

Executive Summary

Like many municipalities across Canada, the City of Kelowna (the “City”) is reviewing its current stormwater funding model, which is mainly supported by the general tax levy (property tax). The City wishes to investigate a range of funding options that could provide a more predictable and equitable source of funding.

This report presents the City’s current stormwater system and funding model, a business case for why the City should investigate an alternate stormwater funding model, summarises municipal stormwater funding options available to the City, provides an overall evaluation of the various options and presents a plan for the next phase of work.

The City has over \$350 million of engineered stormwater assets which includes grey and green infrastructure. The City manages these engineered assets along with natural infrastructure, such as creeks, to manage stormwater runoff while protecting the public, private property, infrastructure and the environment from flooding, erosion, and water quality issues.

The City currently funds its stormwater management program through property taxes which poses several challenges. Stormwater funding is not predictable as stormwater must compete with other municipal services for general revenue. Because stormwater management is often out of site and out of mind, the City’s current funding levels, for a municipality its size, are well below the Canadian average. Current funding levels also limit the City’s ability to address creek water quality issues and the impacts from climate change. In addition, the current funding model does not encourage landowners to decrease their impact on the stormwater system.

A new stormwater funding model could provide dedicated stormwater funding while encouraging better private side stormwater practices. This would allow the City to better:

- Protect Okanagan Lake;
- Increase resilience to climate change;
- Reduce the risk of flooding; and
- Complete long-term infrastructure planning.

Ideally a new stormwater funding model would meet the following five criteria:

- Charge users equitably
- Be simple to understand, implement and maintain;
- Provide predictable funding;
- Promote good private stormwater practices; and
- Enable the City to preserve Okanagan Lake’s water quality by managing stormwater runoff impacts.

These criteria were used to evaluate stormwater funding models for the City of Kelowna. The following table provides a summary of the stormwater funding option evaluation. The table shows the type of funding model, which Canadian municipalities use that model, how that model assesses the charge for different land use types and how well the model addresses the five criteria outlined above. A red “empty” circle indicates the funding model does not meet the criteria at all. A yellow dashed circle indicates the stormwater funding model partially meets the criteria. A green solid circle indicates the funding model mostly or fully supports the criteria.

Table E1: Comparison of Stormwater Funding Options

	Stormwater Funding Model	Used By	Single Family Residential	Multi-residential ≤ 6 units	ICI and large multi-res	Drivers				
						Protect Okanagan Lake water quality	Promote good private SW practices	Predictable funding	Fair & equitable	Simple
Tax Levy	General	~70% cities, Kelowna	Assessed value & tax rate class except tax exempt properties							
	Dedicated	City of North Vancouver	Assessed value & tax rate class except tax exempt properties							
Storm water Rates	Tiered Flat Fee	West Vancouver, Surrey	Land use, property size							
	Equivalent Residential Unit (ERU)	Guelph, Ajax, Saskatoon	Average residential impervious area		Measured impervious area & credit program					
	Single Family Unit (SFU)	Windsor	Avg SFU imp area	Avg multi-res imp area	Measured impervious area & credit program					

Based on our evaluation of stormwater funding models, AECOM recommends the City consider an imperviousness-based stormwater user fee. More specifically, we recommend the City consider the following two options.

1. Equivalent Residential Unit (ERU) model with a credit program that encourages property owners to protect the quality of Okanagan Lake. This is the simplest option that meets most of the goals. In an ERU model all dwelling units pay the same rate, but non-residential properties pay based on measured impervious area (using aerial photography).
2. Single Family Unit (SFU) model with a credit program which provides a greater degree of equity for the range of residential types in Kelowna. In an SFU model, all detached single family dwellings pay the same rate, but multi-unit residential types pay different amounts based on their average footprint. This results in residential forms with a smaller ‘footprint’ per unit (e.g., apartment or condo) paying less per unit than a single-family detached home. Non-residential properties would pay based on their actual impervious area which would be measured using aerial photography.

To further the development of an impervious-based stormwater user fee, it is recommended that the City proceeds with Phase 2, which includes public consultation. If the City does not decide to proceed with Phase 2 then it is committing to business as usual, which includes:

- No path toward predictable funding;
- Asset renewal rates that are not sustainable long-term, resulting in future generations being burdened with greater infrastructure replacement costs;
- No stormwater-dedicated reserves which limits most grant opportunities due to the need for matching funding;
- Limited ability to address increasing creek and lake water quality issues;
- Increasing risk of impacts from urbanization and climate change; and
- Limited incentives for landowners to decrease stormwater impacts.