

# WATER PRIORITY ACTION PLAN 2024

Park Board Committee Meeting  
Monday, December 11, 2023



## Purpose



This presentation will briefly describe how Park Board uses potable water, the drivers for this strategic work, and outline the proposed Water Priority Action Plan for decision.

In response to Plan Objective 1, and spring Council and Board motions, a condition assessment study was undertaken and we now seek a decision on decorative feature reinvestments.

# How the Park Board uses drinking water



Under average conditions, the Park Board uses roughly 1.1 billion litres of potable water per year.



## Context: Drivers for water conservation



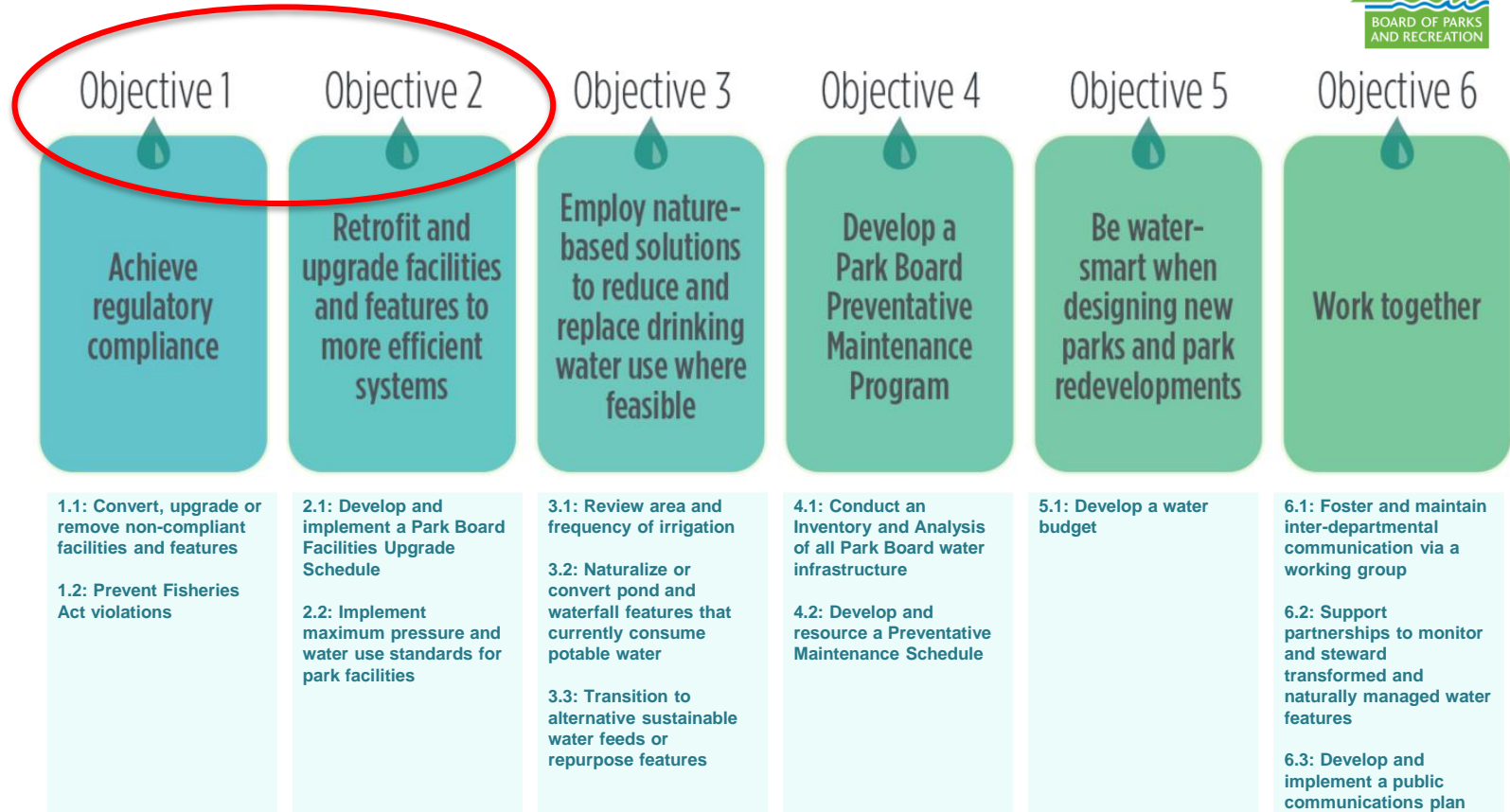
- Hotter, drier summers + population growth = **increased demand for drinking water**, but our regional reservoirs are finite.
- Park Board has features operating in **contravention with local by-laws and federal legislation** (CoV By-Laws 4848, 12086, MV Drinking Water Conservation Plan, federal Fisheries Act).
- Park Board historically has not paid for most of the water it uses, but soon will **transition to a civic user-pay system**.



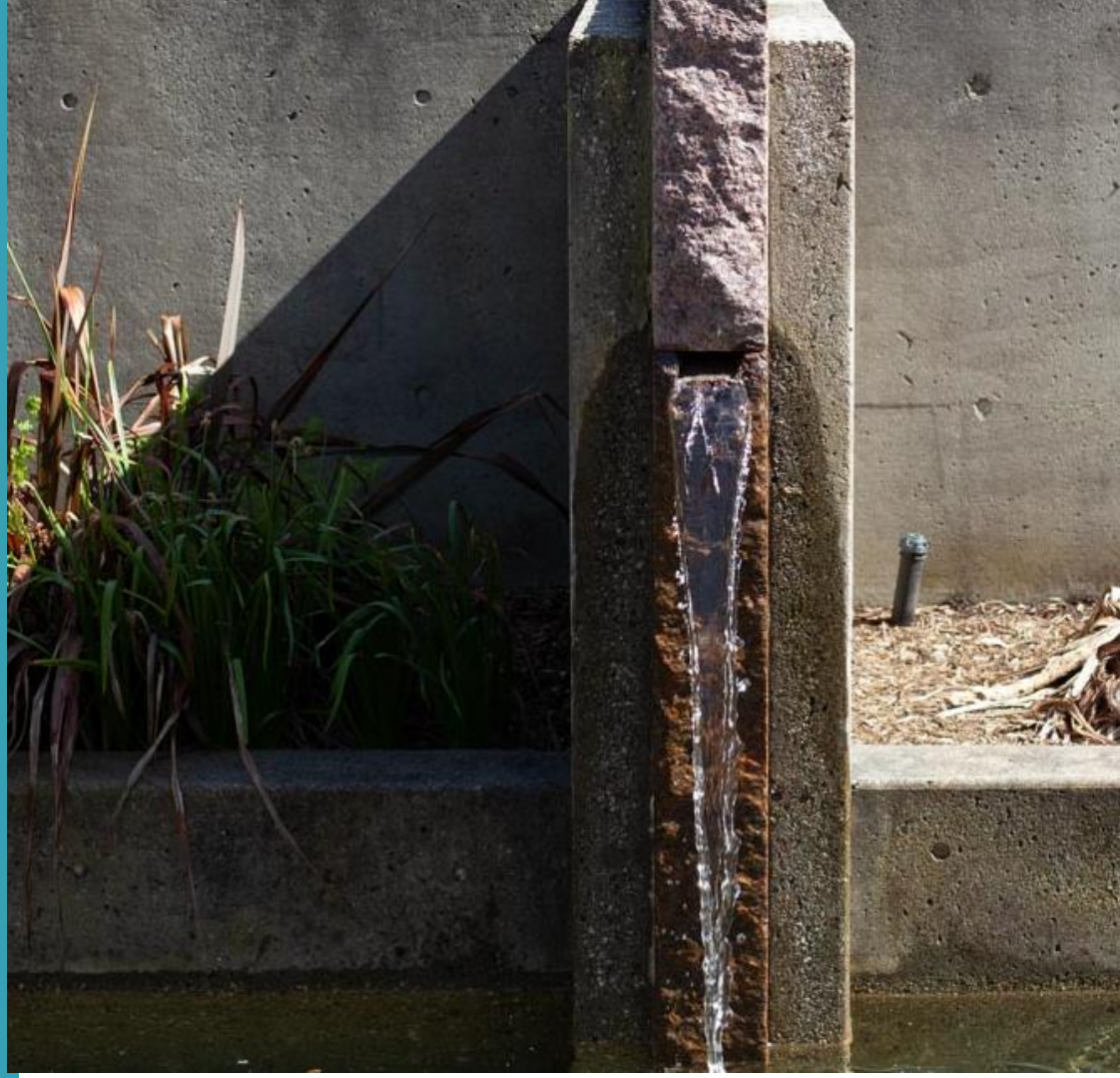
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**Reduce potable water use in parks** through service review, innovative design, new technologies and increasing the use of recirculating systems.

# Water Priority Action Plan: Summary of Actions



# Decorative feature reinvestment options



## Previous Board motions



- May 29, 2023 Park Board motion requested staff to:
  - **Activate 5 non-recirculating water fountains**  
(Laurel Street; Pacific & Jervis; Barclay Heritage Square, Helmcken Park, Bute & Haro).
  - Explore cost estimates for recirculation upgrades and rehabilitation of several features.



# Capital budget allocation options



The following packages show various allocation options for the \$2.6 million capital available for water feature upgrades and conversions.

## **Each of these packages:**

- Amount to \$2.6 million total
- Represent up-front *immediate capital costs* only, and do not quantify differences in long-term operational spending
- Include the Queen Elizabeth Dancing Waters Fountain repair project

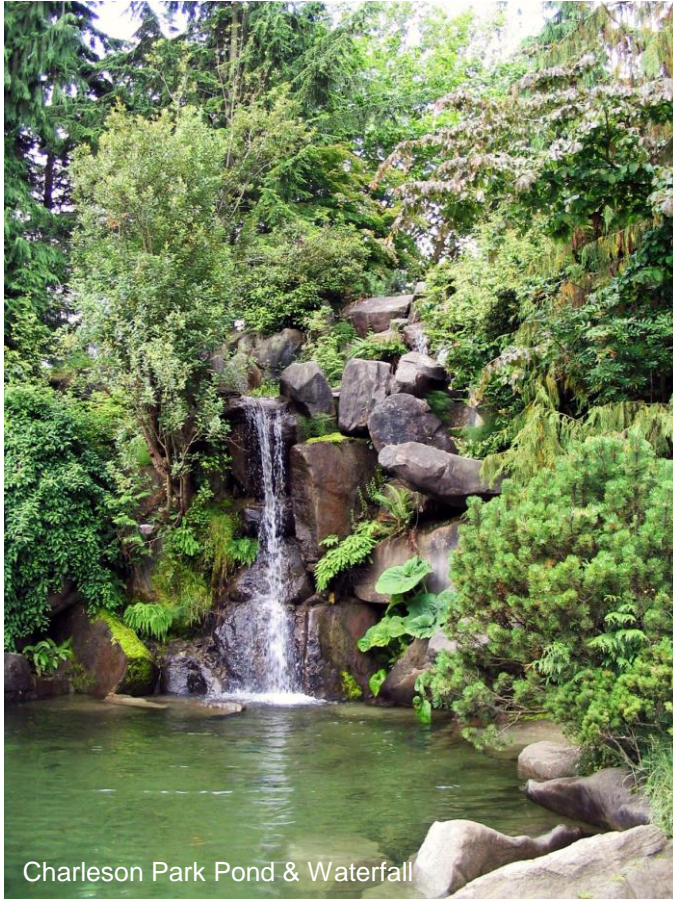
# QE Dancing Waters Repair (built 2007, recirculating)



- Repair design complete, ready for issue, pending Board decision.
- Funding is available for Construction budget of \$850k.
- Spring 2024:  
Begin construction
- **Spring of 2025:  
Compliant Fountain back in operation**



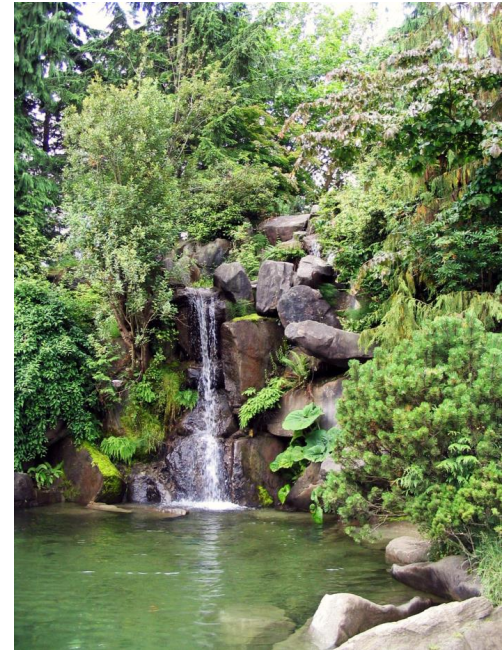
# Option 1: Optimized Water Savings



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## Optimized Water Savings

<b>Features</b>	QE Dancing Waters Fountain Charleson Park Pond & Waterfall QE Quarry Gardens Waterfall
<b>Prioritizes</b>	Sustainability benefit of reduced water consumption; Reducing long-term expenses from water consumption charges
<b>Scope of Work</b>	Install recirculation systems, pond liners and repair existing leaks and deficiencies
<b>Total</b>	<b>\$2.6 M</b>
<b>Water Savings</b>	<b>30 – 100 M litres / year</b>

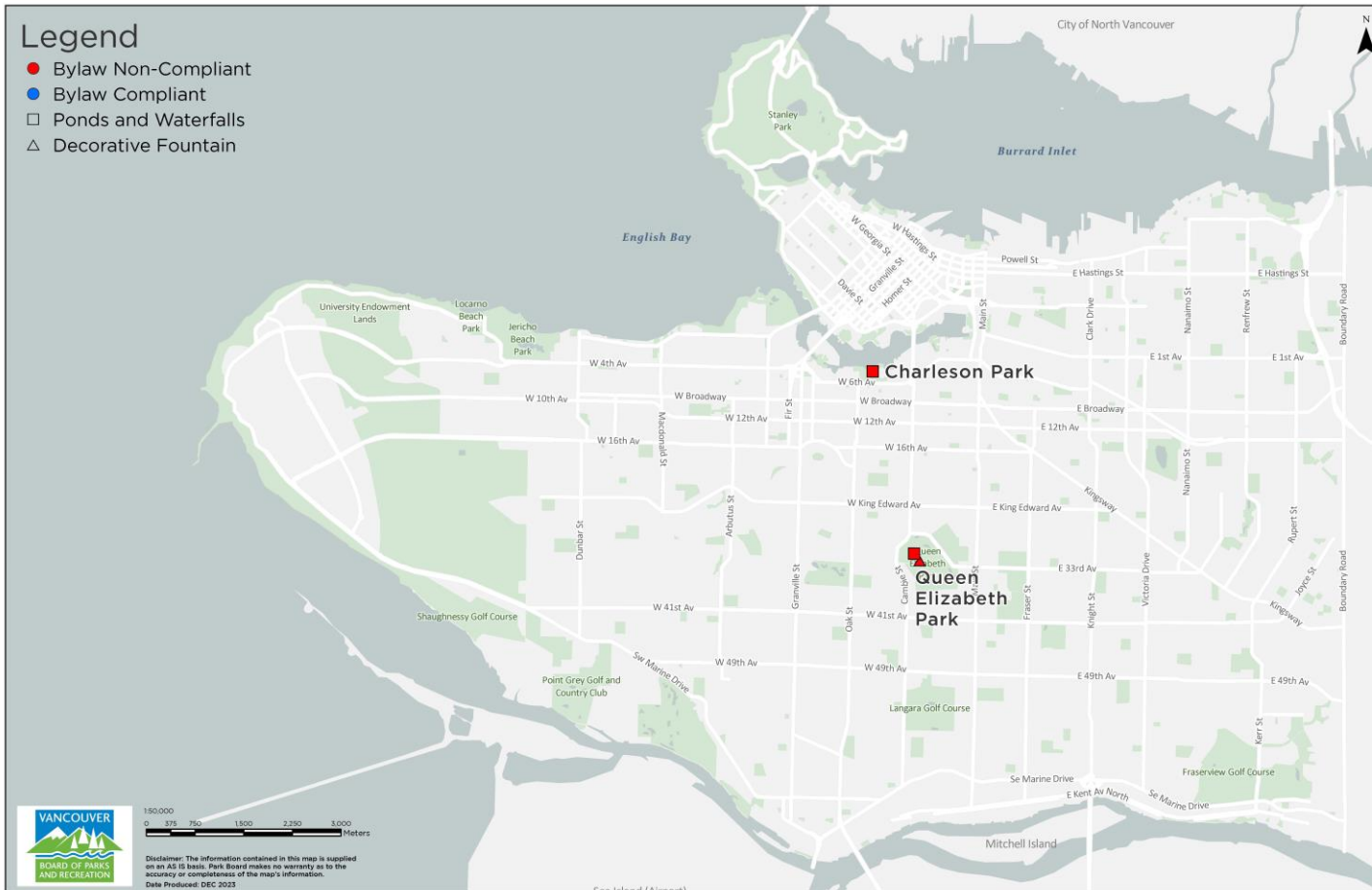


*Charleson Park Waterfall*

# Option 1: Distribution

## Legend

- Bylaw Non-Compliant
- Bylaw Compliant
- Ponds and Waterfalls
- △ Decorative Fountain



# Option 2: Greatest Number of Rehabilitated Features



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## 11 Features Rehabilitated

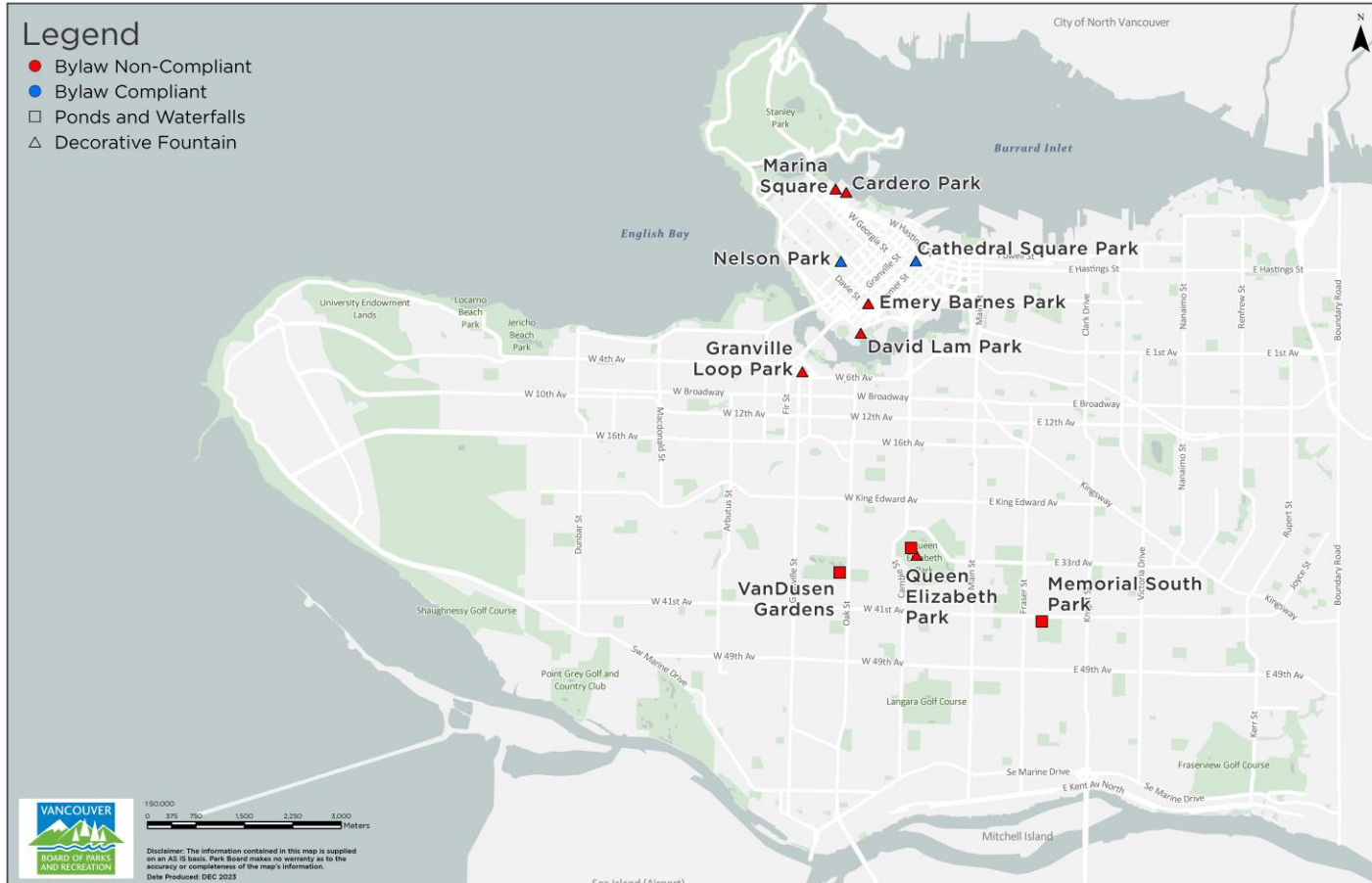
<b>Features</b>	QE Dancing Waters Fountain QE Waterfall Memorial South Park Pond David Lam Fountain Granville Loop Fountain Emery Barnes Park Fountain Marina Square Fountain Vandusen Gardens Rectangular Pond Cardero Park Fountain Nelson Park Fountain Cathedral Square Fountain
<b>Prioritizes</b>	Max number of features back in service
<b>Scope of Work</b>	Repair existing recirc systems; Install new recirc systems; Repair leaks & deficiencies.
<b>Total</b>	<b>\$2.6 M</b>
<b>Water Savings</b>	<b>20 – 50 M litres / year</b>



*QE Park Waterfall*

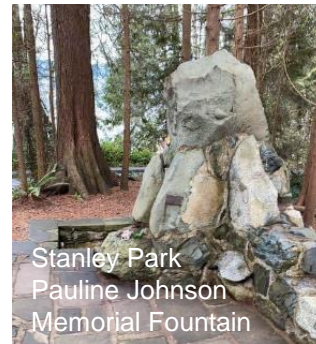
# Option 2: Distribution

- Legend**
- Bylaw Non-Compliant
  - Bylaw Compliant
  - Ponds and Waterfalls
  - △ Decorative Fountain





# Option 3: Comprehensive Asset Management



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## Long Term Asset Management

<b>Features</b>	QE Dancing Waters Fountain Harding Memorial Fountain David Lam Park Fountain George Wainborn Park Fountain Pauline Johnson Memorial Fountain
<b>Prioritizes</b>	Holistic prioritization of multi-year rehabilitation & maintenance activities considering technical, compliance, and public interest criteria
<b>Scope of Work</b>	Install new recirc systems; Repair leaks & deficiencies; Redirect site drainage to sanitary network
<b>Total</b>	<b>\$2.6 million</b>
<b>Water Savings</b>	<b>5 – 15 M litres / year</b>



*Pauline Johnson  
Memorial Fountain*

# Option 3: Distribution



# Option 4: Focus on Bylaw-Excepted Features



Barclay Heritage Square Fountain



Davis Fountain – Park Site at Pacific & Jervis



Helmcken Park Fountain



Bute & Haro Fountain



Laurel Street Fountain

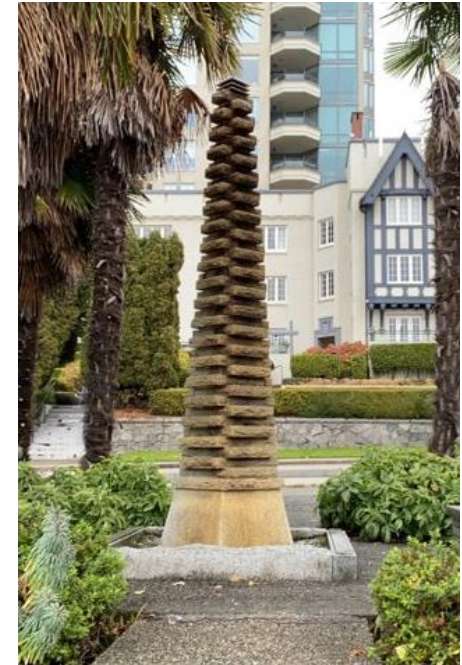


QE Dancing Waters Fountain

# Option 4: Focus on Bylaw-Excepted Features

## Upgrade 4 of 5 Bylaw-Excepted Fountains

<b>Features</b>	QE Dancing Waters Fountain Barclay Heritage Square Fountain Bute & Haro Fountain Laurel Steet Fountain Davis Fountain at Pacific & Jervis <i>Helmcken Park Fountain not funded</i>
<b>Prioritizes</b>	Upgrading fountains excepted from Bylaw 4848 last spring to now be bylaw-compliant
<b>Scope of Work</b>	Install new recirc systems; Repair leaks & deficiencies; Redirect site drainage to sanitary network
<b>Total</b>	<b>\$2.6 million</b>
<b>Water Savings</b>	<b>5 – 15 M litres / year</b>



*Davis Fountain*

# Option 4: Distribution

## Legend

- Bylaw Non-Compliant
- Bylaw Compliant
- Ponds and Waterfalls
- △ Decorative Fountain



# Reinvestment Options - Summary



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## Recommendations



- A. THAT the Vancouver Park Board approve the proposed Water Priority Action Plan (Appendix A) to guide operational decisions related to the use of drinking water in parks, and direct staff to promote and implement the Plan in collaboration with other City of Vancouver departments whose operations also affect the use of drinking water in parks.
  
- B. THAT the Vancouver Park Board direct staff to proceed with water feature rehabilitation for decorative fountains, ponds, and waterfalls as outlined in Option 2 of Appendix C.



# Questions?

