Making a difference...together

SKANA WATER SERVICE COMMITTEE
Notice of Annual General Meeting on **Thursday, May 11, 2017 at 11:30 a.m.**
St. Mary Magdalene Church (Church House)
360 Georgina Point 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 16, 2016
3. Chair's Report
4. Annual Report
5. Election of Committee Members
6. New Business
7. Adjournment

To ensure quorum, advise Lorrie Siemens 250.360.3087 or lsiemens@crd.b.ca if you cannot attend.
IWSS-928280410-5182

Making a difference...together

Minutes of the Annual General Meeting of the Skana Water Service Committee Held Monday, May, 16, 2016 at the Mayne Island Agricultural Hall, 430 Fernhill Road, Mayne Island, BC

PRESENT: **Committee Members**: J. Sanders (Chair), B. Bovet, G. Fryling, R. Johnston, D. Howe, Southern Gulf Islands Regional Director
Staff: M. McCrank, Senior Manager, Infrastructure Operations, S. Mason, Manager, Water Engineering and Planning, D. Robson, Manager, Saanich Peninsula and Gulf Islands Operations, P. Dayton, Senior Financial Analyst, L. Siemens (recorder)
7 Members of the Public

The meeting was called to order at 9:30 a.m.

1. Approval of Agenda

MOVED by B. Bovet, **SECONDED** by J. Sanders,
That the agenda be approved as distributed.

CARRIED

2. Adoption of Minutes of May 13, 2015

MOVED by Director Howe, **SECONDED** by G. Fryling,
That the minutes of the Annual General Meeting of May 13, 2015 be adopted as distributed.

CARRIED

3. Chair's Report

Chair Sanders reported on the following:

- Well #13 water quality.
- The need for replacement of the water storage tanks.

4. Annual Report

M. McCrank presented a written report and a PowerPoint presentation to accompany the report. The following items were addressed:

- Purpose of the Annual General Meeting
- Water Production and Consumption
- Operations
- 2015 Capital Projects and Future
- Water Quality
- 2015 Financial Report
- Water System Problems – Who to Call

A question and answer period followed the presentation.

A discussion took place on water usage by the community as well as methods to advise the users of their accumulative usage.

MOVED by G. Fryling, **SECONDED** by J. Sanders,
That CRD staff explore options for tracking of water usage and report back to the committee.

CARRIED

5. Election of Committee Members

It was noted that the terms for Jon Sanders and Brian Bovet would expire on June 30, 2016 and that an election will be held. Nominations were called for two positions for two-year terms beginning July 1, 2016 and expiring on June 30, 2018. Jon Sanders and Ramon Hagkull were nominated and agreed to stand. Nominations were called for two more times. There were no further nominations. Jon Sanders and Ramon Hakull were elected by acclamation. Their names will be forwarded to the CRD Board for appointment.

6. New Business

Discussion took place on the following topics:

- Frequency of water main flushing.
- Municipal Finance Authority interest rates.
- Residential properties repurposed for Bed and Breakfasts. Islands Trust Bylaw referrals are being reviewed by the CRD.
- Water conservation.

7. Adjournment

The meeting was adjourned at 10:50 a.m.

Making a difference...together

SKANA WATER LOCAL SERVICE
2016 ANNUAL REPORT

Introduction

This report provides a summary of the Skana Water Service for the year 2016. 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 which was 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, 46 were customers to the water system in 2016.

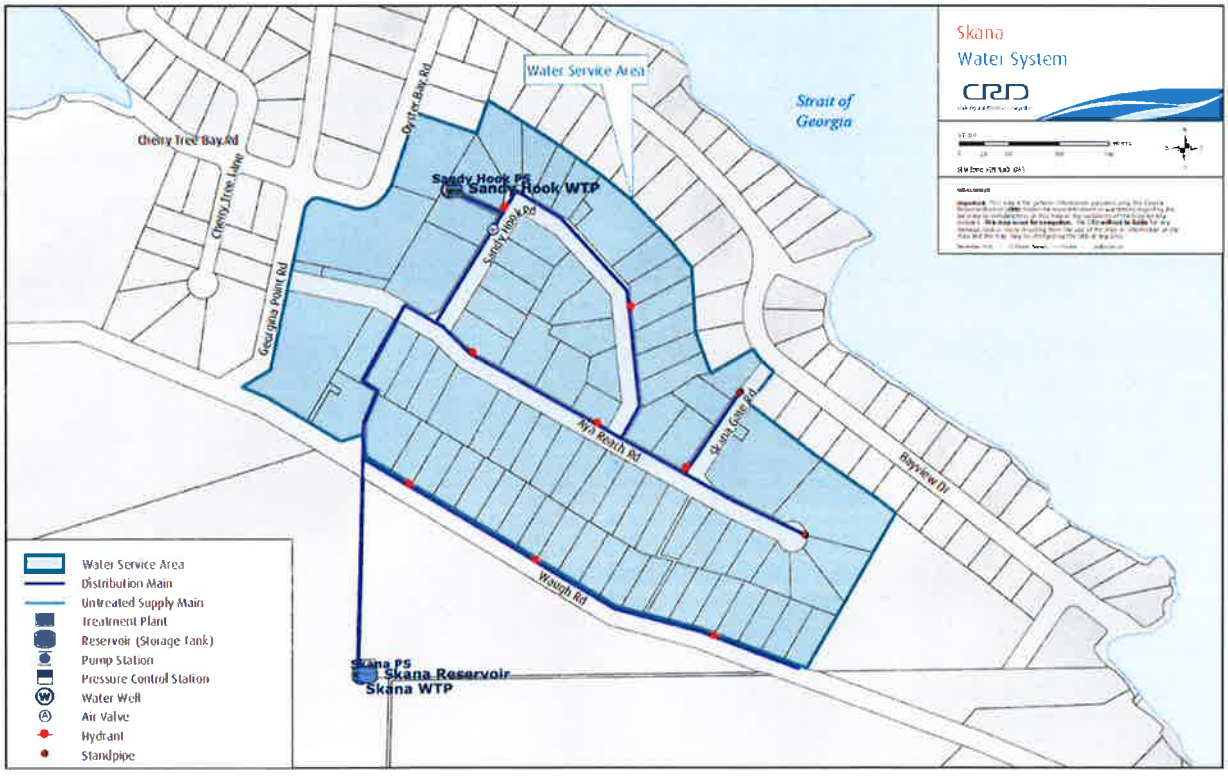

Figure 1: Map of Skana Water System.

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: 46 service connections and meters, 8 hydrants, 3 standpipes, 15 gate valves, 1 air release valve, and SCADA system and auxiliary generator.

Water Supply

Referring to Figure 2 below, ground water supply monthly water levels are highlighted for 2016. During the first few months of 2016 Well #8, the back-up water source, was used for water supply, as a result Well #13 water levels were not recorded during this period.

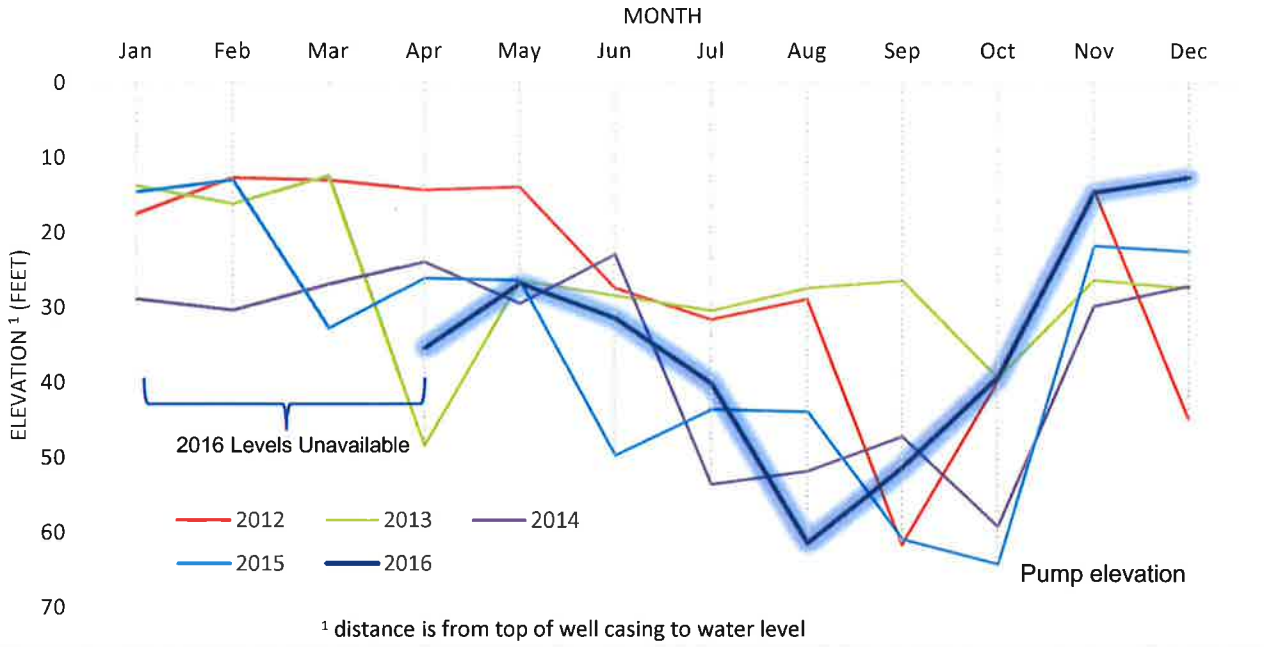

Figure 2: Skana Well #13 Ground Water Supply Monthly Water Level

Water Production and Demand

Referring to Figure 3, 3,642 cubic meters of water was extracted (water production) from the ground water source (Well #13) in 2016; an 11% increase from the previous year and a 5% increase from the five year average. Water demand (customer water billing) for the service totaled 2,865 cubic meters of water; a 20% increase from the previous year and a 9% increase from the four year average.

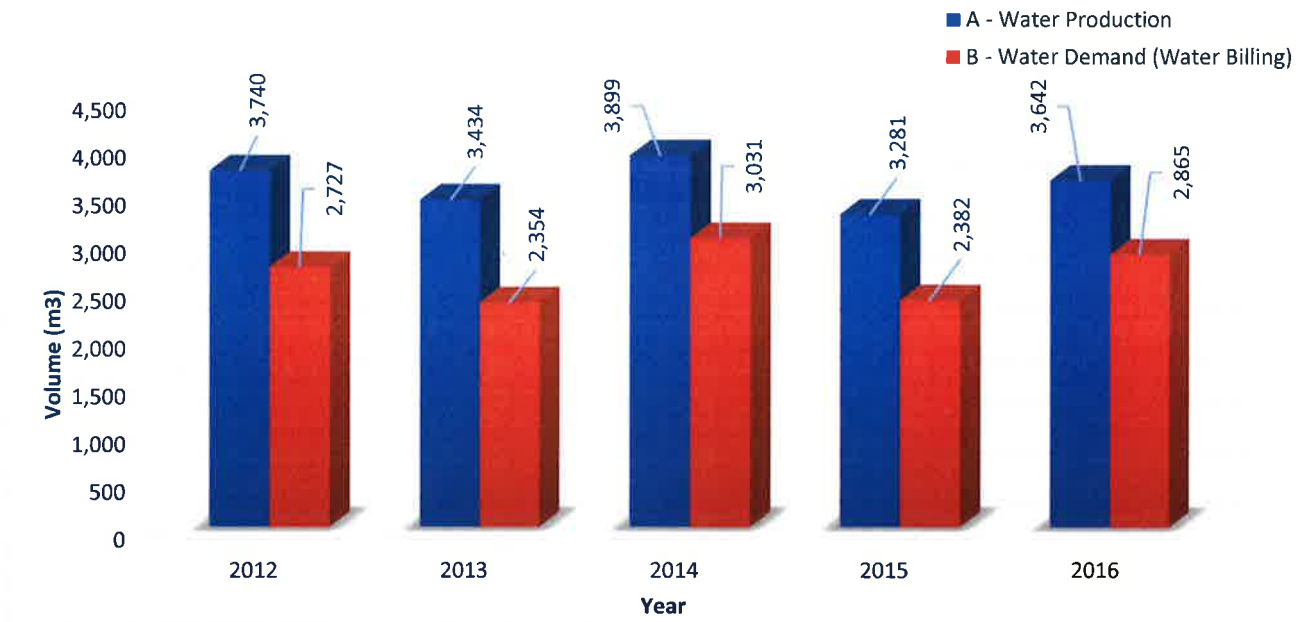

Figure 3: Skana Water Service Annual Water Production and Demand.

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 2016 non-revenue water (777 cubic meters) represents about 21% of the total water production for the service area. However, about 600 cubic meters is attributed to operational use resulting in a non-revenue water volume of approximately 5%. This is considered to be a minor quantity for a small water system.

Figure 4 below illustrates the monthly water production for 2016 along with the historical water production information. The monthly water production trends are typical for small water systems such as the Skana water system.

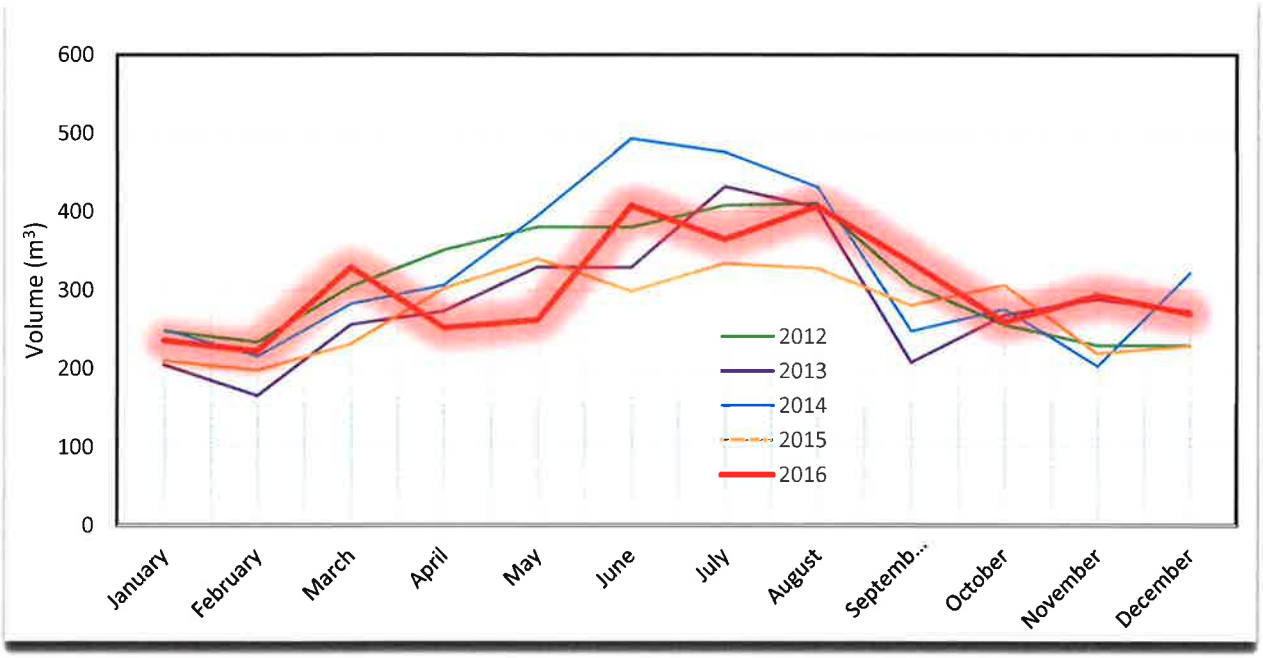

Figure 4: Skana Water Service Monthly Water Production.

Drinking Water Quality

The water quality monitoring program at Skana was carried out in 2016 based on the regulatory requirements and system specific risks. Samples were collected at regular frequencies from the raw water as well as from a number of sampling stations at the treatment plant and 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 2016 and consistently supplied drinking water of good quality to its customers. None of the 57 compliance samples tested positive for total coliforms or *E. coli* in 2016. The Skana Water System was supplied until April 12, 2016 by the backup Well #8 as a result of the contamination of Well #13 between December 2015 and April 2016. A well inspection and subsequent repair work in June 2016 addressed a number of water quality risks associated with Well #13. Despite the efforts and some water quality improvements noted during the aquifer recharge season, elevated total organic carbon (TOC) concentrations and low levels of indicator bacteria in the raw well water in November and December continue to indicate a connection of the well or aquifer with surface water. The elevated TOC concentrations resulted in exceedances in disinfection by-product concentrations during these two months.

The data below provides a summary of the water quality characteristics in 2016:

Raw Water:

- Well #13, the primary source, contained low to medium levels of total coliform concentrations until early April 2016 when it was not used, after that generally no indicator bacteria were detected except for one sample in August with total coliforms and one sample in November with low levels of total coliform and *E. coli* bacteria.

- Well #8, the backup well, regularly had low levels of total coliform bacteria between February and May 2016.
- The mean raw water turbidity was 1.12 NTU, whereas the turbidity of Well #8 water is generally well above 1 NTU and Well #13 water is generally well under 1 NTU.
- The raw water was hard (hardness 112 mg/L $CaCO_3$).
- The median pH was 7.22.
- The TOC concentration in the raw water ranged from 2.19 to 6.09 mg/L with the higher concentration being recorded in November.

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 0.64 NTU.
- The annual average levels of the disinfection by-products (total trihalomethanes (TTHM) and haloacetic acids (HAA)) were below the MAC. November and December samples from the distribution reservoir and from a sampling station in the distribution system exceeded the MAC of 100 µg/L for TTHM. These exceedances coincided with high TOC concentrations in the raw water.
- The free chlorine residual concentrations ranged from 0.18 to 2.24 mg/L in the distributions 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/southern-gulf-islands-water-quality-reports/skana-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 10, 2016 – Emergency response to a report of a water system leak near 524 Aya Reach. Upon investigation, it was concluded that ground water was surfacing as a result of a heavy rain event.
- June - July, 2016 – Prepared for and assisted in investigations of Well #8 and #13 and upgrades to Well #13.

Capital Project Updates

The Capital Projects that were in progress or completed in 2016 included:

1. Strategic Asset Management Plan – the Strategic Asset Management Plan (study) was delivered to the Committee in April of 2016 for its consideration in guiding the future management of the water system.

2. Storage Tank Assessment – the original steel storage tanks were identified to be corroding and therefore an assessment was conducted by consultants, Stantec and Stazuk, which resulted in recommending the replacement of the tanks. A staff report on the issue was provided to the Committee at its April of 2016 meeting.

3. Safety Equipment – eyewash and drench hose equipment was installed at the Well #13 location to aid the operator should the disinfectant chemical come in contact with the operator.

4. Wells Investigation and Remedial Work – due to failed bacteriological test results of Well #13, both wells (#8 and 13) were inspected by a well servicing contractor and work was undertaken on Well #13 that included the installation of a liner and surface seal.

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
	Amber Donaldson, MA, CPA, CMA, A/ Senior Manager, Financial Services

Attachment: 2016 Financial Summary (Statement of Operations)

CAPITAL REGIONAL DISTRICT

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

	2016	2015
Revenue		
Transfers from government	19,350	19,350
User Charges	37,607	37,195
Other revenue from own sources:		
Interest earnings	81	167
Other revenue	556	825
Transfer to Capital Projects	-	636
Total revenue	57,594	58,173
Expenses		
General government services	2,820	2,820
Contract for Services	8,954	8,160
CRD Labour and Operating costs	19,113	25,852
Debt Servicing Costs	11,093	11,087
Other expenses	8,498	6,964
Total expenses	50,478	54,883
Net revenue (expenses)	7,115	3,290
Transfers to own funds:		
Capital Reserve Fund	11,315	2,505
Operating Reserve Account	3,900	1,000
Annual surplus (deficit)	(8,100)	(216)
Accumulated surplus, beginning of year	8,100	8,316
Accumulated surplus, end of year	$ 0	8,100

CAPITAL REGIONAL DISTRICT

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

	Capital Reserve 2016	2015
Beginning Balance	56,453	52,038
Transfer from Operating Budget	11,315	2,505
Transfers from completed capital projects	7,385	11,112
Interest Income	788	798
Transfer to Capital Projects	(10,000)	(10,000)
Ending Balance	65,942	56,453

	Operating Reserve 2016	2015
Beginning Balance	2,364	2,000
Transfer from/(to) Operating Budget	3,900	364
Ending Balance	6,264	2,364