# Credit Program for the City of Prince George

For commercial and multifamily residential dwellings, the performance credit approach is considered favourable. Because these properties can save thousands of dollars annually, the City requires a high level of technical proof that your private systems (like ponds or underground tanks) are doing the work of the municipal system.

## Professional Qualification

All technical documentation for a non-residential credit must be prepared, stamped, and dated by a Professional Engineer (P.Eng.) licensed in British Columbia. The firm must also hold a valid Permit to Practice in order to provide engineering services to the public.

## Core Engineering Requirements

Your engineer must provide a Stormwater Management (SWM) Report that includes:

a) Design Calculations: Detailed Excel sheets and drainage area plans showing how much runoff your site captures versus how much it releases.
b) Computer Modelling: Results from hydrological models (like Visual OTTHYMO or PCSWMM) to demonstrate system performance during various storm events (e.g., the 2-year to 100-year storm).
c) Flood Control Standards: Proof that systems are sized to avoid ponding longer than 48 hours and that surface ponding in parking areas does not exceed 0.3 meters during a 100-year storm.
d) Maintenance Plan: A detailed manual explaining how the Best Management Practices (BMPs) will be inspected and maintained to ensure they continue to function.

## Credit Categories

The City will utilize a tiered system based on the categories outlined below. Note that the maximum credit which can be requested is 50%, which will be justified by a professional engineer.

| Category | Engineering Focus | Documentation needed |
|---|---|---|
| Flood Control (30%) | Sizing of storage facilities (ponds, tanks). | Volume calculations showing percentage of total drainage flow captured on-site. |
| Pollution Control (15%) | Filtration and sediment removal. | Evidence that discharges meet effluent criteria or use approved oil-grit separators. |
| Education (5%) | Formalized training programs. | Training logs, quarterly education meeting agendas, and photos of educational signage. |

## Flood Control

Flood controls help manage the amount of stormwater that flows into the City's system during heavy rain. These features slow down runoff and reduce the risk of flooding.

Examples include:

a) Rooftop storage: Flat roofs that temporarily hold rainwater and release it slowly through drains and downspouts.
b) Parking lot storage: Designed areas that collect and hold water before it enters the stormwater system.
c) Underground storage: Tanks or vaults that store runoff and release it gradually.
d) Stormwater management ponds: Large ponds that collect runoff to prevent flooding.
e) Green roofs: Roofs covered with soil and vegetation that absorb rainwater and reduce runoff.

## Pollution controls

Pollution controls improve the quality of stormwater before it enters the City's system. The credit you receive depends on how much pollution your system removes.

You can also earn additional credit (up to the 15% maximum) for other best management practices, such as a salt management plan or a paved area sweeping program.

Pollution control credits by treatment level

| Level of treatment | Total suspended solids (TSS) removed | Maximum credit | Level of treatment |
|---|---|---|---|
| Enhanced | 80% or higher | 15% | Enhanced |
| Normal | about 70% | 10% | Normal |
| Basic | about 60% | 5% | Basic |

Examples of pollution controls

a) Bioswales: Vegetated channels that slow and filter runoff before it enters storm drains.
b) Oil/grit separators: Underground structures that remove sediment, oil and debris from stormwater.
c) Paved area sweeping program: Regular sweeping of paved surfaces to prevent sediment and litter from entering drains.
d) Salt management plan: Certified through the Smart About Salt program to reduce salt use and protect water quality.
e) Stormwater management ponds: Collect runoff and let sediment settle before releasing cleaner water.
f) Vegetated filter strips: Gently sloped, planted areas that slow runoff and remove sediment before it reaches waterways.

## Education programs

You can receive up to 5% credit for stormwater education programs that raise awareness about protecting the stormwater system. Copies of all training or education materials must be submitted for review.

Examples of eligible programs

a) Customer programs: Businesses that share educational tools or information with customers whose activities may affect stormwater.
b) Employee programs: Workplaces that train or educate staff about stormwater management.
c) Student programs: Schools or post-secondary institutions that include stormwater management in lessons or display educational materials in visible areas.
d) Tenant or landlord programs: Landlords who provide stormwater education materials to tenants.

**Benchmarking Table of Canadian Municipalities with established Stormwater utility credit programs**

| Municipality | Charge basis | Eligible properties | Max. credit | Credit categories / BMPs |
|---|---|---|---|---|
| Mississauga, ON | Impervious (hard-surface) area, tiered | Non-residential & multi-residential only | Up to 50% | Peak flow reduction (≤40%), water quality treatment (≤10%), pollution prevention (≤5%); 4th category added in later schedule |
| Kitchener, ON | Impervious area (utility fee since 2011) | Residential and non-residential | Up to 45% | Quantity (max 25%), quality (max 15%), education (5%) |
| Waterloo, ON | Impervious area / land-use class | Residential, multi-residential and non-residential | Up to 45% | Flood (quantity) controls, pollution (quality) controls, education (≤5%) |
| Guelph, ON | ERU-style stormwater charge | ICI and multi-residential (6+ units) | Up to 50% | Four categories aligned to SWM program objectives |
| Saskatoon, SK | Storm water charge | Multi-residential & non-residential | Up to 50% | Quality control (80% TSS removal, ≥50 micron), quantity control (1-in-2-yr event held on-site), plus a third category |
| Edmonton (EPCOR), AB | A × I × R × Rate (area × development intensity factor × runoff coeff.) | Commercial & multi-family residential (RM/RL) | Reduction of development intensity factor below 1.0 (variable) | Demonstrated reduced runoff vs. similarly zoned properties |
| Hamilton, ON | Moving from water-use basis to dedicated stormwater fee | ICI and large multi-residential under consideration | | Credits or subsidies for on-site quantity/quality measures |