

HARBOUR GREEN DOCK Proposed Change of Use, Management & Maintenance

Park Board Committee Meeting April 15, 2019



Purpose of Presentation



- To provide an update to the Board on the history and current condition of Harbour Green Dock and issues that have contributed to its closure;
- To present a proposal for the addition of limited commuter ferry services at the dock with the intent to transfer management and maintenance of the dock to Engineering Services;
- To describe a public engagement plan;
- To present an interim plan to address current safety concerns; and
- To seek approval of a go-forward plan, starting with public engagement.



Background

Dock Development Overview

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- Contemplated through the ODP (1992) and rezoning (1996)
- Intended to provide a waterside walkway and self-regulated transient moorage
- Owned by the City on a designated road parcel (allocated for a floating walkway)
- Maintained and managed by the Park Board following construction by local developer



▲ Marinas and water uses plan (Figure 6, Coal Harbour Official Development Plan, 1992)

Construction, Inspection & Maintenance Timeline





Overview of Dock Components





Current Dock Condition



Pile Brackets Piles Floats Fixtures damaged/missing abrasion damage blocking & to the pile and the concrete float UHMW rub pads transition plates pile condition damaged and replaced failed anchor damaged railings is unknown with temporary brackets damaged cleats & failed rollers concrete damage loose caps bull rails caused by (added in 2005 as fix) improper moorage failed bracket

Dock Design Issues



- Brackets have not performed as intended and repairs have been ineffective
- No fender system was designed or installed to dissipate berthing energy
- Vertical movement continues to be a problem (stabilizers may need repair)
- Many vessels using dock exceed original design capacity (15,000 lbs & 35 ft)



Environmental Challenges



- Wave conditions are affected by high volume of harbour traffic
- Location is not as protected as some other docks
- Repair and restoration is subject to environmental regulations that change frequently
- Located near busy seaplane and commercial shipping lane





Ferry Operations

- Temporary ferry service was offered during Olympics to Bowen Island
- Operators began to use dock without permit a few years later
- In 2017 services were shutdown, but caused concern with commuters in Gibsons and Bowen Island
- Limited operations continued until closure in February 2018

Recreational Usage

- Unlike other Park Board facilities, non-motorized vessels not allowed in Coal Harbour
- Majority of users are recreational boaters

Other Uses

 A variety of other vessels (many exceeding dock capacity) have berthed at the dock

Design Vessel Exceedance Incidents





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Harbour Green Dock is unique in the region

- No moorage fees or permits required
- No dedicated enforcement staff
- Has largest uninterrupted berthing face (2.5 times next largest dock)
- Located in busy waterfront with variety of vessels and commercial operations having open and unregulated access
- Never intended for the type of usage and vessels it has received





Management & Repair Options



Repair/Restoration Options

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- Extensive damage to mooring brackets, float transitions and some of the concrete floats
- Cost to restore to prior condition is \$350K+ (at least 12 months to complete)
- Recommended to add fenders and redesign and replace all mooring brackets (at least \$200K+ in addition to above amount)
- Full rebuild may be required to accommodate larger vessels (order of magnitude cost of approximately \$2M+)
- Without regulation of vessels, future damage is highly likely



▲ Proposed float mooring solution (hybrid mooring chain and cushion roller fender bracket)



[▲] Proposed fender system along the berthing face

Physical Berthing Barriers/Restriction Options



- Options to physically restrict usage to original design vessels explored by marine engineering consultant
- Option 3 (attaching camels) is the most feasible and would cost \$650K + (in addition to the repair costs)
- Implementation on hold due to high cost and need for engagement and decision for future dock use









▲ Option 3: Interrupted berthing face with floating removable camels



Models for transient moorage

- All docks have a fee structure based on duration of moorage, length of vessel, type of use and season
- Enforcement varies: in all cases involve dedicated staff who regularly patrol and vessel registration schemes
- List of facilities review provided in Appendix C of Board Report

Review Results

- Previous attempts show location is challenging to regulate
- Moorage fees will not cover cost of management, enforcement and maintenance
- Revenues from limited ferry operations could subsidize recreational usage and reduce regulation overhead



Discussion

Addition of Limited Commuter Ferry Service



- Continue to provide recreational boating and pedestrian access
- Provide opportunity for alternate mode of transport (Transportation 2040)
- Respond to concerns of municipal leaders of neighboring communities
- Upgrade and increase resilience of the dock with better safety features
- Accommodate larger emergency vessels (VPD & VFRS)

General Ferry Operation Parameters (to be verified through stakeholder and public engagement)

- Sailings during peak morning & afternoon hours (15-20 minute docking at each sailing)
- 30 to 60 ft. vessels transporting 10 to 60 passengers per sailing
- Operators selected through an open bidding process
- Tour boats, tugs, and harbour cruise vessels continue to be restricted from berthing

Public Engagement



- Public engagement is recommended to gather feedback about the proposed change of use
- Engagement process will be a joint effort with Engineering Services
- Engagement activities targeted to start in the summer 2019 to coincide with boating season and will include online surveys, social media outreach and on-site open house(s)
- Report back to the Board is targeted for the fourth quarter of 2019

Engagement Objectives

- Confirm current usage for pedestrians and recreational boating
- Gauge interest in limited commuter services
- Seek input on operating model and functional requirements

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If dock will include limited ferry services:

- Transfer management and maintenance to Engineering
- Manage as part of Boating & Blueways portfolio (incl. 8 public docks in False Creek)
- Ensure better alignment with core mandate and expertise of Park Board and Engineering
- Negotiated transfer terms will be captured in MoU between Park Board and Engineering General Managers

Principle for Future Operation

- Maintain public access as a pedestrian walkway
- Ensure availability of public recreational boating
- Allow limited use of the dock for ferry services
- Protect the dock through appropriate monitoring and enforcement

Process & Timeline



- Limited ferry services may require ODP and zoning amendments
- Design and construction require independent marine structural engineer
- Construction is regulated by Port of Vancouver and Transport Canada and may be subject to environmental and transport review and permitting
- Depending on usage, funding must also be allocated for the repairs, upgrades, management, and operation



Interim Removal and Storage



- Eliminates risk and liability from continued unauthorized access
- Prevents further damage to dock due to pre-existing damage and site wave conditions
- Allows public engagement before further investment in the dock
- Can be completed at minimal cost within month of approval
- Gangways and concrete floats will be dismantled and transported offsite for storage





THAT the Vancouver Park Board direct staff to:

- A. Facilitate a joint public engagement process with Engineering Services about the proposed addition of limited commuter ferry services at Harbour Green Dock, as described in this report;
- B. Report back on the findings of the public engagement for the purposes of considering approval of the change of use of the Harbour Green Dock to include limited commuter ferry services;
- C. Develop a Memorandum of Understanding to transfer the management, maintenance and operation of the Harbour Green Dock to Engineering Services if the addition of limited commuter ferry services is supported by the Board, after the Report back, with all terms and conditions to the satisfaction of the Park Board and Engineering Services General Managers; and
- D. Remove the existing Harbour Green Dock during the interim period for safety. 23

Questions





Management & Enforcement Challenges



Unauthorized commercial operations





Berthing by heavy, high speed or high windage area vessels





Abandoned vessels

