

2. Stormwater Planning: A Guidebook for BC

Release of Stormwater Planning: A Guidebook for British Columbia in 2002 was a catalyst for action to implement a 'design with nature' approach to rainwater management and green infrastructure.

It was a 'catalyst for action' because...

- The Guidebook provided
 - Direction
 - Science-based principles and objectives
 - Guidance on how to do integrated planning
- The Guidebook introduced these core concepts:
 - Rainfall spectrum
 - The "retain, detain, convey" integrated strategy
 - Water balance methodology
 - Performance targets
 - A "learn by doing" adaptive framework

Watershed Restoration is Achievable

The Guidebook applied a science-based understanding, developed the water balance methodology to establish performance targets, and demonstrated that urban watershed restoration could be accomplished over a 50-year timeframe as and when communities redevelop.

The premise underpinning the Guidebook was that land development and watershed protection can be compatible (Figure 2). The basis for this premise was that municipalities exert control over runoff volume through their land development and infrastructure policies, practices and actions.

Landscape-Based Approach: Also in 2002, a Metro Vancouver working group and provincial staff collaborated to produce a discussion paper titled A Watershed / Landscape-Based Approach to Community Planning. The Guidebook was a pioneering application of this approach.

"The premise underpinning the landscape-based approach is that resource, land use and community design decisions will be made with an eye towards their potential impacts on watershed health," states Erik Karlsen, the principal author.

Water-Centric Planning Defined: Released in 2004, the Water Sustainability Action Plan incorporated A Watershed/Landscape-Based Approach to Community Planning as a core element. This was rebranded as 'water-centric planning' in 2006.

Water-centric planning means...

- We will plan with a view to water – *whether for a site, a region, or the province*
- We will integrate missions, mandates and accountabilities
- We will move towards a **water balance** way-of-thinking and acting.... to deal with uncertainty, manage / accept risk, and build in resiliency



Beyond the Guidebook 2007

In June 2007, Beyond the Guidebook: Context for Rainwater Management and Green Infrastructure in British Columbia was released. By then, practitioners were becoming comfortable with what 'rainfall capture' meant in practice. So, it was time to focus attention on how to truly protect and/or restore stream health in urban watersheds.

Beyond the Guidebook initiated the paradigm-shift from the single-function view of traditional 'stormwater management' to the integrated and holistic perspective that is captured by the term 'RAINwater Management'. This also set the stage for defining water sustainability as an outcome of green infrastructure policies and practices.

In 2007, 'Beyond the Guidebook' built on the Guidebook foundation:

- **Guidebook** emphasis is on rainfall capture (volume control) at the site scale
- **Beyond the Guidebook** focus is on the relationship between volume control and resulting flow rates in streams



Figure 2