




City of Richmond

Report to Committee

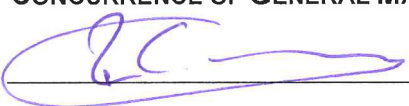


To: Public Works and Transportation Committee **Date:** August 24, 2017
From: John Irving, P.Eng. MPA **File:** 10-6060-05-01/2017-
Director, Engineering Vol 01
Re: **Restriction of Groundwater Discharge to City Drainage and Sanitary Systems**

Staff Recommendation

That the Drainage, Dyke, and Sanitary Sewer System Bylaw No. 7551, Amendment Bylaw No. 9751 be introduced and given first, second and third readings.


John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Law	<input checked="" type="checkbox"/>	
Sewerage & Drainage	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

The City's drainage system capacity is designed to convey stormwater, which is defined as surface water due to rainfall or other precipitation. It has been a City practice to restrict groundwater, defined as water found beneath the surface of the ground, from discharging into the City drainage system except for construction dewatering. Amending bylaw No. 7551 – Drainage, Dyke, and Sanitary Sewer System will place clear limitations on what are allowable discharges into City drainage and sanitary systems. This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

6.1. Safe and sustainable infrastructure.

6.2. Infrastructure is reflective of and keeping pace with community need.

Introducing groundwater into the City drainage or sanitary systems increases City costs and the risk of overloading infrastructure. Eliminating the excess input from groundwater sources will allow the City to plan according to actual demand and reduce the rate of wear on City assets.

Analysis

The following is a summary of the proposed changes for Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551:

- Changes to make clear the discharge restriction of groundwater from private properties into the City drainage or sanitary systems. No groundwater shall be caused to or be allowed to enter into City ditches, pipes, catch basins and so forth unless if approved by the General Manager, Engineering & Public Works.
- Include the definition of "groundwater".

Financial Impact

None

Conclusion

It has long been a City practice to restrict groundwater discharge into City owned drainage and sanitary systems except for construction dewatering. Eliminating groundwater discharges into City infrastructure will result in right-sized designs and lower replacement costs due to reduced loading. Amending bylaw No. 7551 will further promote Council's 2014-2018 term goal #6 for safe, sustainable infrastructure that keeps up with community needs.

August 24, 2017

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Engineering endorses this amendment and recommends that it is adopted into bylaw No. 7551–
Drainage, Dyke, and Sanitary Sewer System.

A handwritten signature in black ink, appearing to read 'Lloyd Bie', with a small dash at the end.

Lloyd Bie, P.Eng.
Manager, Engineering Planning
(604-276-4075)

LB:cc

Att. 1: Drainage, Dyke, and Sanitary Sewer System Bylaw No. 7551, Amendment Bylaw
No. 9751



City of Richmond

Bylaw 9751

Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551, Amendment Bylaw No. 9751

The Council of the City of Richmond enacts as follows:

- 1. Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551, as amended, is further amended at Section 1.1.1 by inserting the following and new subsection 1.1.1(c) and renumbering the remaining subsections:

“(c) ensure that no **groundwater** originating from such **property owner’s** property is discharged into the **City drainage system** or the **City sanitary sewer** system, unless otherwise permitted by the **General Manager of Engineering & Public Works**; and”.

- 2. Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551, as amended, is further amended at Section 5.1 by inserting the following definition in alphabetical order:

“**GROUNDWATER** means water found beneath the surface of the ground.”.

- 3. This Bylaw is cited as “**Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551, Amendment Bylaw No. 9751**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

CITY OF RICHMOND
APPROVED
for content by originating Division
<i>UB</i>
APPROVED for legality by Solicitor
<i>JA</i>

MAYOR

CORPORATE OFFICER