

## SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

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**TO:** Finance Committee (Round 1 Budget) – November 25 and 26, 2024

**AUTHOR:** Jessica Huntington, Manager, Parks Services

**SUBJECT:** **CLIFF GILKER BRIDGES AND TRAILS REMEDIATION (PARK RECOVERY PROJECT) OPTIONS**

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### RECOMMENDATION(S)

**THAT the report titled Cliff Gilker Bridges and Trails Remediation (Park Recovery Project) Options be received for information.**

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### BACKGROUND

On November 15, 2021 significantly high volumes of water exceeded the natural stream banks of Clack Creek causing significant damage to bridges (Lower and Zig Zag) and trail infrastructure in the park. The two bridges and an 80m section of Yellow trail leading to the Zig Zag bridge were closed, however the rest of the park remains open for use.

Funding was approved on January 13, 2022 (Recommendation 010/22), to secure professional services to assess the damaged assets and provide options and costing for replacement or decommissioning.

Recommendations for park recovery options focused on: cost effective designs for up-front construction and overall lifecycle costs; suitability for climate and service conditions; ability to source components locally; climate resiliency, ecosystem protection, accessibility; and, consideration of amenities that blend in with the Cliff Gilker environment. Additionally, design requirements needed to conform with contemporary bridge design codes and guidelines for pedestrian, cycling and multiuse.

Staff returned to the May 23, 2024 Committee of the Whole with options from the consultant's report and a staff recommendation:

177/24      **Recommendation No. 4**      *Cliff Gilker Park Recovery Project*

The Committee of the Whole recommended that the report titled Cliff Gilker Park Recovery Project be received for information;

AND THAT a Budget Proposal for the Cliff Gilker Recovery Project be submitted as part of the 2025-2029 Financial Planning Process.

As part of the next steps for the project, staff launched a Let's Talk Page with a survey to receive public feedback to help inform the project recommendations submitted as part of the 2025-2029 Financial Planning Process. The survey results were presented to the SCRD Electoral Area Services Committee on November 21, 2024.

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Survey results indicated that protection of sensitive ecosystems was the highest priority for the community with climate resiliency also ranking high. The replacement of the Upper Waterfall bridge was a high priority for respondents, with high rankings for the replacement of all four bridges.

In 2024, a subsequent engineer's assessment of Upper Waterfall bridge recommended that the bridge be closed to public access immediately as keeping it open presented a significant life safety risk to the public. The bridge was closed on September 11, 2024. The Gorge bridge was also assessed at end of life.

Staff have submitted a 2025 Budget Proposal entitled Cliff Gilker Bridges and Trails Remediation (Park Recovery Project) with a recommended budget of \$1.6M to replace the Upper Waterfall and Gorge bridges, decommission the Lower Waterfall and Zig Zag bridges, and conduct trail recovery work that focuses on climate resiliency, ecosystem protection and accessibility improvements.

The purpose of this report is to provide options that the SCR D Board of Directors could consider if there is a desire to alter the scope of the project.

## **DISCUSSION**

### Bridges

There are five bridge crossing over Clack Creek in a 750m stretch of the Red and Yellow trails, three (Upper Waterfall, Lower Waterfall and Zig Zag), of which are now closed. With the two that remain open (Gorge and the Upper Red trail crossing), connectivity to the trail networks in Cliff Gilker has been maintained, albeit visitors' usual patterns of use have had to adjust slightly. The Upper Waterfall bridge is the main bridge crossing providing access to the Cliff Gilker trail network and is also the access used for park operations staff to conduct park maintenance and inspections. Although the Lower Waterfall and Zig Zag bridges provide opportunities to cross Clack Creek, they are not required to maintain trail connectivity to other areas of the park.

The Upper Waterfall and Gorge bridges are the 2 least expensive of the 4 bridge replacement options and together provide viewing points of interest over Clack Creek and shorter loop opportunities for the Red and Yellow trails. Replacement of the Lower Waterfall and Zig Zag bridges are more expensive as they would need to be built at higher elevations or different locations to span the channel width of Clack Creek. Rebuilding as previously designed is not recommended due to susceptibility to damage from future atmospheric river events.

Based on the high level of flows in Clack Creek during heavy rain events, clear span structures are recommended for all bridges to promote durability and climate resiliency. These are designed to be installed outside the "top of bank" of Clack Creek to minimize environmental impacts, and environmental regulation implications, as well as promote climate resiliency.

The 2025 Budget Proposal includes considerations for the replacement of the Upper Waterfall and Gorge bridges and decommissioning the Lower Waterfall and Zig Zag bridges.

### Trails and Trail Amenity Remediation

Portions of the Red trail have experienced erosion due to high levels of use as well as being located below the flood level of the Clack Creek channel. Further, the way the trail was constructed does not have adequate surface water control measures. Critical trail work and enhancements are intended to build resiliency into trail infrastructure and to protect sensitive ecosystems by realigning sections of trail away from flood prone areas and using contemporary

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trail construction methods to improve surface water drainage, prevent soil erosion, and protect tree roots from impacts of high levels of use.

The 2025 Budget Proposal includes considerations for critical trail resiliency works as well as rerouting other sections of trails.

Rest areas, observation areas, and accessibility did not rank as high a priority for public survey respondents. That being said, *The BC Accessibility Act* requires governments to develop new accessibility standards to reduce barriers in a range of areas including service delivery areas. The 2014 Parks and Recreation Master Plan recommends inclusion of providing some universal accessibility within parks whenever they are upgraded and including at least one universally accessible trail (preferably a loop) in all destination and community parks. For these reasons, staff have included accessibility upgrades in the 2025 Budget Proposal.

*Analysis and Options*

The following provides a breakdown of the various components included in the Cliff Gilker Bridges and Trail Remediation (Park Recovery Project):

<b>SUMMARY of Components</b>	Estimate
Upper Bridge	\$ 272,000
Gorge Bridge	\$ 316,800
Lower Bridge	\$ 443,200
Zig Zag Bridge	\$ 516,800
Critical Trail Resiliency Work	\$ 153,650
Accessibility Enhancements	\$ 127,400
Trail Enhancements (re-routing)	\$ 279,986
Signage	\$ 6,420
Bridge Decommissioning (per bridge)	\$ 32,000
Project Base Costs - Mandatory on all Components	\$ 385,980
Grand Total of all Components	\$ 2,534,236

The staff recommended option for the Cliff Gilker Bridges and Trail Remediation (Park Recovery Project) provided in the 2025 Budget Proposal, includes considerations for replacing the Upper Waterfall and Gorge bridges, decommissioning the Lower Waterfall and Zig Zag bridges, and conducting trail recovery work that focuses on climate resiliency, ecosystem protection and accessibility improvements. This will maintain trail connectivity, reduce bridge redundancy, focus on reconstruction of durable amenities in locations that will be climate resilient and protect ecosystems. It also includes service level enhancements by improving accessibility in the park through the development of accessible trails and viewing platforms. With the exception of replacing all four bridges, the 2025 Budget Proposal is reflective of most of the community engagement survey findings.

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<b>Staff Recommended Components</b>	<b>Estimate</b>
Upper Bridge	\$ 272,000
Gorge Bridge	\$ 316,800
Lower Bridge	
Zig Zag Bridge	
Trail Resiliency Work	\$ 153,650
Accessibility Enhancements	\$ 127,400
Trail Enhancements (re-routing)	\$ 279,986
Signage	\$ 6,420
Bridge Decommissioning (two bridges)	\$ 64,000
Project Base Costs - Mandatory on all Components	\$ 385,980
<b>Total</b>	<b>\$ 1,606,236</b>

If the Boards desire is to increase or reduce the cost of the project, the scope could be adjusted by adding or removing components to the project.

An example of a minimized scope of work that focuses on replacement of bridges that provide connectivity to the park, but are not redundant, decommissions the other two bridges, and conducts only critical trail remediations is estimated to cost the following:

<b>SUMMARY of Minimized Scope of Work Components</b>	<b>Estimate</b>
Upper Bridge	\$ 272,000
Gorge Bridge	\$ 316,800
Lower Bridge	
Zig Zag Bridge	\$ -
Critical Trail Resiliency Work	\$ 153,650
Accessibility Enhancements	\$ -
Trail Enhancements (re-routing)	\$ -
Signage	\$ 6,420
Bridge Decommissioning (two bridges)	\$ 64,000
Project Base Costs - Mandatory on all Components	\$ 385,980
<b>Grand Total of all Components</b>	<b>\$ 1,198,850</b>

Regardless of the scope of work, staff will also explore opportunities for volunteer involvement for lower risk activities, such as trail work, and implement where feasible to possibly reduce project costs. The Request for Proposals for the project would be developed with this in mind.

*Organization and Intergovernmental Implications*

Decisions around the capital and ongoing operational costs of the project scope will potentially result in a service level change and need to be appropriately captured in the 2025 Budget Proposal.

*Financial Implications*

The financial implications of the project (one time capital and ongoing operating) will range depending upon the desired project scope and service level for the park.

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Any new capital infrastructure built or decommissioned would be updated in the Parks capital asset registry and ongoing operational plans.

*Timeline for next steps or estimated completion date*

A 2025 Budget Proposal for the staff recommended option to support the Cliff Gilker Bridges and Trails Remediation (Park Recovery Project) has been submitted as part of the 2025-2029 financial planning process.

*Communications Strategy*

N/A

**STRATEGIC PLAN AND RELATED POLICIES**

The staff recommended Cliff Gilker Bridge and Trail Remediation (Park Recovery Project) is in alignment with the:

- 2014 Parks and Recreation Master Plan values and vision,
- SCRD Asset Management Policy Goals of long-term sustainability, resiliency, financial efficiency and continual improvement,
- SCRD Community Action plan action 4.2 to develop adaptation strategies and prioritization for vulnerable infrastructure,
- Area D Official Community Plan, Parks Trails and Recreation objective to protect major watercourses for appropriate public use while ensuring minimal impact to the environment.

**CONCLUSION**

The staff recommended option for Cliff Gilker Bridge and Trail Remediation (Park Recovery Plan) 2025 Budget Proposal balances community feedback, regulatory requirements, risk, and provides an opportunity to position park assets more appropriately for climate resiliency while maintaining access and service to Cliff Gilker Park. Nevertheless, the scope of work could be increased or decreased commensurate at the discretion of the SCRD Board. This report provides details that can inform a change in scope.

Reviewed by:			
Manager		Finance	
GM	X - S. Gagnon	Legislative	
CAO / CFO		Other	