



Call to Action: Bowker Creek Forum advances a 'regional team approach' in the Georgia Basin

Implementing a New Culture for Watershed Restoration and Management

Convening for Action in the Georgia Basin: 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**

Bowker Creek Blueprint: A 100-Year Action Plan to Restore Watershed

Water Bucket Web Story #5 posted March 2010

Preface

Leading up to the Bowker Creek Forum, a set of four stories progressively foreshadowed and/or elaborated on the core content for the Forum. A fifth story documents the Forum outcomes:

- 1. Week of January 25, 2010:**
Story #1 titled *Convening for Action in the Georgia Basin: Bowker Creek Blueprint establishes precedent for moving from awareness to action* described the Bowker Creek Blueprint, summarized the process that culminated in the 100-Year Action Plan, and synthesized lessons learned.
- 2. Week of February 1, 2010:**
Story #2 titled *Convening for Action in the Georgia Basin: Bowker Creek Forum promotes inter-regional sharing and collaboration* introduced the vision for collaboration among the three regions (CRD, north of the Malahat, Metro Vancouver); and described the 'regional team approach' to achieving water sustainability through implementation of green infrastructure.
- 3. Week of February 8, 2010:**
Story #3 titled *Shared Responsibility: Community Perspectives on Developing and Implementing the 100-Year Action Plan for Watershed Restoration* described the role played by community groups and associations; and explained how community values influenced the plan development process and are reflected in the Bowker Creek Blueprint.
- 4. Week of February 15, 2010:**
Story #4 titled *Shared Responsibility: Local Government Perspectives on Developing and Implementing the 100-Year Action Plan for Watershed Restoration* elaborated on what on-the-ground implementation means for municipal staffs which are tasked with making things happen.
- 5. Week of March 1, 2010:**
Story #5 titled *Call to Action: Bowker Creek Forum advances a 'regional team approach' in the Georgia Basin* summarizes what was accomplished by the Forum, and foreshadows where implementation of a new culture for watershed restoration may lead.

These stories serve as resource materials for participants; and as a publicly accessible record of the Forum process.

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Bowker Creek Blueprint: A 100-Year Action Plan to Restore Watershed

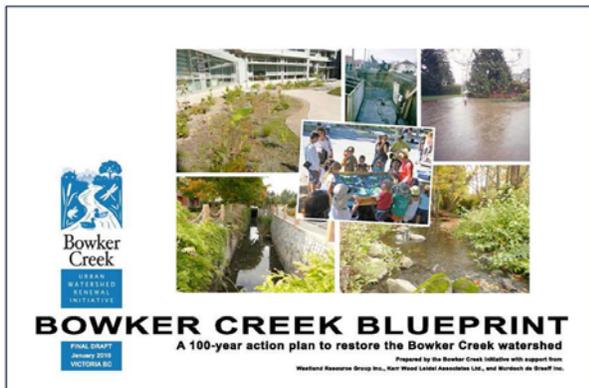
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1. Context

The Bowker Creek watershed is located in British Columbia's Capital Regional District on southern Vancouver Island. This article is the last in a set of five that tell the story of the **Bowker Creek Urban Watershed Renewal Initiative (BCI)**.

The BCI demonstrates how to apply a 'regional team approach' to urban watershed restoration in the Georgia Basin. The players driving the BCI have brought their shared vision to fruition through development of the **Bowker Creek Blueprint**.

The **Bowker Creek Forum** on February 23, 2010 was a celebration of the Bowker Creek Blueprint. Because the Blueprint accomplishment is of provincial significance, the Forum was also an opportunity for inter-regional learning.



Bowker Creek Initiative

Major breakthroughs happen when decision makers in government work with grass-roots visionaries in the community to create desired outcomes. This is the essence of the Bowker Creek story.

Established in 2004, the BCI is precedent-setting. This unique multi-jurisdictional effort brought together local governments, community groups, post-secondary institutions and private citizens.

Their collaboration has produced the **100-Year Action Plan**. Over time, a sustained inter-municipal commitment to implementation of plan elements will improve the health of Bowker Creek and its watershed.

Bowker Creek Forum

The Bowker Creek Forum was a collaboration of the Bowker Creek Initiative and **Convening for Action on Vancouver Island**, known by the acronym CAVI.

"In addition to celebrating the Bowker Blueprint, the Bowker Forum provided a platform for local government champions from 'north of the Malahat' and from Metro Vancouver to tell their stories," states **Jody Watson, BCI Chair**.

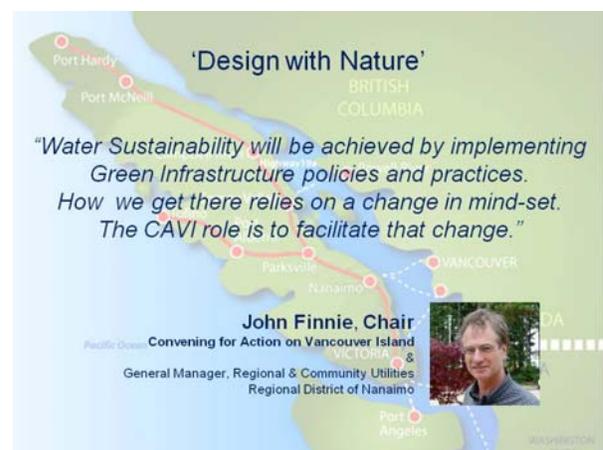


"The Bowker Blueprint is impressive. The BCI is leading the way with their 'design with nature' strategy for watershed restoration," adds **John Finnie, CAVI Chair**. "By drawing attention to the Bowker Blueprint, the CAVI team believes this will help us advance the *regional team approach* in other jurisdictions."

Convening for Action: "We launched CAVI in September 2006. At the time, we identified three desired outcomes. First and foremost, that by 2010 Vancouver Island would be well on the way to achieving water sustainability."

"CAVI defines water sustainability in terms of how we use water, and how water drains off the land."

"The CAVI vision is that we will build and/or rebuild our communities in a way that achieves water sustainability over time. Well, it is 2010 and the Bowker Blueprint provides us with a road map that shows us how to get there."



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2. An Overview of the Forum Program

Held at the University of Victoria, the Bowker Creek Forum attracted a diverse audience of 60 people from around the Georgia Basin.



Mission Possible: A rousing opening address by Eric Bonham set the tone for the day. He is a founding member of CAVI, and a former Director in two provincial Ministries.

His inspirational 'call to courage' was framed around this theme: Mission Possible. Eric was passionate when he elaborated on how a 'top down bottom up strategy' leads to action.

Blueprint Development: Jody Watson followed Eric with an equally passionate and inspiring storytelling segment about the process that culminated in the Bowker Creek Blueprint.

Jody was candid in describing key success factors, challenges that the BCI faced along the way, and how they navigated through rough waters to develop the Blueprint.

Blueprint Actions: To complete the morning session, Jody Watson focused audience attention on the Bowker Blueprint, and emphasized that the document was designed to be reader-friendly.

Jody explained the knowledge-based approach, how it was applied, and why it was successful. She first walked the audience through the watershed-wide management actions; and then through the creek corridor actions. She concluded with a review of Ten Key Actions that will generate early momentum.

Blueprint Implementation: Adriane Pollard and Anne Topp (District of Saanich) opened the afternoon session. In their joint presentation, they structured their mind-map in five parts and addressed implementation issues as follows:

- What Should Be Simple
- What Might Be Difficult
- What Are the Issues
- What Are the Opportunities
- Key Factors for Success

Steven Fifield (City of Victoria) followed with his story of the Trent Street Rain Gardens, the City's first of its kind. His enthusiasm shone through.

The Topsoil Primer Set: The team of Rémi Dubé (City of Surrey) and Susan Rutherford (Green Infrastructure Partnership) then unveiled the **Topsoil Law & Policy and Technical Primer Set**. These synthesize the pioneering experience of Surrey, the City of Courtenay and North Vancouver District.

Georgia Basin Initiatives: The Forum concluded with an interactive segment that ensured a high-energy finish. The spotlight was on connecting the dots between five watershed-based initiatives in five regional districts. All five are keyed to integration of water and land planning.

Moderated by Kim Stephens, Program Coordinator for the Water Sustainability Action Plan for British Columbia, this segment was built around a series of cue slides that enabled a 'guided conversation'.



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3. Mission Possible

Eric Bonham drew on a lifetime of experience, both as a Director of Engineering in the provincial government and as a community advocate, to establish a frame of reference for truly appreciating the significance of the Bowker Creek Blueprint as a landmark accomplishment.

If We Had Known Better Then

“Bowker Creek was a healthy system until urbanization paved over half the watershed and enclosed some 60% of the channel length,” stated **Eric Bonham**.



“We did not do this intentionally. We did it because we did not understand what we were doing. When I was a young engineer in the 1960s, we simply did not consider the values of urban streams to be important. We thought only about piping drainage runoff away as fast as we could. In retrospect, this can best be described as our collective indifference.”

Reversing the Trend: “In the 1990s, I was the manager of the Province’s Urban Salmon Habitat Enhancement initiative. The principles of that grass-roots “program are very germane to what is happening today in Bowker.”

“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.”



Creating a Legacy

“What I like about the BCI is the temerity, the audacity, to have a 100-year vision,” continued Eric Bonham. “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 fact that you have asked three municipalities to step outside their jurisdictions, and to see themselves in the larger watershed context, is a real step in the right direction.”



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.”

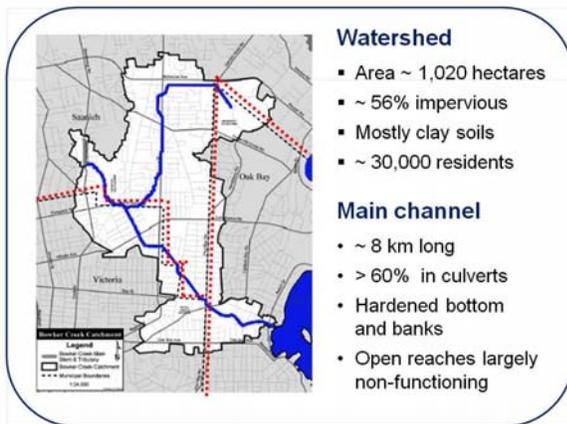


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4. The Story of the Blueprint

Over about a 2-hour period, Jody Watson weaved the story of Bowker Creek from the late 1800s through until the present. This included the 'watershed tour' slides which Ian Graeme created in the mid-1990s to draw attention to the need for action.



From 'Collective Indifference' to 'Design with Nature'

Jody's storytelling provided context for the 'collective indifference' that had characterized the urbanization of Bowker Creek for more than a century; and for the 'design with nature' ethic that is now driving watershed restoration.

"Why did we choose Bowker Creek when it is a rather degraded watershed," asked Jody Watson rhetorically. "The answer is that we saw it as an opportunity. If we could make it right in Bowker Creek, we could make it right anywhere."

Why Bowker Creek?

A pilot for other watersheds within the region



- Learning opportunities for a new way of doing business
- Raising public and institutional awareness
- Multi-jurisdictional watershed
- Location in the urban core with many interested residents

Letting Go of the ISMP Template

A defining moment in the Bowker Creek 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. One of their deliverables was to provide us with

terms of reference for an Integrated Stormwater Management Plan (ISMP)," stated Jody Watson.

"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."

"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

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Knowledge-Based Approach Works

Once the Bowker Creek regional team 'let go' of the ISMP Template, they applied a 'knowledge-based approach' to watershed restoration. The experience was transformational; and laid the foundation for Blueprint development.

Why do we need a blueprint?

- Details needed for municipalities to incorporate actions into their plans and budgets
- Directed change in the urban environment requires a solid plan over the long term



Why the Blueprint: "In 2003, the three municipalities and the CRD Board approved the *Bowker Creek Stormwater Management Plan*", stated Jody Watson at the start of her second hour of storytelling.

"While this guidance document gave strategic direction, it did not provide municipal planners with the level of detail they need to effectively review individual development applications in the context of either a greenway or creek daylighting strategy,"

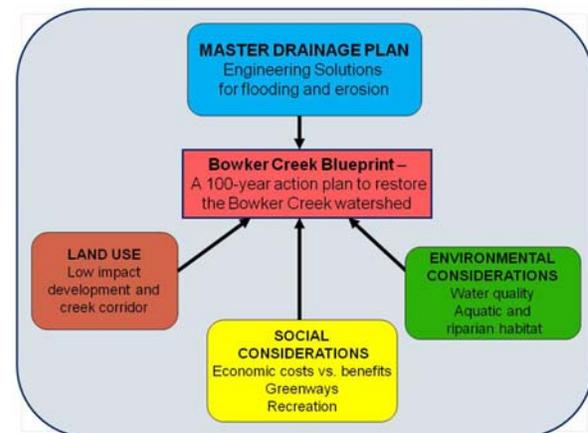
"This really stymied municipal staff. So we concluded that we needed to get those necessary details down on paper. The meat of the Blueprint lies in the appendices. We wanted to keep the document easy to read with, and easy to get through."

What is Necessary to Make Decisions: "So, what did we need to do in order to create the Blueprint? To help municipal staff make decisions, there were all sorts of things that we had to incorporate."

"Because we wanted this to be a very holistic plan to meet as many of the goals and objectives of the 2003 Management Plan as possible, we had to integrate a lot of information."

Inter-Disciplinary Roundtable: The knowledge-based approach meant that the regional team convened as an inter-disciplinary roundtable to synthesize their individual areas of knowledge.

"Drainage, land use, environmental and social information was compiled and assessed in an holistic way that enabled the members of the team to apply their collective best judgment, reach-by-reach," emphasized Jody Watson.



Plan for Climate Change Adaptation

"The Master Drainage Plan helped us understand the existing hydrology of the watershed; as well as the potential impact of future climate change. The best available science suggested we should expect a 15% increase in winter rainfall. In future, for example, this would mean that the extent of flooding during a 25-yr event would be about the same as what we would experience during a 100-yr event under today's climate conditions."

"We decided to look at options for holding the 15% increase on the land so that we would not have to increase pipe sizes. Low impact development is a real focus of the Blueprint at three scales: site, neighbourhood, and watershed."

Synergistic Efforts: "Climate change mitigation efforts such as tree planting can be concentrated along creek corridors. Synergistic efforts also include riparian restoration and other measures to provide ecosystems with the resilience required for climate change adaptation."

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5. Implementation: Municipal Perspectives

Adriane Pollard elaborated on what should be simple and what might be difficult to implement. Then Anne Topp dealt with issues, opportunities and key factors for success. They set the scene for Steven Fifield to provide an on-the-ground example of what implementation looks like.

What Should Be Simple, What Might Be Difficult

“Council has been recently engaged by the Bowker Creek Initiative: a bus tour of the watershed; an open house for councillors to be introduced to the draft blueprint; a public open house; and presentations to council committees. There is generally a good feeling and understanding of the work being done,” stated Adriane Pollard.



Issues, Opportunities and Key Factors for Success

“The big elephant in the room is always money. Municipalities have lots of competing interests for spending money; lots of projects to keep staff busy; and finite financial resources. We are all challenged to do more with less and get it done,” stated Anne Topp.



Opportunities: “We all have heard the quote ‘if you don’t know where you are going, it doesn’t matter what road you take’. With completion of the Blueprint, the Bowker Initiative knows where it wants to go and now we need to find the road to get there.”

“Integrating with and using other plans to advance the Blueprint will be ongoing. An example is the proposed **Shelbourne Corridor Action Plan**. Integration of the Blueprint with that plan will strengthen both.”

Key Factors for Success: “I do not remember who came up with the idea to make this a 100-year plan but I think the group agreement to use the idea was **brilliant**. There are some big ideas in the plan and a 100-year time frame might take the sting out for the people thinking about all the little issues that could impact implementation.... This approach gives us time.”

“This plan is not just about water. It is about how this community wants to live and connect to the environment.”

“Back to money... the 100-year approach should help us. We don’t have to do the \$20 million, \$40 million ISMP approach. Keeping the pieces small and creating bite sized pieces should allow the slow and steady approach.”

“The reach-by-reach approach is *marketing friendly* for citizen and council. They can focus on the piece they know best and relate to the picture. The actions are *descriptive and understandable* without the overkill of the background technical work that supports the plan.”

Saanich What should be simple...

- Council’s acceptance of the blueprint
- Continuing to financially support the BCI annually
- Maintaining the community momentum of raising awareness and taking initiative
- Supporting/completing the Blueprint’s top ten creek corridor key actions
- Most of the Blueprint’s watershed actions

Saanich What might be difficult...

- Moving from the old business-as-usual/existing infrastructure to LID and rainwater management
- Day-lighting on private property
- Competing for acquisition dollars
- Recognizing the gains made over time
- Keeping track of actions & setting future priorities

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Trent Street Rain Gardens

“You have to be committed and you have to think long-term. I believe the City of Victoria is forward thinking in terms of environmental responsibility. As soon as we heard about rain gardens, we felt that they were the way to go. So we had to find an opportunity to build one and be successful.”

“We looked and we thought, and then a situation presented itself. This was on Trent Street, a small cul-de-sac in an institutional area. Bowker Creek is nearby. So location-wise, this was a great opportunity.”

“We got buy-in from the Capital Regional District and St. Patrick’s School. They also saw it as a learning opportunity.”

“This type of green feature is the future of good watershed management in Bowker Creek and other watersheds in our region.”



6. The Topsoil Primer Set

An absorbent topsoil layer has emerged as a fundamental building block for achieving water sustainability outcomes through implementation of green infrastructure practices.

Provincial Launch

The Bowker Creek Forum was the venue for the provincial launch of the **Topsoil Primer Set**. Susan Rutherford presented the Law & Policy Primer; and then Rémi Dubé presented the Technical Primer.

The Topsoil Primer Set is an important first step in developing a suite of practical ‘green’ tools that will help advance a new culture for watershed protection and landscape restoration.

The Genesis

“Last March, the focus of the Surrey Water Balance Model Forum was on the implementation challenges of green infrastructure, and how you overcome them,” stated Susan Rutherford.

“We looked at law, policy, process and technical tools; and how people have most successfully brought those tools together to implement the objectives of green infrastructure.”

“In doing our debriefing, we had this idea of building on the experience of three municipalities. We chose topsoil. We looked at all the players and all the different tools. To organize everything, we took an approach which we called the Shared Responsibility Matrix.”

“The matrix is intended to get you thinking about the role that you can play; and get you talking to others about how you will all work together.”

Genesis of Topsoil Primer Set

- Outcome of Surrey Water Balance Model Forum, March 2009
- A succinct statement of the essential elements
- Start with a dead simple example
 - topsoil layer
- Emphasize shared responsibility matrix
 - an approach to impose order out of...



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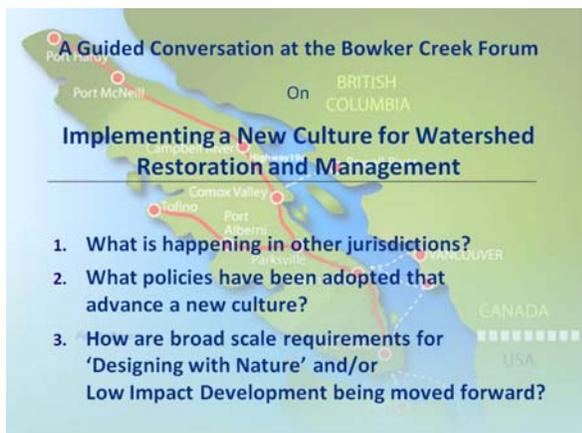
7. Georgia Basin Initiatives: A Guided Conversation

Three questions provided a frame of reference for the plenary segment that provided a platform for champions from 'north of the Malahat' and from Metro Vancouver to share their stories.

Kim Stephens moderated the segment. He referred to quotes on cue slides to engage the audience; and especially to guide the conversation with members of the CAVI team as well as others.



"Quotes grab people very quickly; quotes are a way to show, not talk at," states Kim Stephens. "The quotes had been made by the various champions who were in the room. The 'cue slides' served as a prompt. They helped guide the conversation by keeping people on-topic as they reflected on their part in the storyline."



A Perspective on the Day

"What impressed me about the Bowker Creek Forum was the willingness of those in local government to elicit public buy-in. Without that, you cannot move forward," observed **Judy Williams, Vice-Chair**, Fraser River Coalition.

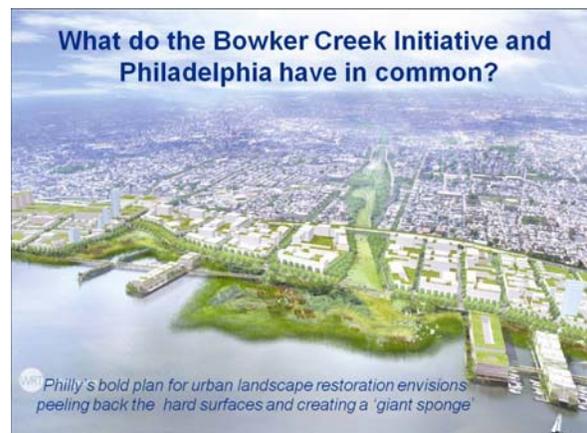
"The Forum gives me hope for the future. It was refreshing; it was energizing. I was so thrilled to be part of the day. I felt the camaraderie; I felt an affinity with the people there."

Connecting the Dots to Philadelphia

Kim Stephens drew audience attention to what is happening in Philadelphia. In 2009, the City released its \$US1.6 billion plan to transform the city over the next 20 years. Called *Green City, Blue Water*, their idea is to turn the city into a giant sponge to absorb as much rainwater as possible.

"The Philadelphia story is starting to attract a lot of attention because the city has a bold vision," stated Kim Stephens. "Compared to the Bowker Creek Initiative, however, Philadelphia is still operating at a very high level. Their motivation in capturing rain where it falls is that they simply cannot afford the traditional big pipe solutions."

"When word spreads beyond British Columbia about the significance of the Bowker Creek Blueprint, my prediction is that cities such as Philadelphia will look to the Bowker Creek Initiative for on-the-ground wisdom on how to move from awareness (talk) to action."



Reclaiming 'Lost Territory'

"The Bowker Creek Initiative challenges us all to re-assess how we plan our communities in the urban context. If we had the luxury of going back 100 years with the wisdom we have now, our streams, lakes and wetlands would be realized and protected for what they are: essential components of a healthy eco-system, and not dumping grounds for our waste. It is not too late to reclaim 'lost territory' from damage caused in the past," concludes **Eric Bonham**.

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8. Implementing a New Culture

“The big learning from the Bowker Creek process is the process itself. We have a good model to work with,” stated Jody Watson.

“I hope that in future we will get to a point where we don’t have to develop a specific plan for a watershed.... because we will have changed the culture and the thinking; and how we develop and how we engineer.”

“It will all be changed so that natural areas are protected as part of the way we do business. We are not there yet, but everyone is starting to move in that direction. Regionally we may need to do a few more key watersheds to continue that learning and get to a point where it is just the way we do business.”



Build the Vision, Create a Legacy

“When the Province released *Stormwater Planning: A Guidebook for British Columbia* in 2002, the Steering Committee also recognized that changing the local government culture will yield a more tangible return-on-investment over time than an ISMP,” states Kim Stephens, principal author of the Guidebook.

“When developing the Guidebook, we looked at their world through the eyes of elected representatives and senior managers. We recognized that the individual property application is the lens for their decisions at a Monday night Council meeting. Thus, the Guidebook emphasis is on how to implement affordable changes in development practices at the site scale.”

“We came to the same conclusion as the BCI team: start with a shared vision; draw a picture of what the community can look like; and create the legacy one property at a time. It is all about cumulative benefits. That is the essence of the Bowker Creek Blueprint.”

Apply a Knowledge-Based Approach

“In 2001, the Regional District of Nanaimo was the pilot local government for development of a *Knowledge-Based Approach*. The case study is described in Chapter 5 of the Guidebook. A decade later, it is gratifying that the Bowker Blueprint demonstrates the effectiveness of the approach,” continues Kim Stephens.

“In 2001, we identified the need for a pragmatic methodology for prioritizing action that focuses on low-cost results by getting the right people together. Led by John Finnie (CAVI Chair), the RDN case study proved out the methodology.”

“As the Bowker Blueprint experience now clearly shows, if the right people with the right knowledge are involved in a collaborative process, a knowledge-based approach to watershed restoration and protection will be both time-efficient and cost-effective.”

Roundtable Process: “The reach-by-reach process that defines the Bowker Blueprint is an application of what the Guidebook describes as an *Inter-Disciplinary Roundtable Process*. The objective in bringing together the planning, engineering and ecological perspectives in the same room is to make decisions based on informed judgement.”

Knowledge-Based Approach

