



April 21, 2023

MEMO TO : Park Board Commissioners

FROM : Amit Gandha – Acting General Manager, Parks and Recreation

SUBJECT : **Park Water Features Condition and Compliance – Board Briefing Memo**

Dear Commissioners,

This memo provides a brief update on the background, challenges, and next steps for water features in Vancouver parks.

Background

The Vancouver Park Board is the City of Vancouver's largest civic user of potable water. Within the park system, drinking water is employed for a variety of uses including grass field irrigation, drinking fountains, pools, buildings, spray parks, playgrounds, emergency response, and aesthetic water features. In recent years, there have been greater calls for cooling features such as misting stations in parks, in response to drier, longer, and hotter summers.

Considerations around water use priority are guided by [VanPlay](#), the Board's Parks and Recreation Services Master Plan (2019/20). N.2.2 specifies the goal to reduce potable water use in parks through service review, innovative design, new technologies and increasing the use of recirculating systems.

The Park Board's first [Water Conservation Action Plan was endorsed by the Board in 2017](#) and was intended to guide decisions until 2020. Beginning in 2021, City-Engineering and Park Board staff have collaborated on a draft update [Water Priority Action Plan](#) that reflects the latest policy and regional developments, and City budget decisions. The seven main drivers to the development of this action plan are: population driven water demand, climate change, municipal bylaws, the transition of consumption charges, infrastructure condition, non-compliant water features, the development of a water budget, and the prioritization of water use in parks. The Water Priority Action Plan will be brought to the Board for a decision in Q3 2023.

Concurrently, as part of the Park Board asset management program, staff have initiated a Water Assets Condition Assessment and Rehabilitation Plan. This project includes a mechanical, electrical, structural, and regulatory review of 66 decorative fountains, waterfalls, spray parks, potable water fed ponds and wading pools throughout the park system. The project is expected to be completed in July and will deliver a report on asset rehabilitation, including cost estimates for bringing features into compliance with regulatory requirements. The Plan results will be brought to the Board for information, recommendations, and priorities for investment. The targeted date for this Board Report is July 2023.

The financial investment required to renew / retrofit and maintain all assessed water features will exceed available funding, but compiling better information about the condition of these and other park assets will assist the Board and staff with prioritizing assets for capital investment. Additionally, a shift in internal water use charging is expected soon, and the cost of metered water usage will need to come from the Park Board's operating budget – City staff have advised that Park Board increased consumption would need to be funded via water rates, user fees or property tax increases.



Current State and Challenges

There are over one hundred water features in the park system, including decorative fountains, waterfalls, spray parks, ponds, and wading pools. Many park water features have provided decades of enjoyment to park users. They were built during a time with different regional population demands, reservoir supply, and regulatory requirements.

Most decorative features in Vancouver parks are fed with drinking water and many are recirculating, [City By-law](#) compliant, and already on for 2023 including: George Wainborn, Emery Barnes, Nelson, Granville Loop, Marina Square, Harbour Green Parks. The fountains in Queen Elizabeth (QE), Bute St and Haro St, and David Lam parks were built as recirculating, but have experienced major mechanical failures and can be turned on when repairs are complete. Other features do not recirculate water (also referred to as “once-through” systems) and as a result, use millions of litres of drinking water. Staff have identified several water features that are out of by-law compliance. Some of these, such as Zoo Stream and Jubilee Fountain in Stanley Park, have been off for many years. Others such as the stream in Tatlow Park and pond at Charles Park are now fed with rain and groundwater, which provides better habitat. Staff will include recommendations for these once-through features in the pending Water Assets Condition Assessment Report. The financial investment required to renew / retrofit and maintain all assessed water features will exceed available funding, and some features will need to be decommissioned.

Next Steps

On April 25, City Council will consider a response [report](#) to the [motion](#) entitled Water Works By-law Exemptions and/or Viable Exceptions for Notable Decorative City Water Features. This is scheduled as report 8. on the [Council agenda](#) that day.

Park Board staff will have a related presentation on the May 8 regular Board meeting that will include an update on the work required to repair Dancing Waters fountain in QE Park (this repair project is underway and will be completed in spring of 2024). A list of fountains that includes information about the type and condition of each. This list is also attached to this Memo.

Staff expect the Water Assets Condition Assessment and Rehabilitation Planning report to be available in July and will present an update to the Board at that time, including a recommendation for prioritization of investment. This assessment will also help inform the overall Water Priority Action Plan update, expected to be presented to the Board later in 2023.

Regards,

A handwritten signature in black ink, appearing to read "Amit Gandha".

Amit Gandha
Acting General Manager - Parks and Recreation

ct/as

Copy to: PB Leadership Team, Ian Stewart – Manager, Park Development, Doug Shearer – Manager, Park Planning, Policy, and Environment, Andrew Seeton – Senior Engineer, Park Development, Chad Townsend – Planner III, Planning, Policy & Environment, PB Communications, Carrie Hughes, Real Estate and Facilities Management, Mark Schwark, Director - Water & Utilities Management

Number	GIS ID	Category	Park Name	Maintenance Area	Functional? Y/N	Bylaw 4848 Compliant? Y/N	Average Annual Consumption when operating
1	PWF0033	Decorative Fountain	Andy Livingstone Park	Beaches, Downtown	No	Yes	TBD
2	PWF0035	Decorative Fountain	Cardero Park	Beaches, Downtown	Yes	Yes	TBD
3	PWF0041	Decorative Fountain	Emery Barnes Park	Beaches, Downtown	Yes	Yes	TBD
4	PWF0043	Decorative Fountain	George Wainborn Park	Beaches, Downtown	Yes	Yes	TBD
5	PWF0044	Decorative Fountain	Davis Fountain at Park Site on Jervis St. @ Pacific St	Stanley	Yes	No	2,600,000 L
6	PWF0045	Decorative Fountain	Art Phillips Park	Beaches, Downtown	Yes	No	1,410,000 L
7	PWF0046	Decorative Fountain	Barclay Heritage Square	Beaches, Downtown	Yes	No	1,000,000 L
8	PWF0047	Decorative Fountain	Helmcken Park	Beaches, Downtown	Yes	No	1,400,000 L
9	PWF0048	Waterfall	Charleson Park	Beaches, Downtown	Yes	No	18,600,000 L
10	PWF0049	Decorative Fountain	Marina Square	Beaches, Downtown	No	Yes	TBD
11	PWF0050	Decorative Fountain	Nelson Park	Beaches, Downtown	Yes	Yes	TBD

Number	GIS ID	Category	Park Name	Maintenance Area	Functional? Y/N	Bylaw 4848 Compliant? Y/N	Average Annual Consumption when operating
12	PWF0051	Decorative Fountain	Stanley Park	Stanley	Yes	Yes	TBD
13	PWF0052	Decorative Fountain	Stanley Park	Stanley	Yes	Yes	TBD
14	PWF0053	Decorative Fountain	Cathedral Square Park	Beaches, Downtown	Yes	Yes	TBD
15	PWF0056	Decorative Fountain	Granville Loop Park	Beaches, Downtown	Yes	Yes	TBD
16	PWF0057	Decorative Fountain and Water Park	Harbour Green Park	Beaches, Downtown	Yes	Yes	TBD
17	PWF0058	Decorative Fountain	Hillcrest Park	South	Yes	Yes	TBD
18	PWF0064	Decorative Fountain	Queen Elizabeth Park	Bloedel, QE, VanDusen	No	Yes	TBD
19	PWF0069	Waterfall	Queen Elizabeth Park	Bloedel, QE, VanDusen	No	No	18,600,000 L
20	PWF0082	Decorative Fountain	Stanley Park	Stanley	No	Yes	TBD
21	PWF0085	Decorative Fountain	Seaforth Peace Park	West	No	No	TBD
22	PWF0087	Decorative Fountain	Bute & Haro	Beaches, Downtown	No	Yes	4,300,000 L

Number	GIS ID	Category	Park Name	Maintenance Area	Functional? Y/N	Bylaw 4848 Compliant? Y/N	Average Annual Consumption when operating
23	PWF0048	Decorative Fountain	Laurel St	Beaches, Downtown	Yes	No	2,500,000 L
24	PWF0088	Decorative Fountain	David Lam	Beaches, Downtown	No	Yes	TBD
25	PWF0023	Green Pond Recirc	VanDusen Gardens	Bloedel, QE, VanDusen	Yes	Yes	TBD
26	PWF0086	Children's Water Play	Grandview Park	North	No	Yes	TBD
27	SP006	Spray Parks	Grandview Park	North	Yes	Yes	TBD
28	SP011	Spray Parks Recirc	Maclean Park	North	No	Yes	TBD
29	SP004	Spray Parks	CRAB Park at Portside	Beaches, Downtown	Yes	Yes	TBD
30	SP005	Spray Parks	Garden Park	North	Yes	Yes	TBD
31	SP012	Spray Parks	Norquay Park	South	Yes	Yes	TBD
32	SP013	Spray Parks	Oak Park	South	Yes	Yes	TBD
33	SP016	Spray Parks	Prince Edward Park	North	Yes	Yes	TBD
34	SP009	Spray Parks	Hastings Community Park	North	Yes	Yes	TBD
35	SP003	Spray Parks	Connaught Park	West	Yes	Yes	TBD
36	SP001	Spray Parks Recirc	Chaldecott Park	West	No	Yes	TBD
37	SP017	Spray Parks	Stanley Park	Stanley	Yes	Yes	TBD

Number	GIS ID	Category	Park Name	Maintenance Area	Functional? Y/N	Bylaw 4848 Compliant? Y/N	Average Annual Consumption when operating
39	SP010	Spray Parks	Kitsilano Beach Park	West	Yes	Yes	TBD
40	SP015	Spray Parks	Pandora Park	North	Yes	Yes	TBD
41	SP018	Spray Parks	New Brighton Park	North	No	Yes	TBD
42	SP019	Spray Parks	Hastings Community Park	North	No	Yes	TBD
43	SP014	Spray Parks	Oxford	North	Yes	Yes	TBD
44	WDP001	Wading Pools	Balaclava Park	West	Yes	Yes	TBD
45	WDP002	Wading Pools	Bobolink Park	South	Yes	Yes	TBD
47	WDP004	Wading Pools	Burrard View Park	North	Yes	Yes	TBD
48	WDP006	Wading Pools	Clinton Park	North	Yes	Yes	TBD
49	WDP007	Wading Pools	Collingwood Park	North	No	Yes	TBD
50	WDP009	Wading Pools	Douglas Park	West	Yes	Yes	TBD
51	WDP010	Wading Pools	Falaise Park	North	Yes	Yes	TBD
52	WDP011	Wading Pools	Grays Park	South	Yes	Yes	TBD
53	WDP020	Wading Pools	Renfrew Community Park	North	Yes	Yes	TBD
54	WDP022	Wading Pools	Robson Park	North	Yes	Yes	TBD
55	WDP023	Wading Pools	Ross Park	South	Yes	Yes	TBD
56	WDP024	Wading Pools	Slocan Park	North	Yes	Yes	TBD
57	WDP025	Wading Pools	Sunrise Park	North	Yes	Yes	TBD

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58	WDP027	Wading Pools	West Point Grey Park	West	Yes	Yes	TBD
59	WDP028	Wading Pools	Woodland Park	North	Yes	Yes	TBD
60a	PWF0075	Ponds	Stanley Park Miniature Train Ponds	Stanley	Yes	No	3,000,000 L combined three ponds
60b	PWF0076	Ponds	Stanley Park Miniature Train Ponds	Stanley	No	No	3,000,000 L combined three ponds
60c	PWF0077	Ponds	Stanley Park Miniature Train Ponds	Stanley	No	No	3,000,000 L combined three ponds
61	PWF0089	Ponds	Park Board Admin Pond	Stanley	Yes	Yes	TBD
62	PWF0031	Ponds	Memorial South Park Pond	South	Yes	No	2,000,000 L
65	PWF0034	Ponds	Dr. Sun Yat-Sen	Beaches, Downtown	Yes	No	8,100,000 L
66	TBC	Spray Parks	Rainbow Park	Beaches, Downtown	Yes	Yes	
67	TBC	Other	Stanley Park Zoo Stream	Stanley	Yes	No	365,000,000 L
68	TBC	Decorative Fountains	Stanley Park – Lost Lagoon	Stanley	No	No	54,500,000 L
69	TBC	Ponds	Vanier Park Ponds	Beaches, Downtown	TBD	No	5,400,000 L
70	TBC	Other	Tatlow Park Stream	West	TBD	No	4,500,000 L
71	TBC	Ponds	Charles Park Pond	TBD	TBD	No	4,000,000 L

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72	TBC	Ponds	Stanley Park Admin Building Pond	Stanley	TBD	No	3,200,000 L
73	TBC	Ponds	Stanley Park Airman's Memorial Pond	Stanley	TBD	No	1,400,000 L
74	TBC	Decorative Fountains	Stanley Park – Pauline Johnson Memorial Fountain	Stanley	TBD	No	2,400 L
72	TBC	Other	Cariboo Park Stream	East	TBD	No	1,000 L
73	TBC	Other	VanDusen Gardens	Bloedel, QE, VanDusen	TBD	No	TBD