Making a difference...together

SKANA WATER SERVICE COMMITTEE
Notice of Annual General Meeting on **Thursday, May 30, 2019 at 2 p.m.**
Mayne Island Agricultural Hall
430 Fernhill Road, Mayne Island, BC

J. Sanders (Chair) Director D. Howe R. Hagkull
R. Johnston G. Fryling

AGENDA

1. Approval of Agenda
2. Adoption of Minutes of May 31, 2018
3. Chair's Report
4. 2018 Annual Report
5. Election of Committee Members
6. New Business
7. Adjournment

To ensure quorum, advise Sharon 250.474.9622 or sorr@crd.b.ca if you cannot attend.

Making a difference...together

Minutes of the Annual General Meeting of the Skana Water Service Committee
Held Thursday, May, 31, 2018 at the Mayne Island Agricultural Hall, 430 Fernhill Road, Mayne Island, BC

PRESENT: **Committee Members**: Jon Sanders (Chair), Graeme Fryling, Ramon Hagkull, Robert Johnston
Staff: Matt McCrank, Senior Manager, Infrastructure Operations, Ian Jesney, Senior Manager, Infrastructure Engineering, Joseph Marr, Manager, Water Distribution Engineering & Planning, Lorrie Siemens (recorder)
11 Members of the Public

ABSENT: Director Dave Howe, Southern Gulf Islands Regional Director

The meeting was called to order at 1 p.m.

1. Approval of Agenda

MOVED by R. Hagkull, **SECONDED** by J. Sanders,
That the agenda be approved as distributed.

CARRIED

2. Adoption of Minutes of May 11, 2017

MOVED by R. Hagkull, **SECONDED** by J. Sanders,
That the minutes of May 11, 2017 be adopted as previously circulated.

CARRIED

3. Chair's Report

Chair Sanders reported the following:

- Increase to users in the service area
- The service area continues to promote water conservation
- The referendum will be postponed to 2019

4. Annual Report

M. McCrank presented the annual report and advised that all local service annual reports are available on the CRD website. A question and answer period followed.

5. Election of Committee Members

It was reported that the terms for Jon Sanders and Ramon Hagkull would expire on June 30, 2018. Nominations were called by Matt McCrank for two positions for two-year terms beginning July 1, 2018 and expiring on June 30, 2020. The following nominations were received:

- Jon Sanders (accepted)
- Ramon Hagkull (accepted)

Nominations were called for two more times. There were no further nominations. Jon Sanders and Ramon Hagkull were elected by acclamation. Their names will be forwarded to the CRD Board for appointment.

6. New Business

Discussions took place on the following topics:

- Water Quality – reported from those in attendance that the water quality is very good.
- There are a number of wells located in the service are that require decommissioning.
- Air B&B's – under the jurisdiction of the Island's Trust.
- Water billing based on consumption as opposed to Single Family Equivalents.

7. Adjournment

The meeting was adjourned at 2 p.m.

Skana Water System

2018 Annual Report

CRD | Drinking Water

Introduction

This report provides a summary of the Skana Water Service for 2018. This report 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 community of Skana is a rural residential development located on the north side of Mayne Island in the Southern Gulf Islands Electoral Area, originally serviced by a private water utility. In 2003, the service converted to the Capital Regional District. The Skana Water Service (Figure 1) is made up of 73 parcels encompassing a total area of approximately 19 hectares. Of the 73 parcels, 47 were customers of the water system in 2018; an increase of one from the previous year.

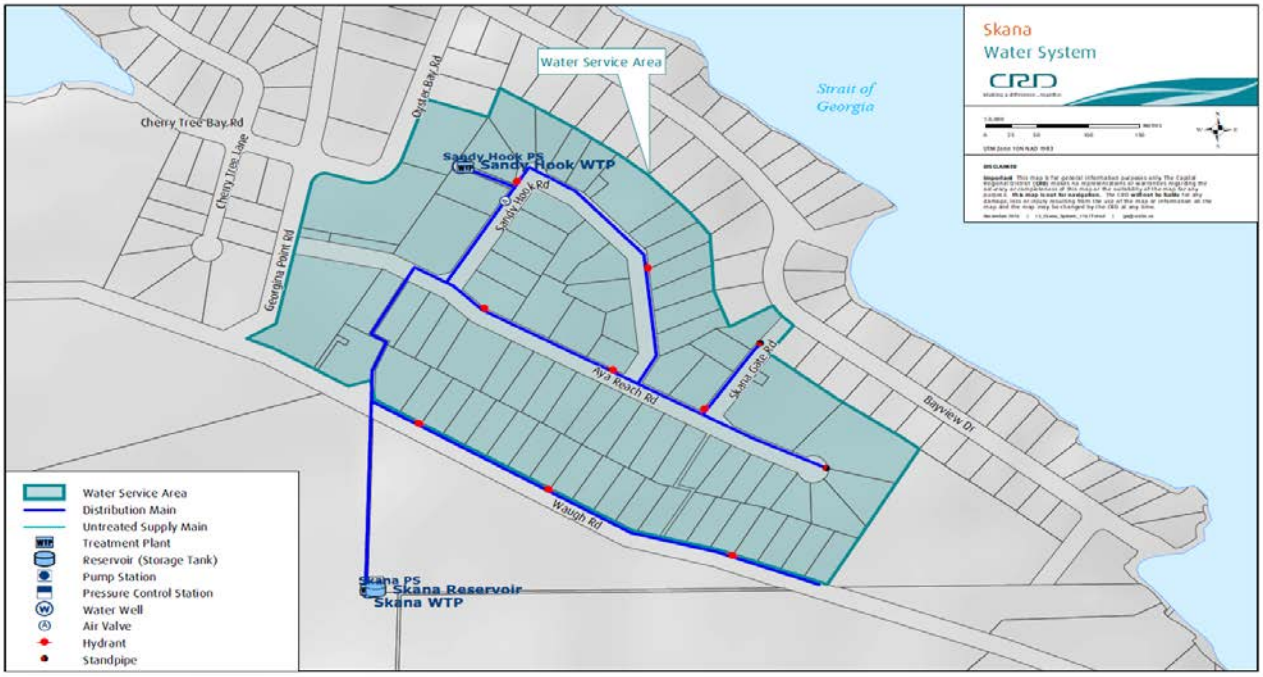

Figure 1: Map of Skana Water System.

The Skana water system is comprised of:

- Two ground water wells, related pumping and control equipment and buildings (Production Wells #8 and Well #13);
- Disinfection process equipment (ultraviolet light and chlorine at each well);
- Two steel storage tanks (total volume is 91 cubic metres);
- Distribution system (1,977 m of water mains); and,
- Other water system assets: 47 service connections and meters, 8 hydrants, 3 standpipes, 15 gate valves, 1 air release valve, SCADA system and auxiliary generator.

Water Supply

Ground water supply water levels are highlighted for 2018 in Figure 2. Note that 2018 well water levels were not recorded after July due to well head accessibility issues. Wellhead upgrades completed including a new cap at the top of the well resulted in losing the access to measure the groundwater level. Well access modifications were completed and well level recordings have been reinstated for 2019. Resource water levels were within normal ranges during the first half of 2018.

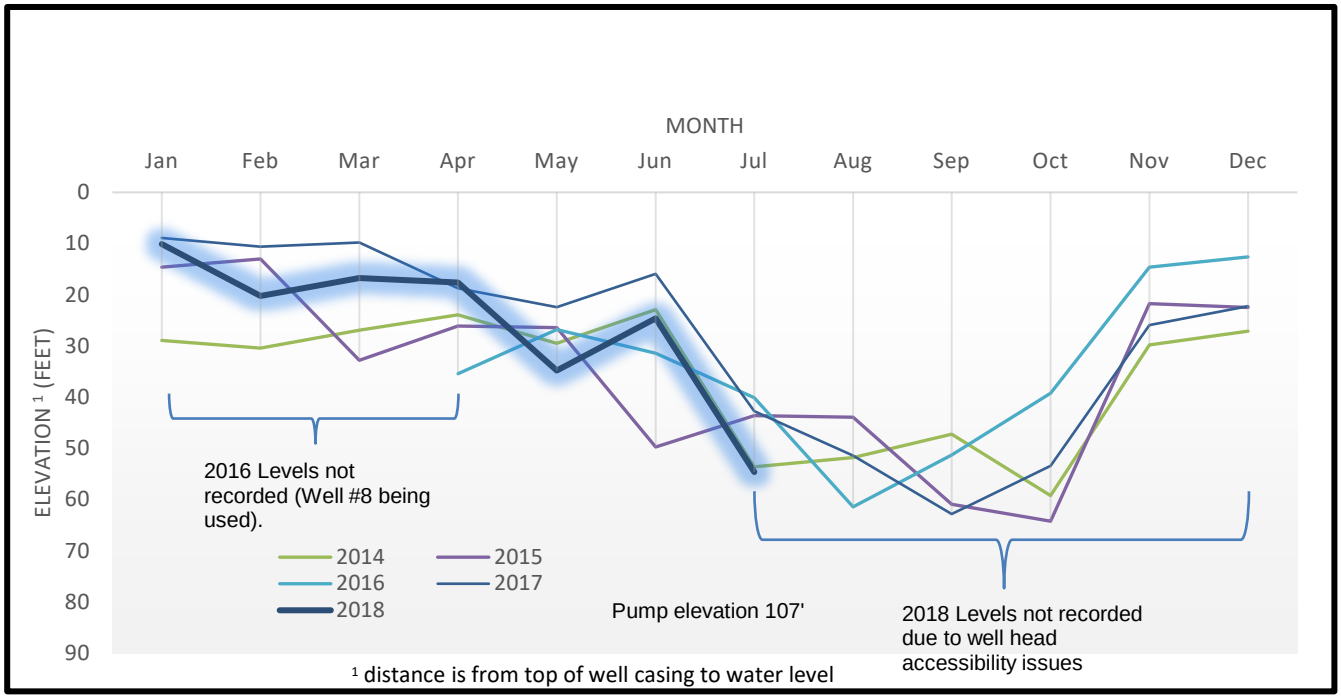

Figure 2: Skana Well #13 Ground Water Supply Monthly Water Level

Water Production and Demand

4,624 cubic meters (m^3) of water was extracted (water production) from the ground water source (Well #13) in 2018; a 12% increase from the previous year and a 26% increase from the five year average (Figure 3). Water demand (customer water billing) for the service totaled 3,445 cubic meters of water; an 11% increase from the previous year and a 25% increase from the five year average.

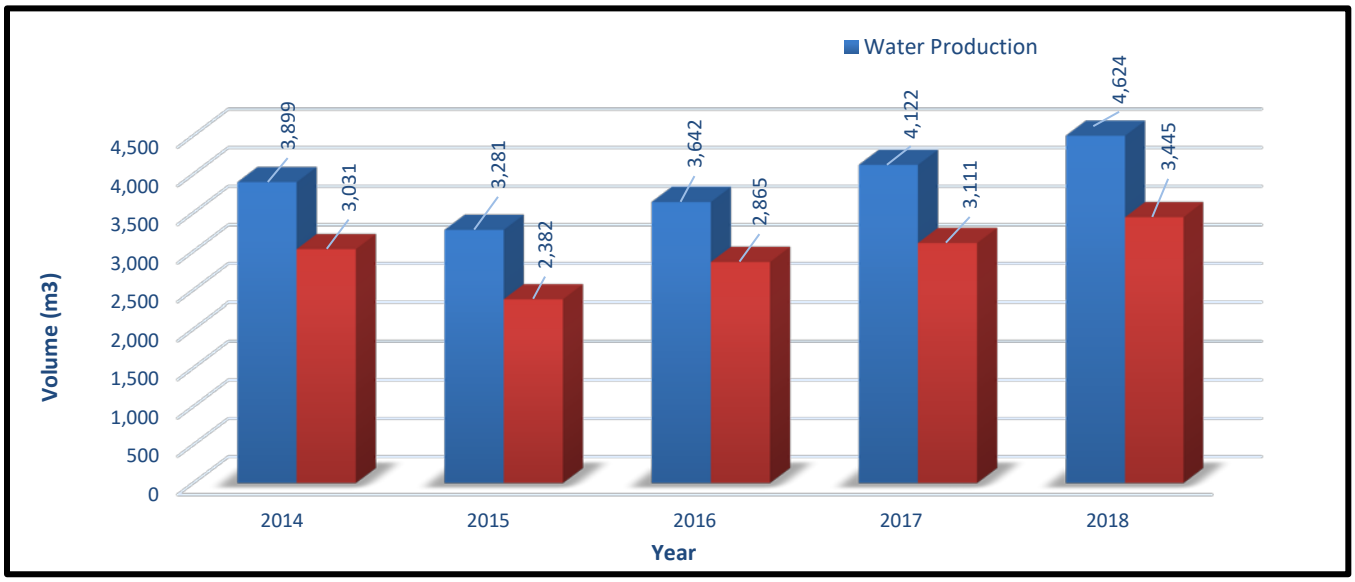

Figure 3: Skana Water Service Annual Water Production and Demand.

The difference between annual water production and annual customer water demand is referred to as non-revenue water and can include water system leaks, water system maintenance and operational use (e.g. water main flushing, filter system backwashing), potential unauthorized use and fire-fighting use.

The 2018 non-revenue water (1,179 cubic meters) represents approximately 25% of the total water production for the service area. However, approximately 600 cubic meters is attributed to operational use resulting in a non-revenue water volume of approximately 12%. This is considered to be acceptable for a small water system.

Figure 4 below illustrates the monthly water production for 2018 along with the historical water production information. The monthly water production trends are typical for small water systems such as the Skana water system. However, monthly water production during the first five months of 2018 is noticeably higher compared to previous years especially the month of May. This is due to higher water demand (customer use) during this period and could be the result of unreported water leaks on the customer side of the water meter.

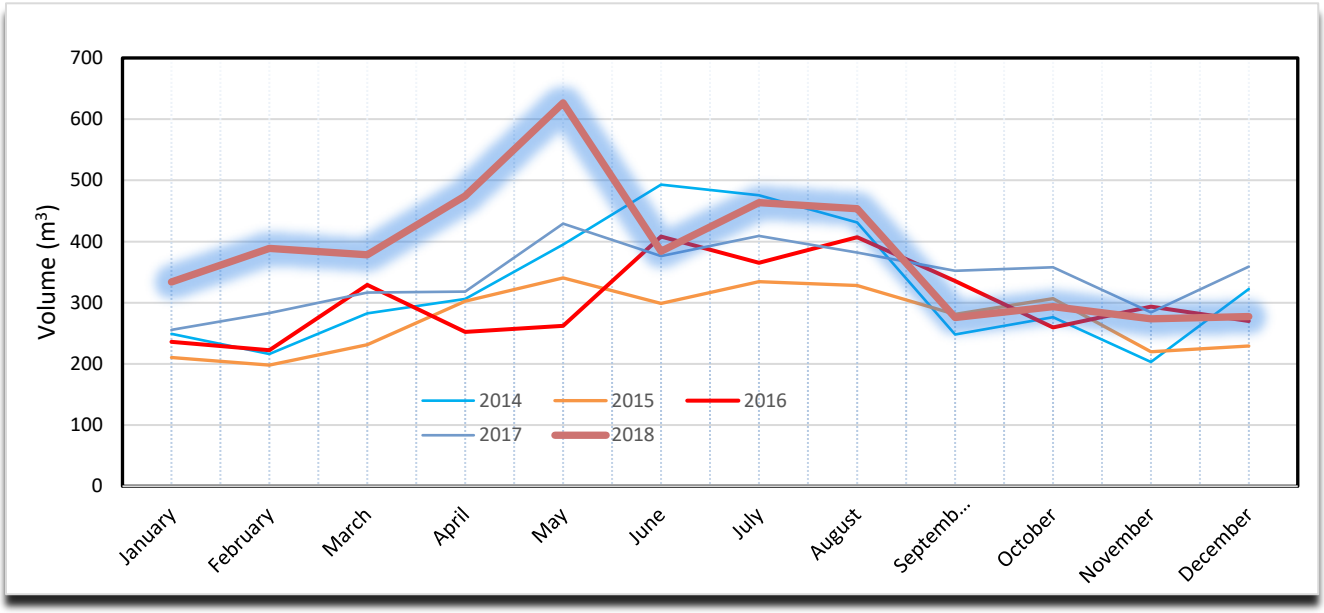

Figure 4: Skana Water Service Monthly Water Production.

Drinking Water Quality

The water quality monitoring program at Skana was carried out in 2018 based on regulatory requirements and system specific risks. Samples were collected at regular frequencies from the raw water, at the treatment plant as well as from a number of sampling stations in the distribution system. The samples were shipped for various analyses to CRD's Water Quality Lab or to external laboratories for special analyses such as disinfection by-products or metals.

The water system performed well in 2018 and consistently supplied drinking water of good quality to its customers. The Skana source water from Well #13 was of good quality and free of E.coli bacteria. Only one raw water sample (January 8, 2018) registered a very low concentration of total coliform bacteria. The source water did not exhibit any concerning turbidity increase during the well recharge period in the fall as in years prior to the well upgrades; it was well under 1 NTU throughout the entire year. The treated water supplied to the customers was of good quality and safe to drink. The existing disinfection process proved more than adequate to deal with this temporary slight increase in indicator bacteria presence in the raw water. Total Trihalomethanes (TTHM) disinfection by-product concentrations were below the maximum acceptable concentration (MAC) listed in the Guidelines for Canadian Drinking Water Quality as a rolling annual average but were close to the MAC during the low demand season in the winter and spring.

The data below provides a summary of the water quality characteristics in 2018:

Raw Water:

- Well #13, the primary source, supplied raw water free of indicator bacteria with the exception of one sample on January 8, 2018 with very low concentrations of total coliform bacteria.
- No samples from Well #8 were collected in 2018 as it was not being used.
- The mean raw water turbidity was 0.42 NTU.
- The raw water was hard (hardness 82.7 mg/L $CaCO_3$).
- The median pH was 7.29.
- The TOC concentration in the raw water ranged from 1.33 to 2.40 mg/L with the higher concentrations recorded in the winter. Any possible influence of surface water on this well was not as noticeable in 2018 as in previous years.

Treated Water:

- The treated water was bacteriologically safe to drink with no confirmed *E. coli* or total coliform bacteria.
- The median treated water turbidity was 0.53 NTU.
- The annual average levels of the disinfection by-products (total trihalomethanes (TTHM) were 78 µg/L, well below the MAC. Two samples from the distribution system on March 12, 2018 were at or just below the MAC of 100 µg/L for TTHM (99 and 100 µg/L).
- The free chlorine residual concentrations ranged from 0.17 to 1.45 mg/L in the distribution system indicating good secondary disinfection.

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

Operational Highlights

The following is a summary of the major operational issues that were addressed by CRD Integrated Water Services staff:

- March 8, 2018 – Assist contractor with Well No. 8 upgrades (Capital Work)
- June 26, 2018 – Assist contractor with Well No. 13 upgrades (Capital Work)
- December 20, 2018 – Storm event emergency response.

Capital Project Updates

The Capital Projects that were in progress or completed in 2018 included:

- Groundwater Study – has been started with background information collection and a terms of reference to retain a consultant to identify groundwater protection issues. This project is being undertaken in conjunction with the Water Quality Study.
- Water Quality Study – A terms of reference to retain a consultant to conduct a groundwater quality study on Well #13 has been produced to retain a consultant. This project is being undertaken in conjunction with the Groundwater Study.
- Public Engagement/Referendum – This project has been deferred until the results from the Groundwater Study and Water Quality Study are complete.
- Storage Tank Replacement – Replacement of the storage tank has been deferred until the Groundwater Study and Water Quality Study have been completed.

Financial Report

Please refer to the attached *Statement of Operations*. *Revenue* includes parcel taxes (*Transfers from Government*), fixed user fees (*User Charges*), 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.

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
	Rianna Lachance, BCom, CPA, CA, Senior Manager, Financial Services
Concurrence:	Ted Robbins, BSc, C.Tech, General Manager, Integrated Water Services

Attachment: 2018 Financial Summary (Statement of Operations)

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Integrated Water Services
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250.474.9600 www.crd.bc.ca

CAPITAL REGIONAL DISTRICT

SKANA WATER
Statement of Operations (Unaudited)
For the Year Ended December 31, 2018

		2018	2017
Revenue			
Transfers from government		23,070	19,350
User Charges		43,711	40,634
Other revenue from own sources:			
Interest earnings		244	47
Other revenue		525	206
Transfer to Capital Projects		-	-
Total revenue		67,550	60,238
Expenses			
General government services		3,080	2,900
Contract for Services		10,610	10,197
CRD Labour and Operating costs		12,895	16,249
Debt Servicing Costs		10,332	11,015
Other expenses		8,933	10,495
Total expenses		45,850	50,856
Net revenue (expenses)		21,699	9,382
Transfers to own funds:			
Capital Reserve Fund		20,699	8,383
Operating Reserve Fund		1,000	1,000
Annual surplus (deficit)		-	-
Accumulated surplus, beginning of year		-	-
Accumulated surplus, end of year	$	-	-

CAPITAL REGIONAL DISTRICT

SKANA WATER
Statement of Reserve Balances (Unaudited)
For the Year Ended December 31, 2018

	Capital Reserve	
	2018	**2017**
Beginning Balance	36,895	65,941
Transfer from Operating Budget	20,699	8,383
Transfers from completed capital projects	-	-
Interest Income	835	571
Transfer to Capital Projects	(5,000)	(38,000)
Ending Balance	53,429	36,895

	Operating Reserve	
	2018	**2017**
Beginning Balance	7,623	3,928
Transfer from/(to) Operating Budget	1,000	1,000
Transfer from/(to) Environmental Services	-	2,517
Interest Income	196	178
Ending Balance	8,818	7,623