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BEDDIS WATER SERVICE COMMISSION ANNUAL GENERAL MEETING

Notice of Meeting on Monday, June 4, 2018 at 1:00 PM
Creekside Meeting Room, Suite 108 121 McPhillips Ave, Salt Spring Island, BC

Wayne McIntyre

Simon Wheeler

Ruth Waldick

Geoff Bartol

Doreen Hewitt

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 2017 fiscal year.

AGENDA

1. **Call to Order**
2. **Approval of Agenda**
3. **Adoption of Minutes of the 2016 Annual General Meeting held on November 20, 2017** 2-3
4. **Chair's Report**
5. **Report**
 - 5.1 **Annual Report for 2017 Fiscal Year** 4-11
6. **Election of Officers**
7. **New Business**
8. **Adjournment**

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

EXEC-1295039085-1647



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**Minutes of the ANNUAL GENERAL MEETING of the Beddis Water Service Commission
Held November 20, 2017 at the Creekside Meeting Room, #108 121 McPhillips Ave Salt
Spring Island, BC**

DRAFT

Present: **Director:** Wayne McIntyre
 Commission Members: Simon Wheeler (Chair), Geoff Bartol, Doreen Hewitt,
 Ruth Waldick
 Staff: Karla Campbell, Senior Manager SSI Electoral Area; Dan Robson,
 Manager, Saanich Peninsula and Gulf Islands Operations; Kyu-Chang Jo,
 Financial Analyst 2; Kristi Wilson, Environmental Science Officer; Tracey
 Shaver, Recording Secretary

1. Call to Order

The meeting was called to order at 10:00 am.

2. Approval of Agenda

MOVED by Commissioner Bartol, **SECONDED** by Waldick,
That the Beddis Water Service Commission 2016 Annual General Meeting agenda of
November 20, 2017 be approved.

CARRIED

3. Adoption of Minutes of the 2015 Annual General Meeting held on June 21, 2016

MOVED by Commissioner Bartol, **SECONDED** by Commissioner Hewitt,
That the Beddis Water Service Commission 2015 Annual General meeting minutes of June
21, 2016 be approved.

CARRIED

4. Chair and Director Reports

4.1 Chair Report

Chair Wheeler provided a brief report:

- Very little communication from CRD staff during the current year
- Departure of Keith Wahlstrom and hiring of new engineer, Chris Davidson
- Thank you to the Hewitt's for monitoring the quality of the raw lake water
- Capital works completed by local contractors

4.2 Director McIntyre - no report

5. Reports

5.1 Annual Report for 2016 Fiscal Year

Staff reviewed the 2016 Annual Report highlighting the following:

- 28.2% unaccounted for non-revenue water; almost double previous year.

- Metered water used was unchanged from the previous year.
- Conservation efforts have been effective.
- Water loss is due to a few large leaks.
- Large leaks are discovered through the SCADA system when there is a drop in the reservoir tank levels; and regular visual inspections.
- Revenue is higher due to the increase in User Charges.
- Email notices and postings to the Exchange are provided for all capital works and emergencies which impact service; no communication required for routine work and inspections.

6. Election of Officers

Commissioners Hewitt and Waldick agreed to stand for an additional term. No other nominations or objections were brought forward.

MOVED by Commissioner Bartol, **SECONDED** by Director McIntyre,
That Commissioners Hewitt and Waldick are nominated by acclamation for terms which begin in 2018.

CARRIED

7. New Business

Commissioner Hewitt provided information on the raw water quality of Cusheon Lake during 2017.

- Lake frozen for several months
- Potential contamination of watershed from land fill
- No cyanobacteria present

8. Adjournment

MOVED by Commissioner Bartol, **SECONDED** by Director McIntyre,
That the meeting be adjourned at 10:50 am.

CHAIR

SENIOR MANAGER



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BEDDIS WATER SERVICE 2017 ANNUAL REPORT June 4, 2018

Introduction

This report provides a summary of the Beddis Water Service for 2017. 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 Beddis Water Utility is a rural residential community located on Salt Spring Island. The service was created in 1969 as the Beddis Waterworks District and became a CRD service in 2004. The Beddis Water Utility (Figure 1) is comprised of 137 parcels of land of which 127 are presently connected to the system.

The utility obtains its drinking water from Cusheon Lake, a relatively small lake that lies within an uncontrolled multi-use watershed. The Capital Regional District (CRD) holds two licenses to divert a total of up to 102,850 m³ per year. Cusheon Lake is subject to seasonal water quality changes and is affected by periodic algae blooms.

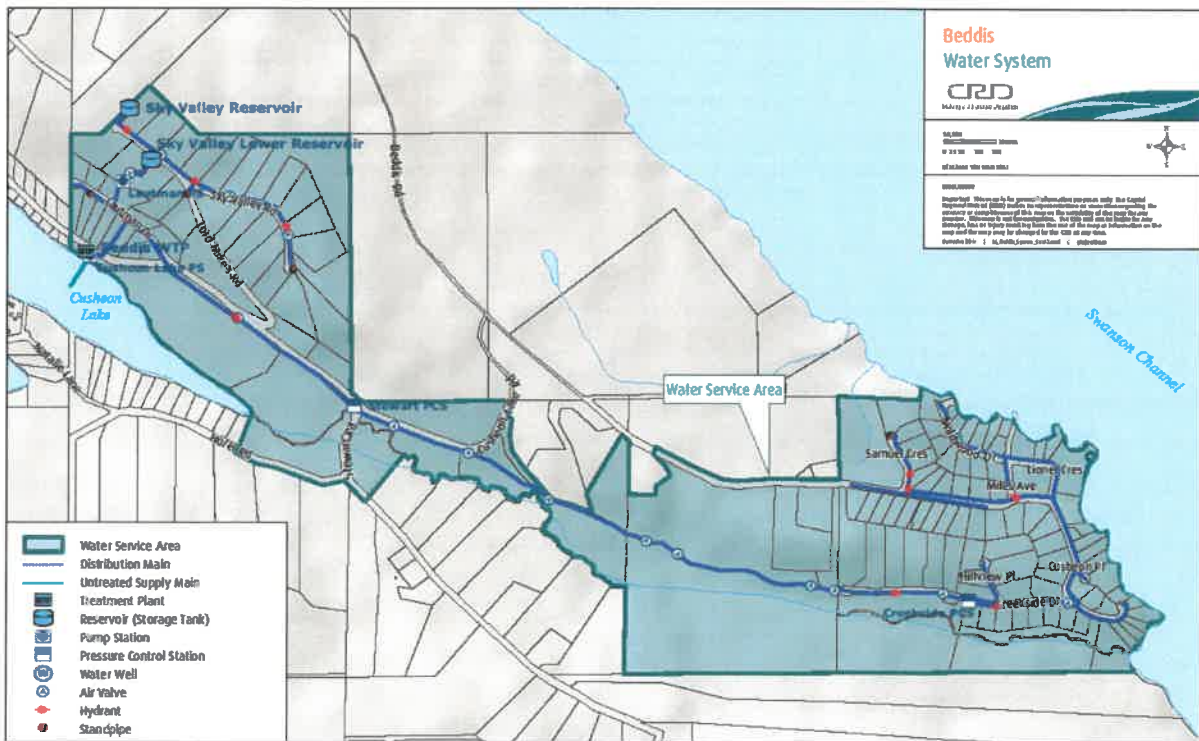


Figure 1: Beddis Water Service

The Beddis water system is primarily comprised of:

- a water treatment plant (WTP) that draws water from Cusheon Lake and treats it at a location on Cusheon Road approximately 250m west of Lautman Drive. The water is treated using a rapid mix system, flocculation, dissolved air floatation (DAF) and filters, then chlorination prior to being pumped, via the distribution system to reservoirs. The water treatment plant (WTP) design flow is rate is 16.35 m³/hour (60 lpm);
- approximately 7,200 m of water distribution pipe;
- 2 water reservoirs – one 45 m³ (10,000 gal) and one 76 m³ (16,700 gal);
- fire hydrants, standpipes, and gate valves;
- water service connections complete with water meters;
- 2 pressure reducing valve stations – one at Stewart Road and one on Creekside Drive.

Water Production and Demand

Referring to Figure 2, 24,285 cubic meters (m³) of water was extracted (water production) from Cusheon Lake in 2017; an 11% decrease from the previous year and is 6% less than the five year average. Water demand (customer water billing) for the service totaled 19,259 m³ of water; a 2% decrease from the previous year and a 7% decrease from the five year average.

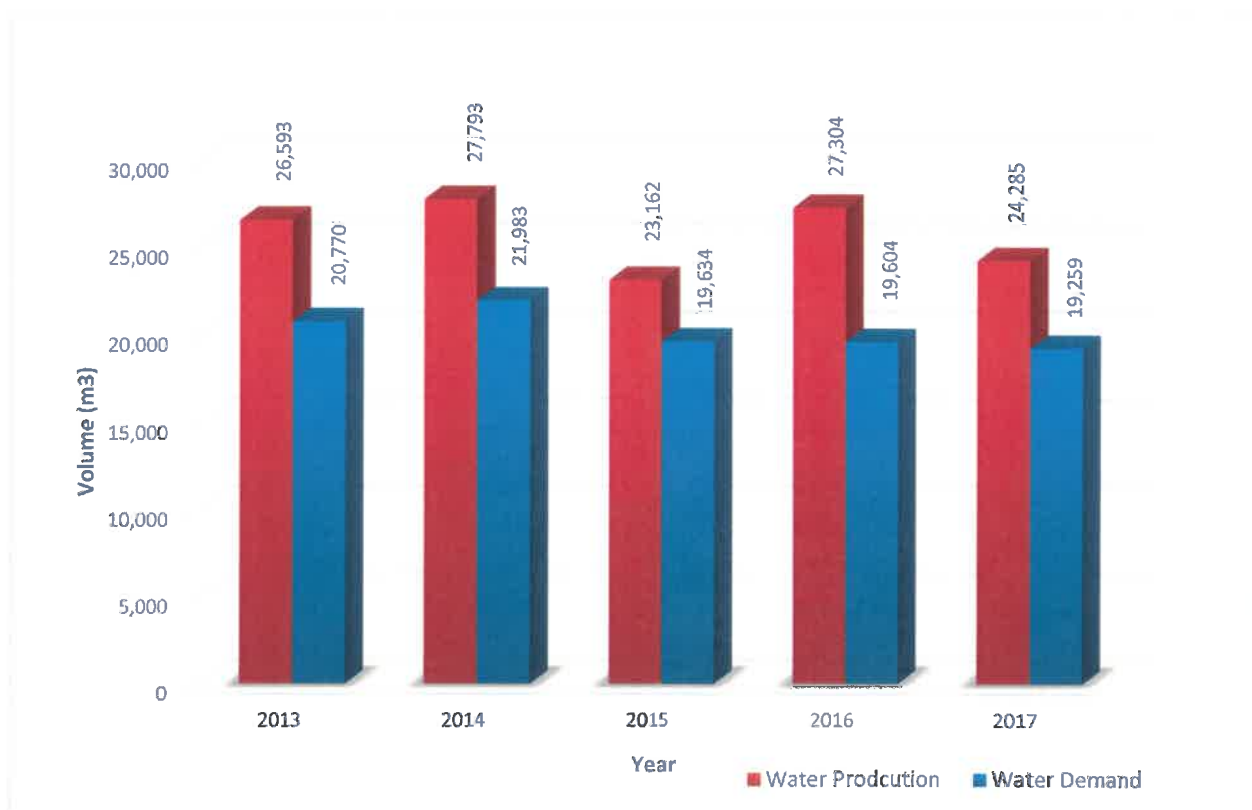


Figure 2: Beddis Water Service Annual Water Production and Demand

Water production by month for the past five years is shown in Figure 3. As with most water systems, water consumption is greatest during the summer months

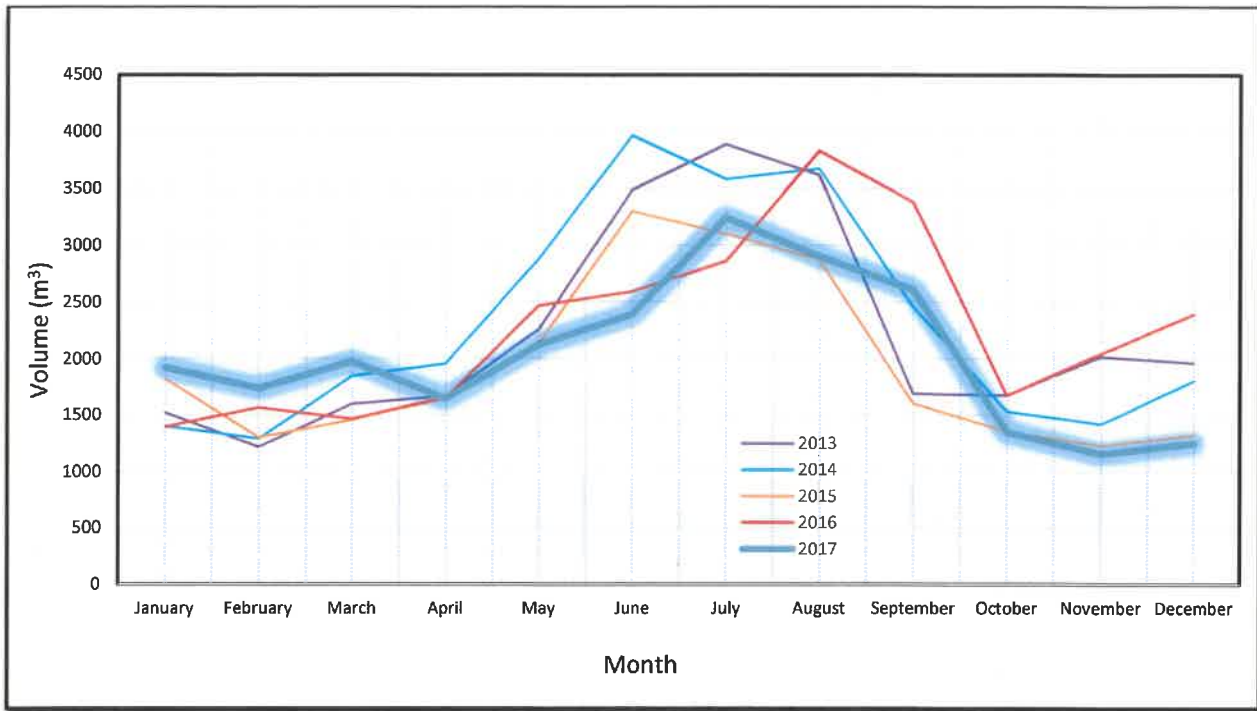


Figure 3: Beddis Water Service Monthly Water Production

The Beddis Water System is fully metered, and water meters are read quarterly. Water meter information 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 demand (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. Non-revenue water is approximately 21%. Water loss is estimated to be approximately 16% which is considered acceptable for small water system such as Beddis.

Water Quality

In 2017, the analytical results of water samples collected from the Beddis Water System showed that the drinking water supplied to the customers was of good quality. The source water from Cusheon Lake was of good quality throughout the year with low concentrations of algae, indicator bacteria, metals and generally low turbidity. The DAF treatment system functioned very well under these source water conditions. One disinfection by-product test result from a sample collected at the far end of the distribution system registered right at the limit in the Guidelines for Canadian Drinking Water Quality (GCDWQ). Other than water temperature, there have been no exceedances of any monitored water quality parameter in the system.

The data below provides a summary of the water quality characteristics in 2017:

Raw Water:

- The raw water exhibited typically low concentrations of total coliform and *E. coli* bacteria throughout the year with periods of higher concentrations of total coliform bacteria during the summer months.
- One sample exhibited a very low concentration of parasitic oocysts (*Cryptosporidium*). No

Giardia cysts were detected.

- The raw water samples indicated fluctuating and elevated concentrations of iron and manganese. Episodes of elevated iron and manganese concentrations can lead to discolouration of the drinking water (only an aesthetic problem).
- The raw water was soft (median hardness 36.3 mg/L CaCO₃).
- The raw water turbidity (cloudiness) was typically below 1 NTU with some higher peaks in the fall when algal activity increased. Highest recorded raw turbidity was 1.44 NTU on October 11.
- The mean annual total organic carbon, and indicator of organic compounds and material in the lake water, was a moderate 4.11 mg/L and therefore lower than in 2016.

Treated Water:

- The treated water was bacteriologically safe to drink. No sample tested positive for total coliform or *E. coli* bacteria.
- The treated water turbidity was consistently well below the turbidity limit of 1.0 NTU with a range from 0.08 NTU to 0.45 NTU.
- The annual average levels of disinfection by-products (TTHM = 73 µg/L) across the distribution system were below the 100 µg/L limit in the GCDWQ. One sample was recorded right at the 100 µg/L limit. Haloacetic acid concentrations (HAA) were not tested in 2017 due to the data history of very low concentrations in this system. Overall, disinfection by-product concentrations were lower in 2017 than in previous years, likely due to lower organic loading of the raw water as a result of lower biological activity in Cusheon Lake in 2017.
- The treated water total organic carbon (TOC) was lower than during the previous year, with a median value of 2.31 mg/L. There is currently no guideline in the GCDWQ for TOC levels, however the USEPA suggests a treated water TOC concentration of < 2 mg/L as confirmation of effective treatment and disinfection by-product control.
- All treated water sampled were low in iron and manganese concentration and well below the aesthetic limits as per GCDWQ. Cusheon Lake is known for the potential of seasonally high iron and manganese concentrations. Such exceedances can lead to water discolourations.

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/beddis-water-quality-reports>

Operational Highlights

The following is a summary of the major operational issues that were addressed during the 2017 operating period:

- Replacement of the electronic turbidity meter equipment.
- Modifications to electronic level monitoring equipment
- Emergency response to raw water intake operating issues including the installation of a temporary raw water intake system.

CAPITAL IMPROVEMENTS

The following two capital projects were planned for 2017:

1. Creekside Pressure Control Station Rebuild (\$50,000 allocated, \$20,700 spent). This project was completed in 2017.
2. Install Additional Backwash Fresh Water Tank (\$8,000 allocated, \$1,900 spent). This project was completed in 2017.

2017 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.

2017 User Fee charges were \$561.10 per Single Family Equivalent (SFE) and 2017 Parcel Tax charges were \$549.99 per Taxable Parcel.

The balances in the Beddis Water service capital funds and reserve accounts at December 31, 2017 were:

| Description | Balance at end of 2017 |
|--|------------------------|
| Operating Reserve Fund | \$7,307 |
| Capital Reserve Fund (1069 101894) | \$73,505 |
| Funds remaining to spend on projects in progress (WLA3193) | \$17,244 |
| Funds remaining to spend on projects in progress (WLA3825) | \$5,407 |

Water System Problems - Who to Call:

To report any event or to leave a message regarding the Beddis 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.

| | |
|---------------|---|
| 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 |

:ts

CAPITAL REGIONAL DISTRICT

BEDDIS WATER

Statement of Reserve Balances (Unaudited)

For the Year Ended December 31, 2017

| | Capital Reserve | |
|---|-----------------|---------------|
| | 2017 | 2016 |
| Beginning Balance | 36,825 | 72,524 |
| Transfer from Operating Budget | 470 | 6,550 |
| Transfers from completed capital projects | 35,881 | - |
| Interest Income | 330 | 751 |
| Transfer to Capital Project | - | (43,000) |
| Ending Balance | <u>73,506</u> | <u>36,825</u> |

| | Operating Reserve | |
|-------------------------------------|-------------------|---------------|
| | 2017 | 2016 |
| Beginning Balance | 18,419 | 8,873 |
| Transfer from/(to) Operating Budget | (11,558) | 9,256 |
| Interest Income | 446 | 290 |
| Ending Balance | <u>7,307</u> | <u>18,419</u> |

CAPITAL REGIONAL DISTRICT

BEDDIS WATER

Statement of Operations (Unaudited)

For the Year Ended December 31, 2017

| | 2017 | 2016 |
|---|----------|---------|
| Revenue | | |
| Transfers from government | 71,590 | 71,590 |
| User Charges | 71,262 | 71,262 |
| Sale - Water | 67,465 | 70,491 |
| Other revenue from own sources: | | |
| Interest earnings | 32 | 107 |
| Other revenue | 441 | 506 |
| Transfer from Operating Reserve Account | | |
| Total revenue | 210,790 | 213,956 |
| Expenses | | |
| General government services | 8,030 | 7,820 |
| Contract for Services | 83,956 | 65,528 |
| CRD Labour and Operating costs | 17,541 | 14,912 |
| Debt Servicing Costs | 66,470 | 66,539 |
| Other expenses | 45,881 | 43,351 |
| Total expenses | 221,878 | 198,150 |
| Net revenue (expenses) | (11,088) | 15,806 |
| Transfers from/to own funds: | | |
| Capital Reserve Fund | 470 | 6,550 |
| Operating Reserve Fund | (11,558) | 9,256 |
| Annual surplus (deficit) | - | - |
| Accumulated surplus, beginning of year | - | - |
| Accumulated surplus, end of year | \$ - | - |