Coquitlam

City of Coquitlam

Stormwater Management Design Guidelines and Criteria for Small-Scale Development

1.0 Purpose

The purpose of these guidelines are to establish clear and consistent stormwater management design criteria for small-scale residential developments within the City of Coquitlam as defined within the Subdivision and Development Servicing Bylaw No. 3558. These guidelines align with the City's Integrated Watershed Management Plans (IWMPs) and other relevant policies to ensure effective stormwater management that minimizes environmental impacts, mitigates flooding risks, and enhances groundwater recharge. It is the responsibility of the development proponent to ensure that all applicable guidelines, bylaws, standards and other regulations and policies are strictly followed.

1.1 Eligibility

These criteria apply to small-scale residential redevelopments and small-scale residential greenfield developments as outlined in the Stormwater Management Policy and Design Manual.

1.2 Design Approach Selection

Development proponents must provide an on-site stormwater management plan. They may select between two design approaches to manage on-site stormwater. A standardized design, outlined in Section 2.0., or a customized site-specific design, which requires additional engineering analysis and it is outlined in Section 3.0.

2.0 Standardized Stormwater Management Design

The standardized stormwater management systems consist of a tank with a rate control device designed to effectively manage the quantity and flow rate of stormwater runoff discharged into the City storm system and ultimately into the receiving water body. City standards are available online on the City's website. Development proponents must select the applicable drawing based on the storm service location, minimum setback requirements and pumping requirements. Development proponents must also prepare a maintenance plan for the selected tank and system. The City may require development proponents to provide customized Stormwater Management Designs on a case-by-case basis to protect downstream properties and resources, including watercourses.

2.1 Tank Selection

The standard drawings utilize a modular tank system to allow flexibility on shape and dimensions. Other tanks such as fiberglass or concrete can be used as long as they provide the minimum storage volume. The tank selection is based on the following criteria:

1. Average site slope: The standard design uses infiltration tanks. However, if the parcel is located in a steep slope area, a detention tank can be used.
2. Groundwater table: If the groundwater table is within 1.2m from ground surface, a detention tank with a weight must be used and a customized stormwater management plan is required.
3. Minimum setback requirements: Minimum setback distances from building foundations and property lines must be met.

2.2 Pump Requirements

Pumped systems may be required depending on site conditions and must be designed by a qualified Professional Engineer who is registered in the Province of British Columbia.

3.0 Customized Stormwater Management Design

Development proponents must prepare a customized stormwater management design if alternative stormwater management approaches are desired or there are unique site conditions that do not allow the standardized design to be applied.

3.1 Requirements

Developments that require customized on-site stormwater management must provide a detailed engineering design prepared by a qualified Professional Engineer who is registered in the Province of British Columbia. The design must comply with standards outlined in the Stormwater Management Policy and Design Manual as well as all applicable senior government policies and regulations. The design must integrate with existing drainage infrastructure owned by the City. Development proponents must also prepare a system maintenance plan.

4.0 Attachments

- Small-Scale Residential On-site Stormwater Management Standard Design Drawings
- Steep Slope Map for On-site Stormwater Management in Small-Scale Residential Developments