



City of Richmond

Report to Committee

To: Public Works & Transportation Committee

Date: April 24, 2017

From: John Irving, P. Eng. MPA
Director, Engineering

File: 10-6160-07-06/2017-
Vol 01

Re: Amendment to Water Use Restriction Bylaw

Staff Recommendation

That the Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9704 be introduced and given first, second and third readings.

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

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Parks Services	<input checked="" type="checkbox"/>	
Water Services	<input checked="" type="checkbox"/>	
Community Bylaws	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

In order to limit the damage to lawns associated with European chafer beetle infestations on private and City property, staff propose amendments to the City's Water Use Restriction Bylaw No. 7784. These amendments will allow a more flexible timeframe to apply nematodes, a biological control, in an effort to control European chafer beetles.

Background

Metro Vancouver's Water Shortage Response Plan (WSRP) governs drinking water usage during the summer months to reduce demand on outdoor water use. The WSRP guides municipalities to regulate water use during Stage 1, 2, 3 and 4 water restrictions. The proposed amendments to the City's Water Use Restriction Bylaw are in alignment with Metro Vancouver's WSRP.

The European chafer beetle is an invasive species that can impact lawns in residential, commercial and city landscapes. It was first discovered in New Westminster in 2001 and has subsequently spread to Richmond, Burnaby, Vancouver, Delta and Coquitlam. The European chafer beetle was first observed in Richmond in 2010, and is listed as a moderate risk invasive species under the City's Invasive Species Action Plan.

The European chafer beetle completes their life cycle in one year. Beetles emerge in late spring, and lay approximately 20 to 30 eggs in the soil in early summer. Eggs hatch and the chafer grubs forage on grass roots of turf lawns from mid-summer to late fall, then enter into a dormant stage over the winter, and finally emerge to forage again in the spring. By foraging on turf roots, the beetles can cause lawns to become wilted or dead and urban wildlife such as crows and raccoons can easily pull back the turf to feed on the chafer grubs.

Analysis

While there are pesticides available to control the European chafer beetle, their use is not permitted under the City's Pesticide Use Control Bylaw No. 8514. The Pesticide Use Control Bylaw No. 8514 is a part of the City's Enhanced Pesticide Management Program (EPMP), adopted in 2009 to reduce the exposure of Richmond residents to unnecessary pesticides. Through the EPMP, the City promotes natural yard and garden care methods including the application of nematodes, a biological control used to manage European chafer beetle grubs.

Nematodes are a type of roundworm that naturally occur in soil. They are harmless to human health and the environment, but are parasitic to soil dwelling insects like European chafer beetle grubs. To move through the soil and find the European chafer beetle grubs, the nematodes require a moist lawn throughout the course of the treatment, and may require lawn watering in the summer season when beetle eggs hatch. Under the Water Use Restriction Bylaw No. 7784, residents can obtain a Water Use Restriction Permit (Attachment 1) to water outside of the regulated hours during Stage 1 and Stage 2 water restrictions.

Presently, the Water Use Restriction Bylaw No. 7784 authorizes the issuance of Water Use Restriction Permits for nematode application between July 15 – August 15. Seasonal variations

in weather however, can impact the life cycle of the European chafer beetle and the associated treatment window.

Staff recommend bylaw amendments to remove the nematode application timeframe of July 15 - August 15 from the Water Use Restriction Bylaw No. 7784 and replace it with a permitted treatment window for a period of 21 days during Stage 1 and 2 water restrictions. These bylaw amendments are consistent with neighbouring municipalities including City of Vancouver, Surrey, Burnaby and Corporation of Delta.

Financial Impact

None.

Conclusion

To account for seasonal variation in weather, the associated impacts to the life cycle of the European chafer beetle, and the associated treatment window for nematode application, it is recommended to amend the Water Use Restriction Bylaw No. 7784 to allow residents and City staff to obtain a Water Use Exemption Permit for nematode application during Stage 1 and Stage 2 water restrictions.



Kimberly Armour
Acting Manager, Environmental Sustainability
(604-276-4230)

TH:th

Att. 1: Water Restriction Exemption Permit



Permit Fees

Description	Fee
New lawns or landscaping	\$34.25
Nematode application for European Chafer Beetle control (no water meter)	\$34.25
Nematode application for European Chafer Beetle control (water metered)	Nil

Application Date: _____
(mm/dd/yyyy)

1. Applicant Information

Applicant Name: _____ Phone: _____

Applicant is Property Owner Applicant is Authorized Agent of Property Owner

Address: _____ Postal Code: _____

2. Service Address Information

Service Address: _____

Property No.: _____

3. Terms

This permit and its terms and conditions are governed by the City of Richmond Water Use Restriction Bylaw 7784 and subsequent amendments.

Properties without a water meter will have to accept a water meter installation as part of the permit approval process, where applicable.

Customer Initials: _____

Reasons for exemption:

- New lawn or landscaping
- Nematode application: (choose one below)
 - Copy of receipt for nematodes is attached; or
 - Copy of invoice from a company to the applicant's address

This permit shall only apply to:

- Installation of new lawns, either by placing sod or turf or by seeding, or new landscaping on a substantial part of the outdoor portion of a property;
- Residents applying nematodes to their lawn to control the spread European Chafer Beetle.

Permits are only issued under Stage 1 and Stage 2 water restrictions. Permits issued under Stage 2 water restrictions will remain valid under Stage 3 water restrictions within the permits validity period. All permits expire immediately if Stage 4 water restrictions are declared.

Permit requested for the purpose of watering a new lawn or landscaping is valid for a period of 21 days from the date of issue.

Permit requested for the purpose of nematode application may only be valid from July 15 to August 15 for a period of 21 days from the date of issue and permit cannot be renewed.

The City of Richmond reserves the right to revoke and/or cancel a permit for non-compliance with the terms or conditions of the permit.

Start Date: _____ **End Date:** _____
(mm/dd/yyyy) (mm/dd/yyyy)

Permit must be affixed to a post facing the street serving the premises, beside the principal driveway.

4. Signatures

Applicant's Signature: _____

Print Applicant Name: _____

Date: _____
(mm/dd/yyyy)

PROCESSED BY:

Staff Name: _____

Office Use Only	
Service	Amount
Permit Fee	

CNCL - 350



Water Use Restriction Bylaw No. 7784
Amendment Bylaw No. 9704

The Council of the City of Richmond enacts as follows:

- 1. Water Use Restriction Bylaw No. 7784, as amended, is further amended at subsection 3.1.7 by deleting subsection 3.1.7 and replacing it with the following:
'3.1.7 A permit is valid for a period of 21 days from the date of issue.'
2. This Bylaw is cited as 'Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9704'.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

Four horizontal lines for signatures of the Mayor and Corporate Officer.

CITY OF RICHMOND
APPROVED for content by originating Division
APPROVED for legality by Solicitor

CORPORATE OFFICER