Making a difference...together

CEDAR LANE WATER SERVICE COMMISSION
ANNUAL GENERAL MEETING

Notice of Meeting on Thursday, November 30, 2017 at 10:00 AM
Creekside Meeting Room, Suite 108 121 McPhillips Ave, Salt Spring Island, BC

Wayne McIntyre Ralph Dom Jane Squier Troy Newton

Purpose of the Annual General Meeting

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

- To have the last year's AGM minutes approved (by Commission members), and to present reports on the work of the Commission on the past year's operation, maintenance, capital upgrades and financial information of the service to the service residents and owners,
- To nominate members for appointment to the Commission, and
- To enable the public to share comments on subjects which relate to the work of the Commission. The Commission can identify (under "new business") issues on which it wants feedback at the meeting. Motions raised by the public at the AGM will be considered by the commission at a subsequent regular meeting.

The Annual General Meeting is for the 2016 fiscal year.

AGENDA

1. **Call to Order**
2. **Approval of Agenda**
3. **Adoption of Minutes of the 2015 Fiscal Year Annual General Meeting held on June 21, 2016.**
4. **Chair's Report**
5. **Report**
   - **5.1 Annual Report for 2016 Fiscal Year**
6. **Election of Officers**
7. **New Business**
8. **Adjournment**

To ensure quorum, advise Tracey Shaver 250 537 4448 if you cannot attend.

Making a difference...together

Minutes of the Annual General Meeting of the Cedar Lane Water Service Commission Held June 21, 2016, Portlock Park Meeting Room, 145 Vesuvius Bay Road, Salt Spring Island, BC

DRAFT

Present: **CRD Director:** Wayne McIntyre
Commission Members: Rob Pingle, Jane Squier, Troy Newton
Staff: Karla Campbell, Senior Manager SSI Electoral Area; Keith Wahlstrom, Manager, Engineering SSI Electoral Area; Dan Robson, Manager, Saanich Peninsula and Gulf Islands Operations; Peggy Dayton, Senior Financial Analyst; Kyu-Chang Jo, Financial Analyst 2; Tracey Shaver, Recording Secretary

1. Call or order

Chair Pingle called the meeting to order at 10:03 am.

2. Approval of Agenda

MOVED by Director McIntyre, **SECONDED** by Commissioner Newton,
That the June 21, 2016 agenda of the Annual General Meeting of the Cedar Lane Water Service Commission be approved.

CARRIED

3. Adoption of the AGM Minutes of September 11, 2015

MOVED by Commissioner Squier, **SECONDED** by Commissioner Newton,
That the minutes of the Annual General Meeting held on September 11, 2015 for the Cedar Lane Water Service Commission be approved with the following amendment; correction of spelling in item 7.2 Magnesium to Manganesa.

CARRIED

4. Chair's Reports

Chair Pingle reported briefly on the following:

- Two meetings per year; AGM earlier in the year, Budget planning in September.
- Need for additional water conservation efforts
- Sediment continues to appear in the lines
- Balance between water storage and ability to run service.

5. Report

5.1 Annual Report for 2015 Fiscal Year

Staff reviewed the 2015 Annual Report.

MOVED by Commissioner Squier, **SECONDED** by Commissioner Newton,
That the Cedar Lane Water Service Commission 2015 Annual Report be received for information.

CARRIED

6. Election of officers

Chair Pingle will have completed three terms at the end of 2016.
Commissioner Squier agreed to be nominated for another term and Ralf Dom was nominated by the Chair to fill the second vacancy. Chair called twice more for nominations and hearing none, closed the election.
Jane Squier and Ralf Dom will be recommended to the CRD Board for approval of terms which begin in 2017.

7. New Business

Brief discussions on the following topics:

- Sediment build up in individual lines; development of protocol for flushing main line followed by a separate flush of private lines.
- No main flushing in the fall when the water is scarce.
- SAMP- level of service
- Incentives for rain water harvesting

MOVED by Commissioner Newton, **SECONDED** by Commissioner Squier,
That the Cedar Lane Water Service Commission request staff to establish a protocol for system wide main flushing to be conducted during the season with the most potential for precipitation.

CARRIED

MOVED by Commissioner Squier, **SECONDED** by Commissioner Newton
That the Cedar Lane Water Service Commission request staff to integrate a rain water catchment system incentive program of up to $500 per household into the 2017 budget process.

CARRIED

MOVED by Commissioner Squier, **SECONDED** by Commissioner Newton,
That the Cedar Lane Water Service Commission requests that additional time be allocated to future meetings.

CARRIED

8. Adjournment

MOVED by Commissioner Squier, **SECONDED** by Commissioner Newton,
That the Cedar Lane Water Service Commission meeting be adjourned at 11:20 am.

CARRIED

CHAIR

SENIOR MANAGER

Making a difference...together

CEDAR LANE WATER SERVICE
2016 ANNUAL REPORT
Thursday, November 30, 2017

Introduction

This report provides a summary of the Cedar Lane Water Service for 2016. It includes a description of the service, summary of the water supply, demand and production, drinking water quality, operations highlights, capital project updates and financial report.

Service Description

The Cedar Lane Water Utility is a rural residential community located on Salt Spring Island. The service was created in 1970 and became a CRD service in 2007. The Cedar Lane Water Utility (Figure 1) is comprised of 37 parcels of land of which all are connected to the system.

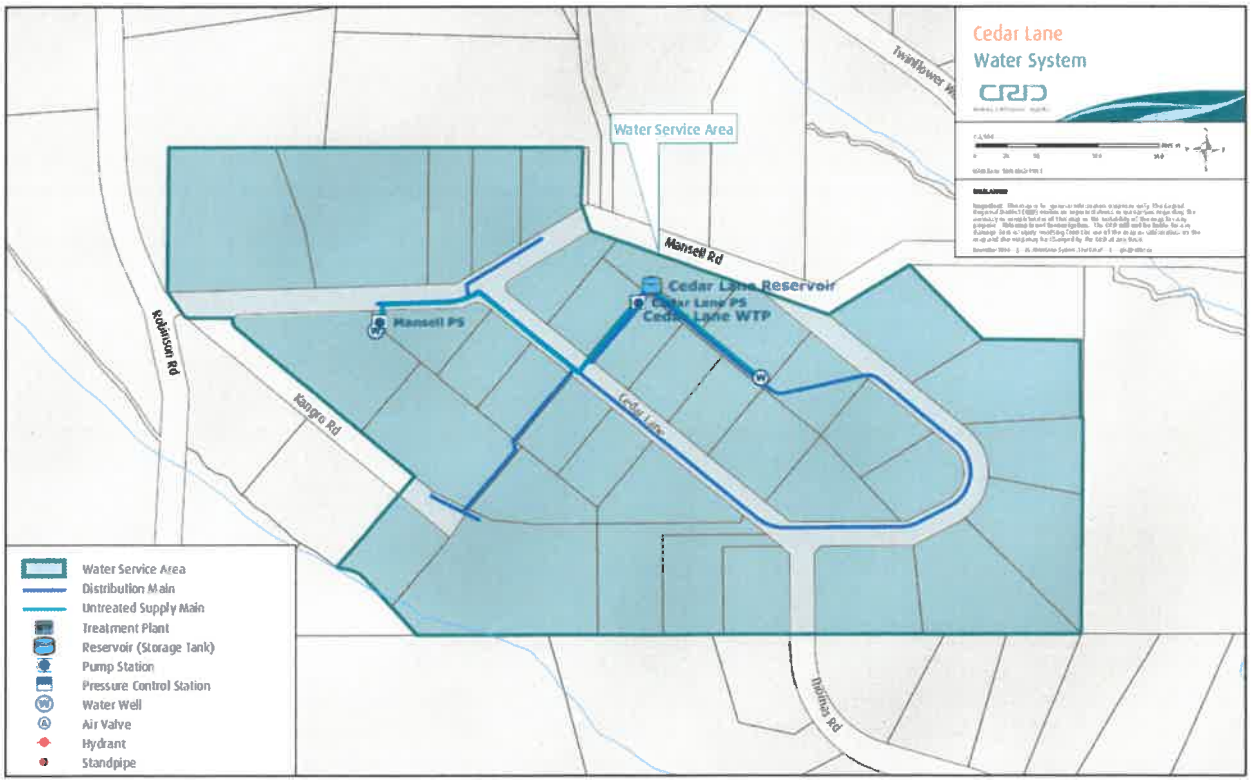

Figure 1: Cedar Lane Water Service

The Cedar Lane water system is primarily comprised of:

- two ground water source wells (#1 and #5)
- a water treatment plant (WTP) that provides primary disinfection with ultraviolet (UV) radiation and residual disinfection using sodium hypochlorite;
- 1 water reservoir – 136 m^3 (30,000 Ig);
- 1,260 metres of water distribution pipe;
- fire hydrant, standpipes, and gate valves;

- water service connections complete with water meters.

Water Production and Demand

The Cedar Lane water system extracts water from 2 wells, chlorinates the water, and provides storage and distribution to the users. The total amount of water produced into the Cedar Lane water distribution system (Figure 2) in 2016 was 3,609.4 cubic metres (m^3) a decrease of 6.6% from 2015 when 3,867.4 m^3 was produced. The average water produced from 2011 to 2016 was 4,299.8 m^3 however, if 2012 is excluded as an anomaly, the average water produced decreases to 3,921.9 m^3.

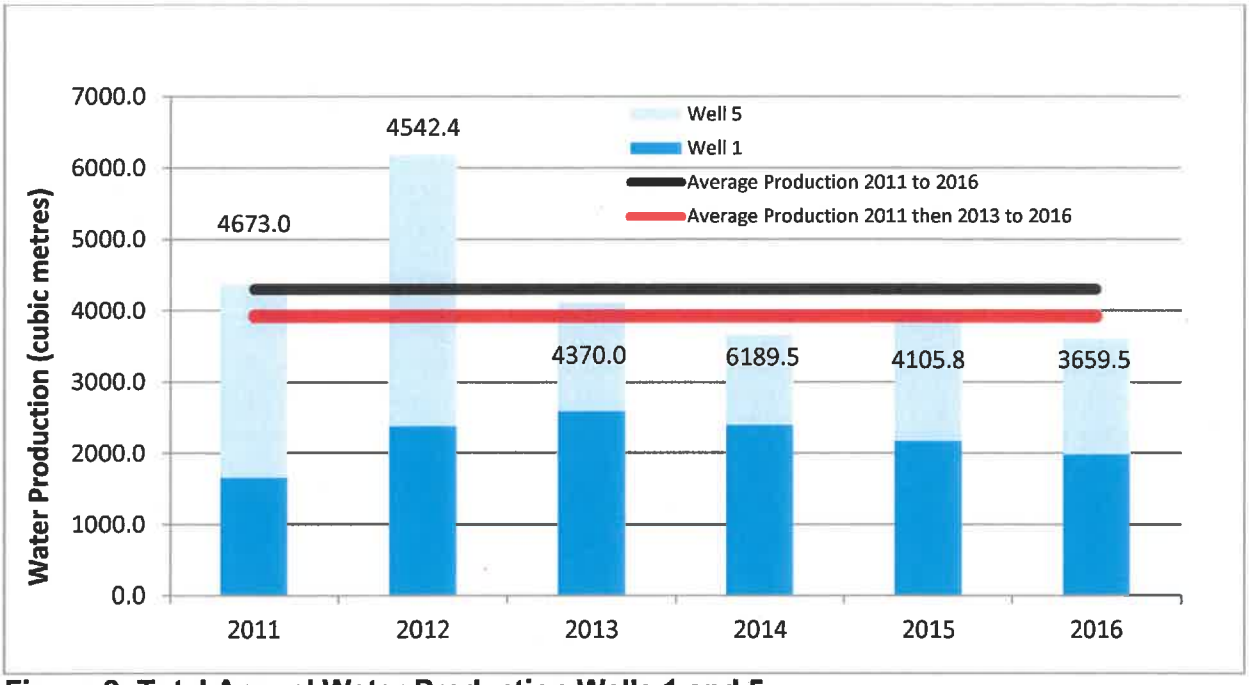

Figure 2: Total Annual Water Production Wells 1 and 5

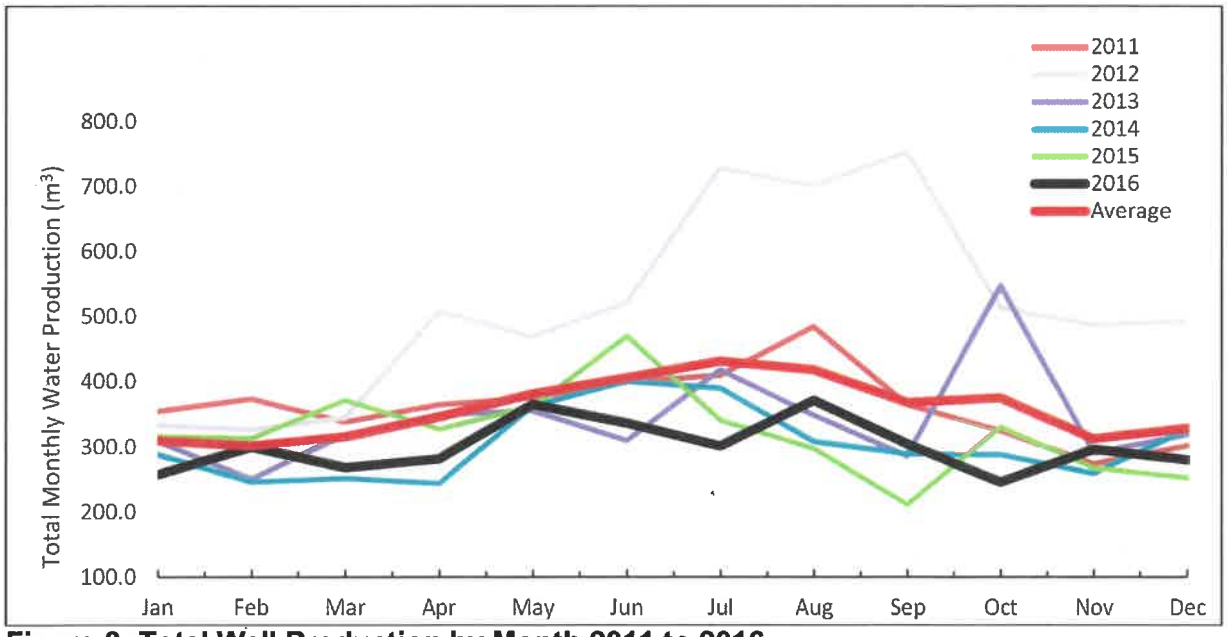

Figure 3: Total Well Production by Month 2011 to 2016

The Cedar Lane Water System is fully metered, and water meters are read every three months. Water meter data enables water production and consumption to be compared in order to estimate leakage losses in the distribution system. The difference between water produced and water sold (total metered consumption) is called non-revenue water and includes distribution leaks, meter error, and unmetered uses such as fire hydrant usage, distribution system maintenance and process water for the treatment plant. Table 1 summarizes the data for the last 5 years.

Table 1: Non-Revenue Water (Water Produced Versus Water Sold)

Year	2012	2013	2014	2015	2016
Produced (m^3)	6189.5	4105.8	3659.5	3864.7	3609.4
Metered (m^3)	3968.0	3619.0	3609.0	3705.0	3356.0
Unmetered (m^3)	2221.5	486.8	50.5	159.7	253.4
Unaccounted	35.9%	11.9%	1.4%	4.1%	7.0%

The 2016 non-revenue volume slightly increased from 2015, but is still very low and it may not repeat in future years, however, the overall trending will help identify if there are system problems.

The average single-family residence in the Cedar Lane System used 93 m^3 in 2016, a 9.7% decrease from the 2015 use of 103 m^3.

An average water demand by residential service connection for water service areas operated by the Capital Regional District (CRD) on Salt Spring Island is shown in Figure 3. This comparison shows that Cedar Lane customers, on average, use less water than other service area customers.

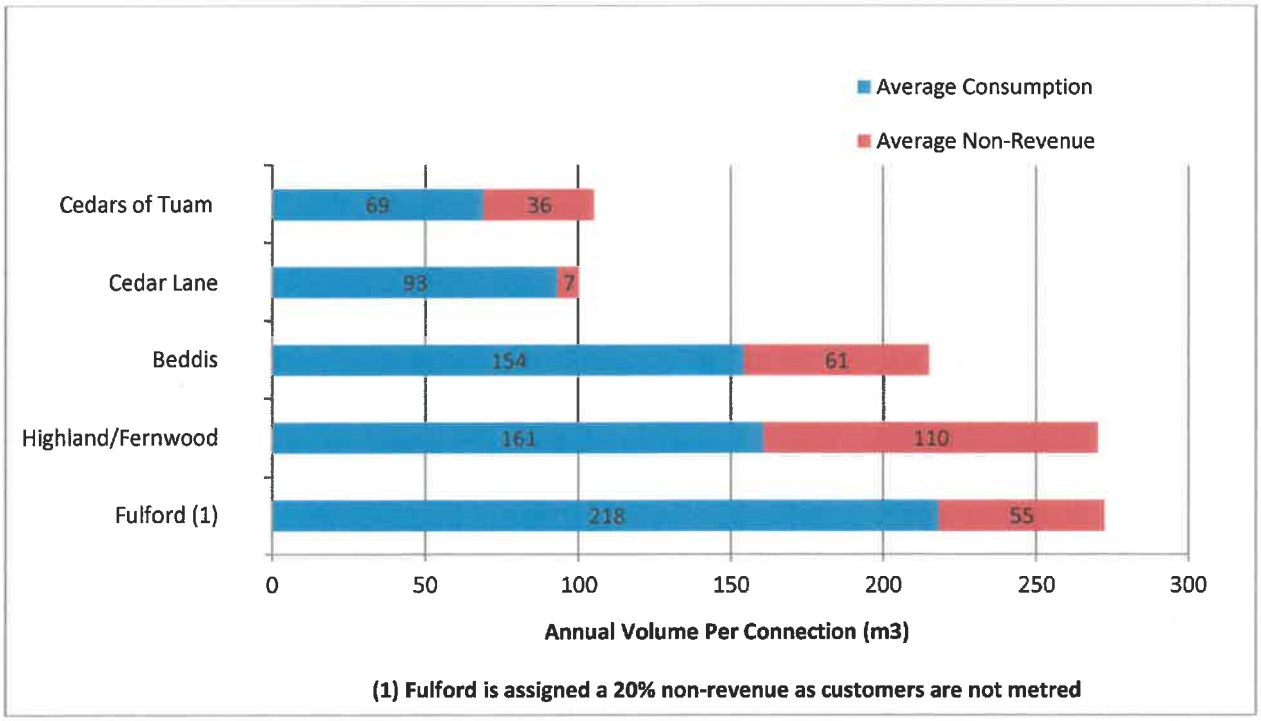

Figure 4: 2016 Average Annual Consumption and Non-Revenue Volumes per Customer/Connection - CRD Salt Spring Water Systems

Water Quality

The analytical results (biological, chemical and physical parameters) of water samples collected in 2016 from the Cedar Lane Water System indicated that the water was safe to drink. Naturally high manganese concentrations in the well water remain untreated and regularly exceed the aesthetic limits. Associated precipitates have been a significant nuisance problem in parts of the Cedar Lane water system and cause discolouration of the drinking water. An unusually high disinfection by-product result (total trihalomethanes) in September 13, 2016 caused an exceedance of the annual average limit for these compounds as per the Guidelines for Canadian Drinking Water Quality (GCDWQ). Typically the disinfection by-product concentrations are well below the maximum acceptable concentration (MAC) limit in this water system and this singular test result is not considered representative of the water quality supplied to the customers.

Typical Cedar Lane Water System drinking water quality characteristics for 2016 are summarized as follows:

- Source water from both wells was typically void of any *E. coli* bacteria but *E. coli* was detected in both source wells on March 14, 2016. The occurrence of two simultaneous *E. coli* hits in two separate wells with no previous or subsequent positive result indicates a likely contamination of the raw water samples that day.
- Both wells only registered positive total coliform positive results in the samples from March 14, 2016 during the course of the year.
- Source water can be characterized as hard (~144 mg/L $CaCO_3$).
- Both wells exhibited elevated iron and especially manganese concentrations.
- Treated water was safe to drink and free of total coliform and *E. coli* bacteria.
- Free chlorine residual concentrations were acceptable and within the desired range (i.e., 0.19 – 1.06 mg/L)
- Disinfection by-products: haloacetic acids (HAA) were well below the GCDWQ limit of 80 µg/L, however trihalomethanes (THM) exceeded the GCDWQ limit of 100 µg/L due to one unusually high result. The annual average THM concentration (based on 2 samples) was 103 µg/L.
- Metals were typically below MAC limits except for elevated manganese concentrations (mean annual 70.9 mg/L) that regularly lead to discoloration of the drinking water (aesthetic issue).

Water Quality data collected from this drinking water system can be reviewed on the CRD website: https://www.crd.bc.ca/about/data/drinking-water-quality-reports/salt-spring-island-water-quality-reports/cedar-lane-water-quality-reports

OPERATIONS

Weekly operations of the Cedar Lane water system is provided by an on-island contract operator under agreement with the CRD. The contract operator performs routine scheduled activities such as system checks, water sampling for laboratory analysis and minor preventative maintenance activities all under the direction of the CRD as detailed in the operations agreement. The contactor also performs more significant preventative and corrective maintenance activities at the request of the CRD. These types of activities may include water system flushing, leak detection, and water leak repairs. In addition to operation and maintenance activities, the on-island contractor also provides stand-by and emergency callout response duties.

Additional operational support and guidance is provided by CRD personnel who typically perform more preventative or corrective maintenance in relation to the electrical and communication equipment. Other operational support provided by the CRD include emergency response and remote water system monitoring and control using the CRD's Supervisory Control and Data Acquisition (SCADA) equipment. The SCADA system is used to alert the on-island contactor and

if necessary CRD standby operations staff of a potential water system fault (e.g. reservoir low water level).

The on-island contract operator attended to regular weekly, monthly and annual operational duties as detailed in the Cedar Lane water system operating agreement. The contactor however also performed additional services related to either emergency response or additional maintenance activities as outlined in Table 2 below.

Table 2: Additional work completed by contract operator at request of CRD

TASK	NOTES:
Water system flushing	Annual water system maintenance performed to remove buildup of sediments and precipitates within the water distribution system.
Water line repair	Repairs to a leaking recirculation line at the water treatment building.
Water quality complaints (2)	Response to a water quality concerns. Additional localised flushing completed as a result.
Replace Well #1 deep well pump	Well #1 pump failed. A certified well pump contractor was contracted to remove and replaced the failed deep well pump. Well #1 system offline for a short period.
Chemical feed pump rebuild	Chlorine injection pump preventative maintenance performed. All chemical wear parts replaced.
Chlorine residual analyser servicing	Chlorine residual analyser preventative maintenance performed.

CRD operations personnel completed a number of key tasks during this period. Table 3 below details the tasks performed.

Table 3: Tasks completed by CRD operations personnel

TASK	NOTES
Ultra Violet (UV) System alarm fault investigation	UV equipment inspected and determined the fault to be a result of high raw water turbidity.
Calibration of pH probe	pH probe not functioning correctly

CAPITAL IMPROVEMENTS

There was only one capital project planned for 2016:

1. Safety Equipment ($2,000 allocated, $1,693 spent). Work included purchasing equipment and completion installations so potassium permanganate can be added to the water to reduce precipitate in the system. The project is complete.

2016 FINANCIAL REPORT

Please refer to the attached *Statement of Operations.* Revenue includes parcel taxes (Transfers from Government), fixed user fees (User Charges), consumption based revenue (*Water Sales*), interest on savings (Interest Earnings), a transfer from the maintenance reserve account, and miscellaneous revenue such as late payment charges (Other Revenue).

Expenses includes all costs of providing the service. General Government Services includes budget preparation, financial management, utility billing and risk management services. CRD Labour and Operating Costs includes CRD staff time as well as the costs of equipment, tools and vehicles. Debt servicing costs are interest and principal payments on long term debt. Other Expenses includes all other costs to administer and operate the water system, including insurance, supplies, water testing and electricity.

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.

2016 User Fee charges were $763.24 per Single Family Equivalent (SFE) and 2016 Parcel Tax charges were $615.85 per Taxable Parcel.

The balances in the Cedar Lane Water service capital funds and reserve accounts at December 31, 2016 were:

Description	Balance at end of 2016
Maintenance Reserve Account	$27,156
Capital Reserve Fund (1076 102020)	$87,405
Funds remaining to spend on projects in progress (WLA3425)	$13,710

Water System Problems - Who to Call:

To report any event or to leave a message regarding the Cedar Lane water system, call either:

CRD water system emergency call centre: **1-855-822-4426 (toll free)**
CRD water system emergency call centre: **1-250-474-9630 (toll)**
North Salt Spring Waterworks District (contract operator): **250 537-9902**
CRD local operator (Ganges Wastewater Treatment Plant): **250-537-4314**
CRD water system general enquiries (toll free): **1-800-663-4425**

When phoning with respect to an emergency, please specify to the operator, the service area in which the emergency has occurred.

The toll free number for reporting emergencies was piloted in 2016. Its use was monitored and evaluated during the year and it has been decided to continue using it. Periodic reviews will be undertaken, but there is presently no plan to terminate its use.

Submitted by:	Matt McCrank, M.Sc., P.Eng., Senior Manager, Infrastructure Operations
	Ian Jesney, P.Eng., Senior Manager, Infrastructure Engineering
	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
	Amber Donaldson, MA, CPA, CMA, A/ Senior Manager, Financial Services
	Karla Campbell, Senior Manager, Salt Spring Island Electoral Area

KW/ts

CAPITAL REGIONAL DISTRICT

CEDAR LANE WATER
Statement of Operations (Unaudited)
For the Year Ended December 31, 2016

	2016	2015
Revenue		
Transfers from government	21,650	21,650
User Charges	28,240	28,240
Sale - Water	8,900	11,838
Other revenue from own sources:		
Interest earnings	34	202
Other revenue	284	336
Transfer from Operating Reserve Account		
Total revenue	59,108	62,265
Expenses		
General government services	3,406	3,290
Contract for Services	14,034	15,620
CRD Labour and Operating costs	4,644	2,067
Debt Servicing Costs	15,699	15,693
Other expenses	13,208	10,000
Total expenses	50,991	46,670
Net revenue (expenses)	8,117	15,595
Transfers to own funds:		
Capital Reserve Fund	-	5,060
Operating Reserve Account	8,117	19,038
Annual surplus (deficit)	-	(8,503)
Accumulated surplus, beginning of year	-	8,503
Accumulated surplus, end of year	$ -	-

CAPITAL REGIONAL DISTRICT

CEDAR LANE WATER
Statement of Reserve Balances (Unaudited)
For the Year Ended December 31, 2016

	Capital Reserve 2016	2015
Beginning Balance	88,066	81,672
Transfer from Operating Budget		5,060
Transfers from completed capital projects		
Interest Income	1,339	1,334
Transfer to Capital Project	(2,000)	
Ending Balance	87,405	88,066

	Operating Reserve 2016	2015
Beginning Balance	19,038	-
Transfer from/(to) Operating Budget	8,117	19,038
Ending Balance	27,155	19,038