



Making a difference...together

CEDARS OF TUAM WATER SERVICE COMMISSION

Notice of Annual General Meeting on **Thursday, November 30, 2017 at 1:00 PM**
Creekside Meeting Room, Suite 108 121 McPhillips Ave, Salt Spring Island, BC

Wayne McIntyre

Ron Aird

Peter Wypkema

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 for the Fiscal Year held on June 21, 2016**
- 4. Chair's Report**
- 5. 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.

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Making a difference...together

**Minutes of the Annual General Meeting of the Cedars of Tuam Water Service Commission
Held June 21, 2016 in Portlock Portable Meeting Room, 145 Vesuvius Bay Road,
Salt Spring Island, BC**

DRAFT

Present: **CRD Director:** Wayne McIntyre
Commission Members: Ron Bain (Chair), Peter Wypkema
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 to Order

Chair Bain called the meeting to order at 1:03 PM.

2. Approval of Agenda

MOVED by Commissioner Wypkema, **SECONDED** by Director McIntyre,
That the Cedars of Tuam June 21, 2016 Annual General Meeting agenda be approved.

CARRIED

3. Adoption of Minutes of November 24, 2015

MOVED by Commissioner Bain, **SECONDED** by Commissioner Wypkema,
That the Minutes of the Annual General Meeting for Cedars of Tuam Water Service Commission held on November 24, 2015, be approved with the following amendment:
Strike the entire sentence under Item 6.

CARRIED

4. Chair and Director Report

No report from the Chair or Director

5. Annual Report for 2015 Fiscal Year

Staff reviewed the purpose of the Annual General Meeting, the financial outcome and operational activities which took place during the fiscal year of 2015.

- Well water quantity is limited. Currently the full time maximum occupancy rate is low. There is not enough water to supply the entire service area should all the residential properties be completely utilized.
- Commissioners will inform area residents of the need for year round conservation measures.
- Less sand was extracted from the well than anticipated, however returned quickly.
- The transducer was not installed due to pending rehabilitation efforts on the well. The transducer can be repurposed and moved to the new well.
- New *Water Sustainability Act* regulations will require all wells to be registered and maintain working flow metres.
- Year end surplus was \$3,660.
- Financial plan provides for minor year end surpluses which are needed to build up capital and maintenance reserves.

6. Election of Officers

Chair Bain will be stepping down from the Commission at the end of 2016.

Staff called for nominations from the floor for any appointments to the Commission. Ron Aird put his name forward. Staff called for nominations two more times and hearing none, elections closed.

Staff will forward Ron Aird's name and information to the CRD Board for approval of a term which begins in 2017.

7. New Business

No items for discussion.

8. Adjournment

MOVED by Commissioner Wypkema, **SECONDED** by Commissioner Bain,

That the Cedars of Tuam Water Service Commission Annual General meeting be adjourned at 2:04 pm.

CHAIR

SENIOR MANAGER



Making a difference...together

CEDARS OF TUAM WATER SERVICE 2016 ANNUAL REPORT Thursday, November 30, 2017

Introduction

This report provides a summary of the Cedars of Tuam 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 Cedars of Tuam Water Utility is a rural residential community located on Salt Spring Island. The service was created in 1970 and became a CRD service in 2002. The Cedars of Tuam Water Utility (Figure 1) is comprised of 16 parcels of land of which all are connected to the system.

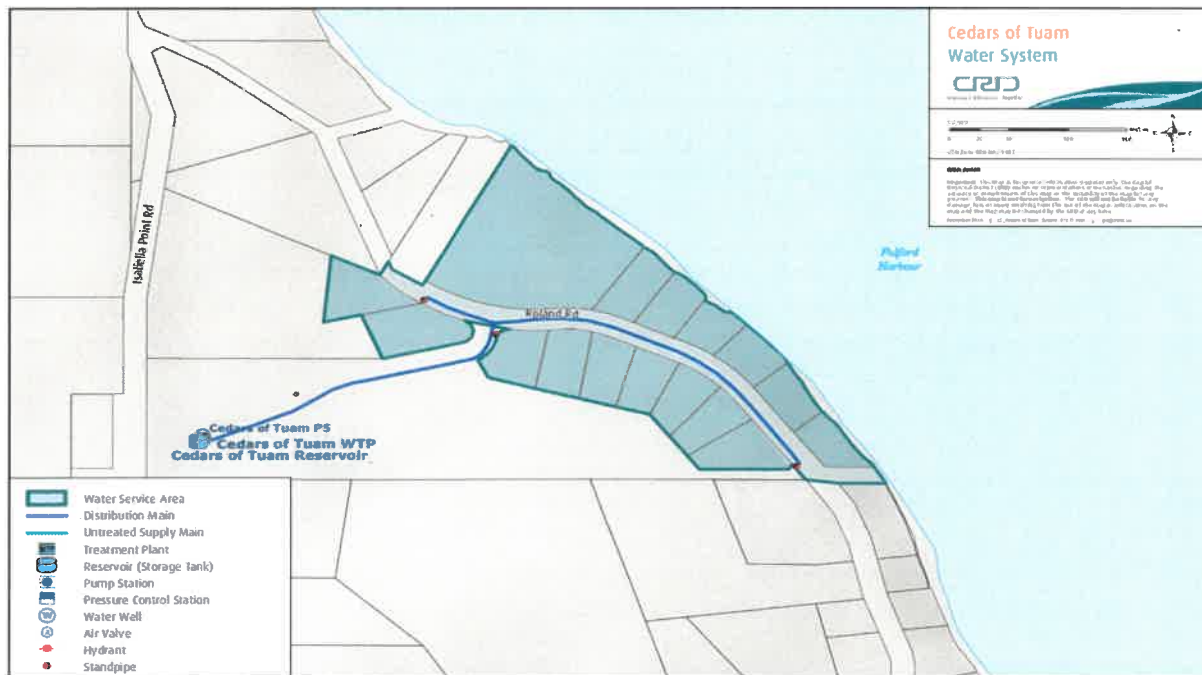


Figure 1: Cedars of Tuam Water Service

The Cedar Lane water system is primarily comprised of:

- One ground water source well
- a water treatment plant (WTP) that has a vortex sand separator and provides disinfection using sodium hypochlorite;
- 1 water reservoir – 46 m³ (10,000 lg);
- 650 metres of water distribution pipe;
- standpipes and gate valves;
- water service connections complete with water meters.

Water Production and Demand

The Cedars of Tuam water system extracts water from a well, treats the water with chlorine and distributes it to customers. This service is paid for by all users in the service area. Total costs to operate the system are supported by a user fee and by consumption charge (water sales).

Water Production and Demand

Total annual water production from the Cedars of Tuam well and through the treatment system (since 2011) is shown in Figure 2. A total of 1,685 m³ of water was pumped from the well in 2016. This is a 17.7% higher than the average production of 1,431.3 m³ (years 2011, 2012, 2014 and 2016; years 2013 and 2015 were excluded due to inaccurate date). This higher than average production is directly related to two significant water leaks that occurred.

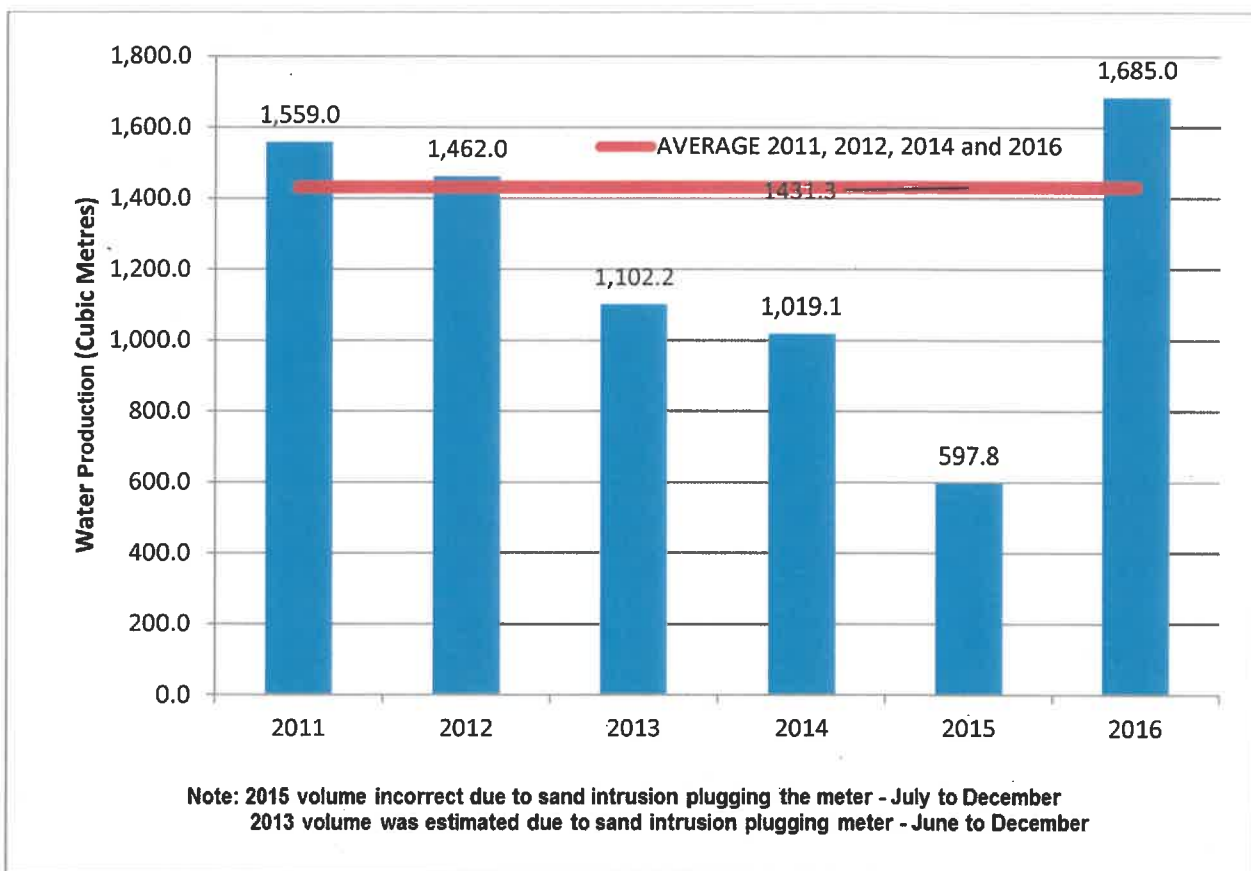


Figure 2: Total Annual Water Production 2011 to 2016

The Cedar of Tuam 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 standpipe 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)	1462.0	1102.2	1019.1	597.8	1685.0
Metered (m ³)	1424.0	1192.0	1177.0	1051.0	1104.0
Unmetered (m ³)	38.0	-89.8	-157.9	-453.2	581.0

Total consumption measured through individual customer meters in 2016 was 1,104 m³, approximately 5% more than the previous year's 1,051 m³ and is shown in Table 1.

The 2016 non-revenue volume variation from 2015 was directly attributable to two leaks, with one of them being very difficult to locate. The non-revenue water accounted for 34.5% of the water used and is considered very high. However, past records suggest this is not a normal year, and may not be repeated. If the pattern does repeat however, it may indicate there are system problems that need addressed.

Typically the targeted non-revenue water in a utility is around 10%. Non-revenue water in excess of that is generally a result of unidentified leaks, water main breaks, old water meters (failed or failing water meters always read low, never high), excessive process water, excessive flushing, firefighting, etc.

The average Cedars of Tuam account used 69 m³, an increase of 4.5% from the 66 m³ of water used in 2015.

An average water demand by residential service connection for water service areas operated by the CRD on Salt Spring Island is shown in Figure 2. This comparison shows that Cedar of Tuam customers, on average, use much less water than other service area customers.

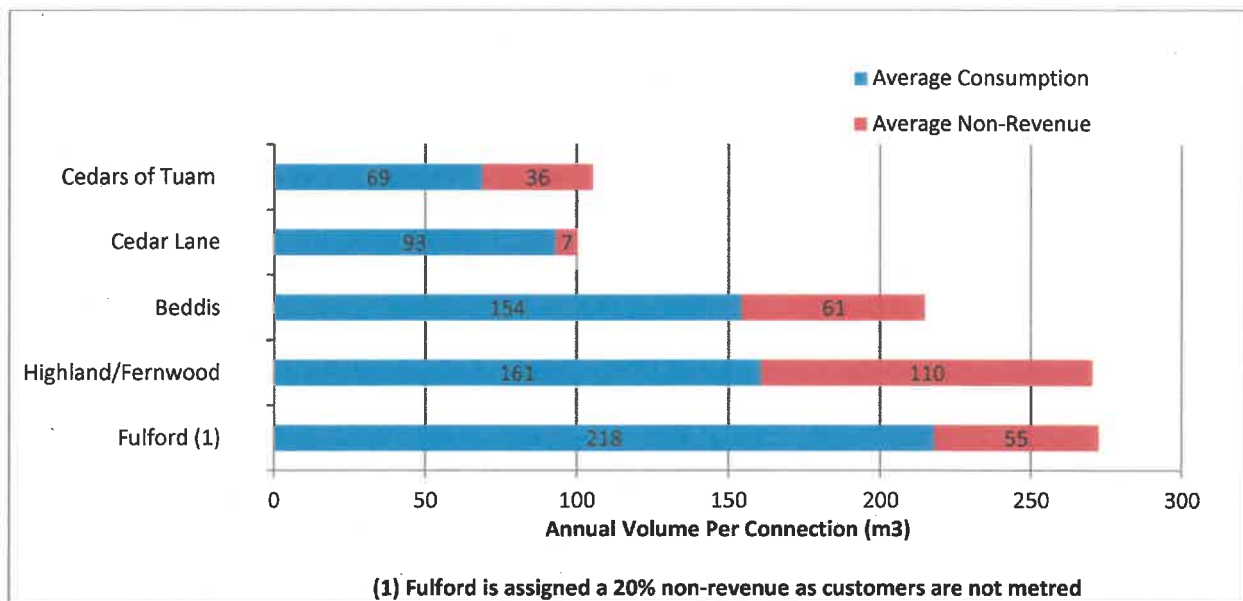


Figure 3: 2016 Average Annual Consumption and Non-Revenue Volumes per Customer/Connection - CRD Salt Spring Water Systems

Water Quality

The analytical results (biological, chemical and physical parameters) of water samples collected in 2016 from the Cedars of Tuam Water System indicated that the drinking water was of good quality and within Guidelines for Canadian Drinking Water Quality health-related regulatory and aesthetic limits, including disinfection by-products. The turbidity in the treated water slightly exceeded 1 NTU on two occasions between mid October and early November, 2016.

Typical Cedars of Tuam Water System drinking water quality characteristics for 2016 are summarized as follows:

- Source water from the well was void of any *E. coli* bacteria and exhibited only occasionally low concentrations of total coliform bacteria.
- Treated water was free of any coliform bacteria and was safe to drink.
- Turbidity was typically well under 1 NTU, however on October 18 and November 8 the samples from the treated well water sampling location exhibited a turbidity of 2.29 and 1.56 NTU respectively. Continued monitoring in 2017 will determine whether this well can be influenced by surface water during heavy rainfall and runoff events in the fall or if this well can be vulnerable to water quality deterioration during the aquifer recharge season.
- The mean annual free chlorine concentration in the system was an acceptable 0.53 mg/L.

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/cedars-of-tuam-water-quality-reports>

OPERATIONS

CRD's Integrated Water Services, Peninsula and Gulf Island Operations, is responsible for the day to day operations of the water system. Salt Spring Island based operations staff perform regular weekly routine operational visits to ensure the water system is functioning properly. Additional support is provided by Peninsula Operations staff including the electrical and mechanical maintenance groups as required.

Regular operational and maintenance activities include:

- monthly water sampling for bacteriological, metals, disinfection by-products analysis
- weekly field chlorine residual testing to ensure water within the distribution system meets regulatory requirements.
- removal of sand from the vortex separating system.
- water production meter cleaning.
- sodium hypochlorite replenishment.
- static and dynamic well level recording.
- cleaning and calibration of free chlorine monitoring system.
- minor distribution water system flushing.
- valve exercising.
- reservoir inspection.
- minor building maintenance.

Table 2 below highlights some of the significant operational activities undertaken during the year.

Table 2 – Significant Operational Activities

TASK	NOTES
Well pump replacement	The primary well pump failed. A certified ground water contractor was hired to remove and replace the well pump.
Standpipe leak repair	Standpipe connection fittings were corroded, leaking and required replacement.
Service leak repairs (2)	Two (2) significant water service leaks were repaired under an emergency response. Low reservoir water level alarms alerted operations staff; leak detection activities were conducted resulting in staff locating the leaks followed by immediate repairs.
Repairs to automatic well pump shut off equipment	Pump fault alarms were received. Investigation revealed the automatic well pump shut off switch required repairs. A fully functioning shut off switch is critical as it stops the pump from running when well water levels drop below the pump inlet.

CAPITAL IMPROVEMENTS

The following four capital projects were planned for 2016:

1. Safety Equipment (\$2,000 allocated, \$807 spent). Work included purchasing equipment and installation. The project is complete.
2. Register statutory right of way on School District property for well (\$5,000 allocated, \$4,154 spent). The work to secure the right of way started in 2014, continued in 2015 and 2016 and has progressed to each party agreeing to all clauses with the remaining work to receive the appropriate authorization to execute the agreement.
3. Negotiate access road SRW (\$1,000 allocated, none spent). This project was not worked on in 2016 as further clarity was required as to what is to be achieved. This will be reviewed further with operations as there are physical improvements to the existing access right of way that could be completed in order to improve access for maintenance tasks, however the work may vary depending on the outcome of the SAMP.
4. A Strategic Asset Management Plan (SAMP) (\$6,800 allocated, none spent) was included in the 2016 work plan capital work plan. As clarity is needed relative to the sequencing and timing of the various study components, it was determined that prior to undertaking the study, the well site needed to be legally secured from the School District as that would significantly influence any decisions regarding the future water supply.
5. Install Pressure Transducer (\$2,000 allocated, none spent). The project was to install a pressure transducer in the well in order to monitor the water level. Due to the ongoing work at the new well, this project has not been advanced as the need for long term water level data may not be required if a new well is put into service. In the meantime, staff are reviewing the feasibility and costs for installing the transducer if the need arises quickly. In the interim, staff take manual readings of the water level in the well. Also, delaying this installation keeps funds available for other capital works.

2016 FINANCIAL REPORT

Please refer to the attached [Statement of Operations](#). Revenue includes 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 \$1,544.38 per Single Family Equivalent (SFE).

The balances in the Cedars of Tuam Water service capital funds and reserve accounts at December 31, 2016 were:

Description	Balance as of the end of 2016
Maintenance Reserve Account	\$3,522
Capital Reserve Fund (1057 101843)	\$22,426
Funds remaining to spend on projects in progress (WLA3024)	\$11,736

Water System Problems - Who to Call:

To report any event or to leave a message regarding the Cedars of Tuam 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)
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
	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
	Rianna Lachance, BCom, CPA, CA, Senior Manager Financial Services
	Karla Campbell, Senior Manager, Salt Spring Island Electoral Area

KW:ts

CAPITAL REGIONAL DISTRICT

CEDARS OF TUAM WATER Statement of Operations (Unaudited) For the Year Ended December 31, 2016

	2016	2015
Revenue		
User Charges	24,710	23,530
Sale - Water	1,068	1,048
Other revenue from own sources:		
Interest earnings	1	26
Other revenue	3,155	118
Transfer from Reserve Account	2,882	
Total revenue	<u>31,816</u>	<u>24,722</u>
Expenses		
General government services	1,630	1,630
Contract for Services	751	-
CRD Labour and Operating costs	22,195	13,373
Debt Servicing Costs	1,627	1,626
Other expenses	4,613	4,433
Total expenses	<u>30,816</u>	<u>21,062</u>
Net revenue (expenses)	1,000	3,660
Transfers to own funds:		
Capital Reserve Fund	-	-
Operating Reserve Account	1,000	4,081
Annual surplus (deficit)	-	(421)
Accumulated surplus, beginning of year		421
Accumulated surplus, end of year	<u>\$ -</u>	<u>-</u>

CAPITAL REGIONAL DISTRICT

CEDARS OF TUAM WATER Statement of Reserve Balances (Unaudited) For the Year Ended December 31, 2016

	Capital Reserve	
	2016	2015
Beginning Balance	26,916	10,600
Transfer from Operating Budget		
Transfers from completed capital projects		20,861
Interest Income	392	455
Transfer to Capital Project	(4,882)	(5,000)
Ending Balance	<u>22,426</u>	<u>26,916</u>

	Operating Reserve	
	2016	2015
Beginning Balance	5,570	-
Transfer from/(to) Operating Budget	(2,048)	5,570
Ending Balance	<u>3,522</u>	<u>5,570</u>