

**From:** ["Levitt, Karen" <karen.levitt@vancouver.ca>](mailto:karen.levitt@vancouver.ca)  
**To:** ["Direct to Mayor and Council - DL"](#)  
**Date:** 7/31/2023 1:08:32 PM  
**Subject:** Council Memo - Update on Provincial drought conditions and Metro Vancouver Activation of Stage 2 of the Drinking Water Conservation  
**Attachments:** Council Memo - Update on Provincial drought conditions and Metro Vancouver Activation of Stage 2 of the Drinking Water Conservation  
15881.pdf

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Dear Mayor and Council,

Please see the attached memo from Lon LaClaire providing information on provincial drought warnings and water management information in Metro Vancouver:

- Metro Vancouver, including City of Vancouver, automatically activate Stage 1 Water Use Restrictions each year from May 1 to October 15, in accordance with the Regional Drinking Water Conservation Plan, which focus on limiting outdoor water use and lawn watering.
- On July 27, 2023, Metro Vancouver announced they will activate Stage 2 water use restrictions due to unseasonably warm and dry conditions, above average drinking water use across the region and accelerated reservoir drawdown.
- City of Vancouver will activate Stage 2 restrictions through the Drinking Water Conservation By-law, effective August 4, 2023
- The City has a robust and active enforcement and educational program for the Drinking Water Conservation By-law and historically issues 95% of all water use violations tickets accounted for in the region.

If you have any questions, please feel free to contact Lon LaClaire at 604-873-7336 or [lon.laclaire@vancouver.ca](mailto:lon.laclaire@vancouver.ca).

All the best,

Karen

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**Karen Levitt**, Deputy City Manager (she/her)  
[karen.levitt@vancouver.ca](mailto:karen.levitt@vancouver.ca)

The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the xʷməθkʷəy̓əm/Musqueam, Skwxwú7mesh/Squamish and səlilwətaʔ/Tsleil-Waututh nations.

## MEMORANDUM

July 31, 2023

TO: Mayor and Council

CC: Paul Mochrie, City Manager  
Armin Amrolia, Deputy City Manager  
Karen Levitt, Deputy City Manager  
Maria Pontikis, Chief Communications Officer, CEC  
Rosemary Hagiwara, Acting City Clerk  
Teresa Jong, Administration Services Manager, City Manager's Office  
Mellisa Morphy, Director of Policy, Mayor's Office  
Trevor Ford, Interim Chief of Staff, Mayor's Office

FROM: Lon LaClaire  
General Manager, Engineering Services

SUBJECT: Update on Provincial drought conditions and Metro Vancouver Activation of Stage 2 of the Drinking Water Conservation Plan, effective Aug 4, 2023

RTS #: 15881

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This memo is in response to the July 11, 2023 Council enquiry on how Vancouver can amplify best water management practices in the City, and to provide an update regarding Metro Vancouver's Drinking Water Conservation Plan activations for 2023.

As reported directly from the Provincial government and through the media, the province is experiencing historic levels of drought and has urged residents to conserve drinking water. As of July 28, the Lower Mainland is at Drought Level 4 on the provincial 0 to 5 [Drought Classification Scale](#).

Metro Vancouver, including City of Vancouver, automatically activate Stage 1 water use restrictions each year from May 1 to October 15, in accordance with the Regional Drinking Water Conservation Plan, and implemented through local by-laws. Stage 1 restrictions focus on limiting outdoor water use and lawn watering, since this is the most significant driver of increased drinking water use during the dry season. Stage 1 limits lawn watering to one morning per week (see Appendix A).

Due to unseasonably warm and dry conditions, above average drinking water use across the region and accelerated reservoir drawdown, Metro Vancouver is activating Stage 2 of water use restrictions effective August 4, 2023 in order to better conserve the region's remaining supply of drinking water. Metro Vancouver advised members of this change July 27, 2023, to allow time

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for members to meet the 72 hour notification period ahead of enforcement. Stage 2 restrictions include banning the application of drinking water to lawns or boulevards at any time, and prohibit the top-up or filling of aesthetic water features.

### **Metro Vancouver Seasonal Supply and Demand 2023**

As of July 23, 2023, Metro Vancouver's drinking water reservoir storage is considered within normal seasonal range, but is the lowest level recorded at this time in July since the drought of 2015 (see Appendix B). The early hot weather in May and June caused snowpack to melt rapidly while reservoirs were still spilling so not all snowmelt was captured. The current water storage in the reservoirs is all the remaining water for the region until significant rain returns in the fall.

Metro Vancouver has also measured higher than average water use since May 2023. Regional water use continues to be nearly 20 per cent higher than the same period last year (see Appendix C). Additionally, Metro Vancouver regional water production metrics indicate widespread violation of Stage 1 water restrictions, with peak demand occurring on non lawn watering days 6 of the last 12 weeks.

On July 14, 2023, Metro Vancouver's Chief Administrative Officer requested all member jurisdictions ramp up monitoring and enforcement programs and educational and communication programming in order to bring down consumption and avoid escalation to further restriction levels. City of Vancouver Waterworks has a robust and active enforcement program for the Drinking Water Conservation By-law and prohibitions against wasting water. Vancouver historically issues 98 per cent of all water use violations tickets accounted for in the region. As of July 23, 2023, Vancouver has issued: 475 warning/education letters; and 321 \$250 enforcement tickets. With Vancouver's active enforcement and other water demand management measures, the City's increase in consumption for May to July is about half the regional average.

However, Metro Vancouver has been under Stage 1 restrictions for 12 weeks and regional demands have remained elevated, resulting in accelerated reservoir drawdown. The recent rains Monday, July 24, 2023 and Tuesday, July 25, 2023 provided some temporary relief regarding fire risk, however, the rain did not contribute to an increase to the levels of the reservoirs. With the 14-day weather forecast showing a continuation of warm dry weather and the seasonal forecast projecting high likelihood of continued drought into the fall, moving to more restrictive water use regulation aligns with the Province's call to conserve water and offers the best opportunity to manage demands now to mitigate drought impacts through the rest of the season.

### **Drinking Water Conservation By-law Activation to Stage 2 Restrictions**

While reservoir levels appear normal now, if regional water consumption continues to be above average, the reservoir levels are expected to drop more quickly than usual. Metro Vancouver is activating Stage 2 of watering restrictions effective August 4, 2023. As per City of Vancouver Drinking Water Conservation By-law No. 12086, the City Engineer has authority to activate or adjust water restrictions, therefore the City of Vancouver will activate Stage 2 water use restrictions starting August 4, 2023, in alignment with Metro Vancouver and regional municipalities. City of Vancouver staff will update all communications platforms to notify the

public of this escalation. Enforcement of Stage 2 water restrictions will begin on August 4, 2023.

On March 1, 2022, City Council approved updates to the [Drinking Water Conservation By-law No. 12086](#), reducing allowable lawn watering during Stage 1 restrictions from two days per week to one day per week with reduced hours, and eliminating lawn water during Stage 2 restrictions.

Stage 2 water use restrictions include:

- All lawn watering prohibited
- Residential trees, shrubs, and flowers can be watered by hand or using soaker hoses or drip irrigation at any time, or by using a sprinkler between 5-9 am any day
- Vegetable gardens can be watered at any time
- Aesthetic water fountains and features cannot be filled or topped up
- Washing impermeable surfaces like driveways and sidewalks is prohibited except in limited circumstances
- Watering golf courses and playing fields is reduced in alignment with their approved water management plan

Vancouver will continue enforcement and outreach programs through Stage 2 that promote minimizing outdoor water use as the strongest action residents can take to prevent water supply issues this season. With Stage 2 activation, fines for Drinking Water Conservation By-law violations are increased to \$500 for each instance.

Vancouver leverages the messages from Metro Vancouver's *We Love Water* Campaign and provides tips for "water wise" lawns and gardens (see Appendix D), including, but not limited to:

- Replace or over-seed lawns with drought tolerant groundcover or gardens
- Let lawns go gold (dormant); they are revived in the fall rains
- Use mulch in gardens to reduce water loss through evaporation
- Check for leaks – especially irrigation systems, ponds, fountains, water features
- Ensure you have a pressure reducing valve for your water connection and irrigation

If you have any questions, please contact me directly.



Lon LaClaire, M.Eng., P.Eng.  
General Manager, Engineering Services

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# APPENDIX A

STAGES <b>1-4</b> DRINKING WATER CONSERVATION PLAN: SUMMARY STAGE 1 IN EFFECT: MAY 1 TO OCTOBER 15						
		- Allowed	- Allowed but with restrictions	- Prohibited		
WATER USE		1	2	3	4	RESTRICTION DETAILS
RESIDENTIAL	Watering lawns					<b>Stage 1:</b> One morning per week: 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					<b>Stage 1:</b> Outside restricted lawn watering times if in compliance with a member jurisdiction permit <b>Stage 2:</b> 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					<b>Stages 1 &amp; 2:</b> On any day from 5 am to 9 am if using a sprinkler, and on any day at any time if using a hand-held hose with automatic shut-off device, a soaker hose, water container, or drip irrigation <b>Stage 3:</b> On any day at any time if using a hand-held hose with automatic shut-off device, water container, or drip irrigation. Prohibited if using a sprinkler or soaker hose
	Washing impermeable surfaces					<b>Stage 2:</b> Prohibited except if for a health or safety reason, preparing a surface for painting or similar treatment, or aesthetic cleaning by a commercial cleaning operation <b>Stage 3:</b> Prohibited except if for a health or safety reason or if preparing a surface for painting or similar treatment by a commercial cleaning operation. No aesthetic cleaning <b>Stage 4:</b> Prohibited except if ordered by a regulatory authority for a health or safety reason
	Topping up or filling aesthetic water features					
	Topping up or filling pools and hot tubs					
	Washing vehicles and boats					<b>Stages 3 &amp; 4:</b> 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					<b>Stage 1:</b> One morning per week: 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					<b>Stage 1:</b> Outside restricted lawn watering times if in compliance with a member jurisdiction permit <b>Stage 2:</b> 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					<b>Stages 1 &amp; 2:</b> On any day from 4 am to 9 am if using a sprinkler, and on any day at any time if using a hand-held hose with automatic shut-off device, a soaker hose, water container, or drip irrigation <b>Stage 3:</b> On any day at any time if using a hand-held hose with automatic shut-off device, water container, or drip irrigation. Prohibited if using a sprinkler or soaker hose
	Watering golf courses					<b>Stage 2:</b> Fairways watering anytime on any one day in a 7-day period except if operating under an approved member jurisdiction water management plan <b>Stage 3:</b> Fairways watering prohibited except if operating under an approved member jurisdiction water management plan
	Washing impermeable surfaces					<b>Stage 2:</b> Prohibited except if for a health or safety reason, preparing a surface for painting or similar treatment, or aesthetic cleaning by a commercial cleaning operation <b>Stage 3:</b> Prohibited except if for a health or safety reason or if preparing a surface for painting or similar treatment by a commercial cleaning operation. No aesthetic cleaning <b>Stage 4:</b> Prohibited except if ordered by a regulatory authority for a health or safety reason
	Topping up or filling aesthetic water features					
	Topping up or filling pools and hot tubs					<b>Stage 3:</b> Prohibited except with a permit to operate in accordance with health authorities having jurisdiction over pool and hot tub regulation
	Washing vehicles and boats					<b>Stages 3 &amp; 4:</b> Prohibited except to clean windows, lights, mirrors, licence plates, and boat engines for safety
Commercial vehicle washing					<b>Stage 3:</b> Prohibited except if a facility operates on a basic wash and rinse cycle, or recovers 60% of water over the full wash cycle, or if it is a hand wash facility using high-pressure (max. 11.4 L/min) wands/brushes	



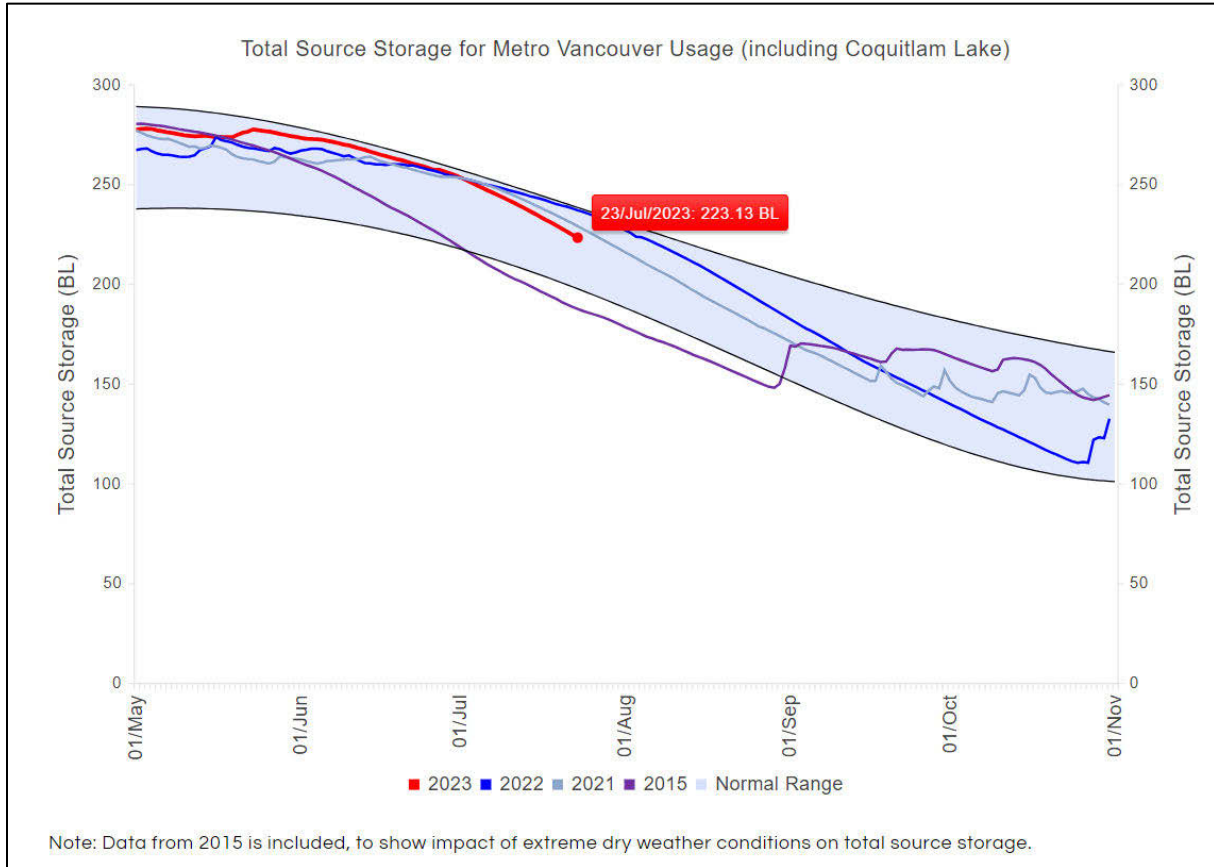
The restrictions apply only to the use of GVWD drinking water and not to the use of rain water, grey water, any forms of recycled water, or water from sources outside the GVWD water system

(continued on next page)

[Infographic of Metro Vancouver Water Use Restrictions from Metro Vancouver Drinking Water Conservation Plan](#)

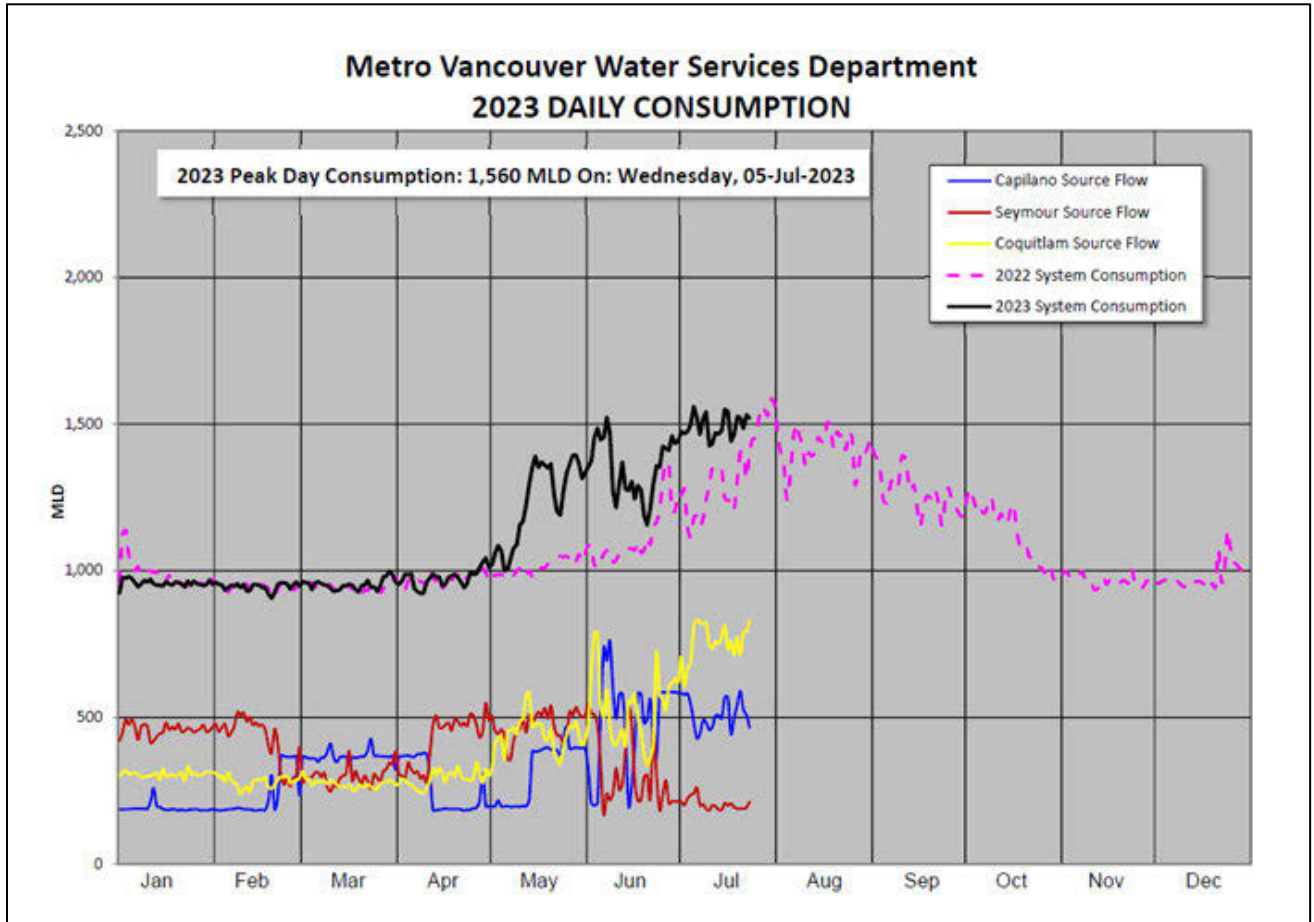


## APPENDIX B



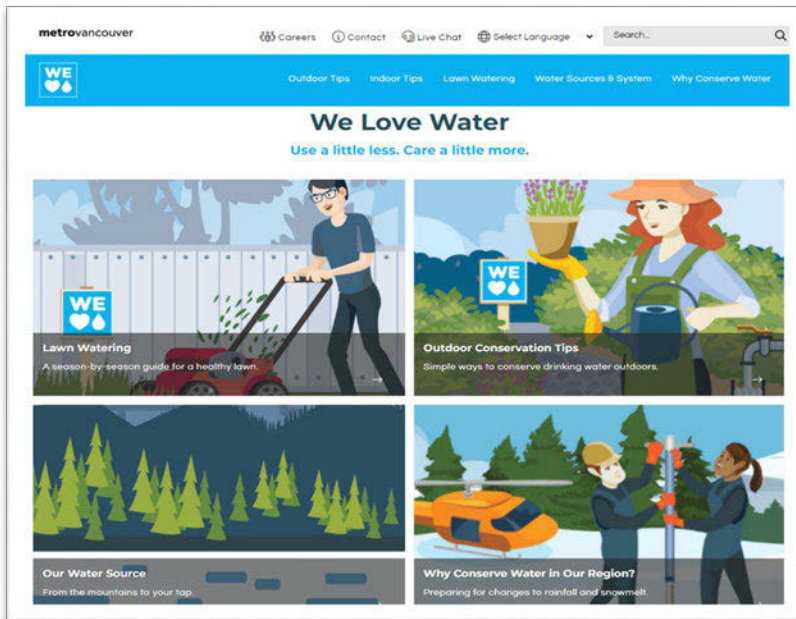
Metro Vancouver Drinking Water Reservoir Storage Levels, as of July 16, 2023  
Levels are updated weekly (Source: [Metro Vancouver/GVWD](#))

APPENDIX C

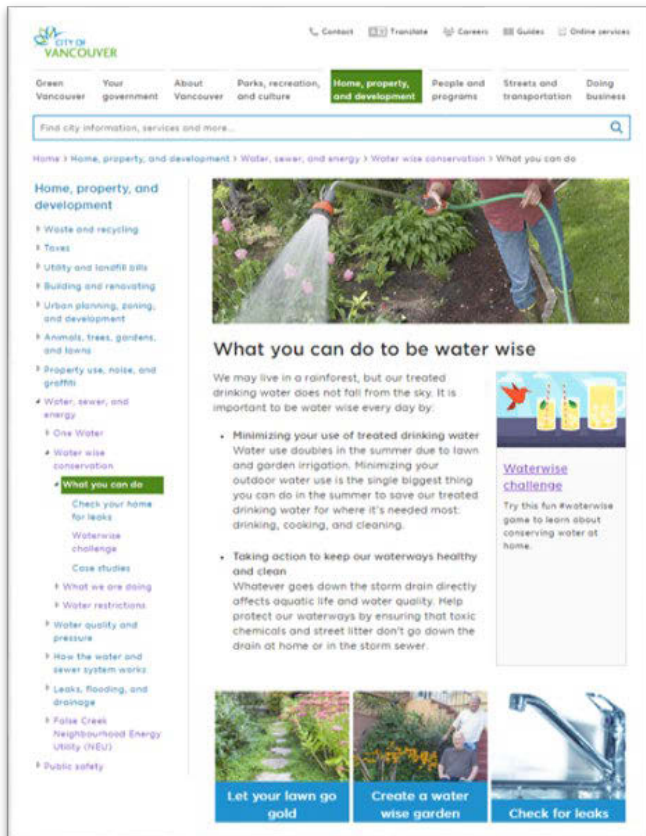


Regional daily water consumption trends, 2023 to date compared with 2022 (source: Metro Vancouver)

## APPENDIX D



Landing page, Metro Vancouver [We Love Water](#) outreach campaign materials



Landing page, City of Vancouver [Water Wise](#) conservation resources