



## Business Case

### *Aquatic Harvester Pilot Program*

#### Executive Summary

##### **Business Need**

Charlie Lake and Swan Lake have experienced excessive aquatic vegetation growth, negatively impacting recreational use, aesthetics and public safety. The Peace River Regional District (PRRD) has received repeated feedback from residents and lake users requesting an effective solution to improve lake accessibility and usability.

##### **Expected Outcome**

The implementation of an aquatic vegetation harvesting program will focus on creating open water access channels and reducing health and safety risks presented by excess aquatic vegetation in Charlie Lake and Swan Lake.

##### **Recommendation**

Procure a mechanical aquatic harvester and initiate a pilot project to annually harvest aquatic vegetation starting in July 2026. The area of operation will include the permitted areas as outlined by the province, which focus on high-use areas in Charlie Lake and Swan Lake while avoiding ecologically sensitive zones.

##### **Justification**

This project provides immediate value to residents through improved lake access and safety around heavy-use areas.

#### The Team

**Lead Department:** Peace River Regional District – Environmental Services

##### **Support:**

- Qualified Environmental Professional (QEP) (contractor)
- Seasonal Operations Crew (contractor)
- External equipment suppliers/contractors
- Regulatory and permitting agencies
- Indigenous and community stakeholders

#### Business Need Definition

##### **Problem Statement**

Dense aquatic vegetation in regional lakes is restricting public recreation, increasing safety concerns and degrading the overall user experience for residents and visitors. The lack of regular maintenance has exacerbated eutrophication and impacted lake health.

##### **Impacts**

- **Customer:** Decreased public satisfaction; reduced recreational access; health and safety risks
- **Financial:** Potential reduction in tourism and local spending; increased long-term remediation costs if unaddressed
- **Stakeholders:** Public, Indigenous communities, recreational users, provincial agencies



## Project Overview

### Project Name

Aquatic Harvester Program

### Project Description

This project involves the acquisition of a mechanical aquatic harvester and the launch of a seasonal vegetation harvesting program at Charlie Lake and Swan Lake. Operations will begin annually in July and focus on removing vegetation from select permitted areas.

A permit to harvest has been authorized for 2026 and 2027.

### Project Goals and Objectives

- Improve recreational access and public safety in lakes
- Operate within regulatory frameworks and ecological best practices

### Project Performance Indicators

- **Scope:** Annual harvesting of 27–33.5 ha in Charlie Lake and 10–14 ha in Swan Lake
- **Time:** Harvesting from July to September annually
- **Cost:** Year 1: Total budget \$867,480 (\$570,600 equipment, \$296,880 labour)  
Year 2: Total budget \$296,880 (Labour program oversight and management)

It is assumed the labour and operational costs will be split between Charlie Lake and Swan Lake based on level of effort to harvest each lake. The cost breakdown would include 60% of the cost appropriation to Charlie Lake and 40% to Swan Lake.

### Assumptions

- Harvesting equipment is available and procured on schedule
- Environmental permitting and consultation proceed smoothly
- Weather allows for seasonal operations
- All harvesting, monitoring, and reporting requirements are completed via contractors
- Qualified Environmental Professional Consulting firm and internal staff are available within the harvesting window to oversee the program

### Constraints

- Seasonal biological windows for operation (after–July 15)
- Initial capital cost outlay
- Labour availability
- Equipment delivery and maintenance scheduling
- Limited permit timeframe
- Lack of established service functions to support operational continuity
- Disposal costs are unknown but could be high due to distance

### Project Milestones

**Q3 2025:** Project approval and funding secured

**Q4 2025:** Equipment procurement and training

**Q2 2026:** Regulatory and Public engagement and notifications

**Q3 2026:** First operational season begins

**Q4 2026:** Performance review and community feedback



**Q2 2027:** Regulatory and Public engagement and notifications

**Q3 2027:** Second operational season begins

**Q4 2027:** Program evaluation and tentative permit renewal request

### Strategic Fit

This project aligns with PRRD's strategic objectives for environmental stewardship, sustainable recreation, and community engagement. It also addresses critical feedback from residents and demonstrates a proactive approach to lake health management.

### Cost Benefits Analysis

#### Budget

Program Costs		Charlie Lake (60%)	Swan Lake (40%)
Capital Equipment Purchase	\$570,600	\$342,360.00	\$228,240.00
Labour & Operational Costs (QEP, Operator)	\$296,880	\$178,128.00	\$118,752.00
TOTAL BUDGET Year 1	\$867,470	\$520,488.00	\$346,992.00
TOTAL BUDGET Year 2 (Labour)	\$296,880	\$178,128.00	\$118,752.00
<b>TOTAL PILOT PROGRAM BUDGET</b>	<b>\$1,164,360</b>	<b>\$698,616.00</b>	<b>\$465,744.00</b>

**Cost exclusions:** Delivery of harvesting equipment, storage and disposal.

It is assumed the labour and operational costs will be split between Charlie Lake and Swan Lake based on level of effort to harvest each lake. The cost breakdown would appropriate 60% of the capital and labour costs to Charlie Lake and 40% to Swan Lake.

This program budget is solely reliant on external contractors and does not include PRRD staff time needed to support the program implementation. These requirements and costs would need to be identified should the program move forward.

#### Funding Options:

Capital Expenditures may utilize Peace River Agreement Funds or Community Works Gas Tax to fund equipment purchases at a cost sharing rate of 60:40, Area C:Area D and will be operated through Function 120-Legislative Electoral Areas until a service function and service areas can be established through referendum.

Operational Expenditures may be funded utilizing Fair Share Funds at a 60:40 cost share ratio between Area C and Area D until a service function and service areas can be established through referendum.

#### Benefits:

- Enhanced lake usability and safety
- Improved public satisfaction and recreational tourism potential
- Foundation for future composting or vegetation repurposing partnerships



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## Alternatives Reviewed

### **Option 1: Do Nothing**

Vegetation and algae issues worsen, public complaints persist.