

STAFF REPORT

DATE: Sunday, March 17, 2024 **FILE:** \\J. Public Works\5600 Water\240313 water shortage policy.3.docx

TO: CAO Ross Blackwell MAP, MCIP, RPP

FROM: PWM Karl Buhr

RE: **WATER SHORTAGE POLICY**

RECOMMENDED COUNCIL RESOLUTIONS ARISING FROM THIS REPORT:

1. THAT Council gives renewed sanction to sections 1 “water service,” 8 (3), 8 (4) and 8 (5) (a), (c), (d), (e) and (g) of Water Rates and Regulations Bylaw No. 2; and
2. THAT Council re-endorses Outdoor Water Use Bylaw No. 484’s conservation levels in preference to other possible levels (other than directing staff to bring forward an amendment to the bylaw to accommodate hand watering of edible plants under Conservation Level 3); and
3. THAT Council endorses Red, Orange and White Water Shortage Statuses.

DISCUSSION:

Sections of Water Rates and Regulations Bylaw No. 2 that pertain to water service metering and water service shutoff are presented below; the actual bylaw is at [Water Rates and Regulations Bylaw No. 2, 1971 \(Consolidation\)](#).

1. INTERPRETATION

....“water service” means the supply of water from the water works to any person and all the taps, valves, meters, connections and other things necessary “to any actually used” (sic) for the purpose of such supply....

8. ADMINISTRATION

...(3) Nothing contained in this by-law shall be construed to impose any liability on the municipality to service any person or premises or to give a continuous supply of water to any person or premises.

(4) The municipality shall not be liable for the failure of the water supply in consequence of accident or damage to the works, or...[for]...excessive pressure or lack of pressure, or any temporary stoppage thereof on account of alterations or repairs, whether such failure arises from negligence of...the municipality or other person whomsoever, or through natural deterioration...[or]...obsolescence of the municipality’s system or otherwise, howsoever; but in the event of such failure or stoppage continuing for more than fifteen consecutive days, an equitable reduction shall be made on all rates or services affected thereby.

(5) The municipality may, without notice, disconnect the water service to any premises for any of the following reasons, and the municipality shall not be liable for damage by reason of discontinuing water service for such reasons:

(a) Unnecessary or wasteful use of water, or violation of regulations concerning watering or sprinkling;...

- (c) Failure to replace or repair defective pipes, fittings, valves, tanks or appliances which are leaking or are otherwise not in a good state of repair and which are[,] or may become[,] a cause of waste of water;
- (d) For repairs;
- (e) For want of supplies;...
- (g) For violation of any of the provisions of this by-law.

OUTDOOR WATER USE (OWU) BYLAW ASSESSMENT

Staff evaluated whether changing OWU Bylaw conservation levels to match Metro’s would have some benefit such as matching their regional media information campaigns, but concluded that the OWU as it stands serves Lions Bay better, because Metro’s provisions and messaging are focussed on not depleting their raw water reservoirs, rather than not exceeding our creek supply.





OWU Bylaw No. 484, 2015 defines Conservation Measures Levels 1 to 3:

	ACTIVITY	CONSERVATION LEVEL 1	CONSERVATION LEVEL 2	CONSERVATION LEVEL 3
RESIDENTIAL & COMMERCIAL USES	Watering lawns, 4 - 9 am only. Newly planted lawns may be watered outside allowed times with a municipal permit displayed.	Even-number addresses: Monday, Wednesday and Saturday. Odd-number addresses: Tuesday, Thursday and Sunday.	Even-number addresses: Monday only. Odd-number addresses: Thursday only.	Prohibited
	Watering flowers, vegetables, planters, shrubs, trees	No restriction.	Only by hand using spring-loaded nozzle, containers or Drip Irrigation. Sprinklers and soaker hoses prohibited.	Prohibited
	Use of pools, spas, ponds	No restrictions. Must have a recirculation pump. "One-time-through" uses are prohibited at all times.		Filling Prohibited
	Washing outdoor impermeable surfaces such as driveways, buildings, sidewalks, and roads, including pressure washing	No restriction.	Only for health and safety purposes or to prepare a surface for painting or similar treatment.	Prohibited
	Washing vehicles and boats	Only with hose equipped with spring-loaded shut off.	Only by bucket.	Prohibited, except for windows, lights and license plates
	Flushing boat engines	No restriction.		Four (4) minutes maximum
	Filling outdoor water storage	No restriction.		Prohibited
PUBLIC USES	Watering of school property, including Lions Bay Field	No restriction.	Minimum to maintain in useable condition.	Prohibited
	Watering of parks, municipal lawns, grassed boulevards, 1 – 6 am only	Even-number addresses: Monday and Wednesday. Odd number addresses: Tuesday and Thursday. Non-residential addresses: Friday.	Even-number addresses: Wednesday only. Odd-number addresses: Tuesday only.	Prohibited
	Flushing of water mains and hydrants	Only for safety or public health reasons		

Metro’s *Drinking Water Conservation Plan* contains complex and stringent restrictions:

Stage 1 is in effect each year May 1 to October 15 to prevent drinking water wastage and ensure users employ	Stage 2 restrictions conserve drinking water to ensure the existing supply will last until the return of seasonal rainfall or until the water shortage is over. These restrictions are designed to conserve	Stage 3 restrictions respond to serious drought conditions, or other water shortage, and achieve further reductions in drinking water use by implementing a	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
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efficient and effective watering practices.	enough drinking water to avoid or delay moving to Stage 3 as long as possible.	lawn watering ban and additional stricter measures.	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).
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	Residential Lawns	Trees, Shrubs and Flowers	Vegetable Gardens
Stage 1 May 1 - October 15	Even address Saturday Odd Address Sunday Automatic Watering 5 am - 7am Manual Watering 6am - 9 am	Hand Watering Soaker Hose or Drip Irrigation Anytime	Sprinklers Any day 5 am - 9 am Anytime
Stage 2	 Lawn Watering Prohibited	Hand Watering Soaker Hose or Drip Irrigation Anytime	Sprinklers Any day 5 am - 9 am Anytime
Stage 3	 Lawn Watering Prohibited	 Sprinklers and Soaker Hoses Prohibited	Hand Watering or Drip Irrigation Anytime Anytime
Stage 4	 All activities prohibited in emergency Stage 4.		

Council may wish to consider allowing hand watering of edible plants such as fruit, vegetables and herbs, currently prohibited under OWU Conservation Level 3.

WATER SHORTAGE STATUSES

Harmonised with OWU signage colours, the following three new water shortage statuses are proposed:

CODE RED: 3-day-average supply within 25% of demand, or in Water Short Supply status:

1. Town Hall and information campaign
2. Activate Outdoor Water Use Bylaw Level 3 with stringent enforcement, including drone overflight (subject to Federal regulations) and zero-tolerance ticketing for offenses
3. Building Inspector lock out of private irrigation systems and decommissioning of indoor and outdoor water features per OWU
4. Full court press on locating remaining 30 lost curb stops
5. Implement IR heat detection cameras viewing the upslopes
6. Implement Trail Ambassadors program.



CODE ORANGE: 3-day-average supply within 10% of demand, or in Water Constrained Supply status

1. Town Hall and information campaign
2. Subject to prospects for worthwhile rain, declaration of a state local emergency to allow shutoff of suspect service connections (known faulty services can already be shut off by bylaw as noted above)
3. Because the critical requirements for a residence to remain habitable are flushing toilets and dishwashing, commence sourcing curbside water barrels labelled "*NON-POTABLE WATER: NOT FOR HUMAN OR ANIMAL CONSUMPTION. Free to residents for indoor use only: bathing, cleaning, toilet tanks, dishwashing.*"
4. Commence sourcing bottled drinking and cooking water
5. Mutual aid negotiations, including but not limited to shower facilities at West Vancouver's Gleneagles community centre, mobile laundromat trailer (filtered non-potable water), nearby fire departments.

CODE WHITE: supply less than demand

1. Town Hall and information campaign
2. In sufficient time for no user to receive water that has been exposed to dried mains, shut off all street mains and 550+ service curb stops
3. With hydrants no longer operational, institute previously recruited citizen/contractor firewatch
4. Place remaining curbside barrels and commence roving tanker top-up service
5. Activate mutual aid agreements
6. When creek supply reliably returns, in consultation with water authority flush and hyper-chlorinate tanks and mains (7 – 14 days)
 - a. Reopen curb stops under Boil Water Order, then Boil Water Advisory
 - b. Refund water utility fees.

OPTIONS ARISING FROM THIS REPORT (PREFERRED UNDERLINED):

- (1) Resolve as recommended
- (2) Provide other explicit and specific direction to use available resources and timelines
- (3) Receive report for information only.

FINANCIAL CONSIDERATIONS:

Nothing not already requested in Budget 2024.

LEGAL CONSIDERATIONS:

Legal counsel is already evaluating proposed changes to Bylaw No. 2's Schedule A to formalise the details of charging for water use by volume (aka "metering").