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WILDERNESS MOUNTAIN WATER SERVICE COMMISSION
Notice of Annual General Meeting on **Thursday, November 10, 2016 at 7 p.m.**
Old East Sooke Fire Hall
1397 Coppermine Road, East Sooke, BC

Rob Hancock (Chair) Director Mike Hicks Shawn Williamson Chuck Taylor

AGENDA

1. Approval of Agenda
2. Adoption of Minutes of the Annual General Meeting of October 5, 2015
3. Chairs Report
4. 2015 Annual Report and Presentation (information report)
5. Election of Commission Members
6. New Business
7. Adjournment

To ensure quorum, advise Lorrie Siemens 250.360.3087 or lsiemens@crd.bc.ca if you cannot attend.



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Minutes of the Annual General Meeting of the Wilderness Mountain Water Service Commission

Held Monday, October 5, 2015 at the East Sooke Fire Hall, 1397 Coppermine Road, Sooke, BC

PRESENT: **Committee Members:** Y. Shap (Chair), R. Hancock, C. Taylor
Staff: M. Cowley, Acting Senior Manager, Infrastructure Engineering, S. Mason, Manager, Water Engineering and Planning, T. Scaber, Manager, Water System Operations, V. Deane, Manager, Water Treatment Operations, L. Siemens (recorder)
10 Members of the Public

ABSENT: Director M. Hicks

The meeting was called to order at 7 pm.

1. Approval of Agenda

MOVED by R. Hancock, **SECONDED** by C. Taylor,
That the agenda be approved as distributed.

CARRIED

2. Adoption of Minutes of Annual General Meeting of November 24, 2014

MOVED by C. Taylor, **SECONDED** by Y. Shap,
That the minutes of November 24, 2014 be adopted as previously circulated.

CARRIED

3. Chair's Report

Chair Shap presented a written report. A copy of the report will be attached to the minutes.

MOVED by R. Hancock, **SECONDED** by C. Taylor,
That the Chair's report be received for information.

CARRIED

4. Annual Report

M. Cowley presented a written report and provided a hard copy of a PowerPoint presentation to accompany the written report.

The following topics were addressed:

- Purpose of Annual General Meeting
- System Overview
- Water Supply and Consumption
- Drinking Water Quality
- Operations

- Capital Improvements
- Financial Report

CRD staff and commission members responded to questions from the public.

MOVED by R. Hancock, **SECONDED** by C. Taylor,
That the annual report be received for information.

CARRIED

5. Election of Commission Members

Chair Shap advised that R. Hancock's term will expire in December 31 and an election will be held to fill the position for a term beginning January 1, 2016 and expiring on December 31, 2017. He then called for nominations. R. Hancock was nominated and agreed to stand. Nominations were called for two more times and hearing none, R. Hancock was elected by acclamation. His name will be forwarded to the CRD Board for appointment.

6. New Business

Staff were requested to:

- Ensure the lock to the access gate to Wilfred Treatment Plant is secured tightly after each use.
- Investigate if a tree growing behind the old pump house should be removed.
- Investigate removal of trees by BC Hydro on access road to the treatment plant.

7. Adjournment

The meeting was adjourned at 8 pm.



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**WILDERNESS MOUNTAIN WATER SERVICE
2015 ANNUAL REPORT
THURSDAY, NOVEMBER 10, 2016**

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 meeting minutes approved (by the Committee members);
- To present reports on the work of the Committee, 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 service Committee;
- To enable the public to share comments on subjects which relate to the work of the Committee; and

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.

System Overview

The Wilderness Mountain Water Service (WMWS) was established in the early 1980's. The service area consists of 83 parcels, of which 70 have water service connections. The system was operated and maintained by a private company until converted into a Capital Regional District (CRD) service in 2009. Conditional to becoming a CRD service, upgrades to the water system to meet current drinking water quality guidelines were required.

The source of water for the WMWS is Wilfred Reservoir, a small surface water body created by the construction of two dams. Prior to the upgrade works, water drawn from the reservoir was disinfected with chlorine, then the water was pumped into the distribution system which is comprised of a network of polyvinyl chloride (PVC) water mains. Approximately 55,000 imperial gallons of treated water storage is maintained in two tanks located on Ambience Way.

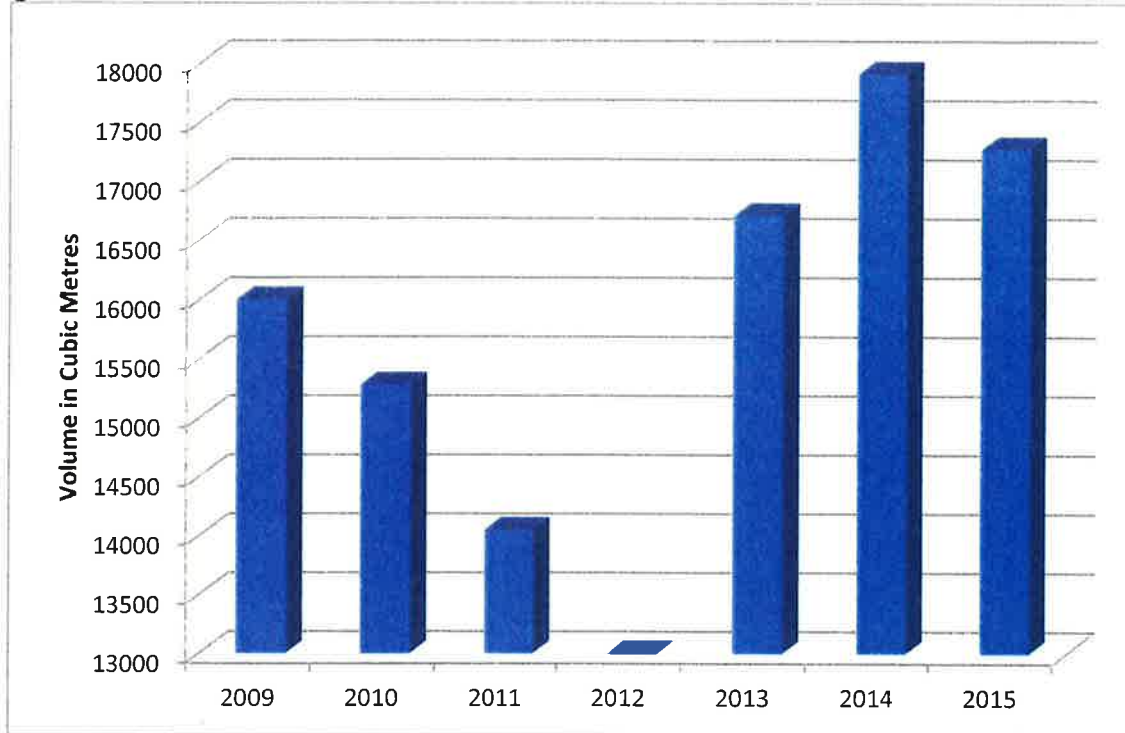
The treatment facility commissioned in 2012, provides a three step treatment process that includes coarse filtration, ultraviolet radiation and chloramination (ammonia and chlorine) disinfection. Chloramination and the production of chloramines provide a long lasting disinfectant residual in the distribution system, lower chlorinous taste and lower disinfection byproducts (such as trihalomethanes).

Water Supply and Consumption

2015 saw a total metered volume of 17,279 m³ extracted from the Wilfred Reservoir, a 3.5% decrease over the recorded 2014 volume of 17,913 m³. Due to only partial recordings, a 2012

total volume is unavailable for comparison. The water supply trend for the Wilderness Mountain system is shown in **Figure 1**. The decrease shown for 2015 may be due to voluntary water conservation during the very dry summer.

Figure 1. Wilderness Mountain Water Service Annual Extraction Volumes



Although the majority of customer connections are metered (original to the subdivision in the 1980's), the meters have not been read regularly because they may not be accurate and are not used for billing. Therefore, since individual customer consumption is unknown, the amount of non-revenue water is also unknown. Non-revenue water is typically used for operational and treatment process purposes such as water main flushing, and reservoir cleaning. Non-revenue water also includes water lost to leakage in the distribution system, including private side connections and fire-fighting activities.

The 2015 annual consumption per connection is 17,279 m³ divided by 70 connections which equals 247 m³ per connection. However, deducting an amount for system losses, (assumed at 20%), the estimated annual consumption per connection is closer to 197 m³.

Drinking Water Quality

In 2015, bacteriological samples were collected once every two weeks with the results summarized below. Additional samples for a variety of other water quality parameters were collected and analyzed at appropriate frequencies ranging from bi-weekly to annually. In general, the Wilderness Mountain Water System was able to provide safe drinking water to its customers year-round. There have been a few episodes of elevated turbidity (treated water over 1 NTU) due to natural processes taking place in the source lake. All of these episodes occurred during the peak demand summer season (July).

Typical Wilderness Mountain Water System water quality characteristics for 2015 include:

Raw Water Entering the Treatment Plant

Bacteriological results:

- The total coliform bacteria median of 225 colony forming units (CFU) per 100 mL and a range from 19 to 1160 CFU/100 mL is within the expected range for a water body such as Wilfred Reservoir.
- *E. coli* bacteria median of 0 CFU/100 mL and ranging from ‘Not Detectable’ to 4 CFU/100 mL, meets the US Environmental Protection Agency limit of 20 *E coli* in at least 90% of the samples to remain an unfiltered surface water supply.
- Source water turbidity (cloudiness) is usually below the limit of 1 NTU (median of 0.91 and ranged from 0.50 to 1.77 NTU). The times when the raw water turbidity exceeded 1 NTU are typically characterized by either algal or zooplankton blooms in the summer. The typical heavy rainfall and runoff events during the fall season does not seem to have the same impact on turbidity in 2015 as in previous years as no turbidity excursion > 1 NTU was recorded in the fall of 2015.
- Total organic carbon is moderate to high at 5.10 milligrams per litre (mg/L).
- *Giardia* or *Cryptosporidium* parasites were absent in the only sample collected in 2015.
- The lake water has naturally high iron and manganese concentrations (may cause aesthetic issues but no health concerns).
- The raw water is characterized as very soft (median hardness: 16.7 mg/L), slightly acidic (pH 6.47) and high in natural colour (median 13.5 True Color Units (TCU), as compared to the *Guidelines for Canadian Drinking Water Quality* (GCDWQ) aesthetic objective (AO) for treated drinking water colour of < 15 TCU).

Treated Water in the Distribution System

- The treated water in the distribution system is safe to drink. Although there were three positive total coliform samples, the confirmatory samples all tested negative for total coliforms.
- 5 treated water samples exhibited an elevated turbidity between 1 and 2 NTU. Most of these samples were collected in July 2015 and the higher than normal turbidity is likely due to an algal or zooplankton bloom in Wilfred Reservoir. The 2015 water testing budget did not allow for additional source water testing, which would have been necessary to determine the actual cause of these events.
- Disinfection by-products (total trihalomethanes and haloacetic acids) in the distribution system remained well below the permissible limits in 2015.
- Treated water colour ranged from 8.0 to 17.0 TCU and therefore occasionally exceeded the GCDWQ AO of <15 TCU. Manganese concentrations also occasionally exceed the AO of 50 µg/L which would have contributed to any discolouration of the treated water.

While these exceedances are undesired and a nuisance, they do not pose a health risk to the customers.

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/wilderness-mountain-water-quality-reports>

Operations 2015

The WMWS operated reliably in 2015. Operation and maintenance activities in 2015 included:

- Hydrant teardowns of all hydrants in the system
- Cleaned both water storage tanks
- Repaired the road to the storage tanks
- Routine water sampling
- Periodic security checks of the reservoirs
- Responding to customer issues
- Leak checks and repair – various
- Dam maintenance (minor)
- Calibration of turbidity meter
- Twice weekly filter maintenance and replacement as required
- Twice weekly disinfectant chemical addition
- Twice weekly maintenance of UV system and disinfectant chemical feed pumps
- Weekly sampling of raw and disinfected water at various sampling locations
- Recording of reservoir levels
- Twice weekly recording of disinfectant residual values at various sampling locations
- Daily remote monitoring of water production through disinfection plant
- Daily remote monitoring of tank levels (finished water reservoirs) (mid – June 2015).

Capital Improvements

The 2015 capital budget included dam safety upgrades related to the Wilfred Reservoir including:

- Installation of a set of stairs for the operators to access the dam safely to complete inspections
- Work related to the lower level outlet valve
- Removal of trees
- Preparation of the Operation, Maintenance and Surveillance Manual and the Emergency Preparedness Plan which are requirements of the *Dam Safety Regulation*
- Installation of Phase 1, of the Supervisory Control and Data Acquisition (SCADA) equipment.

In addition a new antenna at the pump house was installed and “No Trespassing” signs were added at strategic locations (operating budget).

At its’ meeting of July 31, 2015, the Commission received the draft Strategic Asset Management Plan in which several 2016 capital projects were brought forward including the following:

- SCADA Upgrade, Phase 2 (\$36,250)
- Undertake Improvement to Intake Pump (\$2,500)

- Chemical Metering Pump (\$2,000)
- Installation of a flushing saddle assembly (\$4,000)
- William Brook Reservoir – Transfer Agreement (\$2,500)

Proposed future capital improvements are identified in the 2017 Capital and Operating Budget document (including the five year capital plan) presented to the Commission at its October 28, 2016 meeting.

Financial Report

2015 Financial Report

The 2015 parcel tax and user charge were:

Parcel Tax: \$853.94
User Charge: \$613.43
Water Rate: \$216.00

Attached is a *Statement of Operations* as prepared by CRD Finance for 2015. The statement provides an overview of the revenues and expenditures for the year.

Revenues totalled \$124,986 including:

- \$66,530 *Transfers from government* (parcel taxes)
- \$15,120 *Water Sales*
- \$42,941 *User Charges*
- \$240 *Interest earnings*
- \$155 *Other revenue* including late payment charges.

Expenses totalled \$103,849, including:

- \$4,140 for *General government services* (charges by CRD Corporate Services for accounting and billing)
- \$62,201 for *CRD labour and operating costs* for CRD staff time and for the cost of equipment, tools and vehicles
- \$23,667 for *debt servicing costs*
- \$13,841 for *Other expenses* (comprised of electricity, insurances supplies, electricity, water testing etc.)

The difference between revenue and expenditures in 2015 is a net revenue of \$21,137. This was added to the surplus of \$12,050 carried forward from 2014. \$12,187 was transferred to the capital reserve fund, leaving \$21,000 carried forward as revenue to 2016.

The balance in the capital reserve fund at December 31, 2015 was \$140,386.

The 2016 operating and capital budgets recommended by the Wilderness Mountain Water Service Committee were approved by the CRD Board in March 2016. The approved budget resulted in the following fees and charges for 2016:

- Parcel Tax: \$584.39/parcel
- User Charge: \$613.43/SFE
- Water Sales: \$216.00/SFE



Ian Jesney, P.Eng.
Senior Manager, Infrastructure Engineering



Matthew McCrank, M.Sc., P.Eng.
Senior Manager, Infrastructure Operations



Glenn Harris, Ph.D., R.P.Bio
Senior Manager, Environmental Protection



Amber Genero, MA, CPA, CMA
A/Manager, Financial Planning & Analysis

GP/PD/TS/SM:ls

Attachment: 1

Wilderness Mountain Water

2015 Financial Summary



	2015	2014
Revenue		
Water sales	15,120	15,120
Transfers from government	66,530	63,242
User charges	42,941	39,656
Other revenue from own sources		
Interest earnings	240	73
Other revenue	155	158
Transfer from Maintenance Reserve Account	-	-
Total revenue	124,986	118,250
Expenses		
General government services	4,140	5,626
CRD labour and operating costs	62,201	59,237
Debt servicing costs	23,667	23,675
Other expenses	13,841	17,662
Total expenses	103,849	106,200
Net revenue (expenses)	21,137	12,050
Transfers to own funds		
Capital Reserve Fund	12,187	-
Maintenance Reserve Account	-	-
Annual surplus (deficit)	8,950	12,050
Accumulated deficit, beginning of year	12,050	-
Accumulated surplus, end of year	\$ 21,000	12,050