



Making a difference...together

**PORT RENFREW UTILITY SERVICES  
2013 ANNUAL REPORT  
SEPTEMBER 23, 2014**

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**Purpose of the Annual General Meeting**

The agenda for the Annual General Meeting (AGM) is approved by the members of the Committee. The purposes (and hence the agenda items) of the meeting are:

- To have the last year's AGM minutes approved (by Committee members), and to present reports on the work of the Committee, the past year's operation, maintenance, capital upgrades and financial information to the service area residents and owners,
- To nominate members for appointment to the Committee, and
- To enable the public to share comments on subjects which relate to the work of the Committee. The Committee can identify (under "new business") issues on which it wants feedback at the meeting. Motions are not considered from the public at the AGM.

**PORT RENFREW UTILITY SERVICES COMMITTEE**

The Port Renfrew Utility Services Committee (PRUSC) has authority delegated by the Capital Regional District (CRD) Board for provision of water, sewer, street lighting and refuse disposal for the Port Renfrew community. Refuse disposal service is also provided to the Pacheedaht First Nation under a service delivery agreement. This Annual Report relates to the services provided under the authority of the PRUSC.

**STREET LIGHTING SERVICE**

Street lighting service is provided in the area of Port Renfrew known as Beach Camp. The street lights are operated and maintained by BC Hydro, and costs are recovered through a parcel tax and user charge on parcels in the area where the service is provided. There have been no significant issues with the service in the past year.

**DRINKING WATER SERVICE**

The Port Renfrew water service area exists to extract water from a well, treat the water and distribute it to customers. This service is paid for by all properties in the service area since all properties benefit from the service. Total costs to operate the system are supported 50% by parcel taxes and 50% by user fees. Although parcel taxes are the same for every lot, user fees vary based on Single Family Equivalents (SFE) assessed, so individual properties will not see an exact 50/50 split between parcel taxes and user fees.

Snuggery Cove was a group of 43 lots added to the Port Renfrew water service area in 2002. In order to connect Snuggery Cove to the rest of the system, a water main extension was required. At the time it was decided that only the residents of Snuggery Cove would pay for this extension since they were the sole beneficiaries of the extension. The cost of this project was borrowed in 2002 and is being paid back by the properties in the Snuggery Cove water service area. As of

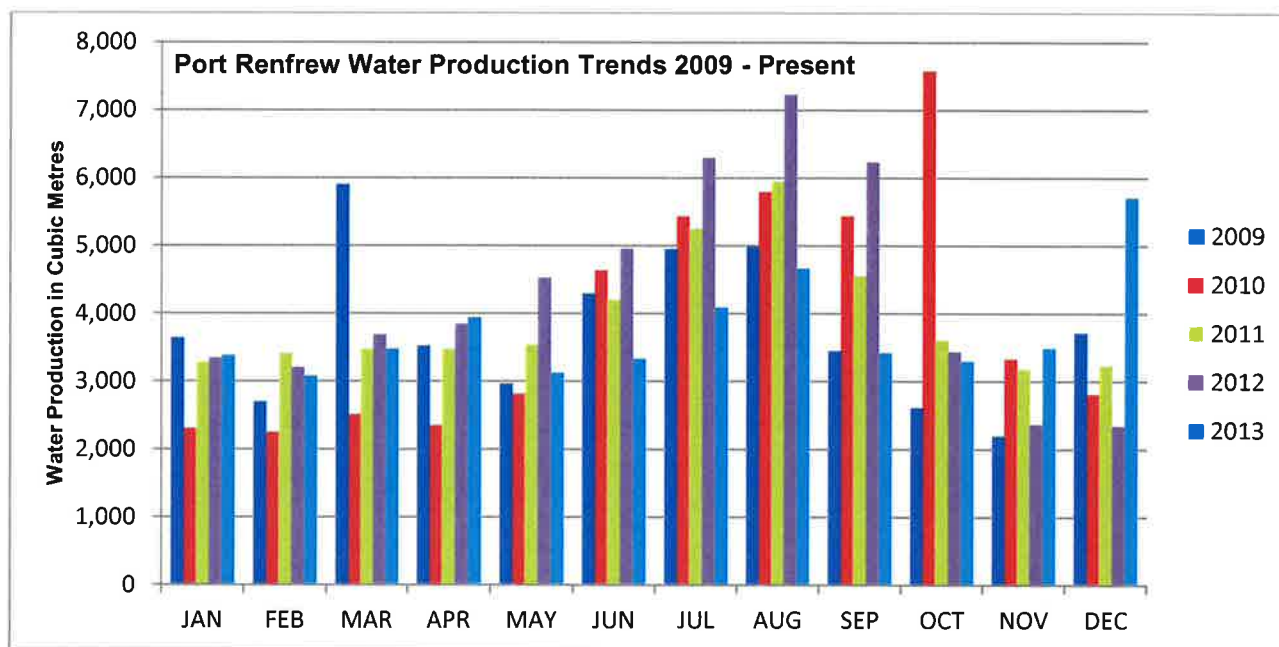
January 1, 2014, there is now a total of 86 folios (properties) participating in the debt recovery, and increase of 120% since 2011 which has lessened the individual debt payment per folio substantially over the past few years

**Water Supply and Demand**

Supply: Well Extraction

Total water production through the Port Renfrew water treatment plant in 2013 was 45,020 m<sup>3</sup>; a decrease of approximately 6,463 m<sup>3</sup> (12.5%) from the previous year. The production amount includes water used for fire-fighting, hydrant flushing, maintenance activities and water system leaks. **Figure 1** provides a monthly comparison of treated water volumes over the past five years. Singular spikes in monthly well extraction are largely attributable to recorded watermain and service failures, i.e.; December 2013 and January 2014 saw several significant failures in the forested area near the water treatment plant. Without individual water meters at each property, it is impossible to calculate non-revenue water; water typically used for operational and treatment process purposes such as watermain flushing, reservoir cleaning and filter backwashing. Non-revenue water also includes water lost to leakage in the distribution system, including private side connections and fire-fighting activities.

**Figure 1. Port Renfrew Water Production 2009 - Present**



Demand: Customer Consumption

Of the 172 taxable folios within the water service area, 145 have service connections. There are 242.33 SFEs (Single Family Equivalent) being provided drinking water through the 145 connections, consisting of single detached residences, duplexes, commercial businesses and properties with multiple dwellings (both strata and non-strata), each on a single property or folio.

To estimate average annual water use per connection, the total volume of produced water (measured as drawn from the well) is divided by the number of connections; for 2013, this equates to 310 m<sup>3</sup>/yr. per connection. If estimating water consumption based on the number of

SFEs 2013 Port Renfrew average consumption drops to approximately 186 m<sup>3</sup>/yr.

The Port Renfrew water system does not have meters installed on residential services. Without the ability to monitor individual residential use, leaks on private properties may go un-noticed, potentially wasting a significant amount of treated drinking water from the system. Commercial properties are fitted with meters which are periodically checked for anomalous readings and flagged for investigation where atypical flow is identified, but they are not used for billing purposes.

### **Drinking Water Quality**

Typical Port Renfrew Water System water quality characteristics include:

- Treated water is bacteriologically safe to drink. In 2013, a total of 61 treated water samples were analyzed; there was one total coliform positive sample; however, the resample was negative and no *E. coli* bacteria found in any treated water samples.
- Source water turbidity (cloudiness) is below the limit of 1 Nephelometric Turbidity Units (NTU) with raw water turbidity of 0.55 NTU.
- Total organic carbon was not detected in the treated water.
- Disinfection by-products (total trihalomethanes) were 38.8 micrograms per litre (µg/L) in 2013, well below the guideline limit of 100µg/L.
- Routine residual chlorine checks (61 samples) to ensure the system remained disinfected were within acceptable limits.

Analytical results of water samples collected during 2013 from the Port Renfrew Water System show that the quality of drinking water is satisfactory and well within regulatory limits. Routine water quality data is posted on the CRD website at:

<https://www.crd.bc.ca/about/data/drinking-water-quality-reports/juan-de-fuca-water-quality-reports/port-renfrew-water-quality-reports>

### **Operations**

The Port Renfrew Water System, which serves the Beach Camp and Snuggery Cove areas, has operated reliably in the past year. Significant events and activities for 2013 and to date include:

- Installation of a higher capacity hydrogen sulphide scrubber at the treatment plant
- Installation of a back-up power generator at water treatment plant
- Replacement of check valve and intake piping at treatment plant
- Three water main leak repairs and a line valve installation that carried over into 2014
- Annual isolation valve exercising and fire hydrant maintenance/rebuilds
- Two new water services installed:
  - 6654 Queesto Drive
  - 6493 Powder Mainline
- Rebuilt chlorine pump at the treatment plant

All planned 2014 preventive maintenance work including annual system flushing and well point access road upkeep is expected to be completed by December 31, 2014.

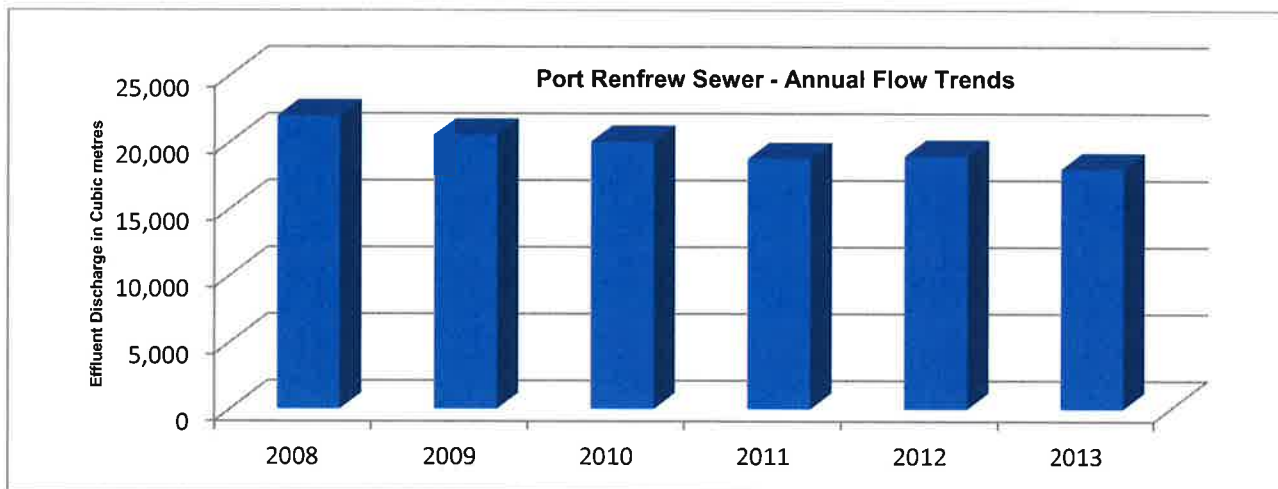
## SEWER SERVICE

### Sewer Collection Flows

The Port Renfrew sewer system serves 87 properties in the Beach Camp and localized residential area above and has continued to operate reliably in the past year. The treatment process consists of an extended aeration facility and a steel outfall which discharges treated effluent to the San Juan River estuary under Ministry of Environment permit. The 87 properties are comprised of 94.77 Single Family Equivalents (SFEs).

17,993 m<sup>3</sup> of sewage was treated and discharged in 2013 for an average of 190 m<sup>3</sup>/SFE. Sewage flows in Port Renfrew have shown a downward trend over the years with higher recorded flows largely due to rain- fall influence in the wet seasons. Saturated ground conditions allow inflow and infiltration water to enter the system through aged joints and cracks in the old pipes installed in the 60's. Cross connections and ground water systems draining into the sewer system have been all but removed over the years following smoke testing of the sewer system. The decrease in sewer flows since 2010 is partially attributable to the installation of underground drains behind several properties on the east end of Tsonoqua Drive and the disconnection of two roof drain systems from the sewer (cross connections); rectified and financed by the Ministry of Transportation. **Figure 3** shows Port Renfrew sewer flow trends over the last six years.

**Figure 3: Port Renfrew Sewer Flow Trends 2008 – 2013**



### Treated Effluent Discharge Quality

The Port Renfrew Waste Water Treatment Plant continues to discharge effluent typically within the parameters allowed under the Ministry of the Environment (MOE) permit. Mean daily flows were in the upper range of flows measured since 2007, but never exceeded the allowable maximum flow rate. Effluent quality improved slightly compared to the previous four years with Total Suspended Solids (TSS) exceeding allowable permit maximums only 6% of the time, down from 17% in 2012, with no other permit violations.

Receiving water monitoring was conducted twice around the Port Renfrew WWTP outfall; in January 2013 and again in August 2013 consisting of five sets of samples in a 30 day period from six different locations. All six of the water receiving stations (estuary) had fecal coliform and enterococci geometric means below the guideline of 200 CFU (Colony Forming Units)/100 mL. Results are to be reviewed with MOE, but it is anticipated sampling will not need to be

repeated until 2016 unless there are planned bypasses, plant failures/overflows or wet weather overflows that exceed three days duration in the winter and one day duration in the summer.

In response to a 2011 *Out of Compliance* notice from the MOE, the CRD provided a written proposal to enhance flow monitoring at the plant and perform annual outfall inspections to assess the condition of the marine outfall pipe. In June 2013 and again in July 2014, CRD staff conducted inspections of the pipe and anchors. No further deterioration was recorded from the prior 2012 inspection. One pipe anchor was replaced satisfying the recommended repairs as submitted to MOE. The next recommended outfall inspection will be in June/July 2017.

## Operations

Significant events and activities for 2013 include:

- Ministry of the Environment facility tour (2013)
- Annual inspection of sewer outfall.
- New netting installed over clarifier tank

2014 preventive maintenance work including previous outfall inspection recommendations are expected to be completed by December 31, 2014

## REFUSE DISPOSAL SERVICE

The Port Renfrew Refuse Disposal service serves 277 properties (237 residential folios) within the area and is funded through direct taxation based on the value of each property; the Pacheedaht First Nation is provided service through an annual agreement. The tonnages of materials received and transferred at the Port Renfrew facility in 2013 are as follows:

Garbage	148 tonnes (10% decrease from 2012)
Recyclables: Paper fibres	18 tonnes (5% decrease from 2012)
Glass/metal/plastic containers	8 tonnes (33% increase from 2012)
Scrap metal	62 tonnes (106% increase from 2012)
Oil/filters/containers	8 drums (25% increase from 2012)
Total recyclables	90 tonnes (58% increase from 2012)

To address the food scraps landfill disposal ban scheduled to begin January 1, 2015, a separate food waste collection is being planned for the fall of 2014.

## 2013 YEAR END BUDGET AND FINANCIAL REPORT

Attached are copies of the *Statements of Operations (Unaudited)* for Port Renfrew Street Lighting, Water, Snuggery Cove Water, Sewer and Refuse Disposal services as prepared by CRD Finance and Corporate Services for the year 2013. The statements provide an overview of the revenues and expenditures for the year.

*Revenue* includes parcel taxes (*Transfers from government*) and user fees (*Sale of services*), and small amounts for interest on savings (*Interest Earnings*) and miscellaneous revenue such as connection charges and late payment charges (*Other revenue*). *Expenses* include all costs of providing the service. *General government services* include budget preparation, financial

management, utility billing, and risk management services. *Other expenses* include all other costs to administer and operate the water system, and the principal and interest payments on borrowing to finance capital projects. *Other fiscal services* includes administration costs for loans.

The difference between *revenue* and *expenses* is reported as *Net revenue (expenses)*. Any transfers to or from capital or reserve accounts for the service (*Transfers to own funds*) are deducted from this amount and it is then added to any surplus or deficit carry forward from the prior year, yielding an *Accumulated surplus* (or deficit) that is carried forward to the following year.

### **Street Lighting Service**

Revenues of \$5,888 for the Street Lighting service consisted of \$2,905 from parcel taxes, \$2,872 from user charges, and \$111 from other sources such as interest, late payment charges and payment in lieu of taxes on crown property. Of the \$5,750 expense, \$5,350 was paid to BC Hydro (an increase of \$237 over 2012), and the remaining \$400 covered finance and administrative expenses. The difference between revenue and operating expense – a surplus of \$138, minus \$6 of interest costs on temporary borrowing was added to the \$596 surplus carried forward from 2012, resulting in a net surplus of \$728 that was carried forward into 2014.

### **Water Service**

The 2013 revenue of \$107,189 included \$51,166 parcel tax and \$51,170 user fees. The total expenses were \$73,934 for operation and administration of the service, leaving a surplus of \$33,255 of which \$37,500 was transferred to Reserve Funds leaving a net deficit of \$4,245. This deficit was added to the \$35,952 surplus carried forward from 2012, resulting in an accumulated surplus of \$27,470 carried forward to 2014.

On December 31, 2013, the Port Renfrew Water Capital Reserve Fund held \$75,032 in funds and the Equipment Replacement Fund had a \$14,243 balance.

### **Snuggery Cove Water Service Debt Recovery**

This service exists for the sole purpose of repaying a \$325,000 loan for expansion of the water system to Snuggery Cove, completed in 2004. The revenue is raised through a property value tax on properties in the Snuggery Cove area that are able to receive water service as a result of the expansion. 2013 revenues, consisting of payment of principal, interest on the debt, and finance and administration costs exceeded expenses by \$14 and when added to the carry forward deficit of \$136, created a 2014 carry forward deficit of \$122.

### **Sewer Service**

The 2013 revenue of \$81,298 included \$39,914 parcel tax and \$39,913 user fees, the remainder being late payment charges, interest earned and grants in lieu of taxes. The total expenses were \$74,625 for operation and administration of the service, leaving a surplus of \$6,673 for 2013 of which \$3,392 was transferred to the Reserve Fund leaving a year end surplus of \$3,281. This was added to the \$11,041 surplus carried forward from 2012, resulting in an accumulated surplus of \$14,322 carried forward to 2014.

As of December, 2013, the Port Renfrew Sewer Capital Reserve Fund contained \$10,002 and the Equipment Replacement Fund had a balance of \$18,614

**Refuse Disposal Service**

The 2013 revenue of \$60,927 included \$29,973 from property value taxes, \$3,392 from the sale of recyclables (a 35% increase or \$883 from 2012 recyclables revenue), \$27,251 contract revenue for service to the Pacheedaht First Nation and \$311 in earned interest and grants in lieu of taxes. The operating expense of \$81,878 was partially offset by an internal recovery of \$15,000 from the Solid Waste Function for the recycling program, resulting in a net total expense of \$66,878.

The difference between revenue and expenses in 2013 amounted to a net deficit of \$5,951. With \$3,510 transferred to the Capital Funds and \$74 interest costs, an annual operating deficit of \$9,935 was realized. Subtracted from the 2013 opening surplus of \$2,226, a deficit of \$7,309 was carried forward to 2014.

As of December 31, 2013, the refuse disposal function had a capital reserve of \$16,105 with an uncommitted value of approximately \$1,225 after the planned purchase of a Food Waste Bin in 2014; the equipment replacement fund contained \$28,318.

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Peter Sparanese, P.Eng.  
Senior Manager, Infrastructure Engineering  
And Operations

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Ted Robbins, B.Sc., C. Tech.  
General Manager, Integrated Water Services  
Concurrence

GP/PS:ls  
Attachments: 4

## CAPITAL REGIONAL DISTRICT

### GENERAL REVENUE FUND Statement Of Operations (Unaudited) Protective Services - General C For the Year Ended December 31, 2013

	Port Renfrew Street Lighting
<b>Revenue</b>	
Transfers from government	\$ 2,905
Sale of services:	
Other sales	2,872
Other revenue from own sources:	
Interest earnings	8
Other revenue	25
Grants in lieu of taxes	78
<b>Total revenue</b>	<b>5,888</b>
<b>Expenses</b>	
General government services	400
Other	5,350
Salaries and wages	-
<b>Total expenses</b>	<b>5,750</b>
<b>Net revenue (expenses)</b>	<b>138</b>
Transfers to own funds:	
Capital Funds	-
Equipment Replacement Fund	-
Debt charges:	
Interest on temporary borrowing	6
<b>Annual surplus (deficit)</b>	<b>132</b>
Accumulated surplus (deficit), beginning of year	596
<b>Accumulated surplus (deficit), end of year</b>	<b>\$ 728</b>



## CAPITAL REGIONAL DISTRICT

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### WATER REVENUE FUND Statement of Operations (Unaudited) For the Year Ended December 31, 2013

	Port Renfrew Water Supply
<b>Revenue</b>	
Transfers from government	\$ 51,166
Sale of services	51,170
Other revenue from own sources:	
Licenses and permits	-
Interest earnings	674
Other revenue	3,569
Grants in lieu of taxes	610
<b>Total revenue</b>	<b>107,189</b>
<b>Expenses</b>	
General government services	5,374
Other expenses	68,560
Other fiscal services	-
<b>Total expenses</b>	<b>73,934</b>
<b>Net revenue (expenses)</b>	<b>33,255</b>
Transfers to own funds:	
Capital Funds	-
Reserve Funds	37,500
Equipment Replacement Fund	-
<b>Annual surplus (deficit)</b>	<b>(4,245)</b>
Accumulated surplus (deficit), beginning of year	31,715
<b>Accumulated surplus (deficit), end of year</b>	<b>\$ 27,470</b>

## CAPITAL REGIONAL DISTRICT

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### WATER REVENUE FUND

#### Statement of Operations (Unaudited)

For the Year Ended December 31, 2013

	<b>Port Renfrew Snuggery Cove Water System</b>
<b>Revenue</b>	
Transfers from government	\$ 31,801
Sale of services	-
Other revenue from own sources:	
Licenses and permits	-
Interest earnings	20
Other revenue	217
Grants in lieu of taxes	-
<b>Total revenue</b>	<b>32,038</b>
<b>Expenses</b>	
General government services	810
Other expenses	30,856
Other fiscal services	358
<b>Total expenses</b>	<b>32,024</b>
<b>Net revenue (expenses)</b>	<b>14</b>
Transfers to own funds:	
Capital Funds	-
Reserve Funds	-
Equipment Replacement Fund	-
<b>Annual surplus (deficit)</b>	<b>14</b>
Accumulated surplus (deficit), beginning of year	(136)
<b>Accumulated surplus (deficit), end of year</b>	<b>\$ (122)</b>

## CAPITAL REGIONAL DISTRICT

### Sewer Revenue Fund Statement of Operations (Unaudited) For the Year Ended December 31, 2013

	<b>Port Renfrew Sewerage System</b>
<b>Revenue</b>	
Transfers from government	\$ 39,914
Sale of services	39,913
Other revenue from own sources:	
Permits	-
Interest earnings	177
Other revenue	347
Grants in lieu of taxes	947
<b>Total revenue</b>	<b>81,298</b>
<b>Expenses</b>	
General government services	3,751
Other	70,816
Other fiscal services	58
Recovery	-
<b>Total expenses</b>	<b>74,625</b>
<b>Net revenue (expenses)</b>	<b>6,673</b>
Transfers to own funds:	
Capital Funds	-
Reserve Funds	3,392
Equipment Replacement Fund	-
Transfers from own funds:	
Sewer Capital Fund	-
Revenue Funds	-
<b>Annual surplus (deficit)</b>	<b>3,281</b>
Accumulated surplus (deficit), beginning of year	11,041
<b>Accumulated surplus (deficit), end of year</b>	<b>\$ 14,322</b>

## CAPITAL REGIONAL DISTRICT

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**GENERAL REVENUE FUND**  
**Statement Of Operations (Unaudited)**  
**Environmental Health**  
**For The Year Ended December 31, 2013**

	<b>Port Renfrew Disposal</b>
<b>Revenue</b>	
Transfers from government	\$ 29,973
Sale of services:	
Garbage collection	3,392
Other revenue from own sources:	
Building permits	
Interest earnings	36
Other revenue	27,251
Grants in lieu of taxes	275
<b>Total revenue</b>	<b>60,927</b>
<b>Expenses</b>	
General government services	3,369
Other	78,509
Salaries and wages	
Other fiscal services	
Other (recovery)	(15,000)
<b>Total expenses</b>	<b>66,878</b>
<b>Net revenue (expenses)</b>	<b>(5,951)</b>
Transfers to own funds:	
Revenue Funds	
Capital Funds	3,510
Reserve Funds	
Equipment Replacement Fund	
Transfers from own funds:	
Revenue Funds	
Reserve Funds	
Debt charges:	
Interest on temporary borrowing	74
Interest on long-term debt	
Principal installments / sinking fund	
<b>Annual surplus (deficit)</b>	<b>(9,535)</b>
Accumulated surplus, beginning of year	2,226
<b>Accumulated surplus, end of year</b>	<b>\$ (7,309)</b>