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## Public Works and Transportation Committee

Council Chambers, City Hall  
6911 No. 3 Road

Wednesday, January 19, 2022  
4:00 p.m.

Pg. #      ITEM

### MINUTES

**PWT-4**      *Motion to adopt the **minutes** of the meeting of the Public Works and Transportation Committee held on December 14, 2021.*



### NEXT COMMITTEE MEETING DATE

February 23, 2022, (tentative date) at 4:00 p.m. in the Council Chambers

### PLANNING AND DEVELOPMENT DIVISION

#### 1. **TRAFFIC SAFETY ADVISORY COMMITTEE - PROPOSED 2022 INITIATIVES**

(File Ref. No. 01-0100-30-TSAD1-01) (REDMS No. 6791243)

**PWT-8**

**See Page PWT-8 for full report**

*Designated Speaker: Donna Chan*

### STAFF RECOMMENDATION

- (1) *That the proposed 2022 initiatives for the Traffic Safety Advisory Committee, as outlined in the staff report titled "Traffic Safety Advisory Committee - Proposed 2022 Initiatives" dated December 1, 2021 from the Director, Transportation, be endorsed; and*

- (2) *That a copy of the staff report titled “Traffic Safety Advisory Committee - Proposed 2022 Initiatives” be forwarded to the Richmond Council-School Board Liaison Committee for information.*



2. **RICHMOND ACTIVE TRANSPORTATION COMMITTEE – PROPOSED 2022 INITIATIVES**

(File Ref. No. 01-0100-20-RCYC1) (REDMS No. 6790224)

PWT-16

See Page PWT-16 for full report

*Designated Speaker: Donna Chan*

STAFF RECOMMENDATION

- (1) *That the proposed 2022 initiatives of the Richmond Active Transportation Committee, as outlined in the staff report titled “Richmond Active Transportation Committee – Proposed 2022 Initiatives” dated November 29, 2021 from the Director, Transportation, be endorsed; and*
- (2) *That a copy of the report titled “Richmond Active Transportation Committee – Proposed 2022 Initiatives” be forwarded to the Richmond Council-School Board Liaison Committee for information.*



ENGINEERING AND PUBLIC WORKS DIVISION

3. **WATER USE RESTRICTION AMENDMENT BYLAWS**

(File Ref. No. 10-6060-01) (REDMS No. 6762151)

PWT-28

See Page PWT-28 for full report

*Designated Speaker: Jason Ho*

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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4.    **CORPORATE    ELECTRIC    VEHICLE    CHARGING    STATION  
INSTALLATION SCOPE INCREASE**

(File Ref. No. 10-6370-01) (REDMS No. 6796888)

**PWT-71**

**See Page PWT-71 for full report**

*Designated Speaker: Suzanne Bycraft*

**STAFF RECOMMENDATION**

*That the Consolidated 5 Year Financial Plan (2022-2026) be amended accordingly for the scope change as identified in the staff report titled, “Corporate Electric Vehicle Charging Station Installation Scope Increase”, dated December 8, 2021, from the Director, Public Works Operations.*

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5.    **MANAGER’S REPORT**

**ADJOURNMENT**

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## Public Works and Transportation Committee

Date: Tuesday, December 14, 2021

Place: Council Chambers  
Richmond City Hall

Present: Councillor Chak Au, Chair  
Councillor Alexa Loo  
Councillor Andy Hobbs  
Councillor Linda McPhail  
Councillor Michael Wolfe (by teleconference)

Also Present: Councillor Bill McNulty (by teleconference)  
Councillor Harold Steves (by teleconference)

Call to Order: The Chair called the meeting to order at 4:00p.m.

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the Public Works and Transportation Committee held on November 16, 2021, be adopted as circulated.*

**CARRIED**

### NEXT COMMITTEE MEETING DATE

January 19, 2022, (tentative date) at 4:00 p.m. in the Council Chambers

### DELEGATION

1. Jeff Jones, Richmond resident, was in attendance to speak to the traffic light operations at intersections and current road design hazards and commented that turn signal timing at intersections need to be lengthened because of traffic safety concerns.

**Public Works & Transportation Committee**  
**Tuesday, December 14, 2021**

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Further discussion ensued regarding multi-use pathways, crash data analysis at the intersection of Steveston Highway and No. 2 Road and the turn signal operations.

As a result of the discussion, the following **referral motion** was introduced:

It was moved and seconded

- (1) That the presentation by Jeff Jones, Richmond resident on traffic light operations, including traffic signal timing, at intersections be referred to staff; and*
- (2) That staff report back with crash data analysis at No.2 Road and Steveston Highway.*

**CARRIED**

**ENGINEERING AND PUBLIC WORKS DIVISION**

**2. AWARD OF CONTRACT 6690Q: SUPPLY AND DELIVERY OF HYBRID AND/OR FULLY ELECTRIC CREW CAB PICKUP TRUCKS**

(File Ref. No. 10-6370-01) (REDMS No. 6782711)

It was moved and seconded

*That the acquisition of three (3) hybrid crew cab pickup trucks, and four (4) fully electric crew cab pickup trucks be approved in the total amount of \$541,583.95 as outlined in the staff report titled, "Award of Contract 6690Q: Supply and Delivery of Hybrid and/or Fully Electric Crew Cab Pickup Trucks", dated November 15, 2021, from the Interim Director, Public Works Operations, as follows:*

- (1) A partial award value of Contract 6690Q for the supply and delivery of three (3) hybrid crew cab pickup trucks be awarded to Mainland Ford Ltd. in the total tendered amount of \$154,785.00, excluding outfitting, contingency and taxes; and*
- (2) The second portion of Contract 6690Q for the supply and delivery of four (4) fully electric crew cab pickup be awarded to Metro Motors Ltd. in the total tendered amount of \$325,200.00, excluding outfitting, contingency and taxes.*

The question on the motion was not called as discussion ensued regarding (i) the green fleet strategy, (ii) the auctioning of the old vehicles to obtain best value, and (iii) the savings of fuel and maintenance with the new electric and hybrid vehicles.

**CARRIED**

**Public Works & Transportation Committee**  
**Tuesday, December 14, 2021**

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3. **AWARD OF CONTRACT 7248P - PROVISION OF JANITORIAL SERVICES FOR THE COMMUNITY SAFETY BUILDING AND CITY CENTRE COMMUNITY POLICE OFFICE**

(File Ref. No. 10-6000-01) (REDMS No. 6779390)

It was moved and seconded

- (1) *That Contract 7248P - Provision of Janitorial Services for the Community Safety Building and City Centre Community Police Office be awarded to two contractors, for an aggregate contract value of \$1,625,613.44 for a three-year term, to 10647802 Canada Limited dba Dexterra Integrated Facilities Management (Dexterra) and Dynamic Facility Services Ltd.(Dynamic), as described in the report titled "Award of Contract 7248P - Provision of Janitorial Services for the Community Safety Building and City Centre Community Police Office", dated November 18, 2021 from the Director, Facilities and Project Development;*
- (2) *That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to extend the initial three-year term, up to the maximum total term of five years, for the maximum total amount of \$2,775,091.45, as described in the report titled "Award of Contract 7248P - Provision of Janitorial Services for the Community Safety Building and City Centre Community Police Office", dated November 18, 2021 from the Director, Facilities and Project Development; and*
- (3) *That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to execute the contract and all related documentation with Dexterra and Dynamic.*

**CARRIED**

4. **GREASE MANAGEMENT PROGRAM UPDATE**

(File Ref. No. 10-6060-03-01) (REDMS No. 6762265)

Staff responded to queries noting that (i) 60 to 80% of establishments are inspected during the year and the remaining 20- 40% will be inspected the following year, (ii) food truck service companies are not included in the inspections, and (iii) since the program's launch in 2012, violations have decreased significantly.

It was moved and seconded

*That the staff report titled "Grease Management Program Update", dated November 16, 2021, from the Director, Engineering be received for information.*

**CARRIED**

**Public Works & Transportation Committee**  
**Tuesday, December 14, 2021**

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5. **MANAGER'S REPORT**

**(i) Winter Weather Preparation**

Staff updated Committee on purchasing another piece of brine equipment to aid in snow removal, and that there was no impact from the King tide on Richmond.

**(ii) BC Hydro Power Outage Map**

Staff advised Committee of the online availability of a power outage map on the BC Hydro website and the completion of the multi-use pathway at Westminster Hwy and No. 6 Road by year end.

**(iii) Multi-Use Pathway**

Staff advised Committee of the completion of the multi-use pathway at Westminster Hwy and No. 6 Road by year end.

**ADJOURNMENT**

It was moved and seconded

*That the meeting adjourn (4:47 p.m.).*

**CARRIED**

Certified a true and correct copy of the Minutes of the meeting of the Public Works and Transportation Committee of the Council of the City of Richmond held on Tuesday, December 14, 2021.

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Councillor Chak Au  
Chair

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Raman Grewal  
Legislative Services Associate



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee  
**From:** Lloyd Bie, P.Eng.  
Director, Transportation  
**Date:** December 1, 2021  
**File:** 01-0100-30-TSAD1-01/2021-Vol 01  
**Re:** Traffic Safety Advisory Committee - Proposed 2022 Initiatives

### Staff Recommendation

1. That the proposed 2022 initiatives for the Traffic Safety Advisory Committee, as outlined in the staff report titled "Traffic Safety Advisory Committee - Proposed 2022 Initiatives" dated December 1, 2021 from the Director, Transportation, be endorsed; and
2. That a copy of the staff report titled "Traffic Safety Advisory Committee - Proposed 2022 Initiatives" be forwarded to the Richmond Council-School Board Liaison Committee for information.

Lloyd Bie, P.Eng.  
Director, Transportation  
(604-276-4131)

Att. 1

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Community Bylaws	<input checked="" type="checkbox"/>	
Fire Rescue	<input checked="" type="checkbox"/>	
RCMP	<input checked="" type="checkbox"/>	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b>	<b>APPROVED BY CAO</b>



## Staff Report

### Origin

Council endorsed the establishment of the Traffic Safety Advisory Committee (TSAC) in 1997 to create a co-operative partnership between City staff, community groups and other agencies that seek to improve traffic and pedestrian safety in Richmond.<sup>1</sup> The Committee provides input and on a wide range of traffic safety issues such as school zone concerns and neighbourhood traffic calming requests, and collaborates on traffic safety-related education initiatives. This report summarizes the Committee's activities in 2021 and identifies proposed initiatives for 2022.

This report supports Council's Strategic Plan 2018-2022 Strategy #1 A Safe and Resilient City:

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

*1.1 Enhance safety services and strategies to meet community needs.*

This report supports Council's Strategic Plan 2018-2022 Strategy #6 Strategic and Well-Planned Growth:

*Leadership in effective and sustainable growth that supports Richmond's physical and social needs.*

*6.3 Build on transportation and active mobility networks.*

### Analysis

#### Road and School Zone Safety Initiatives in 2021

The member agencies collectively participated in the following measures in 2021 aimed at improving the safety of Richmond roads for all users.

- School Zone Traffic Safety: Development of an inventory for each elementary and secondary school that identifies the existing condition of all pathways connecting to each school and adjacent park in order to identify any needed improvements to encourage walking, improve road safety and provide consistency at all sites across the city (e.g., new curb ramps for walkways). To date, the mapping of all elementary schools is complete along with site visits to confirm current conditions. The work will continue in 2022 with the mapping of secondary schools and the development of an implementation strategy for both elementary and secondary schools.

In addition, on-going traffic safety concerns at various schools across the city were reviewed and addressed. These concerns are typically related to motorist speeding and illegal parking/stopping in school zones, driver behaviour within school sites (e.g., making prohibited turns when exiting parking lots) and pedestrian crosswalks near schools. The

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<sup>1</sup> TSAC has representation from the following groups: Insurance Corporation of BC (ICBC), Richmond School District, Richmond RCMP, Richmond Fire-Rescue, Richmond District Parents Association, Vancouver Coastal Health, and the City's Transportation and Community Bylaws Departments.

issues were addressed by a variety of measures, each tailored to the specific site conditions at the school. Community Bylaws and Richmond RCMP regularly provide coordinated enforcement in school zones. Other continuing measures include the deployment of Speed Watch volunteers and clearing of vegetation to improve sightlines at crosswalks.

- *Community Requests for Traffic Calming*: Assessment of and consultation with local residents regarding potential traffic calming measures to address speed-related concerns followed by implementation where warranted and supported. Through this process, Table 1 identifies the traffic safety improvements that were installed in 2021.

Table 1: Traffic Calming Measures Implemented in 2021

Roadway	Date	Traffic Safety Improvements
Monteith Road	Spring	<ul style="list-style-type: none"> <li>• two speed humps</li> </ul>
Shell Road East	Spring	<ul style="list-style-type: none"> <li>• three speed humps, two of which are raised crosswalks</li> </ul>
Fundy Drive	Summer	<ul style="list-style-type: none"> <li>• reduced speed limit of 30 km/h along frontage of the park between dawn and dusk</li> <li>• three speed humps</li> <li>• three crosswalks</li> <li>• in-pavement markers at two of the crosswalks</li> </ul>

In addition, traffic studies and consultation with residents of three neighbourhoods were undertaken in 2021:

- Barnard Drive-Lam Drive/Robson Drive: Survey responses indicated support for the installation of a traffic circle at this location, which is consistent with the suite of other traffic calming measures already established along Barnard Drive. Installation is anticipated to be complete by spring 2022.
- Barnes Drive and Flury Drive. Consultation held in summer 2021 indicated support for a reduced speed limit of 30 km/h that is enforceable. Further consultation will occur in early 2022 to confirm the traffic safety improvements to be implemented.
- Kittiwake Drive: Initial consultation to discuss perceived issues and potential measures to address concerns.
- *Traffic and Signal Operations*: Several new and upgraded signals were activated in association with the opening of River Parkway in March 2021. Eight signalized intersections were upgraded with UPS (uninterrupted power supply) to provide continuous power in the event of an outage. A special crosswalk was activated on Shell Road at Kidd Elementary School in April 2021 (Figure 1).
- *Traffic Camera Program*: Traffic cameras were added at six City-owned signalized intersections (for a total of 116 intersections). The cameras help to optimize traffic operations and provide real-time photos to the public via the City's website.



Figure 1: Special Crosswalk on Shell Road at Kidd Elementary School

In April 2021, the City launched a program to allow the public and businesses to apply to purchase video footage from the cameras at City-owned intersections to assist in legal or other matters such as evidence of collisions.

- *Network Screening Study*: Completion of the recommended short-term improvements to improve traffic safety at 18 of the top 20 collision prone intersections. Detailed design is underway for the remaining two intersections (Cambie Road-No. 5 Road and Cambie Road-No. 4 Road) that will incorporate both short- and long-term recommended improvements.

### Traffic and Pedestrian Safety Campaigns in 2021

The Committee participated in the following ICBC- and Richmond RCMP-led road and pedestrian safety campaigns in 2021.

- *School Zone Safety*: In March 2021, ICBC installed temporary signage at four elementary schools (Westwind, Homma, McKinney, and Wowk) to help address concerns regarding speeding in school zones. The signage has children featured with the caption ‘Thank you for thinking of me’ and is a reminder for drivers in school zones to pay attention to the road and slow down (Figure 2). The signage was present during the morning drop off period and Richmond RCMP were present to monitor activities. An additional Speed Watch event was held in May 2021 at Bridge Elementary School.
- *Pedestrian Safety*: In January 2021 and during mid-October to mid-November 2021, ICBC and Richmond RCMP worked together as part of a provincial pedestrian safety campaign to urge pedestrians and drivers to stay safe as crashes involving pedestrians nearly double during the fall and winter periods.<sup>2</sup> Along with community policing volunteers, 13 outreach pedestrian safety outreach events were held in Richmond where nearly 5,200 reflectors were handed out in high pedestrian traffic areas across the city (Figure 3). A further 12 pedestrian safety presentations were made to the following audiences during the fall event:
  - SUCCESS for newcomers
  - Seniors outreach at Cambie Community Centre and Minoru Centre for Active Living



Figure 2. Temporary Signage in School Zones



Figure 3: Pedestrian Safety Event at Canada Line Station

<sup>2</sup> Based on ICBC data from 2016 to 2020, an average of 1,080 pedestrians are injured in crashes between October and January compared to 570 pedestrians who are injured between May and August.



- Walk Richmond participants (Dover Park, Richmond Nature Park and Thompson Community Centre)
- Hugh Boyd Secondary (Grade 10 Career Education classes)
- *Distracted Driving*: Richmond RCMP officers and community police volunteers conducted four “Cell Watch” blitz days in March that involved RCMP officers and volunteers who collectively checked 2,400 motorists. Targeted locations were Westminster Highway-Buswell Street and Westminster Highway-No. 3 Road. A total of 21 warnings and violation tickets were issued during the March event.

During summer 2021, ICBC and Richmond RCMP reached out to City’s Summer Day Camp staff at community centres (City Centre, Cambie, South Arm, Steveston, Thompson, and West Richmond) and ice centres. The children in the summer day camps created over 120 unique “Think of Me” cards that have an illustration of what children think drivers should think about when they are driving in school zones and in the community. On the back of the cards is education around distracted driving.

During September 2021, the Richmond RCMP Community Engagement team and volunteers distributed these illustrations to drivers during two back-to-school Speed Watch events (held at McNeely and Cook Elementary Schools) and two distracted driving outreach events (targeted at No. 3 Road-Alderbridge Way and No. 3 Road-Ackroyd Road) (Figure 3). Instead of getting a ticket, the driver is reminded why it is important to focus on the road. Nearly 2,100 vehicles were checked and a total of 73 cards and 43 warnings were given out at the two back-to-school events. The remaining cards were distributed through various outreach events across the city by Richmond RCMP.



Figure 3: Distracted Driving and Back-to-School Campaigns

### Proposed Traffic Safety Activities for 2022

In addition to developing and providing input on corrective measures to address identified traffic safety concerns, the Committee will undertake a number of proactive initiatives to enhance traffic safety in 2022.

- *School Zone Traffic Safety*: Review and provide comment on the mapped inventory of elementary and secondary schools, and any improvements identified as needed. The Committee will also provide on-going review and improvement of traffic and pedestrian safety in school zones through improving vehicle parking and circulation layout at schools, supporting the enforcement of school zone traffic violations, and introducing new walkways and crosswalks as well as upgrading crosswalks to improve pedestrian safety.
- *Traffic Calming*: The assessment, community consultation, implementation, and monitoring of road safety and traffic calming measures where warranted in local neighbourhoods, together with consultation with Richmond RCMP and Richmond Fire-Rescue prior to the implementation of any traffic calming measures.
- *Pedestrian and Traffic Safety Projects and Campaigns*: Continue to collaborate, support and participate in on-going multi-agency efforts to increase the level of pedestrian and traffic safety, and discourage motorist speeding and distracted driving, such as the annual campaigns held by ICBC and Richmond RCMP in various locations.
- *Network Screening Study*: Review and provide comment on the recommended medium- and long-term improvement measures to enhance road safety at the top 20 collision prone intersections in Richmond (Attachment 1).
- *E-Scooter Pilot Project*: Monitor and provide feedback on user behaviour and the operation of the devices from road and pedestrian safety perspectives.

Costs associated with the implementation of road and traffic safety improvements are normally accommodated in the City's annual capital budget and considered as part of the annual budget review process. Some of these projects are eligible for financial contribution from external agencies (e.g., ICBC and TransLink). If successful, staff will report back on the amount of financial contribution obtained from these external agencies through the annual staff reports on ICBC and TransLink cost-sharing programs respectively.

### **Financial Impact**

None.

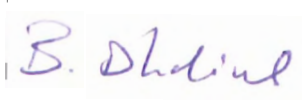
### **Conclusion**

The Traffic Safety Advisory Committee is one of the few multi-agency forums in the region dedicated to enhancing pedestrian and traffic safety within its home municipality. Since its inception in 1997, the Committee has provided input on and support of various traffic safety improvements and programs and initiated a range of successful measures encompassing engineering, education and enforcement activities. Staff recommend that the proposed 2022

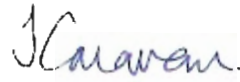
December 1, 2021

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initiatives of the Committee be endorsed and this staff report forwarded to the Richmond Council-School Board Liaison Committee for information.



Bill Dhaliwal  
Supervisor, Traffic Operations  
(604-276-4210)



Joan Caravan  
Transportation Planner  
(604-276-4035)

JC:lce

Att. 1: Top 20 Collision-Prone Intersections in Richmond



# Top 20 Collision-Prone Intersections in Richmond





# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee  
**From:** Lloyd Bie, P. Eng.  
Director, Transportation  
**Date:** November 29, 2021  
**File:** 01-0100-20-  
RCYC1/2021-Vol 01  
**Re:** Richmond Active Transportation Committee – Proposed 2022 Initiatives

### Staff Recommendation

1. That the proposed 2022 initiatives of the Richmond Active Transportation Committee, as outlined in the staff report titled “Richmond Active Transportation Committee - Proposed 2022 Initiatives” dated November 29, 2021 from the Director, Transportation, be endorsed; and
2. That a copy of the report titled “Richmond Active Transportation Committee – Proposed 2022 Initiatives” be forwarded to the Richmond Council-School Board Liaison Committee for information.

Lloyd Bie, P. Eng.  
Director, Transportation  
(604-276-4131)

Att. 1

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Parks Services	<input checked="" type="checkbox"/>	
Recreation Services	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 



## Staff Report

### Origin

The Richmond Community Cycling Committee was formed in 1993 to allow City staff to work in partnership with the community to promote commuter and recreational cycling in Richmond. In 2013, Council approved the evolution of the Committee into the Richmond Active Transportation Committee (RATC) to reflect a broader mandate that includes other micro mobility devices such as e-scooters. The Committee provides input and feedback to the City on infrastructure projects designed for these modes and undertakes various activities in co-operation with the City that encourage, educate and raise awareness of active transportation. Committee members are local residents and/or employees who reflect a diverse range of ages and cycling skills. Several members, including a co-Chair, are also members of HUB Cycling's local Richmond-YVR Committee, which enables direct and on-going communication with the agency.<sup>1</sup>

This report reviews the 2021 activities of the RATC and identifies a number of initiatives for 2022 that would support its mandate to provide input and advice to the City on issues in the planning, development, improvement, and promotion of an active transportation network that supports a greater number of trips by cycling, walking and rolling. The Committee's activities contribute towards the City's sustainability goals articulated in Richmond's *Official Community Plan* and *Community Energy and Emissions Plan* to reduce greenhouse gas emissions by prioritizing and funding walking, rolling and cycling infrastructure. The Committee's initiatives also support the goals and actions of the City's *Community Wellness Strategy* and, in turn, Richmond's long-term health, liveability and vibrancy.

This report supports Council's Strategic Plan 2018-2022 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.*

- 4.1 *Robust, affordable, and accessible sport, recreation, wellness and social programs for people of all ages and abilities.*
- 4.2 *Ensure infrastructure meets changing community needs, current trends and best practices.*

This report supports Council's Strategic Plan 2018-2022 Strategy #6 Strategic and Well-Planned Growth:

*Leadership in effective and sustainable growth that supports Richmond's physical and social needs.*

- 6.3 *Build on transportation and active mobility networks.*

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<sup>1</sup> HUB Cycling is a regional non-profit organization that works to improve cycling conditions in Metro Vancouver.

## Analysis

While planned in-person events remained impacted in 2021 due to the COVID-19 pandemic, the Committee participated in a number of activities that contributed to enhanced cycling and rolling opportunities, and increased education and awareness of active transportation in Richmond.

### Expansion, Improvement and Planning of Active Transportation Network in 2021

The City continued to expand and improve Richmond's active transportation network in 2021, which now comprises 87.2 km of on- and off-street bike and rolling routes (excluding dyke trails). The Committee provided feedback on the planning, design, construction, and/or improvement of the following facilities.

#### *Construction of New Facilities*

- Charles Street (Sexsmith Road-Bridgeport Station Entrance): Substantial progress of an off-street multi-use path (MUP) with pedestrian lighting along the north side of Charles Street that provides safe walking and cycling access to/from Bridgeport Canada Line Station (Figure 1). This MUP extended the existing MUP on Sexsmith Road between Beckwith Road and Charles Street that was completed in 2020.
- Alderbridge Way (Fisher Gate-Shell Road): Substantial progress on Phase 2 of an off-street MUP with pedestrian lighting along the north side of Alderbridge Way that provides a safe walking and cycling access where none previously existed (Figure 2). Phase 1 of the MUP between No. 4 Road and Fisher Gate was completed in 2020.



Figure 1: Charles Street MUP



Figure 2: Alderbridge Way MUP (Phase 1)

- Crosstown Neighbourhood Bike Route: Completion of upgrades at the No. 3 Road-Lucas Road off-set intersections that included curb bulges to facilitate cyclists to cross No. 3 Road. With this work, the Crosstown Neighbourhood Bike Route is now complete. The east-west route is aligned between Blundell Road and Francis Road, and connects Railway Avenue to Garden City Road using local streets and off-street pathways. Wayfinding signage has been installed and pavement markings (bike stencils with chevrons known as “sharrows”) will be added in spring 2022.

- Woodwards-Saunders Neighbourhood Bike Route: Completion of upgrades on Woodward Road mid-point between No. 2 Road and Gilbert Road to facilitate the through movement of cyclists and pedestrians. With this work, the Woodward-Saunders Neighbourhood Bike Route is substantially complete. The east-west route is aligned between Francis Road and Williams Road, and connects Railway Avenue to the Parkside Neighbourhood Bike Route (Ash Street) using local streets and off-street pathways. Wayfinding signage will be installed in winter 2021 and “sharrow” pavement markings will be added in spring 2022. The planned upgrade of the special crosswalk on No. 3 Road at Saunders Road to a pedestrian signal is anticipated in 2022.

#### *Improvement of Existing Facilities*

- West Side of Garden City Road (Lansdowne Road-Westminster Highway): Substantial completion of the upgrade of the existing paved shoulder on the west side between Lansdowne Road and Westminster Highway to provide a wider facility delineated between southbound cyclists and two-way pedestrians that is protected from vehicle traffic by an extruded curb (Figure 3). The project is anticipated to be completed in spring 2022 with the upgrade of the southbound bike lane immediately south of Lansdowne Road to an off-street MUP realigned behind the bus stop to eliminate conflicts with transit service. In addition, a 75m section of the existing southbound on-street bike lane north of Lansdowne Road was upgraded to an off-street bike path.
- Granville Avenue (Garden City Road-Gilbert Road): Installation of delineators between the existing bike lane and the adjacent vehicle lane as a pilot project to mitigate motorists parking in the bike lane. The project scope will be extended west to Railway Avenue in 2022 (Figure 4).



Figure 3: West Side of Garden City Road  
(Lansdowne Road-Westminster Hwy)



Figure 4: Granville Ave Delineators

- Railway Avenue (Steveston Highway-Williams Road): Re-striping of the bike and vehicle lane lines to widen the bike lanes, typically by 0.5m in the northbound direction to provide greater separation between cyclists and parked vehicles.



- Westminster Highway (No. 6 Road-No. 7 Road): Reconstruction of the existing MUP on the south side to address extensive damage due to tree roots plus the addition of wooden bollards between the path and the road to address motorists parking on the path (Figure 5).
- West Side of Garden City Road at Williams Road: New pavement markings (bike stencils) and delineators were installed at the southern terminus of the off-street MUP on the west side to better define, for both motorists and cyclists, the transition of cyclists to an on-street facility when approaching Williams Road (Figure 6).



Figure 5: Westminster Hwy MUP



Figure 6: Garden City Road to Williams Road

#### *Design Review of Planned Facilities*

- Gilbert Road (Granville Avenue-Elmbridge Way): Provision of directional cycling facilities on each side of the road comprising protected on-street bike lanes, off-street bike path adjacent to the sidewalk, and off-street MUP. When completed, the project will establish continuous cycling facilities on Gilbert Road between Granville Avenue and the Dinsmore Bridge.
- Browngate Road (Hazelbridge Way-No. 3 Road): Provision of on-street two-way bike paths protected from the adjacent vehicle lane by a concrete median on the south side between No. 3 Road and Hazelbridge Way. When completed, the project will link the Odlin Road Neighbourhood Bike Route from the east to No. 3 Road and Aberdeen Station.
- Lansdowne Road Multi-Use Pathway: Westward extension of a two-way off-street MUP for pedestrians and cyclists on the north side of Lansdowne Road between Gilbert Road and Pearson Way. Upon completion, this project will provide a westward extension of the existing pedestrian-cycling facility along Lansdowne Road from Minoru Blvd to Gilbert Road and a direct link from the Canada Line Lansdowne Station to the Richmond Olympic Oval once proposed/future development-related road improvements are implemented along the remaining sections of Lansdowne Road and Hollybridge Way.

### Participation in City Active Transportation Initiatives in 2021

The Committee participated in the following City initiatives in 2021 related to cycling and other active transportation modes in Richmond.

- Update of Cycling Network Plan: The Committee is a key stakeholder providing feedback in the Phase 1 and Phase 2 engagement sessions held by the City in June and November 2021 respectively to support the update of the plan. The plan is anticipated to be finalized in spring 2022 and will identify what the future cycling network will look like, and guide the prioritization of future investments.
- Cycling-Related Signage in Construction Zones: Members reviewed and provided feedback on potential improvements to current signage plans for scenarios where cyclists must transition out of the bike lane and into the adjacent vehicle lane to bypass a work zone.
- E-Scooter Pilot Project: The Committee provided input into the City's development of bylaw amendments to support an e-scooter pilot project as well as the planned provision of a public shared e-scooter system as part of the pilot project.
- Bicycle-Pedestrian Counters: Installation of six counters that record pedestrian and cyclists counts by direction on various facilities across the city (Table 1). The data will track usage and help inform the need for and timing of future improvements. Further expansion of the network of monitors is planned in 2022.

Table 1: Bike-Pedestrian Counters Installed in 2021

Bike Route	Location
Railway Greenway	South of Westminster Hwy
Cambie Road MUP	West of No. 3 Road
Alderbridge Way MUP	East of No. 4 Road
Garden City Road MUP	South of Beckwith Road
No. 6 Road MUP	South of Bridgeport Road
Sea Island Way Bike Path	West of Corvette Way

### Promotion of Active Transportation Network in 2021

The Committee participated in the following activities in 2021 to promote cycling and other active transportation modes in Richmond.

- Recreational Trails and Cycling Map: Update of the map in partnership with Tourism Richmond that includes information on Richmond attractions and suggested itineraries for exploring Richmond by bike. The new edition was posted to the City's website and distributed in summer 2021 to community centres, libraries and other civic facilities. The project included an update of the large format sign of the map installed at the south end of the Canada Line Bridge, which is a major cycling gateway to Richmond (Figure 7).



Figure 7: Sign of Trails and Cycling Map

- Go by Week (May and September 2021): The May 2021 event of this region-wide annual initiative organized by HUB Cycling was held online due to the COVID-19 pandemic. In September 2021, the Committee worked with HUB Cycling to support one “Knowledge Hub” in Richmond (outside in front of Thompson Community Centre) that was carefully supervised to comply with existing public health guidelines. Collectively, a total of 21 organizations based in Richmond comprising 63 riders registered online for the September event. These riders collectively logged 244 trips for a total distance of nearly 4,000 km thereby avoiding the emission of 820 kilograms of greenhouse gases within the community.
- HUB Cycling Bike to Shop Week (August 7-20, 2021): HUB Cycling stages this annual event to encourage people to ride to and shop at local businesses. Bike to Shop is both a ‘support local’ and tourism campaign, designed to bring people directly to local stores as well as travel to new areas. The event in Richmond was focused in Steveston and included nine participating businesses that offered promotions and discounts to participants.

#### Active Transportation Education in 2021

The City provides funding to HUB Cycling to deliver cycling education courses for the community and elementary school students. The City’s support for cycling education generates multiple benefits including increased safety, encouragement of a life-long healthy activity and sustainable mode of travel, and potential to reduce traffic congestion around schools as more students choose to ride a bike, all of which align with the City’s Official Community Plan goals.

- Bike to School Education for Students: Beginning in 2020, the City has funded cycling education courses for all Grade 6 and 7 public school students over a two-year period (i.e., approximately 19 schools per year). In 2021, with revised delivery methods to comply with existing public health guidelines, a total of 1,600 students from 18 elementary schools learned the rules and responsibilities of riding on city streets and bike paths, and received hands-on practice with fundamental cycling skills on school grounds and local neighbourhood streets in co-operation with Richmond School District. HUB’s fleet of bikes includes a range of specialized adaptive bikes that are available to children with physical and cognitive differences to help achieve a goal of 100% participation.
- Cycling Education for Adults: A Learn to Ride Course for 24 new immigrant adults and their families was held in partnership with Richmond Multi-cultural Community services. A Basic Bike Maintenance course with 11 attendees was held in partnership with Cambie Community Centre.

#### Proposed Active Transportation Initiatives in 2022

The Committee will provide input at the earliest conceptual stage on the prioritization, planning, design, and implementation of the following projects that expand and/or improve the network of infrastructure that can be used by active transportation modes.

- Update of Cycling Network Plan: Finalization of an updated city-wide cycling master plan that supports long-term mobility objectives, reflects best practices in cycling infrastructure design and current community needs, and includes a prioritized implementation strategy. This work is anticipated to be completed in spring 2022.



- Planned Active Transportation Network Expansion: Planned City capital projects include new or upgraded cycling facilities along the following corridors (see Attachment 1 for project locations):
  - Sexsmith Road-Brown Road: new protected bike lanes between Bridgeport Canada Line Station and the recently completed Odlin Road Neighbourhood Bike Route
  - Garden City Road (Granville Ave-Sea Island Way): addition of delineators between the bike lane and vehicle lane
  - Garden City Road (Francis Road-Williams Road): reconstruction of off-street MUP on the west side
- E-Scooter and E-Bike Pilot Project: The Committee will continue to provide input and feedback on the City's pilot project, particularly regarding the operation of the public shared e-scooter and e-bike system and its impact on existing cycling infrastructure and users.
- Active Transportation Network Spot Improvements: Potential projects include localized improvements to existing on-street cycling facilities such as improved pavement markings (e.g., green painted bike lanes at potential conflict areas), additional signage, new ramps to facilitate access to off-street pathways, and installation of delineators to prevent motorists from encroaching into bike lanes.
- Planned Park, Road and Development Projects: The Committee will review additional City and external agency projects that impact existing or would incorporate new active transportation infrastructure as part of the overall project such as the Province's Steveston Interchange Project and the George Massey Tunnel Crossing Improvement.

Project costs associated with the expansion and improvement of the active transportation network for 2022 are accommodated in the City's annual capital budget and considered as part of the annual budget review process. Some of these projects are eligible for financial contribution from external agencies (e.g., ICBC and TransLink). If successful, staff will report back on the amount of financial contribution obtained from these external agencies through the annual staff reports on ICBC and TransLink cost-sharing programs respectively.

#### Proposed Education and Promotion of Active Transportation in 2022

The Committee will encourage and promote active transportation as sustainable travel modes that also have significant health benefits via the following activities, which will be funded from existing departmental budgets.

- 20<sup>th</sup> "Island City, by Bike" Tour: Pending public health orders and guidelines, assist in the planning, promotion and staging of the twentieth bike tour of Richmond, which is tentatively set for Sunday, June 13<sup>th</sup> at the Minoru Centre for Active Living. Both the long and short routes will seek to feature recent improvements to the active transportation network to raise community awareness of the neighbourhood facilities that support walking, cycling and rolling activities.
- Go by Bike Week and Bike to Shop: Assist in the planning, promotion and staging of these region-wide events, which include the provision of Knowledge Hubs in Richmond for cyclists.

- *Bicycle Education for Students and Adults*: The Committee will support the contractor, the Richmond School District and a variety of community agencies in the expansion of cycling education courses to all Grade 6 and 7 elementary school students (over a two-year period) and, pending public health protocols, similar courses for adults including seniors and new immigrants.
- *Promotion of Active Transportation Network*: Continue to participate in City events related to health and transportation to raise the awareness of new active transportation facilities both locally and regionally. The Committee will also continue to provide feedback to enhance active transportation information on the City's website and Facebook site.

### **Financial Impact**

None.

### **Conclusion**

The Richmond Active Transportation Committee continues to build its diversity of users' experience to support its broader mandate that includes other rolling transportation modes. The Committee's proposed 2022 initiatives would continue efforts to further encourage greater and safer use of active transportation modes in Richmond, which in turn will support progress towards meeting the City's target for the reduction of greenhouse gas emissions as well as the travel mode share targets of the City's *Official Community Plan*. Active transportation also promotes and/or increases physical activity and overall health and wellness outcomes in line with the City's *Community Wellness Strategy*.

As the Richmond School District is an essential partner in the delivery of the cycling education courses for students, staff recommend that the report be forwarded to the Richmond Council-School Board Liaison Committee for information.



Joan Caravan  
Transportation Planner  
(Staff Liaison to Richmond Active Transportation Committee)  
(604-276-4035)

Att. 1: Location of Selected Planned Active Transportation Network Projects for 2022



Location of Selected Planned Active Transportation Network Projects for 2022



Sexsmith Road-Brown Road (Beckwith Road-Browngate Road): Protected Bike Lanes

- ..... New Cycling Facilities
- Existing cycling facilities
- ..... Planned cycling facilities (City project)
- ..... Planned cycling facilities (secured via development application process)

**Location of Planned Active Transportation Network Projects for 2022**



Garden City Road (Granville Ave-Sea Island Way):  
Addition of Delineators between Bike Lane and Vehicle Lane



**Location of Planned Active Transportation Network Projects for 2022**



Garden City Road (Francis Road-Williams Road): Reconstruction of Multi-Use Pathway



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee  
**From:** Milton Chan, P.Eng.  
Director, Engineering  
**Date:** December 9, 2021  
**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.

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

Att. 4

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

## 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. 7784 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.



Jason Ho, P.Eng.  
Manager, Engineering Planning  
(604-244-1281)



Stephenie Wong, P.Eng.  
Project Manager  
(604-204-8516)

JH:sw



- 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.



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**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:

<b>“AESTHETIC CLEANING</b>	means the use of <b>water</b> for cleaning when it is not for a <b>health or safety reason</b> .
<b>DRIP IRRIGATION</b>	means an irrigation system that delivers <b>water</b> directly to the root zone of the plant at a low flow rate through individual emission points (emitters) using droplets of <b>water</b> and excludes <b>sprinkler</b> irrigation systems, micro-spray systems, misting systems, and <b>soaker hoses</b> .
<b>NON-RESIDENTIAL LOT</b>	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 <b>public lots</b> .
<b>PUBLIC LOT</b>	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.
<b>WATER MANAGEMENT PLAN</b>	means a plan proposed by the owner or operator of a <b>golf course</b> , <b>soil-based playing field</b> , and/or <b>sand-based playing field</b> , and approved by the <b>General Manager, Engineering &amp; Public Works</b> . The plan sets out terms such as <b>water</b> use targets during the different <b>restriction stages</b> to reduce <b>water</b> use, and reporting requirements for the owner or operator.
<b>WATER or WATERING</b>	means applying <b>water</b> to lands or plants with any device or tool including but not limited to a sprinkler, hose, mister, or <b>drip irrigation</b> .”

- 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. 
APPROVED for legality by Solicitor 

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MAYOR

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CORPORATE OFFICER

**SCHEDULE A to BYLAW NO. 10329****SCHEDULE A to BYLAW NO. 7784****STAGE 1 RESTRICTIONS**

<b>Lot</b>	<b>Water Use</b>	<b>Restriction</b>
<b>Residential Lots</b>	<b>Watering lawns</b>	<p>A <b>person</b> may only <b>water</b> at the following times:</p> <ul style="list-style-type: none"> <li>- <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>.</li> <li>- <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>.</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>A <b>person</b> may only <b>water</b> from 5 am to 9 am on any day if using a <b>sprinkler</b>.</p> <p>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>.</p>
<b>Non-Residential Lots</b>	<b>Watering lawns</b>	<p>A <b>person</b> may only <b>water</b> at the following times:</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 Mondays from 6 am to 9 am if <b>manual watering</b>.</li> </ul>
	<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> .
	<b>Watering trees, shrubs, decorative planters, and flowers (excluding edible plants and turf at turf farms)</b>	<p>A <b>person</b> may only <b>water</b> from 4 am to 9 am on any day if using a <b>sprinkler</b>.</p> <p>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>.</p>

Public Lots	<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</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>Flushing water mains</b>	Prohibited



## SCHEDULE B to BYLAW NO. 7784

## STAGE 2 RESTRICTIONS

Lot	Water Use	Restriction
Residential Lots	Watering lawns	Prohibited
	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> issued when <b>Stage 1 Restrictions</b> were in force, until the <b>permit</b> expires. No new <b>permits</b> issued or renewed.
	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> .
	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
Non-Residential Lots	Watering lawns	Prohibited
	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> issued when <b>Stage 1 Restrictions</b> were in force, until the <b>permit</b> expires. No new <b>permits</b> issued or renewed.
	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> .
	Watering golf courses	<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: <ul style="list-style-type: none"> <li>- for a <b>health or safety reason</b>;</li> <li>- to prepare the surface for painting, sealing, or similar treatment;</li> <li>- to prevent or control fires; or</li> <li>- for <b>aesthetic cleaning</b> by a <b>commercial cleaning operation</b>.</li> </ul>
	Topping up or filling <b>aesthetic water features</b>	Prohibited.
Public Lots	<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: <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>- <b>watering</b> in accordance with an approved <b>water management plan</b>.</li> </ul>
	<b>Watering sand-based playing fields</b>	<b>Watering</b> is only allowed from 7 pm to 9 am on any day, 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>- <b>watering</b> in accordance with 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.

## SCHEDULE C to BYLAW NO. 7784

## STAGE 3 RESTRICTIONS

Lot	Water Use	Restriction
Residential Lots	<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, 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	<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, 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> .
	<b>Watering golf courses</b>	<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,

Public Lots	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>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



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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).



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# 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

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 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

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 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 GVWD Commissioner.

The following factors guide the GVWD 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 GVWD 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 GVWD 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.



COQUITLAM WATERSHED



## 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 GVWD.

**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.

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

**GVWD Commissioner** – the person that the Administration Board of the GVWD 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.





City of  
Richmond

## Bylaw 10337

### 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

_____
_____
_____
_____

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

\_\_\_\_\_  
MAYOR

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





City of  
Richmond

Bylaw 10338

**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

\_\_\_\_\_  
MAYOR

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

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

**SCHEDULE A to BYLAW NO. 10338**

<b>Schedule – Water Use Restriction Bylaw No. 7784 (2004)</b>							
<b>Designated Bylaw Contraventions and Corresponding Penalties</b>							
<b>A1 Bylaw</b>	<b>A2 Description of Contravention</b>	<b>A3 Section</b>	<b>A4 Compliance Agreement Available</b>	<b>A5 Penalty</b>	<b>A6 Early Payment Option</b>	<b>A7 Late Payment Amount</b>	<b>A8 Compliance Agreement Discount</b>
<b>Water Use Restriction Bylaw No. 7784 (2004)</b>	<b>Period of Time from Receipt (inclusive)</b>		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



# City of Richmond

## Report to Committee

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**To:** Public Works and Transportation Committee      **Date:** December 8, 2021  
**From:** Suzanne Bycraft  
Director, Public Works Operations      **File:** 10-6370-01/2021-Vol  
01  
**Re:** Corporate Electric Vehicle Charging Station Installation Scope Increase

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### Staff Recommendation

That the Consolidated 5 Year Financial Plan (2022-2026) be amended accordingly for the scope change as identified in the staff report titled, "Corporate Electric Vehicle Charging Station Installation Scope Increase", dated December 8, 2021, from the Director, Public Works Operations.

Suzanne Bycraft  
Director, Public Works Operations  
(604-233-3338)

REPORT CONCURRENCE		
<b>ROUTED TO:</b>  Finance Department	<b>CONCURRENCE</b>  <input checked="checked" type="checkbox"/>	<b>CONCURRENCE OF GENERAL MANAGER</b>  
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b>  	<b>APPROVED BY CAO</b>  

## Staff Report

### Origin

In June 2020, the City applied for \$495,000 in grant funding through Natural Resources Canada's (NRCan) *Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative Grant Program*. The City's application was initially denied, but was subsequently approved in August, 2021 under NRCan contract ZP-138 for a total amount of \$420,000. In order to take advantage of the short notice given by NRCan for the subsequent funding consideration, the City leveraged two Council approved capital projects, namely the "Fleet Electrical Charging Infrastructure Installations" and "Works Yard Electrical Service Upgrade and EV Infrastructure". The capital project budgets for these two projects were increased by the approved grant funding as revised in the Amendments to the Consolidated 5 Year Financial Plan (2021-2025) Bylaw No. 10239.

These Council-approved capital projects are limited to the City Hall Annex and the Works Yard. Therefore, this report seeks approval to expand the original project scopes to include the installation of 12 level 2 and 3 level 3 additional charging ports at various City facilities for corporate fleet vehicles. This approach aligns with the planned expansion of the City's electric vehicle (EV) fleet and is in accordance with the terms of the NRCan contract ZP-138.

This report supports Council's Strategic Plan 2018-2022 Strategy #2 A Sustainable and Environmentally Conscious City:

*Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.*

*2.1 Continued leadership in addressing climate change and promoting circular economic principles.*

*2.2 Policies and practices support Richmond's sustainability goals.*

### Analysis

The City of Richmond is proud to be a leader in sustainable, zero emissions transportation. The City's Green Fleet Action Plan and Sustainable Green Fleet Policy 2020 identify strategies and new technologies to improve fleet fuel efficiencies. Additionally, Council further reflected the City's commitment to expand its corporate passenger fleet vehicle by adopting the staff recommendation to join the West Coast Electric Fleets Diamond Lane pledge at the September 27, 2021 Council meeting. This commits the City to replace more than 10% of all new corporate fleet passenger vehicle procurements with zero emission vehicles each year. The funding application under NRCan contract ZP-138 supports this commitment by enabling the installation of more charging infrastructure to ensure charging capacity for the City's expanding EV fleet.

As detailed in Table 1 below, the two capital projects that are leveraged for this grant funding application increases the total capital project budget by \$420,000, or from \$2,209,700 to \$2,629,700.

Table 1: Council Approved Capital Projects

<b>Year</b>	<b>Capital Project</b>	<b>Amount Approved</b>
2019	CV00012 – Fleet Electrical Charging Infrastructure Installations	\$521,700
2020	CB00083 – Works Yard Electrical Service Upgrade and EV Infrastructure	\$1,688,000
	<i>Subtotal Available Funding Amount</i>	\$2,209,700
2021	ZP-138 – Additional NRCan Grant Funding	\$420,000
	<b><i>Total Available Budget with Grant Funding Included</i></b>	<b>\$2,629,700</b>

Project Scope Expansion

Staff have undertaken an analysis of the planned deployment of the vehicles to be replaced under the Council approved Vehicle and Equipment Reserve Purchases (Public Works and Corporate Fleet). Table 2 identifies the additional charging infrastructure which will expand the project scopes to incorporate those locations best suited for corporate EV fleet expansion. This includes 12 (level 2) and 3 (level 3) charging ports for the City's corporate fleet.

Table 2: Additional Charging Infrastructure

<b>Location</b>	<b>Address</b>	<b>Charging Station</b>
Fire Hall No. 1	6960 Gilbert Rd.	4 x Level 2 charging ports
Fire Hall No. 2	11011 No. 2 Rd.	2 x Level 2 charging ports
Fire Hall No. 3	9660 Cambie Rd.	4 x Level 2 charging ports
RCMP Headquarters	11411 No. 5 Rd.	2 x Level 2 charging ports
Works Yard	5599 Lynas Ln.	2 x Level 3 charging ports
City Hall	6911 No. 3 Rd.	1 x Level 3 charging ports

The NRCan grant funding offsets the capital costs to install the stations at the locations noted in Table 2. In accordance with standard practise, any ongoing maintenance and operating costs will be charged to the Fleet Operations budget, and recovered via internal fleet charges.

Overview of the NRCan Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative Grant Program

The Government of Canada's Zero Emission Vehicle Infrastructure Program (ZEVIP) is a 5-year, \$280 million program developed to address the lack of charging and refuelling stations across Canada. Lack of infrastructure has been identified as one of the key barriers to zero emission vehicle adoption. Increasing the availability of localized charging and hydrogen refuelling opportunities where Canadians live, work, and play will increase the overall adoption of EVs. This grant funding will be delivered through cost-sharing contribution agreements (ZP-138) that will help Canada continue to encourage the switch to green vehicles.

**Financial Impact**

None.



## **Conclusion**

The City has received grant funding approval through NRCan Contract ZP-138 which allows the City the ability to add 15 charging ports (12 level 2 and 3 level 3) for corporate fleet vehicles. The capital project budgets for these two projects have already been increased by the approved grant funding as revised in the Amendments to the Consolidated 5 Year Financial Plan (2021-2025) Bylaw No. 10239.

This report seeks Council approval to expand the project scope to include specified locations at various City facilities to support accelerated fleet EV replacements. This aligns with Council's commitment under the West Coast Electric Fleets Diamond Lane pledge and Green Fleet Action Plan strategies.



Kristina Nishi  
Acting Manager, Fleet and Environmental Programs  
(604-233-3301)

KN:kn