



To: Public Works and Transportation Committee Date: December 9, 2021
From: Milton Chan, P.Eng. Director, Engineering File: 10-6060-01/2021-Vol 01
Re: Water Use Restriction Amendment Bylaws

Staff Recommendation

That each of the following bylaws be introduced and given first, second, and third readings.

- a) Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 10329;
b) Municipal Ticket information Authorization Bylaw No. 7321, Amendment Bylaw No. 10337; and,
c) Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 10338.

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Milton Chan, P.Eng. Director, Engineering (604-276-4377)

Att. 4

Table with 3 columns: Routed To/Concurrence, Concurrence of General Manager, and Reviewed by Staff Report / Agenda Review Subcommittee/Initials/Approved by CAO.

## Staff Report

### Origin

Metro Vancouver treats and supplies potable water to the City of Richmond and other member municipalities, who then distribute the water to residents and businesses. Metro Vancouver's *Drinking Water Conservation Plan (DWCP)* identifies staged water use restrictions to manage discretionary use of potable water during periods of high demand, water shortages, and emergencies, while minimizing impacts on residents and businesses. The City originally adopted the DWCP in 2004 through Water Use Restriction Bylaw No. 7784. The DWCP and Bylaw No. 7884 are updated periodically to reflect the current needs of the region.

In October 2021, the Metro Vancouver Board approved amendments to the DWCP, reducing lawn watering to one day a week during Stage 1 Restrictions and banning lawn watering during Stage 2 Restrictions. The amendments were initiated by Metro Vancouver staff with the objective of reducing peak water demands to allow for the deferral or elimination of costly infrastructure upgrades.

This report discusses proposed amendments to Bylaw No. 7784 (Attachment 1) to make the City's bylaw consistent with Metro Vancouver's amended DWCP (Attachment 2). Amendments to Bylaw No.'s 7321 and 8122 (Attachments 3 and 4) are also proposed to cite the appropriate section numbers in the amended Bylaw No. 7784. The proposed bylaw amendments support the following strategies in Council's 2018-2022 Strategic Plan:

Strategy #1. A Safe and Resilient City:

*Enhance and protect the safety and well-being of Richmond.*

- 1.2 *Future-proof and maintain city infrastructure to keep the community safe.*
- 1.3 *Ensure Richmond is prepared for emergencies, both human-made and natural disasters.*

Strategy #4. An Active and Thriving Richmond:

*An active and thriving community characterized by diverse social and wellness programs, services and spaces that foster health and well-being for all.*

- 4.2 *Ensure infrastructure meets changing community needs, current trends, and best practices.*

Strategy # 5. Sound Financial Management

*Accountable, transparent, and responsible financial management that supports the needs of the community into the future.*

- 5.3 *Decision-making focuses on sustainability and considers circular economic principles.*
- 5.4 *Work cooperatively and respectfully with all levels of government and stakeholders while advocating for the best interests of Richmond.*

## **Analysis**

### Regional Water Demand

In June 2021, a record-breaking heat dome was followed by weeks of warm and dry weather, leading to an unprecedented sustained water demand in Metro Vancouver. Demand for potable water in the region is expected to continue rising due to population growth and extreme weather. As a result, Metro Vancouver has identified the need for significant infrastructure upgrades to supply peak water demands to the growing regional population. The estimated infrastructure costs would result in substantial increases to Metro Vancouver's water rate charged to municipalities.

Metro Vancouver is exploring options to defer or eliminate these infrastructure upgrades by reducing per capita water demand. One of the water conservation measures proposed by Metro Vancouver is amendment of the DWCP to reduce authorized lawn watering and other discretionary water usage, which accounts for over half the potable water used during peak demand periods.

### Metro Vancouver's Drinking Water Conservation Plan

The DWCP is a regional policy developed by Metro Vancouver, with input from member municipalities and other stakeholders. The following principles were used to develop the DWCP:

1. Recognize drinking water as a precious resource that must be conserved.
2. Maintain the environmental, economic vitality and health and safety of the region to the extent possible in the face of a water shortage.
3. Optimize available water supplies and reduce water use.
4. Minimize adverse impacts to public activity and quality of life for the region's residents.

The DWCP identifies four stages of watering restrictions to limit discretionary water use. Stage 1 is activated each year during the summer months. Higher stages, each with more stringent restrictions for outdoor water use, are activated by Metro Vancouver in response to more critical water supply conditions. Stages 2 and 3 are likely to be activated during unusually hot and dry conditions, while Stage 4 may be activated during an emergency to limit water use to essential needs only.

The amended DWCP is intended to further reduce water use while continuing to minimize impacts to residents and businesses. Amendments include reducing lawn watering to one day a week during Stage 1 Restrictions and banning lawn watering during Stage 2 Restrictions. The amended DWCP (Attachment 2) was approved by the Metro Vancouver Board in October 2021 and took effect in November 2021.

### Proposed Changes to City Bylaws

The City's Water Use Restriction Bylaw No. 7784 requires changes to align with Metro Vancouver's amended DWCP. Amendments to Bylaw No.'s 7321 and 8122 are also proposed to cite the appropriate section numbers in the amended Bylaw No. 7784. The proposed changes are

presented in Amendment Bylaw No.'s 10329, 10337, and 10338 (Attachments 1, 3, and 4) and summarized below:

- Lawn watering is reduced from two days per week to one day per week during Stage 1 restrictions, and prohibited during Stage 2 restrictions. The days during which watering is permitted is listed in Schedule A of Amendment Bylaw No. 10329 (Attachment 1);
- Lawn watering periods are now differentiated for automatic and manual watering. The times during which watering is permitted is listed in Schedule A of Amendment Bylaw No. 10329 (Attachment 1);
- City deployment of misting stations during periods of extreme heat is identified as a health and safety measure that is exempt from any restriction stage;
- Applications for permits and requests to extend permits to water new lawns or lawns being treated for European Chafer Beetles can be submitted during Stage 1 Restrictions only, and can no longer be submitted during Stage 2 Restrictions. These permits are only valid during Stage 1 and Stage 2 Restrictions, and are no longer valid during Stage 3 Restrictions;
- Applications for permits and requests to extend permits to water over-seeded soil-based playing fields or sand-based playing fields can be submitted during Stage 1 Restrictions only, and can no longer be submitted during Stage 2 Restrictions. These permits continue to be valid during Stage 1, Stage 2, and Stage 3 Restrictions;
- Addition or amendment of definitions as required to clarify bylaw intent;
- Increase of the maximum prosecution fine from \$10,000 to \$50,000, the full amount permissible under the latest version of the *Offence Act* (BC), to provide the City with the ability to pursue the full amount permissible under the current legislation if enforcement action is ever required; and,
- Update of citations to Bylaw No. 7784 in Bylaw No.'s 7321 and 8122.

The DWCP restricts watering of City lawns and grass boulevards to specific days and times during Stage 1 restrictions and prohibits watering of City lawns and grass boulevards during Stage 2 restrictions. These restricted watering times create operational issues for large parks and remotely controlled sprinkling systems throughout the City. These systems were exempt from restrictions in versions of the DWCP prior to 2018.

The staff report titled "Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9774", dated February 23, 2018, from the Director, Engineering and adopted on April 9, 2018, recommended permitting the watering of City lawns and grass boulevards outside of prescribed hours when operating under an approved water management plan during Stages 1 and 2, similar to provisions provided for golf courses and playing fields. Water management plans ensure that watering operations align with key principles of the DWCP by optimizing available water supplies, reducing water use, and minimizing adverse impacts to public activity. This recommendation is still supported by staff and is reflected in Amendment Bylaw No. 10329.

### Public Communication and Next Steps

If Amendment Bylaw No.'s 10329, 10337, and 10338 are adopted, Stage 1 watering restrictions will take effect on May 1, 2022. Staff will develop and implement a comprehensive communication strategy prior to May 2022 to notify residents and business owners of the proposed changes. The communication strategy will include social media posts, news releases, and postings on the City's website.

Metro Vancouver will support the City and other member municipalities with communicating water restriction changes to the general public by:

- Hiring temporary staff to disseminate information to the public and support municipal enforcement of the watering restrictions;
- Running a communications campaign to promote DWCP updates, encourage good water use habits, and educate residents on how to prepare their lawn prior to the start of the 2022 restriction stages;
- Updating Metro Vancouver's DWCP webpage with the new DWCP and other communication materials reflecting the new DWCP;
- Updating education/enforcement communication materials to share with member municipalities; and
- Emailing landscape, irrigation, and turf farm industry groups to notify them of the changes and offering to answer any questions.

### **Financial Impact**

None.

### **Conclusion**

A sustained reduction in per capita water consumption may allow Metro Vancouver to defer or eliminate costly infrastructure upgrades. Metro Vancouver has amended the DWCP with the objective of reducing water demands in the region. Staff recommend that the City's Water Use Restriction Bylaw No. 7784, Municipal Ticket information Authorization Bylaw No. 7321, and Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122 be amended to be consistent with the regional DWCP.



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JH:sw

December 9, 2021

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- Att. 1: Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 10329
- 2: Drinking Water Conservation Plan (Amended November 1, 2021, Metro Vancouver)
- 3: Municipal Ticket information Authorization Bylaw No. 7321, Amendment Bylaw No. 10337; and,
- 4: Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 10338.



**Water Use Restriction Bylaw No. 7784,  
Amendment Bylaw No. 10329**

The Council of the City of Richmond enacts as follows:

1. The **Water Use Restriction Bylaw No. 7784**, as amended, is further amended by deleting the word “and” from the end of Subsection 2.3.1(c), by deleting the period “.” from the end of Subsection 2.3.1(d) and replacing it with a semicolon and the word “; and”, and by adding the following as new Subsection 2.3.1(e):
  - “e) deploying misting stations in periods of extreme heat to protect human health and/or safety.”
2. The **Water Use Restriction Bylaw No. 7784**, as amended, is further amended by deleting Sections 3.1.1 and 3.1.2 in their entirety and replacing them with the following:
  - “3.1.1 A **person** may, when **Stage 1 Restrictions** are in force, apply to the **General Manager, Engineering & Public Works** for a permit authorizing the **person to water** if:
    - (a) the **person** has installed a **new lawn**, either by placing sod or turf or by seeding, or new landscaping on a substantial part of the outdoor portion of a property; or
    - (b) the **person** is applying nematodes to a **lawn** to control the growth of **European Chafer Beetle**.
  - 3.1.2 The owner or operator of a newly **over-seeded soil-based playing field** or **sand-based playing field** may, when **Stage 1 Restrictions** are in force, apply to the **General Manager, Engineering & Public Works** for a **permit to water** in accordance with the terms and conditions of the **permit**.”
3. The **Water Use Restriction Bylaw No. 7784**, as amended, is further amended by deleting Sections 3.1.5 and 3.1.6 in their entirety and replacing them with the following:
  - “3.1.5 Holders of a valid **permit** issued under subsection 3.1.1:
    - (a) are authorized to **water** in accordance with the terms and conditions of the **permit**, notwithstanding **Stage 1 Restrictions** or **Stage 2 Restrictions**; and
    - (b) are not exempt from **Stage 3 Restrictions** or **Stage 4 Restrictions**.

3.1.6 Holders of a valid **permit** issued under subsection 3.1.2:

- (a) are authorized to **water** in accordance with the terms and conditions of the **permit**, notwithstanding **Stage 1 Restrictions**, **Stage 2 Restrictions**, or **Stage 3 Restrictions**; and
- (b) are not exempt from **Stage 4 Restrictions**.”

4 The **Water Use Restriction Bylaw No. 7784**, as amended, is further amended by deleting Section 3.1.9 in its entirety and replacing it with the following:

“3.1.9 When **Stage 1 Restrictions** are in force, a **permit** holder may apply for an extension of a **permit** issued under subsection 3.1.1(a) or 3.1.2, but such extension must end on or before 42 days from the original date of issue of that **permit** under Section 3.1. A **permit** issued under subsection 3.1.1(b) cannot be extended. When **Stage 2 Restrictions**, **Stage 3 Restrictions** or **Stage 4 Restrictions** are in force, a **permit** holder may not apply for an extension.”

5 The **Water Use Restriction Bylaw No. 7784**, as amended, is further amended by adding the following definitions to Section 5.1 in appropriate alphabetical order and reordering the remaining definitions, and by bolding such terms where they appear in **Water Use Restriction Bylaw No. 7784**:

<b>“AUTOMATIC WATERING</b>	means applying <b>water</b> using an automated <b>water</b> delivery system that requires only minimal human intervention or supervision and typically employs mechanical, electronic, or other components and devices, including but not limited to timers, sensors, computers or mechanical appliances.
<b>COMMERCIAL CLEANING OPERATION</b>	means a company, partnership, or <b>person</b> that offers commercial cleaning services, including pressure washing, window cleaning, and other similar building cleaning services, to the public for a fee.
<b>COMMERCIAL VEHICLE WASHING</b>	means commercial vehicle washing services offered to the public for a fee, but excludes car dealerships, fleet vehicle washing facilities, and charity car washes.
<b>EUROPEAN CHAFER BEETLE</b>	means an invasive insect pest whose larvae feed on the roots of grasses, causing serious damage to <b>lawns</b> . The Chafer Beetle larvae can be treated naturally using nematodes, which typically requires a moist <b>lawn</b> for a period of 2 to 3 weeks from the day of application.



<b>FLUSHING WATER MAIN</b>	means discharging <b>water</b> from a water main for routine maintenance such as water quality management and measurement of firefighting flow capacity.
<b>HEALTH OR SAFETY REASON</b>	means a precaution necessary to protect health and/ or safety of any <b>person</b> or <b>persons</b> , including the removal of contaminants, bodily fluids, and slip and fall hazards, the provision of cooling mist in circumstances of extreme heat, controlling pests, and the suppressing and controlling dust.
<b>IMPERMEABLE SURFACE</b>	means a material added to the surface of the ground, or on the exterior of a building or structure that is impermeable to <b>water</b> , including but not limited to glass, wood, concrete, asphalt, paving stones, and other similar materials.
<b>LAWN</b>	means a cultivated area surrounding or adjacent to a building that is covered by grass, turf, or a ground cover plant such as clover, including areas such as boulevards, parks, school yards and cemeteries, but excluding <b>golf courses, soil-based playing fields, and sand-based playing fields.</b>
<b>MANUAL WATERING</b>	means applying <b>water</b> using a device or tool that is manually held or operated by a <b>person</b> , without <b>automatic watering.</b>
<b>NEW LAWN</b>	means a <b>lawn</b> that is newly established either by seeding or the laying of new sod or turf.
<b>ODD-NUMBERED CIVIC ADDRESS or EVEN-NUMBERED CIVIC ADDRESS</b>	means the numerical portion of the street address of a property, and in the case of multi-unit commercial or residential complex such as townhouses, condominiums or other strata-titled properties, means the numerical portion of the street address that is assigned to the entire complex, and not the individual unit number.
<b>OVER-SEEDED</b>	means the application of grass seed on existing turf, typically in early fall or spring and may also include associated processes such as aeration, weeding, dethatching and fertilization, for the purpose of mitigating against grass thinning.”

- 6 The **Water Use Restriction Bylaw No. 7784**, as amended, is further amended by deleting the definitions for **aesthetic cleaning, drip irrigation, non-residential lot, public lot,**

**water management plan, and water or watering** from Section 5.1 and replacing them with the following definitions in the appropriate alphabetic order in which they appear:

**“AESTHETIC CLEANING** means the use of **water** for cleaning when it is not for a **health or safety reason**.

**DRIP IRRIGATION** means an irrigation system that delivers **water** directly to the root zone of the plant at a low flow rate through individual emission points (emitters) using droplets of **water** and excludes **sprinkler** irrigation systems, micro-spray systems, misting systems, and **soaker hoses**.

**NON-RESIDENTIAL LOT** means property zoned for a permitted use other than a residential use, including, but not limited to, commercial, industrial, and institutional uses, and including a property zoned for mixed residential and non-residential uses, but excluding **public lots**.

**PUBLIC LOT** means property zoned for municipal, regional district, provincial, or federal uses including, but not limited to, dedicated roads and highways, rights of way for road, public walkway, sidewalk and/or public plaza purposes, and school, college, university, and park uses.

**WATER MANAGEMENT PLAN** means a plan proposed by the owner or operator of a **golf course, soil-based playing field, and/or sand-based playing field**, and approved by the **General Manager, Engineering & Public Works**. The plan sets out terms such as **water** use targets during the different **restriction stages** to reduce **water** use, and reporting requirements for the owner or operator.

**WATER or WATERING** means applying **water** to lands or plants with any device or tool including but not limited to a sprinkler, hose, mister, or **drip irrigation**.”

7 The **Water Use Restriction Bylaw No. 7784**, as amended, is further amended at subsection 6.2(a) and 6.2(b) by deleting the number \$10,000 where it appears and replacing it with the number \$50,000.

8 The **Water Use Restriction Bylaw No. 7784**, as amended, is further amended by deleting Schedules A through D and replacing them with Schedule A attached to and forming part of this Bylaw as new Schedules A through D of Bylaw 7784.

9 This Bylaw is cited as “**Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 10329**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

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CITY OF RICHMOND
APPROVED for content by originating dept. <i>[Signature]</i>
APPROVED for legality by Solicitor <i>[Signature]</i>

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MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

## SCHEDULE A to BYLAW NO. 10329

## SCHEDULE A to BYLAW NO. 7784

## STAGE 1 RESTRICTIONS

Lot	Water Use	Restriction
Residential Lots	Watering lawns	A <b>person</b> may only <b>water</b> at the following times: - <b>Even-numbered civic addresses:</b> on Saturdays from 5 am to 7 am if <b>automatic watering</b> , on Saturdays from 6 am to 9 am if <b>manual watering</b> . - <b>Odd-numbered civic addresses:</b> on Sundays from 5 am to 7 am if <b>automatic watering</b> , on Sundays from 6 am to 9 am if <b>manual watering</b> .
	Watering new lawns or lawns being treated for the <b>European Chafer Beetle</b>	A <b>permit</b> holder may <b>water</b> outside restricted <b>lawn watering</b> days if in compliance with a <b>permit</b> .
	Watering trees, shrubs, decorative planters, and flowers, excluding <b>edible plants</b>	A <b>person</b> may only <b>water</b> from 5 am to 9 am on any day if using a <b>sprinkler</b> . A <b>person</b> may <b>water</b> on any day at any time if using a handheld hose, <b>soaker hose</b> , <b>water</b> container, or <b>drip irrigation</b> .
Non-Residential Lots	Watering lawns	A <b>person</b> may only <b>water</b> at the following times: - <b>Even-numbered civic addresses:</b> on Mondays from 4 am to 6 am if <b>automatic watering</b> , on Mondays from 6 am to 9 am if <b>manual watering</b> . - <b>Odd-numbered civic addresses:</b> on Tuesday from 4 am to 6 am if <b>automatic watering</b> , on Mondays from 6 am to 9 am if <b>manual watering</b> .
	Watering new lawns or lawns being treated for <b>European Chafer Beetle</b>	A <b>permit</b> holder may <b>water</b> outside restricted <b>lawn watering</b> days if in compliance with a <b>permit</b> .
	Watering trees, shrubs, decorative planters, and flowers (excluding <b>edible plants</b> and turf at turf farms)	A <b>person</b> may only <b>water</b> from 4 am to 9 am on any day if using a <b>sprinkler</b> . A <b>person</b> may <b>water</b> on any day at any time if using a handheld hose, <b>soaker hose</b> , <b>water</b> container, or <b>drip irrigation</b> .

<b>Public Lots</b>	<b>Watering lawns and grass boulevards</b>	<p><b>Watering</b> is only allowed at the following times, except when <b>watering</b> in accordance with an approved <b>water management plan</b>:</p> <ul style="list-style-type: none"> <li>- <b>Even-numbered civic addresses</b>: on Mondays from 4 am to 6 am if <b>automatic watering</b>, on Mondays from 6 am to 9 am if <b>manual watering</b>.</li> <li>- <b>Odd-numbered civic addresses</b>: on Tuesday from 4 am to 6 am if <b>automatic watering</b>, on Tuesday from 6 am to 9 am if <b>manual watering</b>.</li> </ul>
	<b>Watering new lawns or lawns being treated for the European Chafer Beetle</b>	A <b>permit</b> holder may <b>water</b> outside restricted <b>lawn watering</b> days if in compliance with a <b>permit</b> .
	<b>Watering trees, shrubs, decorative planters, and flowers, excluding edible plants</b>	<p><b>Watering</b> is only allowed from 4 am to 9 am on any day if using a <b>sprinkler</b>.</p> <p><b>Watering</b> is allowed on any day at any time if using a handheld hose, <b>soaker hose</b>, <b>water</b> container, or <b>drip irrigation</b>.</p>
	<b>Watering soil-based playing fields</b>	<p><b>Watering</b> is only allowed from 7 pm to 9 am on any day, except if:</p> <ul style="list-style-type: none"> <li>- <b>watering</b> newly <b>over-seeded</b> fields in compliance with a <b>permit</b>; or</li> <li>- <b>watering</b> in accordance with an approved <b>water management plan</b>.</li> </ul>
	<b>Watering sand-based playing fields</b>	<p><b>Watering</b> is only allowed from 7 pm to 9 am on any day, except if:</p> <ul style="list-style-type: none"> <li>- <b>watering</b> newly <b>over-seeded fields</b> in compliance with a <b>permit</b>; or</li> <li>- <b>watering</b> in accordance with an approved <b>water management plan</b>.</li> </ul>
	<b>Flushing water mains</b>	Prohibited

**SCHEDULE B to BYLAW NO. 7784**

**STAGE 2 RESTRICTIONS**

<b>Lot</b>	<b>Water Use</b>	<b>Restriction</b>
<b>Residential Lots</b>	<b>Watering lawns</b>	Prohibited
	<b>Watering new lawns or lawns being treated for the European Chafer Beetle</b>	A <b>permit</b> holder may <b>water</b> outside restricted <b>lawn watering</b> days if in compliance with a <b>permit</b> issued when <b>Stage 1 Restrictions</b> were in force, until the <b>permit</b> expires.  No new <b>permits</b> issued or renewed.
	<b>Watering trees, shrubs, decorative planters, and flowers, excluding edible plants</b>	A <b>person</b> may only <b>water</b> from 5 am to 9 am on any day if using a <b>sprinkler</b> .  A <b>person</b> may <b>water</b> on any day at any time if using a handheld hose, <b>soaker hose</b> , <b>water</b> container, or <b>drip irrigation</b> .
	Washing <b>impermeable surfaces</b> (sidewalks, driveways, fences, walls, roofs, or other outdoor surfaces)	Prohibited except if: - for a <b>health or safety reason</b> ; - to prepare the surface for painting, sealing, or similar treatment; - to prevent or control fires; or - for <b>aesthetic cleaning</b> by a <b>commercial cleaning operation</b> .
	Topping up or filling <b>aesthetic water features</b>	Prohibited
<b>Non-Residential Lots</b>	<b>Watering lawns</b>	Prohibited
	<b>Watering new lawns or lawns being treated for European Chafer Beetle</b>	A <b>permit</b> holder may <b>water</b> outside restricted <b>lawn watering</b> days if in compliance with a <b>permit</b> issued when <b>Stage 1 Restrictions</b> were in force, until the <b>permit</b> expires.  No new <b>permits</b> issued or renewed.
	<b>Watering trees, shrubs, decorative planters, and flowers, excluding edible plants and turf at turf farms</b>	A <b>person</b> may only <b>water</b> from 4 am to 9 am on any day if using a <b>sprinkler</b> .  A <b>person</b> may <b>water</b> on any day at any time if using a handheld hose, <b>soaker hose</b> , <b>water</b> container, or <b>drip irrigation</b> .
	<b>Watering golf courses</b>	<b>Watering of fairways</b> is allowed on no more than one day in a seven-day period, except if operating under an

		approved <b>water management plan</b> .
	Washing <b>impermeable surfaces</b> (sidewalks, driveways, fences, walls, roofs, or other outdoor surfaces)	Prohibited except if: - for a <b>health or safety reason</b> ; - to prepare the surface for painting, sealing, or similar treatment; - to prevent or control fires; or - for <b>aesthetic cleaning</b> by a <b>commercial cleaning operation</b> .
	Topping up or filling <b>aesthetic water features</b>	Prohibited.
<b>Public Lots</b>	<b>Watering lawns</b> and grass boulevards	Prohibited except when <b>watering</b> in accordance with an approved <b>water management plan</b> .
	<b>Watering new lawns</b> or lawns being treated for the <b>European Chafer Beetle</b>	A <b>permit</b> holder may <b>water</b> outside restricted <b>lawn watering</b> days if in compliance with a <b>permit</b> issued when <b>Stage 1 Restrictions</b> were in force, until the <b>permit</b> expires.  No new <b>permits</b> issued or renewed.
	<b>Watering</b> trees, shrubs, decorative planters, and flowers, excluding <b>edible plants</b>	<b>Watering</b> is only allowed from 4 am to 9 am on any day if using a <b>sprinkler</b> .  <b>Watering</b> is allowed on any day at any time if using a handheld hose, <b>soaker hose</b> , <b>water</b> container, or <b>drip irrigation</b> .
	<b>Watering soil-based playing fields</b>	<b>Watering</b> is allowed on no more than four days in a seven-day period and only from 7 pm to 9 am, except if: - <b>watering</b> newly <b>over-seeded</b> fields if in compliance with a <b>permit</b> ; or - <b>watering</b> in accordance with an approved <b>water management plan</b> .
	<b>Watering sand-based playing fields</b>	<b>Watering</b> is only allowed from 7 pm to 9 am on any day, except if: - <b>watering</b> newly <b>over-seeded</b> fields if in compliance with a <b>permit</b> ; or - <b>watering</b> in accordance with an approved <b>water management plan</b> .
	<b>Flushing water mains</b>	Prohibited.
	Operating <b>water play parks</b> and pools	Prohibited except <b>water play parks</b> with user-activated switches.
	Topping up or filling <b>aesthetic water features</b>	Prohibited.

## SCHEDULE C to BYLAW NO. 7784

## STAGE 3 RESTRICTIONS

Lot	Water Use	Restriction
Residential Lots	Watering lawns	Prohibited.
	Watering new lawns or lawns being treated for the <b>European Chafer Beetle</b>	Prohibited. All <b>permits</b> issued for <b>lawn watering</b> are revoked.
	Watering trees, shrubs, decorative planters, and flowers, excluding <b>edible plants</b>	Prohibited if using a <b>sprinkler</b> or <b>soaker hose</b> . A <b>person</b> may <b>water</b> on any day at any time if using a handheld hose, <b>water</b> container, or <b>drip irrigation</b> .
	Washing <b>impermeable surfaces</b> (sidewalks, driveways, fences, walls, roofs, or other outdoor surfaces)	Prohibited except if: - for a <b>health or safety reason</b> ; - to prepare the surface for painting, sealing, or similar treatment; or - to prevent or control fires.
	Topping up or filling <b>aesthetic water features</b>	Prohibited.
	Topping up or filling pools and hot tubs	Prohibited.
	Washing vehicles, boats, trailers and other motive equipment	Prohibited, except to clean windows, lights, mirrors, licence plates, and boat engines for safety.
Non-Residential Lots	Watering lawns	Prohibited.
	Watering new lawns or lawns being treated for <b>European Chafer Beetle</b>	Prohibited. All <b>permits</b> issued for <b>lawn watering</b> are revoked.
	Watering trees, shrubs, decorative planters, and flowers, excluding <b>edible plants</b> and turf at turf farms	Prohibited if using a <b>sprinkler</b> or <b>soaker hose</b> . A <b>person</b> may <b>water</b> on any day at any time if using a handheld hose, <b>water</b> container, or <b>drip irrigation</b> .
	Watering golf courses	<b>Watering</b> of <b>fairways</b> is prohibited except if operating under an approved <b>water management plan</b> .
	Washing <b>impermeable surfaces</b> (sidewalks, driveways, fences, walls, roofs, or other outdoor surfaces)	Prohibited except if: - for a <b>health or safety reason</b> ; - to prepare the surface for painting, sealing, or similar treatment; or - to prevent or control fires.



	Topping up or filling <b>aesthetic water features</b>	Prohibited.
	Topping up or filling pools and hot tubs	Prohibited except for pools and hot tubs operating in accordance with written permission issued by an authorized <b>health authority</b> .
	Washing vehicles, boats, trailers and other motive equipment	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety.
	<b>Commercial vehicle washing</b>	Prohibited except if operating under the following conditions: <ul style="list-style-type: none"> <li>- facilities that installed an <b>automatic vehicle wash system</b> before November 1, 2017: operating on a <b>basic wash and rinse cycle</b> only;</li> <li>- facilities that installed an <b>automatic vehicle wash system</b> after November 1, 2017: operating using a <b>water</b> recycling system that achieves a minimum 60% <b>water</b> recovery rate over the full wash cycle; or</li> <li>- <b>hand wash and self-service facilities</b>: operating using high-pressure wands or brushes that achieve a maximum flow rate of 11.4 litres per minute.</li> </ul>
Public Lots	<b>Watering lawns</b> and grass boulevards	Prohibited.
	<b>Watering new lawns</b> or lawns being treated for the <b>European Chafer Beetle</b>	Prohibited. All <b>permits</b> issued for <b>lawn watering</b> are revoked.
	<b>Watering</b> trees, shrubs, decorative planters, and flowers, excluding <b>edible plants</b>	Prohibited if using a <b>sprinkler</b> or a <b>soaker hose</b> . <b>Watering</b> is allowed on any day at any time if using a handheld hose, <b>water</b> container, or <b>drip irrigation</b> .
	<b>Watering</b> <b>soil-based</b> <b>playing fields</b>	<b>Watering</b> is allowed on no more than 3 days in a 7-day period and only from 7 pm to 9 am, except if: <ul style="list-style-type: none"> <li>- <b>Watering</b> newly <b>over-seeded</b> fields if in compliance with a <b>permit</b>; or</li> <li>- Operating under an approved <b>water management plan</b>.</li> </ul>
	<b>Watering</b> <b>sand-based</b> <b>playing fields</b>	<b>Watering</b> is allowed on no more than 5 days in a 7-day period and only from 7 pm to 9 am, except if: <ul style="list-style-type: none"> <li>- <b>Watering</b> newly <b>over-seeded</b> fields if in compliance with a <b>permit</b>; or</li> <li>- Operating under an approved <b>water management plan</b>.</li> </ul>
	<b>Flushing water mains</b>	Prohibited.

Operating <b>water play parks</b> and pools	Prohibited except <b>water play parks</b> with user-activated switches.
Topping up or filling <b>aesthetic water features</b>	Prohibited.
Topping up or filling pools and hot tubs	Prohibited except for pools and hot tubs operating in accordance with written permission issued by an authorized <b>health authority</b> .
Washing vehicles, boats, trailers and other motive equipment	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety.

**SCHEDULE D to BYLAW NO. 7784**

**STAGE 4 RESTRICTIONS**

<b>Lot</b>	<b>Water Use</b>	<b>Restriction</b>
<b>Residential Lots</b>	<b>Watering lawns</b>	Prohibited.
	<b>Watering new lawns or lawns</b> being treated for the <b>European Chafer Beetle</b>	Prohibited. All <b>permits</b> issued for <b>lawn watering</b> are revoked.
	<b>Watering</b> trees, shrubs, decorative planters, flowers, and <b>edible plants</b>	Prohibited.
	Washing <b>impermeable surfaces</b> (sidewalks, driveways, fences, walls, roofs, or other outdoor surfaces)	Prohibited except if ordered by a regulatory authority having jurisdiction, for a <b>health or safety reason</b> .
	Topping up or filling <b>aesthetic water features</b>	Prohibited.
	Topping up or filling pools and hot tubs	Prohibited.
	Washing vehicles, boats, trailers and other motive equipment	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety.
<b>Non-Residential Lots</b>	<b>Watering lawns</b>	Prohibited.
	<b>Watering new lawns or lawns</b> being treated for <b>European Chafer Beetle</b>	Prohibited. All <b>permits</b> issued for <b>lawn watering</b> are revoked.
	<b>Watering</b> trees, shrubs, decorative planters, flowers, and <b>edible plants</b>	Prohibited.
	<b>Watering golf courses</b>	Prohibited.
	Washing <b>impermeable surfaces</b> (sidewalks, driveways, fences, walls, roofs, or other outdoor surfaces)	Prohibited except if ordered by a regulatory authority having jurisdiction, for a <b>health or safety reason</b> .
	Topping up or filling <b>aesthetic water features</b>	Prohibited.
	Topping up or filling pools and hot tubs	Prohibited.
	Washing vehicles, boats, trailers	Prohibited except to clean windows, lights, mirrors,

	and other motive equipment	licence plates, and boat engines for safety.
	<b>Commercial vehicle washing</b>	Prohibited.
	<b>Watering</b> turf at turf farms	Prohibited.
<b>Public Lots</b>	<b>Watering lawns</b> and grass boulevards	Prohibited.
	<b>Watering new lawns</b> or lawns being treated for the <b>European Chafer Beetle</b>	Prohibited. All <b>permits</b> issued for <b>lawn watering</b> are revoked.
	<b>Watering</b> trees, shrubs, decorative planters, flowers, and <b>edible plants</b>	Prohibited.
	<b>Watering soil-based playing fields</b>	Prohibited.
	<b>Watering sand-based playing fields</b>	Prohibited.
	<b>Watering</b> artificial turf and outdoor race tracks	Prohibited.
	<b>Flushing water mains</b>	Prohibited.
	Operating <b>water play parks</b> and pools	Prohibited.
	Topping up or filling <b>aesthetic water features</b>	Prohibited.
	Topping up or filling pools and hot tubs	Prohibited.
	Washing vehicles, boats, trailers and other motive equipment	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety.





# Drinking Water Conservation Plan

November 2021



23019327



CNCL - 147



Published date: This Plan is to come into force and take effect on November 1, 2017

Plan amended on November 1, 2021.

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# 1 Overview of the Drinking Water Conservation Plan

The Greater Vancouver Water District (GVWD) was created and constituted under the provincial statute the *Greater Vancouver Water District Act*, to supply drinking water to the Metro Vancouver region. The GVWD is governed by an Administration Board (the Board) consisting of representatives from the member jurisdictions of the GVWD. The Board appoints a Commissioner (the GVWD Commissioner) who provides management and oversight of the activities of the GVWD. The GVWD operates under the name “Metro Vancouver”.

Metro Vancouver, working together with the member jurisdictions of the GVWD, provides clean, safe drinking water to the region’s population of 2.7 million. Metro Vancouver’s *Drinking Water Conservation Plan* (DWCP) is a regional policy developed with member jurisdictions and other stakeholders to manage the use of drinking water during periods of high demand, mostly during late spring to early fall, and during periods of water shortages and emergencies. The DWCP helps ensure our collective needs for drinking water are met affordably and sustainably now, and in the future.

There are two complementary documents to the DWCP. One is the Board’s *Drinking Water Conservation Policy* which describes: 1) the GVWD Commissioner’s decision-making process for activating and deactivating Stages of the DWCP; and 2) the implementation process for member jurisdictions.

The second complementary document is Metro Vancouver’s *Drinking Water Management Plan*, which sets out the following three goals:

1. Provide clean, safe drinking water.
2. Ensure the sustainable use of water resources.
3. Ensure the efficient supply of water.

The water restrictions, as outlined in the DWCP, provide regional direction for meeting Goal 2 – Ensuring the sustainable use of water resources.

The DWCP applies only to member jurisdictions of the GVWD and the use of drinking water from the GVWD’s water system. Jurisdictions that are not members of the GVWD are encouraged to follow the restrictions in the plan to help conserve drinking water and demonstrate leadership and consistency to water users across the region. The DWCP restrictions do not apply to the use of rain water, grey water, any forms of recycled water, or water from sources outside the GVWD water system. If water is supplied from an alternative source other than the GVWD water system, such users are encouraged to display signs indicating the alternative water source.

Underlying the development and implementation of the DWCP are the following four principles:

1. Recognize drinking water as a precious resource that must be conserved.
2. Maintain the environmental, economic vitality and health and safety of the region to the extent possible in the face of a water shortage.
3. Optimize available water supplies and reduce water use.
4. Minimize adverse impacts to public activity and quality of life for the region’s residents.



# 2 Metro Vancouver’s role in ensuring the sustainable use of water resources

## 2.1 Managing the region’s drinking water responsibly

Metro Vancouver is responsible for storing, treating, and delivering clean, safe drinking water through its member jurisdictions to over 2.7 million people in the Metro Vancouver region of British Columbia.

Metro Vancouver’s water system includes three watersheds and associated dams and reservoirs, treatment facilities, an extensive transmission system, plus the performance of related operational and maintenance tasks to manage this infrastructure.

Metro Vancouver distributes water to member jurisdictions on a cost recovery basis.

Member jurisdictions then deliver drinking water, through their infrastructure, directly to individual properties. All individual billing and enforcement of water use restrictions is undertaken by each respective member jurisdiction.

Metro Vancouver manages the region’s water system in accordance with Provincial regulations and Federal guidelines. In addition to meeting those regulations and guidelines, Metro Vancouver is responsible for developing long-range plans for managing the region’s drinking water and operating the water system. The system is operated in alignment with priorities identified in Metro Vancouver’s *Board Strategic Plan*, under the region’s *Drinking Water Management Plan* and in consideration of the principles of sustainability through decision making that considers social, economic, and environmental values.



## 2.2 Water conservation in Metro Vancouver

Water conservation is a major component of Metro Vancouver's planning to ensure the sustainable use of water resources. Helping water users such as residents, businesses, schools, and member jurisdictions to use only what they need helps ensure an efficient and relatively cost effective water system.

Most precipitation in Metro Vancouver occurs between November and April. Dry summer months lead to an increase in water use, particularly for the outdoor uses described in the DWCP. Assisting water users to develop sustainable water use habits year round makes a significant difference in reducing daily demand and sustaining reservoir levels during dry months. Reducing demand through water conservation practices also defers the need to invest in expanding the infrastructure, even as the region's population grows by approximately 35,000 residents annually.

The DWCP describes the staged restrictions related to outdoor water use that water users should follow to:

- Prevent water from being wasted;
- Prepare for and respond to drought and emergency conditions;
- Ensure drinking water can be delivered to all users during the summer when rainfall levels are lowest and the demand for water is highest;
- Adapt to a changing climate;
- Support fish habitat and ecosystems;
- Minimize the costly expansion of the water system infrastructure; and
- Maintain adequate water pressure to keep the system operating safely and effectively.

More information on Metro Vancouver's water conservation initiatives, improvements and expansion to the delivery system, and planning for future water supply can be found at [www.metrovancouver.org](http://www.metrovancouver.org).



CAPILANO RESERVOIR

# 3 Drinking Water Conservation Plan – Stages 1 through 4

Each stage of the DWCP is designed to reduce demand for drinking water through specific water restrictions which become more restrictive with higher stages. The following general restrictions apply to all stages of the plan in addition to the specific water restrictions contained in each stage:

- All hoses must have an automatic shut-off device;
- Water must not unnecessarily run off on impermeable surfaces such as driveways, curbs, pathways, or gutters when watering lawns and plants;
- Artificial playing turf and outdoor tracks must not be watered except for a health or safety reason
- Hoses and taps must not run unnecessarily; and
- Irrigation systems must not be faulty, leaking, or misdirected.

In most cases, the stages of the plan will be activated in successive order, but they can also be activated immediately in any order.

Stage 1 reduces demand in summer months, and is automatically in effect on May 1 until October 15.

Stages 2 and 3, activated and deactivated by the GWWD Commissioner, are likely to be activated during unusually hot and dry conditions to maximize conservation.

Stage 4, activated and deactivated by the GWWD Commissioner during an emergency to immediately limit water use to essential needs only.

The decision to activate more restrictive stages of the DWCP is based on measured facts, reasoned predictions, and historical patterns, with a goal of ensuring the sufficient supply of water until the concerns that caused the more restrictive stages are over, typically in the early fall with the return of seasonal rainfall.



### 3.1 Stage 1 Water Restrictions

Stage 1 comes into effect automatically each year – on May 1 until October 15 – to prevent drinking water wastage and ensure water users employ efficient and effective watering practices.

User	Water Use	Restriction
RESIDENTIAL	Watering lawns	Even-numbered civic addresses on Saturdays: - Automatic watering from 5 am to 7 am - Manual watering from 6 am to 9 am  Odd-numbered civic addresses on Sundays: - Automatic watering from 5 am to 7 am - Manual watering from 6 am to 9 am
	Watering new lawns or lawns being treated for the European Chafer Beetle	Outside restricted lawn watering times if in compliance with a member jurisdiction permit
	Watering trees, shrubs, and flowers excluding edible plants	On any day from 5 am to 9 am if using a sprinkler On any day at any time if using a handheld hose, soaker hose, water container, or drip irrigation
NON-RESIDENTIAL	Watering lawns (mixed-use buildings e.g. residential and commercial should follow Non-residential watering times)	Even-numbered civic addresses on Mondays: - Automatic watering from 4 am to 6 am - Manual watering from 6 am to 9 am  Odd-numbered civic addresses on Tuesdays: - Automatic watering from 4 am to 6 am - Manual watering from 6 am to 9 am
	Watering new lawns or lawns being treated for European Chafer Beetle	Outside restricted lawn watering times if in compliance with a member jurisdiction permit
	Watering trees, shrubs, and flowers excluding edible plants	On any day from 4 am to 9 am if using a sprinkler On any day at any time if using a handheld hose, soaker hose, water container, or drip irrigation
GOVERNMENTS/ SCHOOLS/PARKS	Watering lawns and grass boulevards	Even-numbered civic addresses on Mondays: - Automatic watering from 4 am to 6 am - Manual watering from 6 am to 9 am  Odd-numbered civic addresses on Tuesdays: - Automatic watering from 4 am to 6 am - Manual watering from 6 am to 9 am
	Watering new lawns or lawns being treated for the European Chafer Beetle	Outside restricted lawn watering times if in compliance with a member jurisdiction permit
	Watering trees, shrubs, and flowers excluding edible plants	On any day from 4 am to 9 am if using a sprinkler On any day at any time if using a handheld hose, soaker hose, water container, or drip irrigation
	Watering soil-based playing fields	On any day from 7 pm to 9 am, except if: - Watering newly over-seeded fields if in compliance with a member jurisdiction permit - Operating under an approved member jurisdiction water management plan
	Watering sand-based playing fields	On any day from 7 pm to 9 am, except if: - Watering newly over-seeded fields if in compliance with a member jurisdiction permit - Operating under an approved member jurisdiction water management plan
	Flushing water mains	Prohibited

## 3.2 Stage 2 Water Restrictions

Stage 2 restrictions conserve drinking water to ensure the existing supply will last until the return of seasonal rainfall or until the water shortage situation is over. These restrictions are designed to conserve enough drinking water to avoid or delay moving to Stage 3 as long as possible.

User	Water Use	Restriction
RESIDENTIAL	Watering lawns	Prohibited
	Watering new lawns or lawns being treated for the European Chafer Beetle	Member jurisdiction permit issued in Stage 1 remain in effect until permit expires No new permits issued or renewed
	Watering trees, shrubs, and flowers excluding edible plants	On any day from 5 am to 9 am if using a sprinkler On any day at any time if using a handheld hose, soaker hose, water container, or drip irrigation
	Washing impermeable surfaces	Prohibited except if: - For a health or safety reason - Preparing a surface for painting or similar treatment - Aesthetic cleaning by a commercial cleaning operation
	Topping up or filling aesthetic water features	Prohibited
NON-RESIDENTIAL	Watering lawns (mixed-use buildings e.g. residential and commercial should follow Non-residential watering times)	Prohibited
	Watering new lawns or lawns being treated for the European Chafer Beetle	Member jurisdiction permit issued in Stage 1 remain in effect until permit expires No new permits issued or renewed
	Watering trees, shrubs, and flowers excluding edible plants	On any day from 4 am to 9 am if using a sprinkler On any day at any time if using a handheld hose, soaker hose, water container, or drip irrigation
	Watering golf courses	Fairways watering anytime on any one day in a 7-day period, except if operating under an approved member jurisdiction water management plan
	Washing impermeable surfaces	Prohibited except if: - For a health or safety reason - Preparing a surface for painting or similar treatment - Aesthetic cleaning by a commercial cleaning operation
	Topping up or filling aesthetic water features	Prohibited

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User	Water Use	Restriction
GOVERNMENTS/SCHOOLS/PARKS	Watering lawns and grass boulevards	Prohibited
	Watering new lawns or lawns being treated for the European Chafer Beetle	Member jurisdiction permit issued in Stage 1 remain in effect until permit expires No new permits issued or renewed
	Watering trees, shrubs, and flowers excluding edible plants	On any day from 4 am to 9 am if using a sprinkler On any day at any time if using a handheld hose, soaker hose, water container, or drip irrigation
	Watering soil-based playing fields	No more than 4 days in a 7-day period from 7 pm to 9 am, except if: - Watering newly over-seeded fields if in compliance with a member jurisdiction permit - Operating under an approved member jurisdiction water management plan
	Watering sand-based playing fields	On any day from 7 pm to 9 am, except if: - Watering newly over-seeded fields if in compliance with a member jurisdiction permit - Operating under an approved member jurisdiction water management plan
	Flushing water mains	Prohibited
	Operating water play parks and pools	Prohibited except water play parks with user-activated switches
	Topping up or filling aesthetic water features	Prohibited

### 3.3 Stage 3 Water Restrictions

Stage 3 restrictions respond to serious drought conditions, or other water shortage, and achieve further reductions in drinking water use by implementing a lawn watering ban and additional stricter measures.

User	Water Use	Restriction
RESIDENTIAL	Watering lawns	Prohibited
	Watering new lawns or lawns being treated for the European Chafer Beetle	All member jurisdiction permits issued for lawn watering are invalidated
	Watering trees, shrubs, and flowers excluding edible plants	Prohibited if using a sprinkler or soaker hose On any day at any time if using a handheld hose, water container, or drip irrigation
	Washing impermeable surfaces	Prohibited except if: - For a health or safety reason - Preparing a surface for painting or similar treatment by a commercial cleaning operation
	Topping up or filling aesthetic water features	Prohibited
	Topping up or filling pools and hot tubs	Prohibited
	Washing vehicles and boats	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety
NON-RESIDENTIAL	Watering lawns (mixed-use buildings e.g. residential and commercial should follow Non-residential watering times)	Prohibited
	Watering new lawns or lawns being treated for the European Chafer Beetle	All member jurisdiction permits issued for lawn watering are invalidated
	Watering trees, shrubs, and flowers excluding edible plants	Prohibited if using a sprinkler or soaker hose On any day at any time if using a handheld hose, water container, or drip irrigation
	Watering golf courses	Fairways watering prohibited except if operating under an approved member jurisdiction water management plan
	Washing impermeable surfaces	Prohibited except if: - For a health or safety reason - Preparing a surface for painting or similar treatment by a commercial cleaning operation
	Topping up or filling aesthetic water features	Prohibited
	Topping up or filling pools and hot tubs	Prohibited except for pools and hot tubs with a permit to operate in accordance with health authorities having jurisdiction over pool and hot tub regulation
	Washing vehicles and boats	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety
	Commercial vehicle washing	Prohibited except if: - A facility that installed an automatic vehicle wash system before November 1, 2017, is operating on a basic wash and rinse cycle only - A facility that installed an automatic vehicle wash system after November 1, 2017, is operating using a water recycling system that achieves a minimum 60% water recovery rate over the full wash cycle - A hand wash and self-service facility, is operating using high-pressure wands or brushes that achieve a maximum flow rate of 11.4 litres per minute

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User	Water Use	Restriction
GOVERNMENTS/SCHOOLS/PARKS	Watering lawns and grass boulevards	Prohibited
	Watering new lawns or lawns being treated for the European Chafer Beetle	All member jurisdiction permits issued for lawn watering are invalidated
	Watering trees, shrubs, and flowers	Prohibited if using a sprinkler or soaker hose On any day at any time if using a handheld hose, water container, or drip irrigation
	Watering soil-based playing fields	No more than 3 days in a 7-day period from 7 pm to 9 am except if: - Watering newly over-seeded fields if in compliance with a member jurisdiction permit - Operating under an approved member jurisdiction water management plan
	Watering sand-based playing fields	No more than 5 days in a 7-day period from 7 pm to 9 am, except if: - Watering newly over-seeded fields if in compliance with a member jurisdiction permit - Operating under an approved member jurisdiction water management plan
	Flushing water mains	Prohibited
	Operating water play parks	Prohibited except water play parks with user-activated switches
	Topping up or filling aesthetic water features	Prohibited
	Topping up or filling pools and hot tubs	Prohibited except for pools and hot tubs with a permit to operate in accordance with health authorities having jurisdiction over pool and hot tub regulation
	Washing vehicles and boats	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety
Washing vehicles and boats	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety	



### 3.4 Stage 4 Water Restrictions

Stage 4 is an emergency stage that limits both indoor and outdoor water uses as much as possible to ensure an adequate supply of drinking water for human consumption, use in firefighting and to protect the quality of drinking water within the water system for public health.

Stage 4 is activated based on the rare occurrence of a significant emergency, such as an earthquake, flood, wild land and interface fire, severe weather, or a prolonged regional power outage that causes significant impacts to the water system infrastructure (e.g. damage to major water transmission lines, pump stations, or treatment plants).

In addition to the following outdoor water restrictions, Metro Vancouver could request that industrial water users implement voluntary reductions or reschedule production processes that consume large amounts of water until Stage 4 is deactivated.

User	Water Use	Restriction
RESIDENTIAL	Watering lawns	Prohibited
	Watering new lawns or lawns being treated for the European Chafer Beetle	All member jurisdiction permits issued for lawn watering are invalidated
	Watering trees, shrubs, flowers and edible plants	Prohibited
	Topping up or filling aesthetic water features	Prohibited
	Topping up or filling pools and hot tubs	Prohibited
	Washing impermeable surfaces	Prohibited except if ordered by a regulatory authority having jurisdiction for a health or safety reason
	Washing vehicles and boats	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety
NON-RESIDENTIAL	Watering lawns (mixed-use buildings e.g. residential and commercial should follow Non-residential watering times)	Prohibited
	Watering new lawns or lawns being treated for the European Chafer Beetle	All member jurisdiction permits issued for lawn watering are invalidated
	Watering trees, shrubs, flowers and edible plants	Prohibited
	Watering golf courses	Prohibited
	Washing impermeable surfaces	Prohibited except if ordered by a regulatory authority having jurisdiction for health or safety reason
	Topping up or filling aesthetic water features	Prohibited
	Topping up or filling pools and hot tubs	Prohibited
	Washing vehicles and boats	
	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety	
	Commercial vehicle washing	Prohibited

TABLE CONTINUES ON NEXT PAGE



User	Water Use	Restriction
GOVERNMENTS/SCHOOLS/PARKS	Watering lawns and grass boulevards	Prohibited
	Watering new lawns or lawns being treated for European Chafer Beetle	All member jurisdiction permits issued for lawn watering are invalidated
	Watering trees, shrubs, flowers and edible plants	Prohibited
	Watering soil-based playing fields	Prohibited
	Watering sand-based playing fields	Prohibited
	Flushing water mains	Prohibited
	Operating water play parks	Prohibited
	Topping up or filling aesthetic water features	Prohibited
	Topping up or filling pools and hot tubs	Prohibited
	Washing vehicles and boats	Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety

### 3.5 Stage activation

Stage 1 comes into effect automatically on May 1 until October 15 each year.

Stages 2, 3 and 4 are activated and deactivated by the GWWD Commissioner.

The following factors guide the GWWD Commissioner’s decision to activate or deactivate stages of the DWCP:

- Available storage capacity of the Capilano and Seymour Reservoirs and alpine lakes;
- Water allocated to Metro Vancouver by BC Hydro from the Coquitlam Reservoir;
- Hydrologic forecasting parameters including temperature, rainfall, snowpack, and snowmelt;
- Seasonal water demand trends (measured and charted daily);
- User compliance with the restrictions; and
- Water transmission system performance and ability to deliver water during periods of high demand.

Once the GWWD Commissioner makes the decision to activate or deactivate a stage, all member jurisdictions are alerted within 24 hours, which triggers public notification and enforcement.

The GWWD Commissioner has the authority to activate, extend or deactivate stages at any time.

### 3.6 Public notification

Metro Vancouver and member jurisdictions are responsible for communicating information to water users about the restrictions in clear and plain language including:

- Providing public access to the restrictions in both a full and abbreviated version;
- Distributing communications materials;
- Promoting the annual start date of the restrictions;
- Notification of activation or deactivation of stages;
- Responding to queries; and
- Recording feedback for consideration in future reviews.

### 3.7 Monitoring and enforcement

Member jurisdictions incorporate the DWCP restrictions into their bylaws, where each member jurisdiction is responsible for monitoring and enforcing the restrictions in their communities. Member jurisdictions will ensure that their respective enforcement and penalties for violations of the water restrictions increase with each successive stage of the DWCP to reflect the severity of the situation requiring the activation of an advanced stage.

Member jurisdictions may use a variety of tools to promote and ensure bylaw compliance including

educational materials, using verbal and written warnings, issuing tickets and imposing fines.

### 3.8 Updating the Drinking Water Conservation Plan

The DWCP is reviewed periodically to reflect population growth, climate change, new technologies and changes in water system infrastructure. Proposed changes are discussed with member jurisdictions responsible for plan implementation and enforcement, and with stakeholders. All updates are reviewed and approved by the Board.





## 4 Exemption for member jurisdictions for health and safety reasons

Metro Vancouver encourages all member jurisdictions to follow the watering restrictions in the DWCP to conserve water and demonstrate leadership. However, Metro Vancouver recognizes that member jurisdictions have important decisions to make regarding protecting public health and safety, and that certain circumstances may require the use of drinking water in a manner that is not consistent with the DWCP restrictions. Therefore, member jurisdictions have the authority to use water during any stage and are exempt from the restrictions in the DWCP for activities that are necessary for the purpose of protecting public health and safety. Examples include:

- Flushing water mains where a significant health or safety concern is identified;

- Washing down public spaces where significant health concerns are raised, or on the recommendation of the local health authority;
- Wetting forest and park perimeters or boulevards as part of a fire prevention strategy during extreme hot and dry weather, or on the recommendation of the local fire authority; and
- Protecting publicly-funded infrastructure such as community playing fields or swimming facilities, on the recommendation of the city manager of the GVWD member having jurisdiction.
- Deploying misting stations in periods of extreme heat to protect human health and safety.



# 5 GVWD Member Jurisdictions

The following jurisdictions are the members of the GVWD:

- |                      |                             |                            |
|----------------------|-----------------------------|----------------------------|
| Village of Anmore    | City of Maple Ridge         | City of Port Moody         |
| Village of Belcarra  | City of New Westminster     | City of Richmond           |
| City of Burnaby      | City of North Vancouver     | City of Surrey             |
| City of Coquitlam    | District of North Vancouver | Tsawwassen First Nation    |
| Corporation of Delta | City of Pitt Meadows        | City of Vancouver          |
| City of Langley      | City of Port Coquitlam      | District of West Vancouver |
| Township of Langley  |                             |                            |

The Director representing Electoral Area A on the Metro Vancouver Regional District is a member of the GVWD Administration Board.

## 6 Glossary and terms

**Aesthetic cleaning** – means the use of water for cleaning when it is not for a health or safety reason.

**Aesthetic water feature** – means a fountain, pond, or other water feature that primarily serves an aesthetic purpose. It does not include ponds that contain fish.

**Automatic watering** – means applying water using an automated water delivery system that requires only minimal human intervention or supervision and typically employs mechanical, electronic, or other components and devices, including but not limited to timers, sensors, computers, or mechanical appliances.

**Automatic shut-off device** – means a device attached to a water hose that shuts off the supply of water automatically unless hand pressure is applied to operate the device.

**Automatic vehicle wash system** – includes:

- **Conveyor vehicle wash** – a commercial vehicle washing facility where the customer's vehicle moves through an enclosed conveyance mechanism during the wash.

- **In-bay vehicle wash** – a commercial vehicle washing facility where the customer parks the vehicle inside a bay, and the vehicle remains stationary while a spray mechanism moves over the vehicle to clean it.

**Basic wash and rinse cycle** – means a process sequence in an automatic vehicle wash system that consists of a single wash stage followed by a single rinse stage and no additional processes or optional stages; typically, this is the minimum level of service that a customer can select, where total water usage is less than 200 litres per vehicle.

**Board** – means the Administration Board of the GWWD.

**Commercial cleaning operation** – means a company, partnership, or person that offers commercial cleaning services, including pressure washing, window cleaning, and other similar building cleaning services, to the public for a fee.

**Commercial vehicle washing** – means commercial vehicle washing services offered to the public for a fee, but excludes car dealerships, fleet vehicle washing facilities, and charity car washes.

**Drip Irrigation** – means an irrigation system that delivers water directly to the root zone of the plant at a low flow rate through individual emission points (emitters) using droplets of water and excludes sprinkler irrigation systems, micro-spray systems, misting systems, and soaker hoses.

**Edible plant** – means a plant grown for the purpose of human consumption.

**European Chafer Beetle** – means an invasive insect pest whose larvae feed on the roots of grasses, causing serious damage to lawns. The Chafer Beetle larvae can be treated naturally using nematodes, which typically requires a moist lawn for a period of 2 to 3 weeks from the day of application.

**Flushing water main** – discharging water from a water main for routine maintenance such as water quality management and measurement of firefighting flow capacity.

**Golf course** – means the greens, tee areas, and fairways that are designed and maintained as playing surfaces for golf, but does not include rough areas or lawns that are not maintained as playing surfaces.

**Governments/Schools/Parks** – includes property zoned for member jurisdiction, provincial, or federal uses including road rights of way, and school, college, and university uses.

**GWWD** – means the Greater Vancouver Water District.

**GWWD Commissioner** – the person that the Administration Board of the GWWD appoints as its Commissioner.

**Hand wash and self-service facility** – a commercial vehicle washing facility where the facility's staff wash the customer's vehicle, or the customer washes their own vehicles with spray wands and brushes.

**Health and safety reason** – means a precaution necessary to protect health and safety, including the removal of contaminants, bodily fluids, slip and fall hazards, controlling pests, and suppressing and controlling dust.

**Impermeable surface** – means a material added to the surface of the ground, or on the exterior of a building or structure that is impermeable to water, including but not limited to glass, wood, concrete, asphalt, paving stones, and other similar materials.

**Lawn** – means a cultivated area surrounding or adjacent to a building that is covered by grass, turf, or a ground cover plant such as clover, including areas such as boulevards, parks, school yards and cemeteries, but excluding golf courses, soil-based playing fields, and sand-based playing fields.

**Manual watering** – means applying water using a device or tool that is manually held or operated by a human being, without automatic watering.

**Member jurisdiction** – means member jurisdiction of the GVWD.

**New lawn** – means a lawn that is newly established either by seeding or the laying of new sod or turf.

**Non-residential** – includes properties zoned for a permitted use other than a residential use, including commercial, industrial, and institutional uses, and including a property zoned for mixed residential and non-residential uses, but excluding governments/schools/parks.

**Non-residential pool and hot tub** – means a pool or hot tub permitted to be operated in accordance with health authorities having jurisdiction over pool and hot tub regulation, including pools and hot tubs operated by government agencies, hotels, multi-family strata corporations, and private clubs.

**Odd-numbered civic address or Even-numbered civic address** – means the numerical portion of the street address of a property, and in the case of multi-unit commercial or residential complex such as townhouses, condominiums or other strata-titled properties, means the numerical portion of the street address that is assigned to the entire complex, and not the individual unit number.

**Over-seeded** – means the application of grass seed on existing turf, typically in early fall or spring and may also include associated processes such as aeration, weeding, dethatching and fertilization, for the purpose of mitigating against grass thinning.

**Residential** – means a property zoned for single-family or multi-family residential use.

**Residential pool and hot tub** – means a residential pool or hot tub installed for the use of the occupants and guests of one single family dwelling or duplex and does not require a permit in accordance with health authorities having jurisdiction over pool and hot tub regulation.

**Sand-based playing field** – means a playing field that is constructed with a highly permeable sand-based root zone typically 30 to 40 centimetres deep over a drainage system with drain pipes bedded in gravel, and is designed and maintained to be playable year-round.

**Soaker hose** – means a garden hose or pipe with small holes that allow water to seep into the ground, to the roots of plants, discharging water through the entire length of its porous surface.

**Soil-based playing field** – means a playing field that is covered with grass, sod or turf that is designed and maintained to be played upon, or that is used for sporting or other community events and activities, but does not include lawns, golf courses, or sand-based playing fields.

**Vehicle** – a device in, on or by which a person or item is or may be transported or drawn on a highway or other roadway.

**Water management plan** – a plan proposed by the owner or operator of a golf course, soil-based playing field, and sand-based playing field operators and approved by the GVWD member having jurisdiction. The plan sets out terms such as water use targets during the different stages of the DWCP, restrictions to reduce water use, and reporting requirements for the owner or operator.

**Water play park** – a recreational facility that is primarily outdoors, including spray pools and wading pools, spray parks, splash pads, and water slides.

**Watering lawn** – means applying water to a lawn with any device or tool including but not limited to a sprinkler, hose, mister, or drip irrigation.







**Municipal Ticket information Authorization Bylaw No. 7321,  
Amendment Bylaw No. 10337**

The Council of the City of Richmond enacts as follows:

1. The **Municipal Ticket Information Authorization Bylaw No. 7321**, as amended, is further amended at Schedule B16 by deleting the section number "2.4.1" and replacing it with "2.2.4".

FIRST READING

SECOND READING

THIRD READING

ADOPTED

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CITY OF RICHMOND
APPROVED for content by originating dept. 
APPROVED for legality by Solicitor 

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MAYOR

\_\_\_\_\_  
CORPORATE OFFICER



**Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122,  
Amendment Bylaw No. 10338**

The Council of the City of Richmond enacts as follows:

1. The **Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122**, as amended, is further amended by deleting "Schedule – Water Use Restriction Bylaw No. 7784" from Schedule A to Bylaw No. 8122 and replacing it with Schedule A attached to and forming part of this Bylaw.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

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CITY OF RICHMOND
APPROVED for content by originating dept. <i>SW</i>
APPROVED for legality by Solicitor <i>JA</i>

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MAYOR

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CORPORATE OFFICER

**SCHEDULE A to BYLAW NO. 10338**

**Schedule – Water Use Restriction Bylaw No. 7784 (2004)**

**Designated Bylaw Contraventions and Corresponding Penalties**

A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Option	A7 Late Payment Amount	A8 Compliance Agreement Discount
<b>Water Use Restriction Bylaw No. 7784 (2004)</b>	Period of Time from Receipt (inclusive)		n/a	29 to 60 days	1 to 28 days	61 days or more	n/a
	Watering contrary to Stage 1 Restrictions	2.2.1	No	\$ 100.00	\$ 75.00	\$ 125.00	n/a
	Watering contrary to Stage 2 Restrictions	2.2.2	No	\$ 200.00	\$ 175.00	\$ 225.00	n/a
	Watering contrary to Stage 3 Restrictions	2.2.3	No	\$ 500.00	\$ 450.00	\$ 525.00	n/a
	Watering contrary to the terms of a permit	3.1	No	\$ 100.00	\$ 75.00	\$ 125.00	n/a
	Failure to display a permit	3.1.7	No	\$ 100.00	\$ 75.00	\$ 125.00	n/a