
TO: Electoral Area B Parks and Open Space Advisory Committee **MEETING:** September 17, 2018

FROM: Elaine McCulloch
Parks Planner

SUBJECT: Joyce Lockwood Community Park Beach Access – Area B

RECOMMENDATION

That the beach access stairs at Joyce Lockwood Community Park be removed, and a land use agreement for the existing beach access trail on the adjacent Federal Crown Lands be pursued.

SUMMARY

The Joyce Lockwood Community Park beach access stairs require constant repairs due to yearly storm damage caused by drift logs and wave erosion. In the winter of 2016/2017, the stairs were damaged, and they remain closed for public safety. A recent geotechnical site assessment confirmed that the bank is geotechnically unstable and that wave erosion has compromised the lower footing of the remaining bottom landing. If the stairs are to be reopened for the public, the original project scope for stair repair will need to be expanded to include slope stability works.

The design and construction of new beach access stairs at the current location will require a budget of \$100,000. Due to unpredictable site conditions and challenging site access, \$1,000 a year will be required for inspection and minor stair maintenance and an additional \$2,000 a year will need to be set aside for erosion mitigation works, expected every 5 years at a cost of \$5,000 - \$10,000 per occurrence.

An alternative is to remove the stairs and provide public beach access through a land use agreement for the existing beach access trail located just south of the parklands on the adjacent Federal Crown Lands (Attachment 1). If this agreement is unachievable, the public can continue to access the beach from one of the three existing beach accesses in the nearby Whalebone Park Community Parks.

The cost of removing the stairs and undertaking minor trail improvements on the alternative site is approximately \$13,000 and can be accommodated within the Electoral Area B Community Parks Budget.

BACKGROUND

Joyce Lockwood Community Park is located on the north-eastern shore of Gabriola Island at the end of Whalebone Drive. In 1994, the property was formalized as a community park through Licence of Occupation with the Province which expires in 2044. Park management, development, and maintenance are funded by the Electoral Area B Community Parks function.

The length of the Park shoreline is classified as high bank waterfront characterized by a steep, 4-meter high, clay bank. The Park provides public stair access down this bank to Whalebone Beach, a popular destination for residents, as well as an unofficial connection to a network of informal trails within the adjacent Federal Crown lands, locally known as the Kensington Lands (Attachment 1). Following the informal trail that leads out of the Park, approximately 45 meters past the park boundary there is a trail that leads down a moderate slope to the beach. Round-trip trail counter data from 2018 shows that approximately 600 people/month (20 people/day) travel the trail through the park in the spring months and 2,000 people/month (67 people/day) during the summer months.

The existing wooden stairs were built in 2008, with modifications to meet building code completed in 2011, as recommended in a Risk Control Survey (Municipal Insurance Association, 2010). The lower portion of the beach access stairs requires yearly repairs due to winter storm damage caused by drift logs and wave erosion. The stairs remain closed for safety reasons due to damage sustained by a storm in the winter of 2016/17.

Option 1 - Stair Replacement

Staff completed a preliminary investigation into stair repair. As part of this investigation, environmental and geotechnical assessments were completed (Attachments 2 and 3). The geotechnical report classifies the slope as unstable due to wave erosion at the toe of the slope, overland water flow erosion from an upslope wetland, and marginal slope stability due to soil composition. It was observed that erosion at the toe of the slope has advanced near the point of compromising the lower footing of the bottom landing and that the effects of this erosion are more significant than previously understood. The geotechnical engineer advised that structures are not typically constructed in areas with these conditions due to the inherent cost of slope stabilization measures and the ongoing inspection, maintenance and repair costs associated with structures built on an eroding bank. No alternative stair location is identified as the geological condition of the bluffs is similar along the length of the Park.

Staff anticipated that stair repair would include a new lower footing at the beach level, construction of a retractable lower staircase, and minor repairs to the upper staircase. However, if the stairs are to be reopened for the public, the original project scope for stair repair will need to be expanded to include the replacement of the upper stair section, buttressing of the wave-eroded slope toe with Lock Blocks and riprap armor as recommended in the geotechnical report. The stairs will need yearly geotechnical inspection and minor maintenance performed by Staff, including the seasonal removal and replacement of the lower retractable stairs. Periodic erosion mitigation works including the restoration of dislodged rip rap pieces and concrete

blocks will also be required. Due to the challenging site location, construction and maintenance work will require moving materials and machinery via barge.

Replacing the stairs will cost \$18,000 - \$20,000 for planning including an engineered stair design, detailed construction logistics plan, and project cost estimating. Cost estimates for construction are estimated at \$50,000 - \$80,000. Once constructed, \$1,000 a year will be required for inspection and minor stair maintenance and an additional \$2,000 a year will need to be set aside for erosion mitigation works, expected every 5 years at a cost of \$5,000 - \$10,000 per occurrence. An additional \$3,000 would need to be allocated annually to reserves for replacement of the stairs in 20 years. Stair improvements need approval from the Province as per the terms of the Licence of Occupation.

Option 2 - Stair Removal

Alternatively, the stairs could be removed and a land use agreement pursued for the existing beach access trail located on the adjacent Federal Crown Lands. With this agreement in place, the RDN can work with the Gabriola Land and Trails Trust (GaLTT) to undertake minor trail improvements and ongoing maintenance. If this agreement is unachievable, the public can continue to access the beach from one of the existing beach accesses located at Bluewhale, Queequeg, and Hummingbird Community Parks, the closest of which is approximately 700 meters north of Joyce Lockwood Community Park.

ALTERNATIVES

1. That the beach access stairs at Joyce Lockwood Community Park be removed, and a land use agreement for the existing beach access trail on the adjacent Federal Crown Lands be pursued.
2. That \$100,000 of Electoral Area B Community Works Funds be allocated for the design and construction of beach access stairs at Joyce Lockwood Community Park and that \$6,000 a year be allocated in the Electoral Area B Community Parks budget for stair inspection, maintenance, slope mitigation works and asset management.
3. That the Board provide alternate direction to staff.

FINANCIAL IMPLICATIONS

The design and construction of new beach access stairs will require a budget of up to \$100,000. Community Works Funds (CWF) could be used to fund the stairs. Currently, there is \$868,814 available in Area B CFW. However, the Village Way Trail is being designed and construction would require the remaining amount of the CWF. Once the stairs are constructed, \$1,000 a year will be required for inspection and minor maintenance and an additional \$2,000 a year will need to be set aside for erosion mitigation works, expected every 5 years at a cost of \$5,000 - \$10,000 per occurrence. \$3,000 would also need to be allocated annually to reserves for replacement of the stairs in approximately twenty years.

The cost to remove the stairs is \$2,000 and if a land use agreement for the existing beach access trail is obtained, trail improvement costs would be \$11,000. This is included in the 2019 preliminary Area B Community Parks Budget. Yearly trail maintenance costs of \$500 for surfacing and signage and legal fees of \$2,000 will also be required and are included in the 2019 proposed budget.

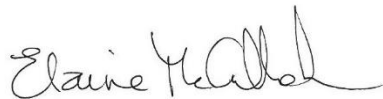
STRATEGIC PLAN IMPLICATIONS

This project supports the RDN's Strategic Priority for Service and Organizational Excellence, specifically, in delivering efficient, effective and economically viable services that meet the needs of the Region:

- We will fund infrastructure in support of our core services employing an asset management focus;
- As we invest in regional services we look at both costs and benefits - the RDN will be effective and efficient; and
- We recognize community mobility and recreational amenities as core services.

This project also supports the RDN's Strategic Priority for Focus on Relationships, specifically, in continuing to develop and encourage meaningful relationships:

- We look for opportunities to partner with other branches of government/community groups to advance our region.



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September 11, 2018

Reviewed by:

- W. Marshall, Manager, Parks Operations
- T. Osborne, General Manager, Recreation and Parks Services
- P. Carlyle, Chief Administrative Officer

Attachments

1. Joyce Lockwood Community Park Context Maps
2. Environmental Assessment Joyce Lockwood CP Stairs
3. Geotechnical Assessment Joyce Lockwood CP Stairs