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**SALT SPRING ISLAND LIQUID WASTE DISPOSAL LOCAL SERVICE COMMISSION  
ANNUAL REPORT ON OPERATIONS 2009 - 2010  
27 NOVEMBER 2010**

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The following report is provided for information to residents and users of the Salt Spring Island Liquid Waste local service.

**GENERAL**

The Capital Regional District (CRD) owned and operated Burgoyne septage receiving facility situated off Burgoyne Bay Road receives septage primarily from Salt Spring Island but also from other Southern Gulf Islands. The facility also receives sewage sludge from the CRD Ganges and Maliview wastewater treatment plants. Liquid waste, trucked to the site by private septage haulers is measured by volume for billing purposes. The discharged liquid flows through a screen, a grit settlement tank, then to a lift station, where the flows are pumped to equalization and mixing tanks. A rotary press dewateres the material and the liquid pressate is treated through a membrane treatment process. The dewatered solids are hauled to the Hartland landfill and the liquid is discharged to an on-site disposal field.

**VOLUME OF MATERIAL RECEIVED**

There has been a continuous annual growth in volume of materials received for processing at the site between 2006 and 2009 but an anticipated decrease for 2010.

- Total volume of material received in 2006 was 3,677 m<sup>3</sup> (808,915 Imperial Gallons)
- Total volume of material received in 2007 was 3,909 m<sup>3</sup> (859,959 IG), a 6% increase over 2006
- Total volume of material received in 2008 was 4,254 m<sup>3</sup> (935,857 IG), a 9% increase over 2007
- Total volume of material received in 2009 was 4,490 m<sup>3</sup> (987,637 IG), a 6% increase over 2008
- Total volume of material projected for 2010 is 4,290 m<sup>3</sup> (943,810 IG), an anticipated 4% decrease over 2009.

The volume of septage waste received during the first four months following the 2010 tipping fee increase decreased on average by 12% however, total 2010 volumes are expected to rebound to within 4% of 2009.

**SOLIDS DISPOSAL**

Solids produced by the dewatering process continue to be batched and transported to Vancouver Island for final disposal at the Hartland landfill. The solids are temporarily stored in covered bins and transported, sometimes weekly during summer peak periods, and every other week during the winter. The cost of bin rental, landfill tipping fees, together with the cost of transport to Vancouver Island, constitutes a large portion of the operating costs.

In 2009, 459 tonnes of dewatered solids were trucked and disposed at Hartland at a total cost of \$73,881. 2009 trucking fees were 12% less than 2008 because the facility was unable to process material during a short period in the summer due to equipment failure and the liquid waste was trucked off-island. This increased the 2009 disposal fees a further \$30,000 to an annual cost in excess of \$100,000.

**OPERATIONS**

The facility has been operated and maintained for several years by making incremental improvements that optimize and sustain existing processes, minimize safety risks and maintain the reliability of equipment without requiring long-term (15-year) borrowing of capital. Operation also aims to minimize potential impacts on the surrounding area with respect to noise, odour, traffic and dust.

Despite these improvements, the system continues to suffer from diminishing performance and reliability of critical processes and equipment. In August 2010, the single discharge pipe carrying treated effluent to the disposal field failed causing a disruption to the treatment process. Ongoing maintenance and equipment failure continue to plague the operating budget which was increased in 2010 through the increase in tipping fees at the facility to offset a 2009 year end deficit.

### **MAJOR UPGRADE PROJECT**

Recognizing that the existing Burgoyne facility is struggling to provide a reliable and cost-effective service, in July 2008 the Salt Spring Island Liquid Waste Disposal Local Service Commission (SSILW) decided to begin planning a major upgrade. On November 15, 2008, the electors of Salt Spring Island voted 75% in favour of adopting CRD Bylaw No. 3564, which enables the CRD to borrow up to \$2.1 million for upgrading the Burgoyne facility. The proposed upgrade is intended to replace much of the existing facility with a permanent, fully enclosed dewatering facility. The proposed work includes the following major components:

- Construct permanent process building, roughly 200m<sup>2</sup> with integral spill containment and odour control systems.
- Procure and install new receiving station, including aerated grit channel, auger screen, grit and screenings washing, card reader and magnetic flow meter for automated billing.
- Upgrade existing storage tanks to provide more effective mixing.
- Refurbish and expand existing Fournier rotary sludge press.
- Utilize Membrane Bio Reactor unit from Ganges pilot project (new scope to replace procurement of new equipment)
- Upgrade electrical service to site.
- Consultant engineering design, regulatory approvals, internal staff administration time and contingency (30% of bare construction cost).
- Construct permanent composting facility (currently on hold).



Current receiving station: manual screen cleaning.



Membrane Bio Reactor tank and operator facilities.

Dayton and Knight Ltd. Consulting Engineers, successful bidder of the public tendered engineering consultant contract, has completed the final design and cost estimates. Secured quotations from suppliers for the procurement of equipment through a detailed Request for Proposal (RFP) process is now complete. A general installation contract has been produced to include the pre-selected equipment at the quoted prices supplied so that purchase, delivery and installation of the equipment remain the responsibility of the general contractor. The original budget of \$1.8 million appears insufficient given latest consultant estimates. Several options to the original scope of work will be presented to the Commission in December 2010 for consideration before requesting bids for general installation.

If the permanent composting facility is considered, it would include odour and runoff containment systems. It is anticipated that the facility could produce a compost product suitable for a wide range of uses under the BC

*Organic Matter Recycling Regulation*, fulfilling the original mandate of the Salt Spring Island Liquid Waste Local Service. The operation would meet the CRD requirements under *Composting Facilities Regulation Bylaw* (Bylaw 2736).

Pilot Biosolids Composting Project

The original 1993 mandate of the SSILW included the production of a compost product that would have beneficial use on the island and eliminate the hauling of biosolids off the island. If all material currently trucked to the Hartland landfill can be composted, the cost of trucking and tipping fees at the landfill could be applied to the compost operation. A full-scale pilot composting operations is anticipated to commence after completion of the treatment facility upgrade, in order to develop design and operating parameters for a permanent facility.

**FINANCIAL STATEMENT**

The Salt Spring Island liquid waste budget funds all operations, maintenance, and capital improvements for the Burgoyne Bay processing facility.

Unplanned expenses along with a carry forward deficit of \$29,942 produced a 2009 year-end deficit of \$75,637. The core operating budget is funded predominantly by tipping fees. Total tipping fees collected in 2009 were \$235,864.


A tipping fee increase at the Burgoyne septage facility in January 2010 was approved to offset the 2009 carry forward deficit and to support anticipated additional costs incurred through 2010, such as failure of the aging equipment. Tipping fees are expected to remain at the current rate for the immediate future.


The core operating budget for the service for 2010 is \$367,619, an increase of approximately 8% due to an increase in costs to operate the facility. The budget for operating labour was increased by 13% within that budget to reflect the additional labour needed to keep the existing facility operating until the upgrades are completed.

The funding plan for the upgrade project relied on carrying forward a surplus from 2009 in order to maintain the current parcel tax rate of \$42.11 until at least 2013. The parcel tax remains unchanged in 2010 at \$42.11. The 2009 parcel tax revenue of \$225,400 is based on 5,635 taxable folios, and is used predominantly to finance capital expenditures. By 2013, the parcel tax will be almost fully committed to servicing the new Municipal Finance Authority (MFA) debt required for the major upgrade project.

A copy of the financial statement for the Salt Spring Island Liquid Waste function for 2009, as produced by CRD Finance Department is attached (Attachment 1).

  
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Attachments: 1

**CAPITAL REGIONAL DISTRICT**

**Sewer Revenue Fund  
Statement of Financial Activities (Unaudited)  
For the Year Ended December 31, 2009**

|                                  |           | SSI<br>Septage<br>Disposal |
|----------------------------------|-----------|----------------------------|
| <b>Revenue</b>                   |           |                            |
| Transfers from government        | \$        | 225,400                    |
| Sale of services                 |           | 235,864                    |
| Other revenue from own sources:  |           |                            |
| Building permits                 |           | -                          |
| Interest earnings                |           | -                          |
| Other revenue                    |           | 1,460                      |
| Grants in lieu of taxes          |           | 170                        |
|                                  |           | <u>462,894</u>             |
| <b>Expenditure</b>               |           |                            |
| General government services      |           | 7,760                      |
| Other                            |           | 488,809                    |
| Salaries and wages               |           | -                          |
| Other fiscal services            |           | 12,020                     |
| Recovery                         |           | -                          |
|                                  |           | <u>508,589</u>             |
| <b>Net revenue (expenditure)</b> |           | <b>(45,695)</b>            |
| Transfers to own funds:          |           |                            |
| Sewer Capital Fund               |           | -                          |
| Reserve Funds                    |           | -                          |
| Equipment Replacement Fund       |           | -                          |
| Transfers from own funds:        |           |                            |
| Sewer Capital Fund               |           | -                          |
| Reserve Funds                    |           | -                          |
| <b>Change in fund balance</b>    |           | <b>(45,695)</b>            |
| Opening balance                  |           | (29,942)                   |
| <b>Closing balance</b>           | <b>\$</b> | <b>(75,637)</b>            |