



COUNCIL REPORT

Report Date: May 5, 2023
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VanRIMS No.: 08-2000-20
Meeting Date: May 31, 2023
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TO: Standing Committee on Policy and Strategic Priorities
FROM: General Manager of Engineering Services
SUBJECT: Water Works & Drinking Water Conservation By-law Amendments

Recommendations

- A. THAT Council approve, in principle, amendments to the Water Works By-law (No. 4848) to reflect Council direction on April 26, 2023 pertaining to the exception of specific Vancouver Board of Parks and Recreation water features or fountains from recirculation requirements until such time that they can be retrofitted to recirculating;

FURTHER THAT the Director of Legal Services be instructed to bring forward for enactment the necessary amending by-law generally in accordance with Appendix A.

- B. THAT Council approve, in principle, amendments to the Drinking Water Conservation By-law (No. 12086) to reflect Council direction on April 26, 2023 pertaining to the exception of specific Vancouver Board of Parks and Recreation water features or fountains from recirculation requirements until such time that they can be retrofitted to recirculating;

FURTHER THAT the Director of Legal Services be instructed to bring forward for enactment the necessary amending by-law generally in accordance with Appendix B.

Purpose and Executive Summary

This report provides an overview of proposed amendments to the Water Works By-law and the Drinking Water Conservation By-law, to allow for the operation of specific non-recirculating Vancouver Board of Parks and Recreation (VBPR) water features or fountains, until such time as they can be retrofitted to be recirculating, or repurposed to not utilize drinking water, as directed by Council on April 26, 2023.

Non-compliant VBPR decorative water features and fountains are currently shut off to adhere to City water wastage regulations, and in support of Metro Vancouver's Drinking Water Conservation Plan (DWCP). As written and enforced, there are no existing exemptions and/or exceptions for non-recirculating decorative fountains in City by-laws. Recognizing public value and enjoyment, Council seeks exceptions from the prohibition against wasting water for select VBPR water fountains and features.

The proposed by-law amendments, as outlined in Appendices A and B, were reviewed for all VBPR water features included in the April 26, 2023 Council approved motion amendments (RTS 15699). Five (5) features are included in the proposed amendments: Barclay Heritage Square Fountain, Davis Fountain, Haro & Bute Street Fountain, Helmcken Park Fountain, and Laurel Street Landbridge Fountain.

The recommendations detailed in this report align with Council direction and provide proposed amendments to water use by-laws that, if adopted, would allow for those water features or fountains identified above to operate without recirculation until such time that VBPR can retrofit excepted water fountains to be recirculating, or repurposed to not utilize drinking water.

Council Authority/Previous Decisions

- Council direction received in response to the April 25, 2023 report "Waterworks By-law Exemptions and/or Viable Exceptions for Notable Decorative City Water Features" (RTS 15699) for staff to complete by-law amendments for consideration by Council prior to June 1, 2023.
https://council.vancouver.ca/20230425/documents/regu20230425mins_000.pdf
- The Water Works By-law (<https://bylaws.vancouver.ca/4848c.PDF>) and the Drinking Water Conservation By-law (<https://bylaws.vancouver.ca/12086c.PDF>) were approved by Council in July 2011 and May 2018, respectively, updating the Prohibition Against Wasting Water to prohibit the use of non-recirculating water features, fountains and swimming pools.

City Manager's Comments

The City Manager concurs with the foregoing recommendations.

Context and Background

Since 2011, the Water Works By-law has prohibited the use of water features without recirculation; the Drinking Water Conservation By-law has included these prohibitions since adoption in 2018. There are no existing exceptions for non-recirculating decorative water features within regional or City regulations.

Various VBPR decorative water features have not functioned for a number of years due to operational failure; others were intentionally turned off following the heat dome of 2021, to align with Vancouver by-laws and in recognition of water shortage concerns across the region. VBPR commissioned an asset inventory in 2022 to identify and assess existing water fountains and features in order to plan, prioritize, budget for and implement retrofits and/or other improvements, with a final report expected in 2023.

A Council motion was adopted in March 2023, to direct staff to explore and recommend potential by-law exemptions or exceptions for decorative water features deemed to have

noteworthy health and wellness value for city residents. Staff received Council direction following the April 25, 2023 report "Waterworks By-law Exemptions and/or Viable Exceptions for Notable Decorative City Water Features" (RTS 15699) to complete by-law amendments for consideration by Council prior to June 1, 2023, which would allow specific VBPR non-recirculating but otherwise compliant water features to operate.

Discussion

VBPR non-recirculating features were designed before water wastage regulations were in place, and are reflective of a time when water scarcity due to climate change and population growth was not significant. Exceptions for recirculation will allow VBPR time to evaluate non-recirculating water assets, including cost estimates for bringing features into compliance with regulatory requirements, and strategizing long-term operation.

Evaluation of Water Features and Fountains for Exception

Staff have identified some features are already operating in compliance: both VanDusen Gardens Shaughnessy Lake and Jericho Beach Park Pond do not require exceptions as they are in compliance with water wastage by-laws. Haro & Bute Street Fountain was designed as re-circulating, but has operated as a once-through feature for decades and requires repairs to operate as an excepted feature¹. VBPR staff will be considering a number of these features in a condition assessment for prioritization of repair and/or conversion to recirculating systems, within available capital funding, in Q3-2023. Appendix C details VBPR assets considered for by-law exception.

At the time of preparing this report, staff of VBPR have not received direction from the VBPR in regards to turning on water features that are non-compliant with the current by-laws. VBPR staff will await direction from the VBPR before any action is taken as a result of the proposed by-law exceptions proposed in this report.

Limitations & Operational Requirements

In addition to the regional Prohibition Against Wasting Water, applicable year-long regardless of seasonal water use restrictions, under Stages 2, 3, and 4 restrictions any addition of drinking water to aesthetic water features is prohibited; even recirculating water features must be turned off². As such, by-law exceptions being considered in this report would not allow the continued use of drinking water in aesthetic water features or fountains when Stages 2, 3, or 4 restrictions are in effect.

¹ VBPR staff have indicated that repairs and operational maintenance required to operate proposed exempted features would be considered after swimming pools, drinking fountains, water spray parks and misting stations are operational for the summer season.

² Aesthetic water features are not identified as required for health and safety in the DWCP and are not deemed suitable for cooling. The deployment of water efficient cooling features, such as misting stations (Stages 1-4) and the use of water play parks that have user-activated switches (Stages 1-3), are allowable during extreme heat events to protect human health and safety.

Additionally, proposed exceptions from recirculation requirements in Water Works By-law section 3.7(c), and Drinking Water Conservation By-law section 6.2(c), do not exempt fountains or features from the remaining sections of the by-laws, including remaining clauses pertaining to the prohibition against wasting water. If operation of a water feature or fountain results in the free discharge or flow of water beyond the design of the asset, or general leaking of water, it is required to be turned off until such time that operational compliance can be achieved.

Next Steps

Adoption of Recommendations A and B and subsequent enactment of the by-law amendments would allow for operation of identified VBPR assets. As previously mentioned, VBPR staff will await direction from the VBPR before any action is taken as a result of the proposed by-law exceptions proposed in this report.

Staff will provide further information on a location-by-location basis, including an analysis of water use by volume, relevant and demonstrable public and/or environmental health and wellness benefits, costs to retrofit, and costs that would be otherwise borne under an equitable application of the City's by-laws. This information will be provided after the completion of the VBPR commissioned asset inventory, which is expected in 2023.

Financial Implications

Pursuant to the Green Operations Plan 2.0, the City is planning to transition of all unbilled water accounts for civic departments/entities to billed accounts by 2025.

In 2022, VBPR water use comprised \$1.9M (2022 dollars) of unbilled water and sewer utility costs. These costs are currently subsidized by all other water rate payers. If non-compliant water features are re-activated, the additional water consumption will also be funded by existing water rate payers until such time as billed accounts are established for all VBPR water use. At that point, the additional costs will become an additional operating expense for VBPR.

Legal Implications

The proposed by-law amendments are authorized by the Vancouver Charter.

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APPENDIX A
DRAFT By-law to amend the Water Works By-law No. 4848 regarding exceptions for specific Vancouver Board of Parks and Recreation water features.

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

- 1. This by-law amends the indicated provisions of Water Works By-law No. 4848.
- 2. Council adds a new section 3.7A as follows:

“3.7A Exception for Certain Water Features or Fountains

Despite section 3.7(c), the following Park Board water features or fountains, which do not have a water recirculation device, may be used:

- (a) Helmcken Park Fountain;
- (b) Haro and Bute Street Fountain;
- (c) Barclay Heritage Square Fountain;
- (d) Davis Fountain; and
- (e) Laurel Street Landbridge Fountain.

For clarity, all other sections of this by-law continue to apply, including the other subsections in section 3.7.”.

- 3. This by-law is to come into force and take effect on the date of its enactment.

ENACTED by Council this day of , 2023

Mayor

City Clerk

APPENDIX B
DRAFT By-law to amend the Drinking Water Conservation By-law No. 12086 regarding exceptions for specific Vancouver Board of Parks and Recreation water features.

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. Council amends the indicated provisions of the Drinking Water Conservation By-law.
2. Council adds a new section 6.2A as follows:

“6.2A Exception for Certain Water Features or Fountains

Despite section 6.2(c), the following Park Board water features or fountains, which do not have a water recirculation device, may be used:

- (a) Helmcken Park Fountain;
- (b) Haro and Bute Street Fountain;
- (c) Barclay Heritage Square Fountain;
- (d) Davis Fountain; and
- (e) Laurel Street Landbridge Fountain.

For clarity, all other sections of this by-law continue to apply, including the other subsections in section 6.2.”.

3. This by-law is to come into force and take effect on the date of its enactment.

ENACTED by Council this day of , 2023

Mayor

City Clerk

APPENDIX C
Water features considered for exception from recirculation requirements.

VBPR Water Asset	Exception from recirculation requirements?	Rationale
Helmcken Park Fountain	Yes	Non-recirculating drinking water use; would require exception to operate.
Queen Elizabeth Park Quarry Waterfall	No	Water supply line broken. Extensive capital investment required.
Stanley Park Admin Building Pond	No	Limited public access.
VanDusen Gardens Shaughnessy Lake	No (N/A)	No exception required. Operation already compliant with by-laws. Receives drinking water top-up only.
Jericho Beach Park Pond	No (N/A)	No exception required. Ephemeral pond is in compliance. Does not have drinking water connection.
Haro & Bute Street Fountain	Yes	Non-recirculating drinking water use; would require exception to operate. Repairs required to operate.
Barclay Heritage Square Fountain	Yes	Non-recirculating drinking water use; would require exception to operate.
Davis Fountain	Yes	Non-recirculating drinking water use; would require exception to operate.
Laurel Street Landbridge Fountain	Yes	Non-recirculating drinking water use; would require exception to operate.
Seaforth Peace Park Fountain	No	Broken asset beyond repair.
Total Exceptions	5	

VBPR water features and fountains evaluated for consideration of exception from recirculation requirements, May, 2023.