

Comment: Victoria's stormwater utility looks to the future

Kim A. Stephens / Times Colonist

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In 2013, the City of Victoria embarked upon a comprehensive engagement process to implement a design-with-nature vision for sustainable rainwater management. The city's goal: use rain as a resource and mimic the function of natural systems. The outcome: a user-pay stormwater utility complete with a rainwater rewards program. This month, property owners received their first bill from the city for the stormwater utility.

In the late 1990s, there was considerable interest and enthusiasm on the part of numerous B.C. municipalities to establish stormwater utilities. But few followed through with action, and those that did merely added to the scope of their existing sanitary-sewer utilities to ensure dedicated funding for drainage purposes.

Fast-forward to 2016. The City of Victoria has shown leadership by establishing a stormwater utility and a rainwater rewards program that looks to the future. Victoria's accomplishment merits celebration.

With implementation of its stormwater utility, the city can make real its "caring for the environment" mantra. What happens on the land does matter. Hence, the Rainwater Rewards Program is the means to an end — restore respect for water, the water balance (cycle) and interaction of water with the urban landscape.

Everyone learns about the water cycle in elementary school, but by high school, most have forgotten what they learned. The need for communities to adapt to a changing climate (warmer, wetter winters; longer, drier summers) is a reason for the Rainwater Rewards Program to refresh memories and understanding of the water balance.

In a natural watershed, for example, the primary water balance pathway is shallow horizontal flow through the surface soil "sponge."

A legacy of past community planning and infrastructure servicing practices is that the water balance of urban watersheds is out of whack. Restoring water-balance pathways starts with the first rain garden. Slow, spread and sink runoff. A single rain garden would not make a material difference to the city's water balance. But hundreds would.

For the past 150 years, drainage practice in Victoria has been guided by a "collect and pipe it away as quickly as possible" philosophy. Hardening of the land surface has short-circuited the water balance. It did this by covering the surface soil sponge and by preventing movement of water into the ground.

Failure to protect and mimic the water balance and its pathways has environmental, financial, level-of-service and life-cycle implications for taxpayers. Environmental impacts include degradation of water quality and aquatic

habitat. Consequences include expensive fixes in an era when cities are challenged just to renew and fund essential infrastructure services.

Over time, the stormwater utility provides the city with the capability to foster a watershed-stewardship ethic and influence landowner actions on the ground for the common good. These outcomes can be achieved through education in combination with financial incentives. It is about connecting the dots.

It took generations to short-circuit the water balance in the City of Victoria. Similarly, it would take generations of landowners incorporating rain gardens in redeveloped properties in order to mimic the function of natural systems, and restore the water balance while meeting their drainage needs.

Creation of the Stormwater Utility and Rainwater Rewards Program is a significant milestone in a journey that leads to a water-resilient future. The phrase “cathedral thinking” aptly describes the long-term commitment that would be required by the community at large, successive city councils and generations of land and water professionals to achieve the city’s design-with-nature vision for sustainable rainwater management.

When one thinks of a cathedral, two aspects come to mind: a soaring aspiration and a grounded structure firmly planted throughout time. We can learn from our ancestors. The grand creations of antiquity were not designed with a quarterly report or four-year election term in mind. The builders of great cathedrals in medieval times thought in terms of multiple generations carrying out their work, to complete a dream that would not be realized until long after the originator’s death.

In the case of Victoria, the dream is a water-resilient future.

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