

# Lasqueti Island

# **Solid Waste Management Sub-Plan**







Prepared for the Powell River Regional District by:



In association with: The Lasqueti Island Solid Waste Management Advisory Committee

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## **Table of Contents**

1	Int	roductionroduction	1
	1.1	The Vision	1
	1.2	Targets	1
	1.3	Guiding Principles	2
	1.4	Pollution Prevention Hierarchy	2
2	Ba	ckground	3
_	2.1	Plan Area	
	2.2	Plan History and Development	
3	Wa	aste Generation	7
4	Th	e Solid Waste Management System and Planned Actions	7
5	Re	use	7
6	Re	cycling	8
7	Sci	rap Metal and Tires	9
8	Or	ganic Waste Management	10
9	Ex	tended Producer Responsibility	10
10	Re	sidual Waste Management	11
	10.1	Closure of the Landfill	12
11	Lit	tering, Illegal Dumping, and Abandoned Vehicles	15
12	Со	mmunications and Education	15
13	Fu	ture Solid Waste Management Facilities	16
	13.1	Waste Export	17
14	Es1	timated Costs	17
		Cost Recovery	
		Schedule	
	1/12	Plan Monitoring	10

## Lasqueti Island 2017 Solid Waste Management Sub-Plan

## **List of Figures**

Figure 1-1Pollution Prevention Hierarchy	2
Figure 2-1 Map of Lasqueti Island	
Figure 5-1 The Free Store	8
Figure 6-1 The Recycling Depot	<u>.</u>
Figure 7-1 Scrap Metal Pile at the Landfill	10
Figure 10-1 The Lasqueti Island Landfill	
Figure 10-2 Landfill Location Map	14
List of Tables	
Table 1-1 Guiding Principles	2
Table 14-1 Estimated Capital Costs	18
Table 14-1 Estimated Operating Costs	18
Table 14-2 Implementation Schedule	10

#### 1 Introduction

This document is an updated solid waste management plan for Electoral Area "E", Lasqueti Island. This document is a sub-plan of the Powell River Regional District's Solid Waste Management and Resource Recovery Plan.

A separate planning document (sub-plan) is prepared for Lasqueti due to the geographical disconnect between the solid waste management system on Lasqueti and the rest of the Powell River Regional District (PRRD). Lasqueti Island does not have a transportation link to the rest of the PRRD and all of Lasqueti's solid waste management activities occur on-island or are associated with solid waste management operations on Vancouver Island. Consequently, it is operated separately from the rest of the PRRD's solid waste management system.<sup>1</sup>

A Solid Waste Management Plan is a legally binding document that is mandated by the province for all regional districts. The purpose of the SWMP is to provide the PRRD with a guiding document that will direct the Region's solid waste management activities over the next 10 years, while also considering longer-term objectives and opportunities.

Powell River Regional District (PRRD) updated their SWMP in 2013 but due to administrative delays in its approval, the Plan became outdated and did not receive final approval by the Minister of Environment. This SWMP included a Lasqueti Island sub-plan that had been prepared in 2012. As a result, in 2016, the PRRD began the process to update both the PRRD SWMP and the Lasqueti sub-plan.

This sub-plan is intended to replace the one initially prepared for Lasqueti Island in 1996, and updated in 2012. It addresses all aspects of solid waste management on the island, including waste minimization, reuse, recycling and product stewardship. However, the main focus of this sub-plan is the long-term residual waste disposal needs of the island.

#### 1.1 The Vision

The vision is for Lasqueti Island to be a model community for zero waste, embracing waste minimization, reuse and recycling, and ultimately eliminating the need for landfilling of the island's discards.

#### 1.2 Targets

The implementation of this sub-plan is expected to achieve the following targets:

- 1) Cease disposal of residual waste at the Lasqueti Island landfill by 2020
- 2) In advance of (1), establish a new system for garbage disposal.
- 3) Undertake improvements to the Island's free store and recycling depot by 2019.
- 4) Implement final closure of the landfill by 2021.

<sup>1</sup> PRRD is currently considering including Lasqueti Island into the Regional Solid Waste Management Service which includes all parts of the regional district. Inclusion of Electoral Area E in the service area would result in all regional solid waste services being pooled and funded as one service, levelling the tax implications across the region.

## 1.3 Guiding Principles

The principles guiding the development and implementation of this plan are illustrated in Table 1-1.

Table 1-1 Guiding Principles

1.	Promote zero waste approaches and support a circular economy
2.	Promote the first 3 Rs (Reduce, Reuse and Recycle)
3.	Maximize beneficial use of waste materials and manage residuals appropriately
4.	Support polluter and user-pay approaches and manage incentives to maximize behaviour outcomes
5.	Prevent organics, household hazardous waste and recyclables from going into the garbage to the extent that is practical

These guiding principles are similar to those established by the Province in the Guide to Solid Waste Management Planning but have been modified to suit the scope of this sub-plan.

## 1.4 Pollution Prevention Hierarchy

This plan adopts the 5 R pollution prevention hierarchy as illustrated in Figure 1.1.

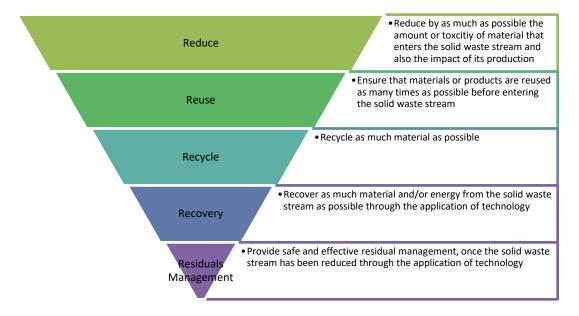


Figure 1-1 Pollution Prevention Hierarchy

## 2 Background

#### 2.1 Plan Area

Lasqueti Island is located in the Strait of Georgia and is approximately 20 km offshore from Parksville, Vancouver Island. A map of the island is provided as Figure 2-1.

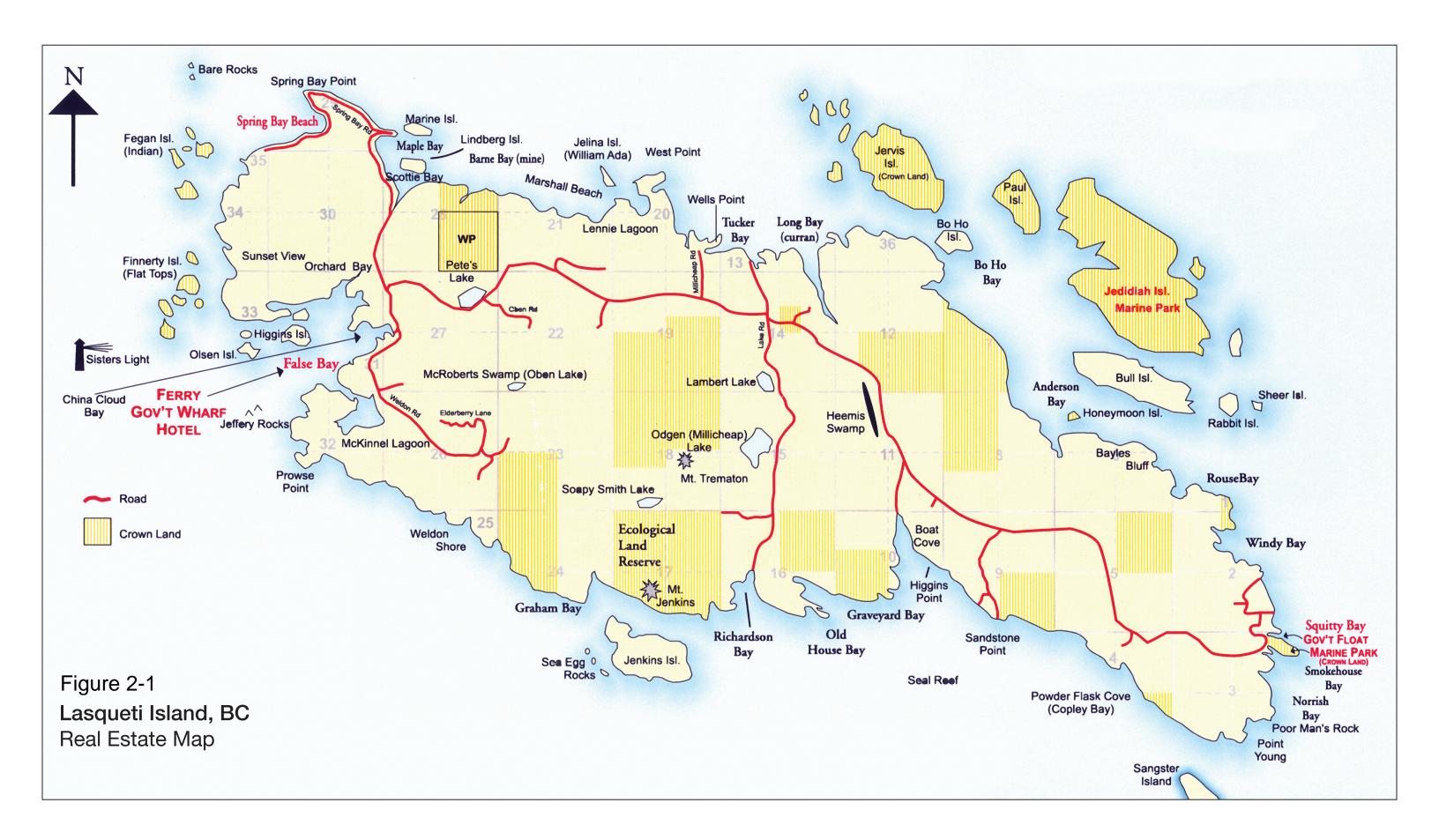
The island's population is estimated to be 399 full-time residents (2016 Census), which doubles in the summer season<sup>2</sup> The population of the island has been constant in the last few decades and is expected to remain so for the foreseeable future.

Lasqueti Island is unique due to its lack of a car ferry and because there is no power provided through BC Hydro. There is a foot passenger ferry that runs between French Creek (near Parksville) and the island. Cars, construction materials, fuel and bulky goods like furniture and large appliances must be brought over by private barge or boat.

There are limited commercial and public services on the island.

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<sup>&</sup>lt;sup>2</sup> M. Anderson, Regional Director for Area E, pers. comm.



#### 2.2 Plan History and Development

#### 2011 Sub-Plan

The original sub-plan was prepared in 1996 and was updated in 2011 with the input from a local Solid Waste Advisory Committee and technical assistance from the consulting firms Maura Walker and Associates and XCG Consultants.

The advisory committee consisted of the following volunteers:

- Peter Johnston
- Simmah Petersen
- Carson Tak
- Robyn Dryburgh, Solid Waste Coordinator for Lasqueti Island
- Jenny Vester, Free Store Manager and Volunteer 3Rs Educator
- Merrick Anderson, Area E Director

There were three meetings of the advisory committee. Community consultation on the draft plan occurred in July and August 2011.

The key objective associated with developing this new solid waste plan was to identify a preferred option for long-term disposal. At that time, as it is now, the landfill site is out of compliance with its landfill permit and does not comply with current BC landfill guidelines. Two options to address this issue were assessed during the planning process:

- 1. Close the landfill and replace it with a transfer station; or
- 2. Improve the landfill site to comply with current landfill regulations and/or meet the approval of the BC Ministry of Environment (MoE).

The second option was selected, however it was recognized that there may be challenges getting approval to continue to operate a landfill with no engineered liners or leachate treatment system. Consequently, the process to improve the site was to be conducted in three stages, as described below:

- I. Conduct site investigations to determine if there are any "fatal flaws" with the site that would preclude on-going use as a landfill. This would entail a test pit investigation to confirm site conditions, surficial geology, minimum depth of groundwater, and the ability of the site to operate as a natural attenuation landfill.
- II. If there are no fatal flaws, develop an action plan for site improvements, including a schedule and budget, for formal submission to MoE prior to undertaking any remedial activities.
- III. Once the action plan has received approval, conduct site improvements as per the schedule in the action plan.

#### Other recommendations included:

- Encourage more reduction and reuse
- Improving and expanding the recycling depot

- Encourage the set-up of a private site on the island to collect auto hulks. Until that time, a
  collection and removal event should be held every 2-3 years. Costs for the event would be
  offset by a fee levied on every vehicle arriving on the island by barge
- Send information to every home regarding where and how to reuse, recycle and dispose of various waste streams, including products collected through EPR programs

This Plan was submitted to the Minister of Environment as part of an update to the PRRD's SWMP. However, due to delays in its submission and its review, the PRRD's SWMP and the Lasqueti Sub Plan were not approved. In 2016, when Ministry staff asked that the Plan be updated to reflect current activities and regulatory changes, the planning process was reinitiated, using the 2011 Plan as a basis for beginning the planning process.

#### 2017 Sub-Plan

This sub-plan is based on the work done by the Lasqueti Island Solid Waste Management Advisory Committee (LISWMAC), whose members include:

- Gordon Scott (Chair)
- Brigitte Dorner (Recording Secretary)
- Gail Fleming
- Dave Olsen
- Natty Violini
- Robyn Dryburgh, Solid Waste Coordinator for Lasqueti Island
- Julie Newton, Free Store Manager
- Merrick Anderson, Area E Director

The committee has met 34 times since its inception, including 26 meetings associated with updating the sub-plan. Motions from the committee are provided in the Consultation Summary Report associated with this sub-plan.

LISWMAC held two community meetings and conducted two surveys during the planning process (July 2016 and August 2017) to solicit community input on the options. Input received from the community, including the results of the surveys is included in Consultation Summary Report.

In August 2017, the committee undertook a community consultation process to solicit input on a range of infrastructure scenarios associated with waste transfer, the recycling depot and the free store. Key features of this consultation process were:

- A detailed survey (as noted above) that was mailed to all property owners via addressed mail
  outlining the recommendations, options, and opportunities to provide input. Additional hard
  copies of the survey were made available on-island for residents that are not property owners.
  The survey was also available on-line and accessible through the community website,
  Lasqueti.ca;
- Articles and notices in local print and on-line media; and
- A community meeting with a poster display.

This planning process has been largely focused on the future of the island's landfill and the options to replace the landfill once it is closed. The other major focus has been improving the functionality of the recycling depot and Free Store.

#### 3 Waste Generation

Lasqueti Island is estimated to have a very low waste disposal rate. The annual per capita disposal rate is estimated to be 125 kg, based on estimates of air space consumed at the landfill. The low waste generation rate may be attributed to the following community characteristics:

- Nearly all kitchen waste is composted
- Reuse and salvage of materials are widely practiced;
- The island has passenger-only ferry service;
- There are minimal opportunities on the island to engage in consumerism;
- Most of the community places a high value on low impact living; and
- Many residents report taking residual waste off island rather than using the landfill.

### 4 The Solid Waste Management System and Planned Actions

The existing solid waste management system on Lasqueti Island is made up of the following components:

- 1. Reuse
- 2. Recycling
- 3. Scrap metal and tire collection
- 4. Disposal
- 5. Promotion and education

It should be noted that there are no collection services provided on Lasqueti Island. Waste generators self-haul their waste materials directly to the landfill or recycling depot, or to facilities located on Vancouver Island.

#### 5 Reuse

Informal reuse of goods and materials by residents is commonplace on Lasqueti Island. There is a staffed reuse centre called "the Free Store", shown in Figure 5-1, which is co-located with the recycling depot on land leased by PRRD from the Magic Mountain Co-op. This building accepts a broad range of household items, including clothing, for reuse. Large items and construction materials are not accepted at the reuse centre. Additionally, there is frequent salvaging and reuse of segregated materials at the landfill site. The Free Store is well-utilized but is operating at its physical capacity and has challenges managing the quantity of materials brought to the site, and additionally is challenged by materials being left at the site with minimal or no reuse value. As a result, this plan includes improvements to the Free Store and expansion of its capacity, as well as increased education to reduce the amount of non-reusable goods received at the site.

The following actions will be implemented in support of reuse and upcycling:

- Expanding the Free Store to provide more storage space for used goods and to allow the store to carry a wider range of goods.
- Supporting approaches and innovation that can reuse or recycle waste materials onisland rather than having them shipped off island for recycling or disposal.
- Being willing to collect specific materials or items at the Recycling Depot (e.g. corks, specific types of plastics, or specific types of glass bottles) that are needed by a member of the community for upcycling purposes – of course, this would be at the discretion of site staff.
- Encouraging salvaging and upcycling of items, or parts of items, deposited at local waste management facilities, as long as doing so does not compromise the safety of any customers or staff and does not result in pollution or additional work for site staff.



Figure 5-1 The Free Store



Free Store: Outside

Free Store: Inside

## 6 Recycling

There is a staffed recycling depot on the island, which is funded by the Powell River Regional District. The depot is open one day per week in the winter and two days per week during the rest of the year. The depot, along with the Free Store, is located on land leased from the Magic Mountain Co-op. The depot, shown in Figure 6-1, accepts:

- Refundable beverage containers
- Cardboard
- Metal cans
- Soft plastics
- Rigid plastics

Beverage containers are sorted and stored in large, reusable sacks called megabags and returned to a bottle depot in Parksville. The other materials are baled and brought to a recycling processor on Vancouver Island. Storage of recyclable materials is challenging due to a limited amount of available space. In addition, like the Free Store, the quality of recyclables dropped off at the depot can often be poor (containers not clean or emptied of their contents). Consequently, the following improvements to the Recycling Depot will be undertaken:

- Create a larger covered area for the storage of equipment and recyclables.
- Install better signage.
- Improve drainage and surfacing at the current site.
- Enhance customer education (see Section 12 for details).

In addition, a recent site safety assessment identified that the access to the recycling depot and Free Store needs to be separate from the neighbouring Fire Hall.

Figure 6-1 The Recycling Depot





Recycling Depot: Sorted & Bagged Recyclables

Recycling Depot: Beverage Container Sorting Area

#### 7 Scrap Metal and Tires

Scrap metal and tires are collected at the landfill in piles segregated from the landfilling area, as shown in Figure 7-1. These piles are frequently salvaged by island residents and to date, the scrap metal and tires have only been removed once for recycling. The scrap metal and tire piles are currently situated on land that will need to be used for landfilling within the next 2 years. The long-term solution for the collection of scrap metal and tires will be incorporated into the decisions made regarding the future solid waste management facilities on the island (see Section 11), and the options include:

- Scrap metal and tire collection at a new site, potentially as part of a transfer station facility.
- Hold scrap metal and tire collection events where these materials are delivered directly by residents to a barge for transport to recycling facilities;

- Cease collection of scrap metal and tires and encourage island residents to use facilities located on Vancouver Island; and
- Re-establish scrap metal and tire collection areas at the landfill site once it has undergone full closure.

The selection of a preferred option is anticipated as part of the plan implementation process, and will be undertaken with input from an advisory committee.



Figure 7-1 Scrap Metal Pile at the Landfill

#### 8 Organic Waste Management

Organic waste such as food waste and garden waste is self-managed by residents and businesses on Lasqueti Island. Organic waste is either used as animal feed or composted, but it is not discarded as garbage. This practice will be continued ensuring that there is minimal organic waste in the island's residual waste.

## 9 Extended Producer Responsibility

BC's Recycling Regulation has mandated the establishment of a broad range of Extended Producer Responsibility (EPR) programs. The programs are intended to put the responsibility for the management of designated wastes in the hands of the manufacturer, retailer and consumer of the product. In theory, this removes the responsibility, cost and infrastructure for collection, recycling and disposal from local governments and taxpayers.

In BC, product stewardship regulations have been applied to many products that are seen to be particularly problematic for local governments, either because of their toxic nature, or because of their prevalence as litter.

In BC, product stewardship programs are associated with the following products and packaging:

- Paints and solvents
- Tires
- Cell phones
- Outdoor power equipment
- Used motor oil, filters and empty containers
- Batteries (all kinds)
- All electronics
- All small and large appliances

- Pharmaceuticals
- Fuels
- Antifreeze
- Pesticides
- Thermostats
- Smoke and CO detectors
- Bulbs, ballasts and fixtures
- Packaging (residential)
- Printed paper (residential)

For most of these products, industry has set up collection depots for consumers to return these items for proper disposal or recycling. There are no depots on Lasqueti Island; however depots for most products exist in Parksville or Nanaimo, close to where most products are purchased. The exceptions to this are:

- Beverage containers can be returned to the recycling depot on Lasqueti Island, although no refund on the bottle deposit is given; and
- Residential packaging and printed paper are accepted at the recycling depot, but they are not part
  of the Recycle BC (formerly MMBC) stewardship program because of a 2016 recommendation
  from LISWMAC to discontinue the contract with Recycle BC. The committee felt that the depot
  could not meet Recycle BC's contract requirements.

Unless specified otherwise, EPR products will by default *not* be accepted at Lasqueti waste management facilities and must be taken to the nearest depot. However, the following actions will be undertaken to encourage the use of EPR programs:

- Powell River Regional District (PRRD) will provide regular reminders and updates regarding
  which products can be returned where. This information will be available through the
  Recycling Depot and on-line.
- If feasible, the Recycling Depot will consider being a collector of limited EPR products of specific concern for Lasqueti residents. Any opportunities of this nature would be considered by the Lasqueti Island Waste Management Coordinator with approval from the PRRD Operations Manager.

## 10 Residual Waste Management

The PRRD owned and operated landfill on Lasqueti Island, shown in Figure 10-1, is the only disposal facility located on the island. The landfill is open one day per month in the winter and two days per month during the remainder of the year. When open, the site is staffed. Access to the site is controlled by a locked gate. There is no scale at the site and there are no tipping fees associated with site use.

Many residents opt to dispose of their garbage at facilities located on Vancouver Island which are open with much greater frequency than the Lasqueti Island Landfill.

The Lasqueti Island Landfill Facility, operating under Permit PR-4904, is centrally located on the southeast 16 hectares (40 acres) of the parcel described as the northwest quarter of Section 18, Lasqueti Island, as shown on Figure 10-2. The site is located in an undeveloped valley at approximately mid island.

It has a cleared area of approximately 2,500 square metres and is approximately 80 metres long (west to east) by 30 metres wide (north to south). A gravel road extends through the middle of the site to a BC Highways and Transportation aggregate borrow pit, located approximately 300 metres east of the site.

The limit of waste encompasses an area of approximately 800 square meters. The waste is contained within a one meter high earthen berm structure constructed to prevent surface water run-on from a southern ephemeral creek and prevent run-off from the active area into the perimeter ditches. There are also separate piles of metals and tires.

The trench-style landfill is used only for the disposal of municipal solid waste. There is minimal food waste in the landfill, as evidenced by lack of birds or other vectors observed at the site. The waste is not compacted but is covered with soil roughly every two years. There has been no environmental monitoring of the site. At present, this operation does not meet BC Ministry of Environment criteria for landfills or the requirements of its landfill permit.



Figure 10-1 The Lasqueti Island Landfill

## 10.1 Closure of the Landfill

In October 2016, the PRRD retained XCG Consultants to conduct an assessment of the site to determine its remaining lifespan and to assess its viability for on-going use. This assessment determined that the remaining site capacity (as of October 2016) was roughly 3 years and that the site could not be expanded for on-going use due to the high water table. As a result of this assessment, LISWMAC recommended that the PRRD take the necessary steps to prepare for closure of the Lasqueti landfill.

At the Powell River Regional District Board Meeting on May 25, 2017, the Board passed a motion to notify the BC Ministry of the Environment of the intention to cease landfilling operations at Lasqueti Island Landfill (Permit PR-4904) prior to June 2021. The Board also approved the following next steps for closure of the landfill, as recommended by XCG Consultants.

- 1. Prepare an Action Plan for Submission to Ministry
- 2. Environmental Monitoring Plan
- 3. Prepare closure plan
- 4. Undertake final closure
- 5. Ongoing monitoring and maintenance of landfill



XCG CONSULTANTS LTD.

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#### 11 Littering, Illegal Dumping, and Abandoned Vehicles

Marine litter on the shoreline is an on-going problem on Lasqueti, as is the abandonment of vehicles.

The community has organized shoreline clean-ups by volunteers in the past and has received financial support from PRRD to have the collected materials removed for disposal. PRRD will continue to provide funding for disposal of the litter collected.

To reduce the prevalence of abandoned vehicles, the community, through the advisory committee, will work with the local barge operators to implement a "one on, one off policy" that will require barge customers that bring a car onto the island to arrange for and pay for removal of a defunct car.

#### 12 Communications and Education

To date, communications and education associated with solid waste management has primarily been done through one-on-one interactions between staff and customers at the recycling depot and Free Store, and through a regular column in the local island newsletter that informs island residents of how to manage various waste materials and products, what materials are accepted at the recycling depot and free store, and other items of interest.

To address concerns regarding the quality of Free Store donations and recyclables received, promotion and education efforts will be enhanced by a significant increase in communication and education efforts, as described below. The frequency of these efforts will be adjusted as needed, however, it is expected that less effort will be required over time as the waste management facilities and user practices are improved.

- Prepare and distribute an annual waste management flyer or newsletter describing what items
  can be recycled where (on and off island), opening hours of on-island facilities, and waste
  management dos and don'ts. Flyers should be made available in the early summer to maximize
  exposure to full-time residents, seasonal residents and visitors and should also be posted on the
  community website Lasqueti.ca.
- 2. Provide a regular "Our Isle & Times" column to remind people of key bits of information regarding current waste management operations, make them aware of any upcoming changes in operations, and raise awareness about problems and solutions. These articles should also be posted on Lasqueti.ca.
- 3. To ensure that waste is sorted properly at major public events (ArtsFest, Firefighters Picnic, Fall Fair, etc.), the Lasqueti Island Waste Management Coordinator will be available to advise event organizers on sorting protocols and expectations regarding delivery of material to Lasqueti Island facilities.

- 4. Coordinate a 'Recycling Day' or 'Recycling Week' each year for three years where staff and a PRRD waste educator are present to supervise and answer questions, with an aim to reducing contamination of the recyclables and improving the recycling experience for customers and staff. These events are also an opportunity to receive and record public feedback on the Island's waste management operations.
- 5. Design and install clear, consistent signage at solid waste facilities.
- 6. Develop an education campaign specifically for the Island's children. This may include presentations at the school and field trips to the Island's waste management facilities.
- 7. Establish an annual budget of \$2,500 that could be used to fund community-driven zero waste initiatives. Applications for funding would be received and reviewed by the Waste Management Committee, with recommendations going to PRRD Operations Manager.

In keeping with the waste management hierarchy, education efforts should include an emphasis on waste minimization (i.e., reduction/refusal/avoidance) whenever appropriate.

## 13 Future Solid Waste Management Facilities

This planning process largely focused on options for managing residual waste after the impending landfill closure. Because the recycling depot and Free Store are also in need of upgrades, options for all future solid waste services – recycling, reuse and residual waste disposal – were included in the consideration of future facilities for Lasqueti Island.

Recommending future facilities was, in many ways, the most difficult issue for the LISWMAC to address, since both the committee members and the wider community struggled to come to grips with a range of sometimes conflicting objectives and concerns. There is the desire to keep facilities close to where they are now (downtown), centrally located with respect to dominant island traffic patterns and already available amenities, versus concerns about potential negative impacts on nearby neighbours. People in the community also wish to keep costs low and avoid environmental impacts from developing a new site, yet there is also a strong desire to encourage on-island reuse and repurposing, which is difficult to accommodate within the space constraints of the current Free Store and recycling depot facility. Last, but not least, the Lasqueti community prizes self-sufficiency and individual responsibility, and there is a concern that investing into an on-island facility to make disposal of residual easy and convenient reflects a buy-in into consumer culture and provides the wrong incentives. Yet, there is also the concern that if disposal of waste is inconvenient, this will encourage irresponsible behaviour, and the belief that a new one-stop-drop facility that combines maximum convenience and supervision of users is the best way to raise awareness about waste issues and maximize diversion of reusable and recyclable goods.

Based on community input, the committee recommended that the PRRD undertake, a 'minimalist' approach that includes upgrading the current facilities to make them more serviceable and implementing a mobile residual waste collection system, rather than constructing a transfer station.

LISWMAC also recommended to alleviate space constraints at the current site that the PRRD consider acquiring a nearby property and relocating the recycling facilities there, with a view that the property could also house a potential transfer station or other public facilities in the future if at some point the community expresses a desire to do so.

With these recommendations in mind, the following two-step approach will be undertaken to address the Island's future waste management facility needs:

**Step 1**: Upgrade the existing recycling depot and Free Store to make them more serviceable and to address concerns with site access. Pilot a mobile or temporary residual waste collection operation (for 1-2 years) that does not require the PRRD to acquire or construct a residual waste transfer station.

**Step 2**: Based on the success of the residual waste collection pilot and improvements to the Free Store and recycling depot facilities, assess the need to acquire land for the construction of a new recycling depot and / or a residual waste transfer station. It is understood that there is a community preference to keep the waste management facilities in the downtown area if a new site is needed.

#### **13.1** Waste Export

As a result of closing the Lasqueti Island landfill, a new location for disposal will be required for the residual waste collected on-island and a system to transfer it from Lasqueti Island. Because Lasqueti Island is closely linked to Vancouver Island through regular barge services, residual waste is expected to be transferred to a landfill on Vancouver Island, likely in the Regional District of Nanaimo or in the Comox Strathcona Waste Management service area. The PRRD will seek approval from these jurisdictions to receive Lasqueti Island waste.

The PRRD will also seek, through Request for Proposals, for a waste transfer service that will pick up residual waste on Lasqueti Island and deliver it to a pre-approved disposal facility.

#### 14 Estimated Costs

The current budget for the Lasqueti Island waste management service is approximately \$130,000 per year. Based on the actions outlined in this plan, there will be capital expenditures associated with closing the landfill and improving the Free Store and recycling deport, and increased operating costs associated with exporting residual waste and monitoring of the closed landfill site.

Table 14-1 lists the estimated capital expenditures (in 2017 dollars) associated with implementing this sub-plan. These estimates were done at a high level for planning purposes and actual costs may vary

from what is shown. The total estimated capital costs of \$215,000 can be funded from existing reserves and monies allocated from the Community Works Fund.

**Table 14-1** Estimated Capital Costs

Estimated Capital Costs	2017 \$
Landfill Closure	\$115,000
Site improvements (existing Recycling Depot and Free Store property)	\$45,000
Long-term improvements to existing Free Store / Recycling Depot	\$55,000
Total Estimated Capital Costs	\$215,000

The estimated operating costs, shown in Table 14-2, are expected to increase from \$130,000 per year to \$167,000. Like the capital cost estimates, these costs are high level estimates based on best available information. The export cost estimates in particular were challenging because the quantity of residual waste is unknown and unique characteristics of Lasqueti Island limit the usability of costs experienced by other island communities.

**Table 14-2** Estimated Operating Costs

Estimated Operating Costs	2017 \$
Basic operating cost (including facility operation and transport of recyclables)	\$130,000
Transportation of residual by truck and barge	\$12,500
Disposal of residual at landfill on Vancouver Island	\$8,000
Landfill monitoring	\$12,000
Asset management (based on 2% of capital)	\$4,500
Total Estimated Operating Costs	\$167,000

#### 14.1 Cost Recovery

Currently, the Lasqueti Island waste management system is fully tax funded. To encourage maximum diversion of recyclables from the waste stream and to reduce the tax burden, a user pay system for garbage disposal will be implemented, with fees for garbage disposal initially set at \$5 per large bag of garbage or \$25 per pickup load. These fees will be reviewed on an annual basis.

#### 14.2 Schedule

Table 14-3 provides the estimated schedule for implementing the sub-plan.

Table 14-3 Implementation Schedule

2018	<ul> <li>Seek approval for disposal at out-of-district landfill</li> <li>Solicit proposals for waste transportation</li> <li>Prepare an Landfill Closure Action Plan for Submission to Minister of Environment</li> <li>Prepare an Environmental Monitoring Plan for the Landfill</li> <li>Confirm the interim and long term approach to scrap metal and tire management</li> <li>Recycling depot and Free Store improvements</li> </ul>
2019	<ul> <li>Prepare landfill closure plan</li> <li>Begin export of residual waste</li> </ul>
2020	Undertake final landfill closure
2021 onwards	Ongoing monitoring and maintenance of landfill

### 14.3 Plan Monitoring

An advisory committee will be established to monitor and report to the PRRD Board on progress associated with the implementation of the sub-plan and also provide recommendations to the PRRD in regard to the operation of the Island's solid waste management system. Specific responsibilities would include:

- Provide suggestions to the PRRD Manager of Operations to assist with preparing annual work plans and budgets for Lasqueti Island's solid waste management system
- Meet with Lasqueti Island solid waste management staff and the PRRD Manager of Operations to:
  - o review progress on implementing the solid waste management plan and the annual work plan,
  - identify emerging issues and make recommendations to the Manager of Operations to address those issues, and
  - Suggest any necessary "course corrections" if the work plan or solid waste management plan cannot be implemented as initially envisioned

The committee is expected to meet once or twice each year. Appointment to the committee would be subject to Board approval.