REGIONAL DISTRICT OF NANAIMO

DESCANSO BAY REGIONAL PARK ACCESSIBLE BEACH ACCESS FEASIBILITY

RECOMMENDATION

That staff proceed with detailed design and associated permits, bylaw amendments and approval applications for the Descanso Bay Regional Park Accessible Beach Access improvements.

BACKGROUND

At the May 2, 2023, Regional Parks and Trails Select Committee meeting, a delegation from the Gabriola Land and Trails Trust (GaLTT) presented to the committee about beach accessibility at Descanso Bay Regional Park. The delegation identified a lack of public shore accesses on Gabriola Island for people with mobility challenges and proposed a seasonal, retractable ramp at Descanso Bay. At the May 23, 2023, Board meeting, the following motion was passed:

> *That staff provide a report on the feasibility and cost estimates of developing an accessible beach access at Descanso Bay Regional Park.*

A capital budget of $65,000 was approved as part of the Regional Parks 2024-2028 Financial Plan to conduct a feasibility study for this accessible beach access request for Descanso Bay Regional Park. In December 2024, a consultant was retained to provide a detailed feasibility study regarding the design and construction of an accessible beach access ramp. The study, included as Attachment 1, includes a topographic survey of the project area and considers accessibility guidelines, environmental regulations, material selection, construction methods and operational and maintenance implications. The study reviews permitting requirements from local, provincial and federal jurisdictions and includes a concept design and Class 'D' estimate of probable costs.

The study recommends an 18-metre length permanent aluminum ramp running parallel to the shoreline and a seasonal mobility mat to extend access from the end of the ramp to the water's edge. The ramp has a clear width of 1.2 metres, a slope of 8.03 percent and handrails to meet the guidelines for independent access. The design also includes stairs to allow visitors without mobility challenges to bypass the ramp. The mobility mat, which extends beyond the end of the ramp, is a portable rollout pathway that creates a stable, non-slip surface over the sand, gravel and exposed rock. The detailed design of the ramp would have to consider tides, storm surge and local sea level rise. The ramp can be protected from coastal forces by anchored wooden logs and riprap stones.

Alternative ramp designs were considered but were determined to be not feasible at this site. A retractable ramp running perpendicular from the shoreline would be too steep to meet the accessible ramp guidelines for independent access. A perpendicular ramp would also have a greater visual impact on the beach and disrupt pedestrian access between the north and south halves of the beach. A compacted soil ramp would likely be damaged by wave action and a treated wood ramp may become slippery and decay from exposure to weather

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and temperature variations. A concrete ramp would not aesthetically suit the character of the park and would likely cost more than the alternative designs.

Constructing a ramp in a coastal intertidal environment creates unique operational and maintenance considerations. Potential winter maintenance activities include removing, cleaning and storing the mobility mats and monitoring and clearing the beach of logs that block access to the ramp. Summer maintenance tasks include re-installing the mobility mats and monitoring the mats for build-up of tidal debris and wear from visitor use. Maintenance activities can be added to parks services staff workplans, integrated into the campground operator's contract or included in maintenance agreements with volunteer organizations. Specific maintenance needs would be determined at the detailed design phase of the project.

To connect the park to the beach, the ramp would cross jurisdictional boundaries, requiring approvals from various levels of government. Table 1 below summarises the anticipated permits, bylaw amendments and approvals required to construct the ramp.

Table 1: Summary of permits, bylaw amendments and approvals

Permits and Approvals	**Rationale**
Islands Trust, Gabriola Island Land Use Bylaw No. 177 - Amendment	A pedestrian ramp is not a permitted use in the Water General (WG) land use zone of the bylaw. An amended to the bylaw is required before the ramp can be constructed.
Islands Trust - Development Variance Permit	Ramps or walkways exceeding 1.0 metre width are not permitted within the lot line setback of the property in the Parks land use zone. The ramp must exceed 1.0 m width to meet accessibility guidelines.
Community/Institutional Crown - Land Tenure Application	The ramp must extend beyond the high watermark onto aquatic Crown land owned by the provincial government in order to reach the beach. Aquatic Crown land tenure must be obtained to construct the ramp.
Heritage Conservation Act Permit	Would be required to construct a ramp at Descanso Bay.
Fisheries Act - Request for Review	May be required if construction of the ramp occurs outside of the summer or winter marine and estuarine fisheries timing windows (June 1 – September 1 or December 1 – February 15). Construction of the project would be tendered to occur within either of these timing windows to avoid triggering this approval process.
Water Sustainability Act - Section 10 Temporary Use Approval	May be required if pumping or discharging of groundwater is required during construction of the ramp. This would be determined during the detailed design phase of the project.
Wildlife Act - General Wildlife Permit	May be required if brushing or clearing of vegetation is needed for construction of the ramp. The detailed design of the ramp would aim to avoid the need to brush or clear vegetation.
Species at Risk Act - Permit	May be required if the Environmental Overview Assessment (EOA) determines that endangered or threatened species are documented at the project site. The EOA would be conducted during the detailed design phase of the project.
Migratory Birds Convention Act - Permit	May be required if brushing or clearing of vegetation is needed for construction of the ramp since pileated woodpeckers have been observed at Descanso Bay. The detailed design of the ramp would aim to avoid the need to brush or clear vegetation.

The detailed design phase of the project would occur concurrently with the permit applications and approval processes and would result in a construction-ready design. An Environmental Overview Assessment would be conducted to confirm environmental permitting requirements and best management practices to mitigate environmental impacts during construction. The detailed engineering would outline the design criteria for tides, storm surge, local sea level rise and would determine the specifications for anchoring the ramp, mobility mats and protective logs and riprap stones with consideration for any potential archaeological implications. Once the detailed design is complete and permits and approvals are in place, the project can be tendered for construction.

FINANCIAL IMPLICATIONS

The 2025-2029 Financial Plan included $65,000 for the feasibility study in 2025 and $200,000 for the detailed design and construction in 2026 for an accessible water access (Table 2). The feasibility study has come in under budget leaving an unspent balance of $31,000 in 2025.

Table 2: Current Project budget

	2025-2029 Financial Plan	Expenditures to Date	Balance
Feasibility Study (2025)	$65,000	$34,000	$31,000
Detailed Design and Construction (2026)	$200,000		$200,000
Total	**$265,000**	**$34,000**	**$231,000**

The costs to design and acquire permits and approvals for the ramp are estimated to be $100,000 (Table 3), which can be accommodated in the current budget withing the approved 2025-2029 Financial Plan.

Table 3: Preliminary Estimate of Design, Permitting and Approval Costs

Capital Item	Estimated Cost
Detailed Engineering	$69,750
Environmental Applications and Environmental Overview Assessment	$15,000
Heritage Conservation Act Permit and Archaeological Impact Assessment	$10,000
Crown Land Tenure Application	$250
Contingency	$5,000
Total	**$100,000**

The cost to construct the ramp is estimated to be $287,000 (Table 4), which is over the budget included in the approved 2025-2029 Financial Plan. Additional funds would be required at time of construction, if this project proceeds.

Table 4: Preliminary estimate of construction costs

Capital Item	Estimated Cost
Ramp supply and installation	$135,000
Mobility mat (Mobi-Mat) supply and installation	$30,000
Ramp Protection	$40,000
Project Contingencies (40%)	$82,000
Total	**$287,000**

While specific operating and maintenance requirements would be determined at the detailed design phase of the project, Table 5 summarizes the estimated annual operating costs for the ramp.

Table 5: Preliminary estimate of annual operating costs

Operational Item	Estimated Cost
Installation, removal and storage of Mobi-Mats at the start and end of the season	$1,500
Winter monitoring and clearing of woody debris	$7,000
Summer monitoring and clearing of debris on Mobi-Mat	$7,000
Inspections of ramp and protection structures	$500
Repair damage to mobility mats and ramp	$2,000
Total Annual Operating Costs	**$18,000**

STRATEGIC PLAN ALIGNMENT

Planning and Managing for Growth - Understand and develop an inter-connected framework of strategies and plans to manage growth to support complete communities, including planning, transportation, infrastructure, and fiscal sustainability.

REVIEWED BY:

- A. Gore, Superintendent, Parks Planning and Development
- R. Daykin, Manager, Parks Services
- T. Osborne, General Manager, Recreation and Parks
- T. Moore, Chief Financial Officer
- L. Grant, Acting Chief Administrative Officer

ATTACHMENT

1. Descanso Bay Regional Park, Accessible Beach Access Feasibility Study