site, catchment and watershed scales.
<p>Embed “IRMP” landscape-based strategies in neighbourhood concept plans</p>	<ul style="list-style-type: none"> ▪ Local governments develop rainwater/stormwater and land use plans through an inter-departmental process that is collaborative and integrated. ▪ Local governments provide guidance as to how watershed-specific targets can be met at the development scale.

Source: **Commentary on Effective Municipal Rainwater/Stormwater Management and Green Infrastructure to Achieve Watershed Health**, April 2008

Released jointly by the Green Infrastructure Partnership and the Inter-Governmental Partnership in conjunction with the consultation process for Metro Vancouver’s *Integrated Liquid Waste & Resource Management Plan*

The Commentary is accompanied by a paper titled *Beyond the Guidebook: Establish Watershed-Specific Runoff Capture Performance Targets*, released at the 2008 Water Balance Model Partners Forum.

ISMP Template

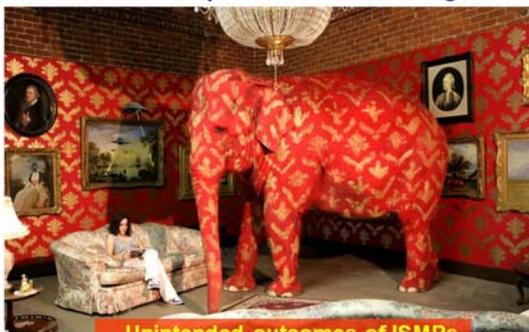
The ‘unintended consequences’ revolve around application of the ISMP Terms of Reference Template 2005. Developed by Metro Vancouver, the Template is nested within the Guidebook. The *Liquid Waste Management Plan* approved by the Province in 2002 included a commitment by Metro Vancouver municipalities to integrate land use and drainage planning. This was the genesis for the ISMP Template.

“Unfortunately, ISMPs completed to date have tended to be engineering-centric, and in general can be described as ‘glorified’ master drainage plans. ISMPs that do not integrate land use and drainage planning are resulting in unaffordable multi-million dollar infrastructure budget items that become municipal liabilities, without providing offsetting stream health benefits,” stated the Metro Vancouver Reference Panel in its Final Report.

When the Reference Panel reported out to Metro Vancouver regional politicians in July 2008, it identified the ISMP process as the ‘elephant in the room’ for the region because 130 plans “would potentially result in an aggregate unfunded liability that could easily equal the \$1.4 billion cost of sewage treatmentthe issue is known, but there seems to be a reluctance to ‘tell it like it is’.”

This finding led the Reference Panel to recommend that Metro Vancouver municipalities “re-focus **Integrated RAINwater/Stormwater Management Plans** on watershed targets and outcomes so that there are clear linkages with the land use planning and development approval process.”

“The elephant in the room” – unfunded municipal liabilities resulting from:



Unintended outcomes of ISMPs (Integrated Stormwater Management Plans)

Letting Go of the ISMP Template in the CRD:

At the Bowker Creek Forum, Jody Watson of the Capital Regional District (CRD), and the Chair of the Bowker Creek Initiative, stated that a defining moment in the Bowker Creek Blueprint process was the decision to ‘let go of the ISMP Template’.



“We started the planning process by retaining a consulting firm to develop a Master Drainage Plan. A deliverable was the terms of reference for an ISMP.”

“We established a sub-committee to review what the consultant had proposed. As we went through the ISMP Template, we had discomfort as to what we were going to get at the end of the day; and what would be valuable for all of us, and in particular for the municipalities (Saanich, Oak Bay and Victoria).”

“We already had the experience with the master drainage plan; and the major capital costs associated with that plan – in the order of \$20 million to \$40 million. There was huge discomfort at the municipal level in trying to take those costs forward to their Councils. They wouldn’t do it.”

“There came a time when we just had to let the ISMP Template go. While part of the reason was that it was too engineering-centric, the biggest reason was that we did not have the funding. ISMPs are very expensive and consultant-heavy.”

“We took a step back and decided that the best way to go forward was to bring in a facilitator who was not an engineer. Collectively, we found that we had all the information that we would need. The facilitator helped steer the committee through a process. We were successful.”

Letting go of ISMP Template

We let the Template go because:

- Big dollar amounts
- Too strategic – needed specific details
- Engineering-centric
- Expensive modeling - what would it tell us that we did not already know
- Not enough funding to complete study

Instead, we relied on:

- Collective knowledge of committee & previous studies
- An external facilitator to help pull everything together