

Opinion: We must protect watershed systems



KIM STEPHENS

[More from Kim Stephens \(HTTP://VANCOUVERSUN.COM/AUTHOR/KIM-STEPHENS\)](http://VANCOUVERSUN.COM/AUTHOR/KIM-STEPHENS)

Published on: October 13, 2016 | Last Updated: October 13, 2016 1:00 AM PDT



Kim Stephens, longtime water engineer, talks about water and drought by the Cleveland Dam in Vancouver, B.C., on December 16, 2015. *STEVE BOSCH / PROVINCE*

At the Union of B.C. Municipalities' recent convention, a session on valuing natural assets, led

by the Town of Gibsons, got delegates talking. Why? A new way of thinking about municipal infrastructure has the attention of the local government world. Simply put, natural watershed systems are infrastructure assets – we must manage and protect them as such.

Local governments are rising to the challenges posed by a changing climate and urban growth. 2003, 2009 and 2015 were teachable years. Droughts, forest fires, wind storms and floods became catalysts for action. As a result, local government staff are innovating. They are sharing and learning from each other. Communities are progressing.

No longer is asset management only about hard engineered assets – water mains, sewers, roads. Already facing a \$200 billion challenge for renewal of hard infrastructure, Asset Management for Sustainable Service Delivery: A B.C. Framework provides a financial driver for local governments to integrate watershed systems thinking and climate adaptation into asset management.

Launched in 2015, this powerful provincial tool is an element of Living Water Smart, B.C.'s Water Plan. It connects directly to asset management requirements for obtaining infrastructure grants – making it a game-changer. The B.C. Framework links local government services, infrastructure that supports service delivery, and watershed health.

The B.C. Framework sets a strategic direction that would refocus business processes to properly manage the water balance within the built environment. Mimic natural flows in streams. Preserve the natural pathways by which water reaches streams. Slow, spread and absorb run-off. Benefits include less flooding, less stream erosion, more streamflow when needed most.

Everyone learns about the water balance (water cycle) in elementary school, but most have forgotten by high school. So what does this mean for communities? Consider that: A legacy of community and infrastructure design practices has failed to protect the natural water balance. Failure has financial impacts and implications for taxpayers. Consequences of not protecting water balance pathways include expensive fixes for flooding, erosion and habitat damage.

Sustainable Watershed Systems, through Asset Management describes a “whole-system, water balance” approach to community development and infrastructure servicing. Collaboration through the Georgia Basin Inter-Regional Educational Initiative is producing tools and resources that will help communities integrate water balance solutions into land use decisions.

The initiative involves local governments in five regional districts representing 75% of B.C.'s population (Metro Vancouver, Capital, Nanaimo, Cowichan Valley and Comox Valley). It complements individual regional programs.

All five regional boards recently adopted resolutions reaffirming support for inter-regional collaboration through 2021. Work needs to be done today to ensure we see a secure water future. Benefits are long-term.

Collaboration is leading to precedents for getting it right. Other regions recognize B.C. as a leader. They perceive B.C. moving in the right direction with integration of watershed systems thinking and asset management. International exposure allows us to judge how B.C. stacks up against the rest of the world.

Released in September, Sustainable Watershed Systems: Primer on Application of Ecosystem-based Understanding in the Georgia Basin connects past and current research, and explains why “restoring the water balance” is key to achieving a water-resilient future and restoring aquatic habitat in urban areas.

Written in a magazine-style to appeal to technical and non-technical readers alike, the primer is designed to help multiple audiences – whether elected, administrative, technical or stewardship – ask the right questions and ensure that science-based understanding is applied properly and effectively.

Successful programs that are politically supported would ensure we restore the water balance and have sustainable watershed systems. This approach has the potential to re-set the ecological baseline along the east coast of Vancouver Island and in the Lower Mainland. Success would be abundant salmon in urban streams.

Kim Stephens is the Executive Director, Partnership for Water Sustainability in B.C.