

# Green Infrastructure Leadership Forum

Co-Sponsored By

Convening for Action on Vancouver Island &  
Association of Vancouver Island Coastal Communities

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***Creating our Future:  
What could our communities look like in 50 years?***

***Initiating a Dialogue about 'A Positive Settlement Strategy'  
for Vancouver Island & Coastal Communities***

**Held in Nanaimo on December 3, 2007**



# 2007 Green Infrastructure Leadership Forum

Convening for Action on Vancouver Island  
Leadership in Water Sustainability



## Introduction

This summary endeavours to pull together high level messages heard throughout the day. As well, it covers the highlights of the presentations and the remarks shared during the morning roundtable and afternoon Official Community Plan/Regional Growth Strategy workshops. It is longer than originally anticipated due to our desire to provide a complete review of the day. However, each section is clearly titled so that you have the option of only reading selected sections.

The last section, entitled '*What Next?*' outlines anticipated future plans to continue the green infrastructure dialogue and develop a catalogue of preferred practices that achieve Green Value.

Presentations and documents handed out throughout the day have been (or will be shortly) posted to the **WaterBucket** website. See below for the link<sup>1</sup>. Our hope is that these will give you the specific information and tools that you need to report back to colleagues and pursue your own initiatives.

In addition to this summary document, we also refer you to two other documents that we prepared in advance of the Forum so that participants could come prepared to start a conversation. These documents explained the two-part structure of the Forum, with the focus of one on celebrating successes and showcasing innovation<sup>2</sup>; and the focus of the other on initiating a dialogue about **A Positive Settlement Strategy**<sup>3</sup>.

Mary Miller, Forum Coordinator  
On behalf of the CAVI Leadership Team  
December 11, 2007

<sup>1</sup> <http://www.waterbucket.ca/cfa/index.asp?sid=15&id=182&type=single>

<sup>2</sup> <http://www.waterbucket.ca/cfa/sites/wbccfa/documents/media/87.pdf>

<sup>3</sup> <http://www.waterbucket.ca/sites/wbccfa/documents/media/92.pdf>



## Setting the Context

Rod Sherrell, President of AVICC, started the day by stating that “we can create our future because local government controls land use”. Elected representatives and staff at the local government level clearly have the opportunity, and responsibility, to make decisions that support



**A Positive Settlement Strategy.** As the conversations and presentations throughout the day made clear, this isn't easy. On the other hand, several people commented that if through policies and practices we get individual sites and neighbourhoods right, the sum of the neighbourhoods will be a healthier municipality/region.

### After today, our hopes for tomorrow are...

We hope to develop an ongoing conversation about planning that results in good decisions for the future needs of our communities.

We hope to move beyond awareness of big picture issues to local actions that help Island communities develop solutions to their specific challenges

## Key Messages:

There was a great deal of discussion around the question, ‘what does it take to succeed in order to achieve long term, broad based sustainability?’ We heard that success requires:

- ✓ A values based, community driven vision against which opportunities and proposals can be assessed, and then accepted or rejected.
- ✓ Real, bone deep commitment from both staff and elected representatives to move forward in a sustainable manner, even in the face of development pressures and the comfort of maintaining the status quo.
- ✓ Regulatory alignment at all levels – municipal, regional and provincial.
- ✓ Communication & cooperation – across departments within a municipality, between staff and elected representatives, and across the region. Vehicles to share on the ground innovative initiatives, approaches and lessons learned, thus building confidence and capacity much more quickly than if each of us has to reinvent the wheel.
- ✓ Money! It is essential that funds be available for planning, designing, and building new and/or retrofitting existing infrastructure. The good news appears to be that in the future more provincial funds will be available for those who are prepared to move down the sustainability path.
- ✓ Rigorous data to provide solid answers to questions such as, “Is there an increased cost when developing/ building sustainably?” “What are the actual versus anticipated benefits/ issues with a green roof?”

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### Today's Expectations are Tomorrow's Standards:

As the day unfolded it also became obvious that today's expectations will be the standards of tomorrow. Conceptually this is likely not new news to those in the room. The new piece, however, may be the speed with which this reality is being concretely implemented, for example as a requirement to access provincial grants, or in revised local government regulations.



Finally, many of us have now successfully implemented 'one of' initiatives that incorporate LEED standards, designing with nature principles, etc. so we know it can be done. The emerging question for many of us, then, appears to be "how can we embed green infrastructure in everything we do?"



### Beyond the Guidebook: Designing with Nature to Create Liveable Communities that Protect Stream Health

**Chris Jensen**, Municipal Infrastructure Resources Officer, BC Ministry of Community Services, discussed the need to go beyond traditional stormwater management to a consistent, science based approach to integrated rainwater management in order to protect stream health. To this end he announced that the Water Balance Model is being enhanced and integrated with QUALHYMO, a rainfall-runoff model that enables correlation of runoff volume management with stream health through integrating the **site** with the **watershed** and finally, the **stream**.



A significant benefit is that users will now be able to test alternative scenarios when planning in a watershed. The rollout of this upgraded tool is just getting underway, with a first local Water Balance Model workshop planned for Cowichan Valley in March 2008.

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### “Ministry of Community Services Provides Financial Incentives to Encourage Local Government to go the More Sustainable Route”

Chris made it clear that the BC government recognizes that although the provision of education, tools and guidelines is an essential first step, a broad based shift to more sustainable practices and infrastructure requires money. To that end he described the following suite of funding programs:

**The Infrastructure Grant Planning Program:** This program is designed to assist local governments in developing green infrastructure by sharing the financial risk incurred in the study/planning phase. Grants of up to **\$10,000** are available to support infrastructure plans and studies. The next submission deadline is February 29, 2008.

**Capital Grant Programs:** There are a number of capital grant programs, including Towns for Tomorrow, Gas Tax Agreement and the Building Canada Fund. They vary in their details but the common denominator is sustainability, for example cleaner water, cleaner air, reduced greenhouse gases, and the use of innovative approaches to green infrastructure planning, design, construction and maintenance.



**Recognition:** Through the Green City Award \$500,000 a year is awarded to local BC's most sustainable communities.

**Leveraging Change**

**TODAY:** Program guides “provide direction”. Ranking criteria supports green projects

**TOMORROW:** Grant conditions used to bring some recipients up to a certain “green” standard

**DOWN THE ROAD:** Meeting a “green” standard will be a requirement for grant eligibility

Perhaps his most powerful comments were at the end of his presentation, where he contrasted today's versus tomorrow's approach to granting. Today program guides provide direction and their criteria support green projects. Tomorrow grant conditions will be used to bring some recipients up to a certain “green” standard and down the road meeting a “green” standard will be a requirement for grant eligibility.

**“Today's expectations are the standards of tomorrow.”**



## Ucluelet: from Vision to Implementation

**Felice Mazzoni**, Director of Planning, District of Ucluelet, started out by sharing a portion of their vision. He then stressed the point that with a



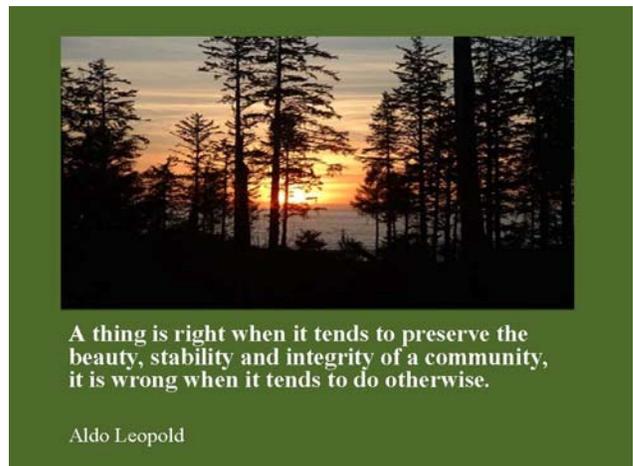
clear vision that everyone is committed to, it is possible to create an integrated whole that, over time, fulfills that vision. In Ucluelet's case, key elements of their vision reflected the desire to accommodate growth yet at the same time maintain a rural 'feel'. As well, they wanted to include sustainability

initiatives such as:

- Sustainable subdivision designs, for example incorporating French drains, narrow roads, paths rather than sidewalks, etc.
- 100% public access to the waterfront via a network of trails integrated into their waterfront development
- The exchange of higher density in new development in exchange for cash, parkland, fee simple land, affordable housing, etc. It quickly became clear that these folks are experts at negotiating. They understand what's important to developers (and what they're willing to pay to get it!), they have developed a creative range of options to offer developers in order to get what the district wants, and last but not least, as stated previously, they have clarity about what it is they are trying to achieve. Therefore negotiations stay on track.
- Requiring a minimum LEED Silver standard for all new development (and LEED Gold for municipal buildings). They are also building the first LEED-ND (Neighbourhood Design) development.

- Maintaining a pool of affordable housing by requiring that 20% of all new multifamily, condo, and hotel units are available for staff housing or affordable housing and that a pool of rental housing is maintained – all paid for by the developer!
- The use of a design charrette in order to develop a clear, integrated vision for downtown development

The question on everyone's mind was "how were you able to do this?" There wasn't time for a complete answer but Felice did indicate that one key is being aware of and using the right tools, for example donation agreements and covenants. Another is having provincial and local government legislation (in this case the Local Government Act) aligned – and where it's not, lobbying for needed changes. It all starts, though, with the politicians having the political will to establish the necessary framework and policies.



**A thing is right when it tends to preserve the beauty, stability and integrity of a community, it is wrong when it tends to do otherwise.**

Aldo Leopold



## South Okanagan Regional Growth Strategy: Pilot for Water-Centric Action in BC

The *South Okanagan Regional Growth Strategy* is also a regional pilot program under the umbrella of **Convening for Action in British Columbia**. To kick-off the afternoon session, **Kim Stephens** presented this case study in order to provide a relevant frame-of-reference for brainstorming in breakout groups.

Stephens reported that the South Okanagan pilot provides an opportunity for regional cross-fertilization of lessons learned because:

- It is the first *water-centric* regional growth strategy;
- It includes a tool-kit to guide decision-making on the ground; and
- A monitoring plan will measure what matters.

Stephens noted that the South Okanagan process commenced with a Community Forum that offers a parallel with the Green Infrastructure Leadership Forum. He then relayed key messages that a regional leader, regional planner and municipal administrator asked him to share with the Vancouver Island audience.

### Connecting the Dots in the South Okanagan: Three Perspectives



- **John Slater:**  
regional leader  
Mayor of Osoyoos



- **Susanne Theurer:**  
regional planner  
Regional District of Okanagan-Similkameen



- **Tom Szalay:**  
municipal administrator  
Town of Oliver

“South Okanagan communities are now having a dialogue about what **A Positive Settlement Strategy** means to them,” reported Stephens, “The bylaw for the Regional Growth Strategy is one vote away from being enacted, and they are having one more round of discussion about **Why** and **Where** growth will be concentrated.”

Based on his three Okanagan interviews, Stephens identified three lessons that Vancouver Island elected representatives can learn from the South Okanagan experience:

1. Establish principles that provide clear direction regarding desired outcomes.
2. Identify regional issues and then commit to developing shared solutions.
3. Provide the people and resources necessary to do the job.



### Regional Leader Key Message

**“Elected representatives are starting to think and act regionally as well as locally”**

“In the South Okanagan, the fundamental decision has been made to concentrate the bulk of future population growth within existing urban growth area,” explained Stephens, “The **Toolkit** that is part and parcel of the South Okanagan Regional Growth Strategy then provides direction vis-à-vis **How** land will be developed and water used.”



## Breakout Group Session

The snowstorm that hit Vancouver Island meant that the format for the Breakout Group Session had to be adjusted at the last minute.

Just over 90 people signed up to attend and 60 came – not bad, given the circumstances. Had we had full attendance, we would have had an almost even split between elected representatives (including 8 mayors / regional chairs), regional and municipal staff, and others such as provincial government staff, academics, NGOs, consultants and so on. We would have had representation from 8 regional districts and 23 municipalities.

According to **Tim Pringle**, “We had identified a set of eight local government case studies that were intended solely as conversation starters for two streams of breakout groups – one regional and the other municipal. We called them our **Matrix of Initiatives**. The intent was that the AVICC Directors would monitor the discussions and then do the reporting out. Unfortunately, the majority of the Executive and our facilitators/resource specialists were unable to make it to the Leadership Forum. So we had to improvise a Plan B.”

### Matrix of Initiatives for Breakout Group Assignments

A set of case studies under four theme areas will start the conversations and guide the brainstorming within each Breakout Group:	Alignment of A Positive Settlement Strategy with Official Community Plan	Alignment of A Positive Settlement Strategy with Regional Growth Strategy
1. Stakeholders & Collaboration	Breakout Group 1	Breakout Group 5
2. Policies & Bylaws	Breakout Group 2	Breakout Group 6
3. Toolkits	Breakout Group 3	Breakout Group 7
4. Case Studies	Breakout Group 4	Breakout Group 8

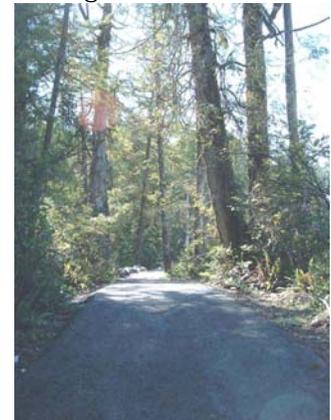
“Under Plan B, we collapsed the number of groups from 8 to 4; and we asked each group to identify a policy and tool(s) that would achieve a *settlement in balance with ecology* outcome,” explains Tim Pringle

## Aligning Regional Growth Strategies with ‘A Positive Growth Strategy’:

This section captures the key points that came out of the RGS group discussions.

Creating Regional Growth Strategies can be challenging. They require a great deal of time and effort on the part of both staff and elected representatives and getting buy-in can be difficult.

Municipalities and electoral areas may be reluctant to participate because it locks in participating communities; it can feel like signing a blank cheque. Finally, the necessity of reaching consensus/ compromising can impact our ability to create a useful, clear strategy for moving forward.



On the other hand, group participants offered the following ideas to improve the likelihood of creating a useful strategy that is agreed to by the majority of the community.

- ✓ Strong leadership is essential, both in terms of having an effective consultation/ development process and clarity around what will constitute a good end product.
- ✓ Start with clear, commonly understood objectives & expectations.
- ✓ Provide as much community and staff education as possible around why an effective regional growth strategy is important and seek broad participation, including First Nations, in its development.



- ✓ Consider rethinking a traditional RGS.
  - Rather than view an RGS as a constraint on what municipalities can do, help them see that if well done it can offer protection for each partner's values.
  - Encourage participants to shift their thinking from "going green constrains what we can do" to "sustainability sustains growth".
  - Begin by considering the natural capacity of the ecosystem, e.g. natural versus political boundaries. This brings an objective, science based context to the strategy, as well as the likelihood that ecosystems can be sustained as an intact whole.
  - It may help to start with sustainability principles or consider creating a sustainability strategy rather than a regional growth strategy.
  - Rather than the all or nothing approach address components that people can agree on, e.g. a rainwater management plan, adding additional components as is feasible.



### Aligning Official Community Plans with 'A Positive Growth Strategy':

This section captures the key points that came out of the OCP group discussions.

Challenges to creating effective OCPs include the wide range of perspectives and values found in our diverse communities – rural, urban, sub-urban, long-term residents vs. new arrivals, etc. There is an urgent need to change but barriers to doing so include traditional zoning by-laws and a Local Government Act that is not supportive of sustainability, the cynicism citizens may feel in any government driven consultation process and the overwhelming amount of information the public and the municipality has to absorb in order to offer informed education/input/ decision making around smart growth planning.

Group participants identified a wide range of elements required to develop OCPs that drive a positive settlement strategy:

- ✓ Number one is political will and commitment on the part of elected representatives. Without this difficult yet essential decisions simply won't be made.
- ✓ A good community plan has to start with a clear, values based vision and priorities but this not sufficient; in addition it needs aligned policies, by-laws, engineering specifications, clear guidelines for developers, etc. Together these tools provide the 'on the ground' tools staff and developers need to fulfill the OCP vision on a project by project basis.
- ✓ The planning horizon should be 30-60 years. This will help participants have the needed perspective and realistically, decisions made today often have such long term impacts on the land/ watersheds.

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- ✓ Everyone – staff, elected representatives and citizens – need education, tools, examples of ‘green’ policies, by-laws, sustainability checklists, and so on that can help them absorb large amounts of new information and respond to it quickly, without having to reinvent the wheel.

Participants also identified a number of opportunities:

- ✓ Despite the challenges the good news is that the timing couldn’t be better. People and governments are increasingly supportive of the need to pursue green infrastructure approaches.
- ✓ We need to continually demonstrate what is possible (and learn from) innovative prototype projects. It is the only way to gain the necessary confidence and buy-in to adopt new approaches and standards.
- ✓ Creative new ways are being found to influence future developments, including but not limited to the use of density bonuses, covenants to cover everything from public access to trails to limitations on what trees can be cut down to maintain desirable views, mandating of water centric designs, green bylaws, etc.
- ✓ Necessary buy-in may be possible if we shift our thinking. For example, jurisdictional boundaries don’t usually match watershed boundaries. Perhaps municipalities can build a case for common action based on protecting watersheds and/or salmon. Perhaps the discussion can be framed to take in account not just the economic value of our resources when consumed but also their value when sustained. Finally, is it time to move beyond rain water management to rain water management in conjunction with energy efficiency?

- ✓ Engineering staff need to be involved in both the development of OCPs and prototype projects. They have expertise to bring to the table and only then will their day to day decision making reflect future directions rather than traditional engineering practices.

## Showcasing Innovation Series Review

To energize Forum participants and prepare them for the afternoon session, the emphasis in the morning session was on the “telling of stories” because people learn through story-telling.

**Kim Stephens**, Program Coordinator, Water Sustainability Action Plan, kicked off this part of the program by talking about the importance of the 2007 Showcasing Innovation Series as a vehicle to share our hard won innovations – one conversation, one story and one example at a time – and therefore build capacity across the Island to achieve green value. Following is a summary of the series as presented by the following attendees.



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**Dean Mouseau**, Manager, Development Engineering with the City of Nanaimo reviewed the Inland Kenworth development. Perhaps the most interesting point Dean made related to the 'next step' benefits of this project. He indicated that the developer had put together an excellent team to undertake the Kenworth project, and had engaged in extensive discussions with the city in order to develop a feasible, cost effective, 'design with nature' based approach to the project. "When the next project came along, we saw the benefits of this initial work. We're talking the same green infrastructure language and he tends to assemble the same consultant team."

One of the projects **Rob Lawrance**, Environmental Planner, City of Nanaimo, talked about was the Oliver Woods Community Centre project. Nanaimo's policy is that city buildings will meet LEED Silver standards. He commented that this project forced staff to go through an education process and ask questions that otherwise wouldn't have been asked. Although there are still questions about the affordability of meeting the LEED Silver standard, it is clear that implementing the standard meant that they cleared far less forest than would have normally happened, thus saving on-going landscaping and rainwater run off mitigation costs.

**Kate Miller**, Environmental Manager, Cowichan Valley Regional District, commented on the benefits she saw as a result of participating in the Show Casing Innovation Series. These included the opportunity share ideas with others – something that doesn't happen in the normal course of business. As well, there was a recognition that "we don't need to invent the wheel ourselves." We can talk to others, and even go and see what is being done, thus giving us confidence to make changes. Finally, the Series gave staff that hadn't yet been exposed to green infrastructure concepts a chance to see what is possible, in their case expanding the pool of staff committed to doing things differently.

**Peter Nilsen**, Assistant Municipal Engineer, District of North Cowichan, felt that a key benefit of the Series was the chance to see the innovative things that are going on. He shared the story of working with the same developer who had build the Inland Kenworth site; as a result of having seen that project they were able to hold the developer to the same standard of rain water management as had been delivered in Nanaimo.

**Ron Neufeld**, Senior Manager, Operational Services, Comox Strathcona Regional District, spoke briefly about a number of innovative regional district projects. These included everything from the development of a provincial government mandated regional water strategy to selling the sludge based compost resulting from the wastewater treatment process. He also shared innovative ideas to encourage use of public transit – wireless internet access on the bus, dual town bus passes, special sessions for seniors so that they understand and feel comfortable using buses and so on.

**Tom Anderson**, Manager, Development Services, Cowichan Valley Regional District, spoke about the process they used to develop both a supply and demand water management plan for Cowichan Lake. The challenge they faced included a large number of stakeholders – farmers, lake property owners, urban areas, First Nations and so on – each with their own needs and perspective. Tom indicated that with the use of a wide variety of vehicles for educating and engaging these stakeholders they were able to develop a plan. Unfortunately, not all aspects of the plan have been adopted by the Region. Tom's belief is that the District will only go so far, particularly when it comes to the more controversial aspects of the plan such as monitoring and metering of well water, until they see action from the provincial government to develop needed policies and regulations.



## Round Table: What Else is on the Drawing Board?

As usual, it was inspiring to hear about green infrastructure projects throughout the Vancouver Island and the coastal communities.

**Gerard LeBlanc** of Ducks Unlimited discussed Sechelt initiatives including a new RCMP/ Court House municipal building that has won 3 design awards for its use of a green roof, and site water retention & permeable surface features. There was further discussion later on with regards to costs (more expensive upfront but because the recovery period was reduced by 7.5 years total costs were less).

**Vivian Dean**, a consultant with Chislett, Manson & Co., talked about a site in Comox where new tree regulations supported them retaining 40% of the mature trees on the site, which in turn allowed them to use bioswales. They also have permeable surfaces, roof rain water catching as well as rain water harvesting to provide water for tree irrigation. Another hotel renovation project will be adding roof rainwater harvesting as well as a heat efficiency project to their existing grey water/ water treatment systems.

**Gene Miller**, of the Gaining Ground Conference took us down a different but very important path. He asked whether developers are tracking the costs of green development. If not, how will we know whether or not going green is more costly? How will we change the perception that it is? He offered as food for thought the fact that some municipalities in North America have developed incentive programs for developers to encourage them to gather the necessary data to determine green vs. standard development costs.

**Jody Watson**, Harbours & Watersheds Coordinator, CRD, commented on a retrofit to an existing building where 50% of the roof will be green. They are working with BCIT to implement a monitoring system to track heat gain/loss, rain water retention, and the impact of different plantings and soil depths. The other half of the roof will include rain water capture. Asked about the cost of retrofit vs. build new, she said that retrofit probably cost twice as much.

**John Finnie**, General Manager, Environmental Services, Nanaimo Regional District told us about some simple rainwater management initiatives. In one case he discussed simply converting an impermeable parking surface to an infiltrative surface. His very valid point was that in some cases simple works!



**Cori Barraclough**, a principal with Aqua-Tex Scientific Consulting, wrapped up by observing that the conversation is moving from water sustainability to integrated design sustainability – and that this is a good thing!



### What Next?

As an outcome of the Green Infrastructure Leadership Forum, the Ministry of Community Services and Real Estate Foundation have concluded that there would be value in jointly funding a *catalogue* of local government policies and practices that accommodate settlement while at the same building in *green value* – such that benefits exceed liabilities, and the outcome of each policy or practice contributes to **A Positive Settlement Strategy**.

Collaboration under the CAVI umbrella creates an opportunity to build on and/or integrate several initiatives, including:

- ✓ the Real Estate Foundation's **Green Value Case Study Profile Series**;
- ✓ the CivicInfo BC catalogue of **Practices and Innovations**; and
- ✓ the Case Study Module that is pending for the **WaterBucket Website**.

According to Kim Stephens, the title that is being considered is: **Creating Our Future: A Catalogue of Preferred Practices that achieve Green Value**. "We see the catalogue as a tool that will generate positive energy," observes Stephens, "The unifying theme is that actions implemented on-the-ground ultimately add up to *A Positive Settlement Strategy*."

"We believe it is a matter of changing expectations by illustrating expectations – that is to say, the mantra then becomes *this is what we want our communities to look like*," continues Tim Pringle.

According to Chris Jensen, who is also Co-Chair of the Vancouver Island Water Balance Model Coordinating Team (VICT), the *Catalogue of Preferred Practices* will complement the efforts of VICT in carrying out its mission: facilitate a consistent, science-based approach to rainwater management...in order to create liveable communities and protect stream health.

"If through local government policies and practices we get neighbourhoods right, then the sum of the neighbourhoods will be a healthier region," adds Rod Sherrell.

According to Kim Stephens, catalogue development is a logical extension of the Showcasing Green Infrastructure Innovation Series where there was a sharing of who is doing what, and why. "The Showcasing Series showed us how important it is to provide venues for people in local government to tell their stories," explains Stephens, "The catalogue will not be a research assignment which involves someone phoning around to communities. Rather, we see the catalogue content being the outcome of interactive sessions where conversations can take place."

### Actions on-the-ground add up to 'A Positive Settlement Strategy':

Alignment of CAVI and AVICC is an important ingredient in catalogue development. "We wish to continue the conversation with the AVICC membership that we started at the Green Infrastructure Leadership Forum," elaborates John Finnie, "Looking ahead, we will be exploring with AVICC when and how we might organize one or more interactive sessions where we would have sufficient time to:

1. share the catalogue vision as a tool to achieve an outcome;
2. introduce case study examples that engage our audience; and
3. solicit additional case study examples from the audience."

"The *Catalogue of Preferred Practices* will be a living document, and will be expanded over time as we collect the stories of what communities are doing on the ground to achieve Green Value," concludes Tim Pringle, "It is a bottom-up approach to achieving *A Positive Settlement Strategy* through social, economic and environmental attributes that are in balance to the extent practicable."