



## City of St. John's Corporate and Operational Policy

**Policy:** 08-04-19 Stormwater Detention Policy

**Status:**

**Issued By:** Public Works and Parks

**Revision No:**

**Revision Date:**

**Date of Original Council**

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**Rescind Date:**

**Index:** 08 Public Works

**Section:** 04 Water and Sewer

**Title:** 19 Stormwater Detention Policy

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### **Purpose**

The purpose of this document is to provide policy direction when stormwater detention systems are required for development where an increase in stormwater runoff may:

- a) contribute to risk of flooding, and/or
- b) exceed the capacity of City storm sewers, bridges/culverts, river channels, or ditches.

### **Policy Statement**

#### **2. POLICY OBJECTIVE**

The objectives of the Stormwater Detention Policy are to:

- a) Temporarily store the difference in volume between the 100-year 24-hour post-development runoff and the 100-year 24-hour pre-development runoff while limiting the post-development runoff rate from a development to the pre-development runoff rate.
- b) Prevent increases in downstream flooding and drainage problems that could increase flood losses, damage public assets, reduce property values, and require additional capital works expenditures for flood mitigation.

c) Encourage integration of the detention system into a sustainable overall stormwater management plan for the development, and

d) Promote the incorporation of detention systems into the engineering design and layout of the development so that adequate storage areas are included in the initial stages.

### **3. POLICY APPLICATION**

The Policy applies to all developments within the City of St. John's which present an immediate or foreseeable risk of flooding, with the exception of:

a) Developments in areas, such as Downtown, where the storm sewer system discharges directly into the Atlantic Ocean - subject to City storm sewer infrastructure having sufficient capacity as determined by the Director of Engineering,

b) Developments comprising a land area of less than 0.5 hectares and where the increase in stormwater runoff is less than or equal to 25 liters per second,

c) New developments in subdivisions where a stormwater detention system has already been provided for the entire subdivision,

d) The grassed playing field and vegetated area of public sports and recreational facilities that are not part of a development,

e) Locations where such a system would, due to timing of outflows, have an adverse effect on downstream properties by increasing peak rates of runoff – as determined by the Director of Engineering,

f) Where there is a written agreement between the Developer and the City to provide stormwater infrastructure improvements that remedy the downstream flooding problems in lieu of constructing a stormwater detention system. The Developer would be required to provide the City with a certified cheque or an acceptable Irrevocable Letter of Credit for the value, as determined by the City, of the downstream flood remediation work,

g) Small size developments where it can be demonstrated to the satisfaction of the Director of Engineering that the stormwater detention system would have no beneficial effect to downstream properties, and

h) Other areas where the Director of Engineering determines, based on hydrologic/hydraulic analysis, that stormwater detention is not necessary, or may be permissible at a reduced level.

### **4. AREA OF THE DEVELOPMENT TO WHICH STORMWATER DETENTION APPLIES**

Generally, stormwater detention applies to the entire development with the following exceptions:

a) On already-developed property, the stormwater detention system requirements only apply to the area of the new development – provided runoff from previously

developed areas can be excluded from the detention storage,

b) In residential subdivisions where new public roads will be created, the stormwater detention requirements will apply to the entire development area – including streets and lots. However, any areas of a lot that remain in a natural undeveloped state may be excluded from the area to be controlled by the stormwater detention system provided that flows from these areas can be diverted around the detention system. Approval from the Director of Engineering must be obtained before excluding any area from the detention requirements.

c) Where the proposed development is on previously developed vacant site or is a complete redevelopment of an already-developed property, the stormwater detention system requirement will be applicable to the entire property.

#### **5. EFFECTIVE DATE OF POLICY**

This Policy will come into effect on January 1, 2013. Development applications which have been received by the City prior to January 1, 2013, and where construction is substantially underway by September 1, 2013, as determined by the Director of Engineering, will be exempt from this Policy – unless the City has already advised that stormwater detention is required or there is a capacity issue in the receiving storm sewer system.

#### **6. DEVELOPER'S RESPONSIBILITY**

It is the responsibility of the Developer(s) to submit for City approval a stormwater management plan which meets the requirements of this Policy. The City reserves the right to accept or reject the stormwater management plan, or propose amendments to the plan. Where requested by the Developer, the City may provide guidance as to the type of stormwater detention which might be acceptable for a particular development. The City's Stormwater Detention Design Manual provides the design standards that the Developer must use to design and construct the stormwater detention system.

#### **7. REGIONAL DETENTION**

The City may, where it is considered more effective, direct Developers to cooperate in, and fund the cost of, a regional detention system as a condition to a development(s) proceeding. A regional detention system would establish large scale stormwater detention structure(s) to meet this Policy's requirements for several developments within a geographic region. Similarly, a Developer(s) may also propose a regional stormwater detention system to the City.

#### **8. DETENTION INFRASTRUCTURE COSTS**

Developers will fund all costs of stormwater infrastructure constructed within the borders of their property. In the case of a regional stormwater detention system, where the detention infrastructure serves more than one development, the regional detention infrastructure costs will be shared among developers in proportion to the amount of stormwater volume each development is expected to detain. Where the City must upgrade its infrastructure outside the borders of the development, the City may recover its costs, including interest and financial charges, through assessment charges/fees against developable properties served by, or to be served by, the regional stormwater detention system.

## **9. OWNERSHIP**

Stormwater detention systems in residential developments may be accepted for ownership and maintenance by the City. Detention systems in Commercial, Industrial, or Institutional developments will not be accepted for ownership by the City.

The City of St. John's provides no maintenance of stormwater detention systems located on private property. Maintenance must be provided by the owner of the property upon which the detention system resides – unless there is an agreement between the owner and the City which supercedes the preceding.

## **10.ACCEPTANCE**

Acceptance of stormwater detention systems is subject to the following requirements:

a) A Developer owning property with an area greater than 0.5 hectares must construct a stormwater detention system in accordance with the approved engineering plans and must convey the system, and associated lands, at no cost to the City as a condition of Final Approval subject to the requirements of Section 9 of this Policy.

b) The City will not accept the detention system until (a) the system has been fully completed in accordance with the approved plans, (b) 80% of the proposed lots have been fully developed, and (c) adequate erosion control measures, as approved by the Director of Engineering, have been installed on the remaining 20% of the lots. The Developer must continue to own and maintain the detention system until accepted by the City.

## **Application**

## **Responsibilities**

All Departments

## **Definitions**

## **References/Appendix**

## **Monitoring and Contravention**

## **Approvals**

Public Works & Environment Standing Committee Report - December 11, 2012; Regular Meeting of Council January 7, 2013

**Review Period**

**Available to Public**

- ☒ Yes
- ☐ No