



## Maura Walker & Associates

ENVIRONMENTAL CONSULTANTS

To: Merrick Anderson, Electoral Area D Director  
Frances Ladret, Administrator, Powell River Regional District  
Lasqueti Island Solid Waste Advisory Committee

From: Maura Walker

Date: March 17, 2011

Re: Existing System for Managing Solid Waste

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This memorandum outlines the current system for managing solid waste on Lasqueti Island. This information is based on site visits, discussions with the local director and solid waste manager, and information provided by members of the Solid Waste Advisory Committee.

The solid waste management system is made up of the following components, each of which is described in this memo:

1. Collection
2. Reuse
3. Recycling
4. Scrap metal
5. Organic Waste Management
6. Product Stewardship
7. Landfill
8. Promotion and education
9. Financing

### **Collection**

There are no collection services provided on Lasqueti Island. Waste generators are required to bring their waste materials directly to the landfill or recycling depot.

### **Reuse**

Because of the population's remoteness from retail opportunities, informal reuse of goods and materials by residents is commonplace. There is a staffed reuse centre located on the same property as the recycling depot. 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.



*Free Store: Outside*



*Free Store: Inside*



*Recycling Depot: Sorted & Bagged Recyclables*



*Recycling Depot: Beverage Container Sorting Area*

## Recycling

There is a staffed recycling depot on the island, which is funded by the Powell River Regional District. The depot is open 1 day per week in the winter and 2 days per week during the rest of the year. The depot, along with the Reuse Centre, is located on land leased from the Magic Mountain Co-op. The depot accepts:

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

Beverage containers are sorted and stored in large, reusable sacks and returned to a Bottle Depot in Parksville. The other materials are baled and brought to a recycling processor on Vancouver Island. In one year, the recycling depot collects roughly:

- 94,000 beverage containers

- 2.7 bales of cardboard (1.2 tonnes)
- 3.3 bales of soft plastic (0.9 tonnes)
- 4 bales of hard plastic (0.6 tonnes)

### Scrap metal

Scrap metal is collected at two locations on the island: at the landfill in a pile segregated from the landfilling area, and at “the Boatyard” owned by the Lasqueti Fish Company. The Boatyard also receives auto hulks.

The scrap metal collected at the landfill has never been removed and the stockpile covers an area of approximately 360 m<sup>2</sup>.

The quantity of scrap metal handled by the Boatyard is unknown. The Boatyard has indicated that they intend cease their scrap metal operation in roughly two years.



*Scrap Metal Pile at the Landfill*



*Auto Hulks at the Boat Yard*

### 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.

### Product Stewardship

Product stewardship 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:

Products currently covered by an EPR program:

- |  |                                       |                                   |
|--|---------------------------------------|-----------------------------------|
| ▪ Paint;   | ▪ Solvents;                           | ▪ Pesticides;                     |
| ▪ Tires;   | ▪ Fuels                               | ▪ Pharmaceuticals                 |
| ▪ Cell Phones                                    | ▪ Thermostats                         | ▪ Beverage containers             |
| ▪ Televisions                                    | ▪ Residential fluorescent lamps       | ▪ Printers                        |
| ▪ Small appliances                               | ▪ Smoke detectors                     | ▪ Computers and related equipment |
| ▪ Used motor oil, oil filters and oil containers | ▪ Audio-visual and consumer equipment |                                   |

Products to be covered in the near future:

As of July 2011:

- Antifreeze
- Lead-acid batteries

As of July 2012:

- Large appliances
- Electrical and electronic tools
- Medical devices
- Automatic dispensers
- Lighting equipment
- Toys, leisure and sports equipment
- Monitoring and control instruments
- IT and telecommunications equipment
- Batteries used in these products

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.

Beverage containers can also be returned to the recycling depot on Lasqueti Island, although no refund on the bottle deposit is given.

### **Landfill**

The landfill is located in a central part of the island and is open one day per month in the winter and two days per month during the remainder of the year. It is controlled by a locked gate but does not have a scale. 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. The waste is not compacted but is covered with soil roughly every 2 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.

Based on the estimated volume of waste deposited since the last placement of soil, roughly 25 tonnes of waste is disposed in the landfill annually (263 m<sup>3</sup>).

As noted earlier, the landfill site is the location where scrap metal is stockpiled. The site is also used for the stockpiling tires.



*The Landfill*

### **Promotion and Education**

Promotion and education is done through the local island newsletter. A volunteer writes a regular column on solid waste management 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.

### **Financing**

The annual budget for solid waste management on Lasqueti Island is \$60,000. This budget covers the cost of the staffing and maintenance of the recycling depot, reuse centre and landfill. This budget is funded primarily through property taxes

### **Issues**

This section outlines issues with the current solid waste management system that need to be addressed when developing the new solid waste management plan for Lasqueti Island.

#### Waste Diversion Issues:

- The private business that collects, removes and recycles defunct automotive vehicles is planning to cease this operation by the end of 2012.
- The scrap metal pile at the landfill has never been removed for recycling. This pile will need to be removed to minimize potential contamination of the surrounding land and to allow for landfill expansion (if the landfill is maintained).
- The recycling depot experiences significant contamination of materials left for recycling; such as containers with food left in them and garbage included in with boxes of beverage containers.
- The free store often receives items that have no or minimal reuse potential (i.e. items that should be garbage).
- The depot is set up in a manner where the operator is responsible for sorting the materials, rather than overseeing that residents sort their recyclables correctly. This results in a stockpile of unsorted materials and an untidy site.
- There is a lack of covered storage at the recycling depot for recyclables materials to be stored prior to removal from the island.

- There are limited options for removing recyclable materials from the island; the passenger ferry charges for each bag of recyclables and barging is expensive.

Disposal Issues:

- The landfill does not meet BC Ministry of Environment landfill siting and operation criteria, e.g.:
  - Covering of waste materials with soil is done much less than what is expected by the Ministry. Current practice is to place soil once every 1-2 years, but the Ministry expects soil to be placed over the garbage at least every 2 months at this type of landfill.
  - Appropriate monitoring of groundwater and surface water has not been conducted.
  - The landfill site is not fenced.
- The landfill permit was issued in 1978 and does not reflect the current use of the site.

Existing System