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SKANA WATER SERVICE COMMITTEE

Notice of Annual General Meeting on **Monday, May 16, 2016 at 9:30 am**
Mayne Island Agricultural Hall
430 Fernhill Road, Mayne Island, BC

J. Sanders (Chair)
G. Fryling

Director D. Howe

B. Bovet

R. Johnston

AGENDA

1. Approval of Agenda
2. Adoption of Minutes of May 13, 2015
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-928280410-4750



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**Minutes of the Annual General Meeting of the Skana Water Service Committee
Held Wednesday, May, 13, 2015 at the Mayne Island Agricultural Hall, 430 Fernhill Road,
Mayne Island, BC**

PRESENT: **Committee Members:** J. Sanders (Chair), B. Bovet, G. Fryling, G. DeBeer, P. LeBlond, Southern Gulf Islands Alternate Director
Staff: S. Mason, Manager, Water Engineering and Planning, D. Robson, Manager, Saanich Peninsula and Gulf Islands Operations, P. Dayton, Senior Financial Analyst, L. Siemens (recorder)

Two members of the public were in attendance.

The meeting was called to order at 9:30 am.

1. Approval of Agenda

MOVED by G. Fryling, **SECONDED** by B. Bovet,
That the agenda be approved as distributed.

CARRIED

2. Adoption of Minutes of May 14, 2014

MOVED by B. Bovet, **SECONDED** by G. Fryling,
That the minutes of the Annual General Meeting of May 14, 2014 be adopted as distributed.

CARRIED

3. Chair's Report

Chair Sanders reported that there were three new connections in 2014 and that there have been no issues with the water service.

4. Annual Report - 2014

S. Mason presented a written report and provided hard copies of a PowerPoint presentation to accompany the report. The following items were addressed:

- Purpose of the Annual General Meeting
- Water Usage
- Operations
- 2014 Projects
- Water Quality
- 2014 Financial Report
- Water System Problems – Who to Call

A discussion took place regarding the need for a condition assessment of the existing steel storage tanks. The committee requested that they be informed of the outcome of the inspection at the budget meeting. Staff advised that a report will be brought to the committee for this project.

MOVED by B. Bovet, **SECONDED** by G. Fryling,
That the Skana Water Service Committee receive the report for information.

CARRIED

5. Election of Committee Members

It was noted that the terms for Graeme Fryling and George DeBeer would expire on June 30, 2015. Nominations were called for two positions for two-year terms beginning July 1, 2015 and expiring on June 30, 2017. George DeBeer and Graeme Fryling were nominated and agreed to stand. Nominations were called for two more times. There were no further nominations. George DeBeer and Graeme Fryling were elected by acclamation. Their names will be forwarded to the CRD Board for appointment.

6. New Business

A discussion took place on water consumption in the service area. Staff advised that consumption data for 2014 will be provided to the committee by E-mail.

7. Adjournment

The meeting was adjourned at 10:10 am.



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**SKANA WATER SERVICE COMMITTEE
2015 ANNUAL GENERAL MEETING REPORT
PRESENTED ON MAY 16, 2016**

Purpose of the Annual General Meeting

The agenda for the Annual General Meeting (AGM) is approved by the members of the Skana Water Service Committee (the "Committee"). The purposes (and hence the agenda items) of the meeting are:

- To have the last year's AGM meeting minutes approved (by 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.

Water Production and Consumption

A total of 3,281 cubic metres (m³) of water was pumped from the Skana ground water wells in 2015. This represents a 16% reduction from 2014 and a 3% reduction from the 5 year average. Well production by month is shown in Figure 1. The decrease in the 2015 water production is likely attributed to the community's response to the water conservation notice issued in July 2015 as a result of provincial drought conditions this past summer. The water conservation notice highlighted the need for residences to: not water lawns; limit the watering of trees and shrubs; not fill swimming pools, hot tubs or garden ponds; not wash vehicles or boats; and, not wash outdoor surfaces such as driveways, sidewalks and decks. The effect of the water conservation efforts were critical in managing the water supply for the community into the fall and winter. Water production during July and August of 2015 was the lowest in the five years of data.

The 2015 metered water (customer water demand) for Skana Water Service totalled 2,382 m³; a 21% reduction in water use from the previous year and a 12% reduction from the 3 year average. Comparison of the annual water production and the water demand from 2012 to 2015 are shown in Figure 2.

Figure 1- Skana Monthly Water Production

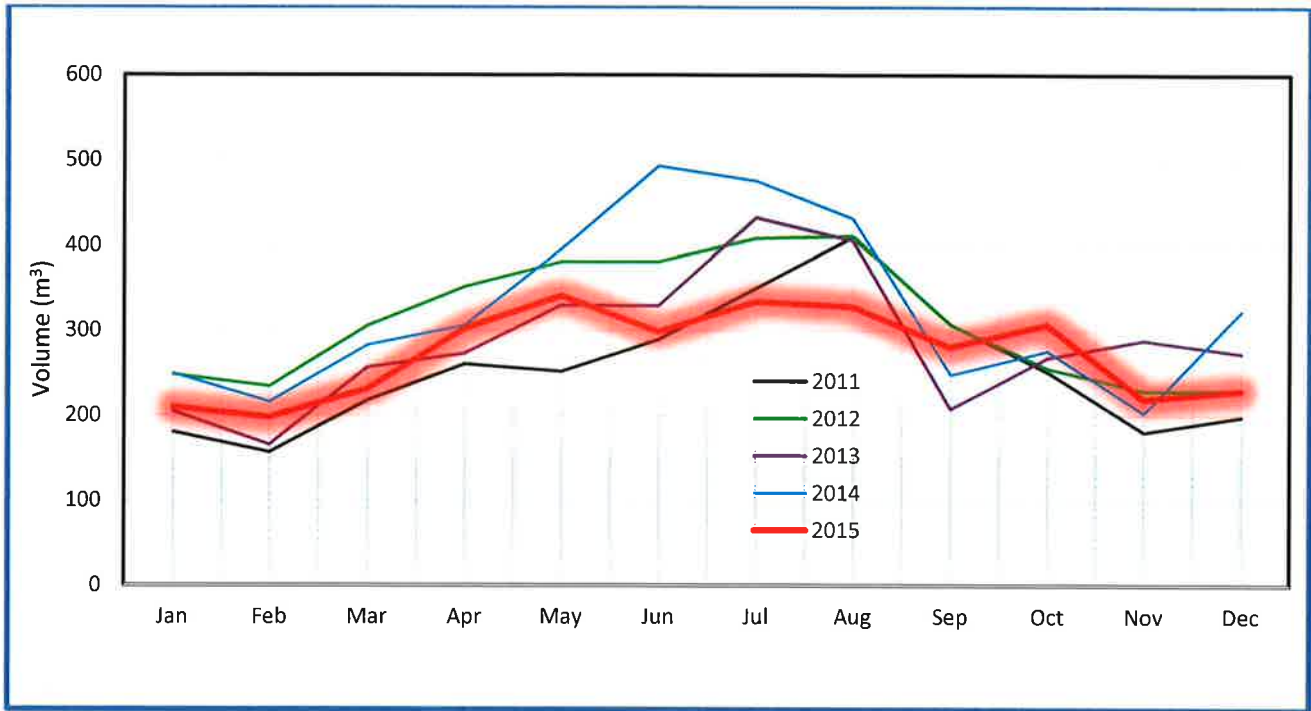
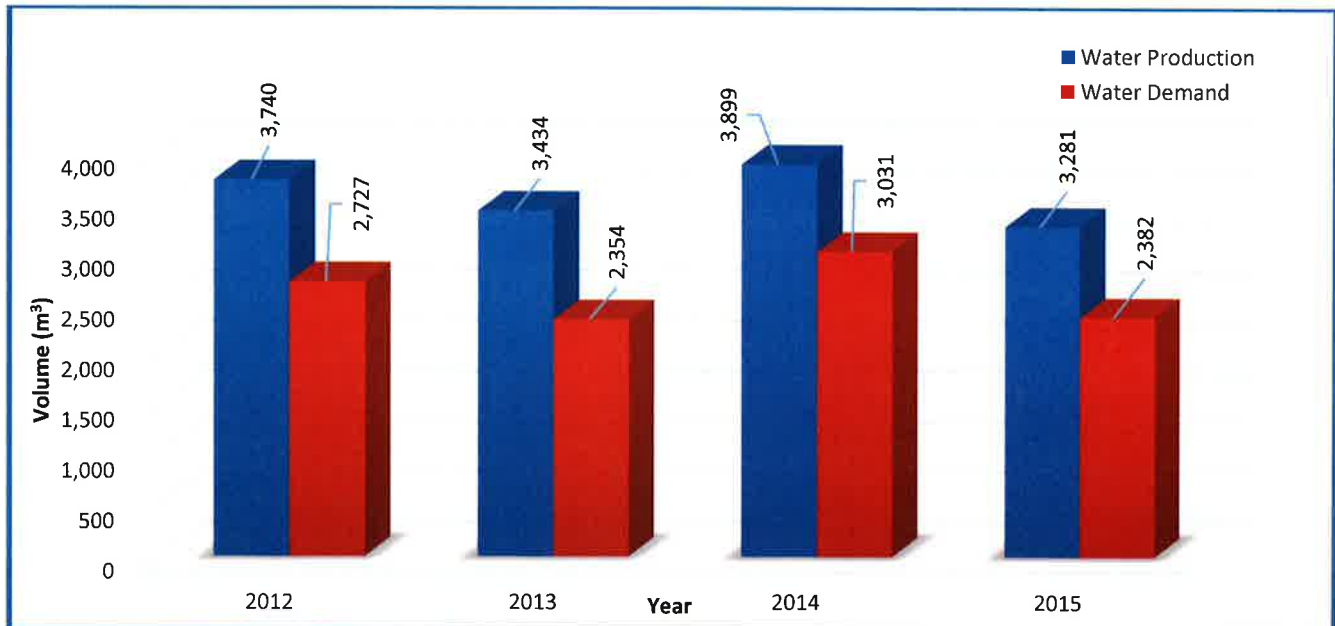


Figure 2 - Skana Water System Annual Water Production and Demand



The difference between annual water production and annual water demand is referred to as non-revenue water and can include: water systems leaks, water system maintenance and operational use (e.g. water main flushing), potential unauthorized consumption and use for firefighting purposes.

The 2015 non-revenue water (899 m³) represents about 27% of the total water production for the service area. However, almost 70% of the non-revenue water can be attributed to operational use. As a result

the non-revenue water is approximately 9% which is considered acceptable for a small water system.

Operations

Weekly operations of the Skana water system is provided by an on-island contract operator under Agreement with the Capital Regional District (CRD). The contract operator performs routine scheduled activities such as system checks, water sampling for laboratory analysis and minor preventative maintenance activities all under the direction of the CRD as detailed in the Operations Agreement.

Additional operational support and guidance is provided by CRD personnel who typically perform more significant preventative or corrective maintenance and utility upgrade activities. Such activities include water system and reservoir flushing, hydrant/standpipe maintenance, electrical/instrumentation annual maintenance, water system leak detection and when requested by property owners within the service area, installation of water system connections. Other operational support provided by the CRD include emergency response and remote water system monitoring and control using the CRD's Supervisory Control and Data Acquisition (SCADA) equipment. The SCADA system is used to alert CRD standby operations staff of a potential water system fault (e.g. reservoir low water level).

During 2015, for the most part, the Skana water system operated reliably. However, a boil water advisory (BWA) was issued on December 16, 2015 as a result of the water system not meeting regulatory water quality standards. At the time it was concluded that the Well #13 raw water quality had been impacted and the water treatment process was not fully effective resulting in a BWA to be issued while a plan of action was executed. The action plan included removing Well #13 from service, placing Well #8 into operation as the primary water source and completely flushing and testing the water distribution system. As a result of this work and in consultation with Island Health, the BWA was lifted on December 23, 2015.

The on-island contract operator attended to regular weekly, monthly and annual operational duties as detailed in the Skana water system operating agreement. The contractor however did respond to several requests that are considered additional duties.

Table 1 below details the additional work performed by the on-island contractor at the request of the CRD.

CRD operations personnel completed a number of key tasks during this period. Table 2 below details the tasks performed.

Table 1 - Additional work completed by contract operator at request of CRD.

TASK	DATE	REASON
Re-set the chlorine residual analyser	March 20, 2015	Chlorine analyser was providing unreliable information at the time.
Additional water samples requested	March 30, 2015	Requested by water quality division
Additional water samples requested	May 4, 2015	Requested by water quality division
Minor grounds maintenance	June 3, 2015	Grass and weeds growing rapidly around water system infrastructure.
Additional water samples requested	July 7, 2015	Requested by water quality
Delivery of Water Conservation Notices	July 17, 2015	Issued as a result of provincial drought level 4 conditions
Flushing and testing of Well #8	August 3, 2015	Performed due to Well #13 quantity issues and requirement to have both wells online
Isolation and draining of the water storage tanks.	Nov. 15, 2015	Assistance with the condition assessment of the water reservoir storage tanks capital project.
Emergency response and the delivery of boil water advisory information	Dec. 16-23, 2015	Notifications required as a result of the boil water advisory being issued.
Daily site visit to Well #8.	Dec 24-31, 2016	Well #8 does not have automatic operation and requires the operator to turn the system off and on by hand in order to fill the water reservoir.

Table 2: Tasks completed by CRD operations personnel.

TASK	NOTES
Clearing of the water line easement from the water storage tanks to Waugh Road	This work is done every few years to ensure the easement remains clear of ground cover and trees in order to protect the overhead hydro lines and the watermain.
Replacement of 25mm drain line valve for Water Storage Tank #2	The valve and piping were corroded and required replacement. This work was performed during the water storage tank condition assessment.
Water connection installation	Connection of 524 Aya Reach to the water system at the request of the property owner.
Replacement of the failed the ultra violet (UV) light sensor at Well #13	The UV sensor typically requires replacement every few years
Replaced chlorine analyser sensor probe at Well #13.	Chlorine probe tip replaced as part of the preventative maintenance program
Replacement of a failed 50mm gate valve at Well #13.	Gate valve would not close drip tight and therefore replaced.
Stained exterior of Well #8 pump house.	Preventative maintenance performed.
Replacement of 25mm diameter pipe section and gate valve at Well #8	Gate valve was not functioning properly and piping was showing signs of significant corrosion.
Water storage tank cleaning	Tanks were drained and cleaned in conjunction with the water storage tank condition assessment.
Water system flushing, disinfection and water sample collection.	Significant amount of effort performed as a result of the boil water advisory being issued.

2015 Capital Projects and Future

The one approved capital project for 2015 was to complete a condition assessment of the two horizontal water storage tanks with a budget of \$10,000. The tanks are corroding and so the intent of the assessment was to evaluate if the tanks could be rehabilitated or if they need to be replaced. The CRD hired an engineering consultant to assess the condition of tanks which included: ultrasonic testing, visual inspection, and structural review of the tank supports. The assessment was completed in the fall of 2015, when the tanks could be taken out of service, and a report was provided to the CRD in February 2016. The consultant's findings were delivered to the Committee at its meeting of April 12, 2016 and the general conclusions are that the tanks have exceeded their life expectancy and are at risk of failure during a seismic event. Therefore, the recommendation was that the tanks should be replaced in the immediate future, possibly with one tank. Storage tank options including materials, size and costs will be presented to the community as part of a public engagement process.

There was one approved capital expenditure for 2016 which was for the installation of eyewash and drench hose safety equipment (\$2,000 budget) for the operating staff who work around the disinfection chemicals.

The draft Strategic Asset Management Plan (SAMP), was also delivered to the Committee at the April 12, 2016 meeting and several pending capital projects were proposed for the consideration of the Committee, including:

1. Well #13 Investigation \$6,000 (2016) – Due to the water quality issue encountered at Well #13, CRD staff in consultation with Island Health have recommended investigative work at Well #13. Further details are presented in the Skana Water Service Committee staff report “Water Quality Update – Skana Water System”, dated April 12, 2016. The Committee approved a budget of \$8,000 to inspect both well #13 and well #8, and to conduct remedial work on well #13 if required.
2. Safety Equipment \$2,000 (2017) –If Well #8 is to be used more frequently, than additional eyewash safety equipment and drench hose may be required at this site. To be confirmed by the CRD safety advisor.
3. Groundwater study \$10,000 (2017) – Due to the varying levels in the Skana well water level, it is proposed to conduct a high-level groundwater study of the existing aquifer and identify any groundwater protection issues related to the new Water Sustainability Act of 2016. As part of this study it is proposed to conduct a water audit of the system to determine if there are any appreciable leaks in the system and further determine the condition of the PVC pipe and water service connections.
4. Public Engagement/Referendum \$10,000 (2017) – A loan will be required to fund the storage tank replacement and any other capital work which will not be included under the capital reserve fund. The proposed loan will require public engagement and a referendum or Alternative Approval Process.
5. Storage Tank Replacement \$210,000 to \$400,000 (2018) - The existing storage tanks are at the end of their design life and do not meet seismic requirements. It is proposed to replace the existing tanks with a glass fused steel tank.

6. Water Quality Study \$15,000 (2019) – Due to the adverse water quality event in December 2015 a groundwater study on Well #13 and its connected aquifer is proposed to determine any required changes to the treatment process that may be required.
7. Well #8 Upgrade \$25,000 (2020) - at present, Well #8 is operated manually (requires the operator to attend the site to turn the well pump on and off to fill the reservoir) and additionally does not have SCADA remote monitoring. If the Well #8 groundwater source is to be considered a long term water supply, it is recommended that this facility be upgraded to operate automatically and include remote monitoring.

The long term capital plan will require new funding to implement. The funding requirements will be considered on an annual basis during the annual budget review with the Committee.

Water Quality

Water Quality Section staff coordinate the sampling and testing of the water quality at this utility. The current Water Sampling Plan is based on the regulatory requirements and system specific risks. Samples are collected at regular frequencies from the raw water sources as well as from a number of stations throughout the distribution system, and then transported for analyses to CRD's Water Quality Lab and various contract labs.

Well #13, the primary source of the Skana water system, produced raw (untreated) water free of indicator bacteria (total coliforms and *E. coli*) until October 2015. Concurrent with the onset of heavy rainfall events, Well #13 raw water had six total coliform positive hits and two *E. coli* positive hits between October 5 and December 29, 2015. While Well #13 has had the odd low concentration total coliform result in the past, the consistency and especially the presence of *E. coli* during the late fall to early winter period was atypical for this water source. Investigations to determine the source of this atypical behaviour of the well water are ongoing. Other water quality parameters on Well #13 were in line with historical data: total organic carbon (TOC) 1.79 mg/L and turbidity typically around 1 NTU. Well #8 exhibited on one occasion a low concentration of total coliforms but no *E. coli*, and typically featured a turbidity between 2 and 5 NTU. Metal concentrations and pH were not tested on the raw water in 2015 due to budget constraints. Well #13 requires further investigations and potentially remedial work to ensure it can be safely utilized as the primary water source for the Skana Water System.

The treated water supplied to the customers in 2015 was generally of good quality. However, the distribution system experienced 15 positive total coliform hits; all but two in the timeframe of November/December 2015 when Well #13 produced inferior water quality. Consecutive total coliform hits in the distribution system required the CRD to put Skana Water System on a Boil Water Advisory (BWA) between December 16 and 23, 2015. The BWA was lifted once the water system was flushed, tested and the source switched to Well #8. The mean turbidity of the treated water was 0.77 NTU, well within the desired range. The concentration of the disinfection by-product Total Trihalomethane (TTHM) were well below the guideline limits throughout the year. Chlorine residual concentrations were adequate throughout the distribution system with a mean annual free chlorine concentration of 0.49 mg/L.

A summary of the water sampling results can found on the following website:
<https://www.crd.bc.ca/about/data/drinking-water-quality-reports/southern-gulf-islands-water-quality-reports/skana-water-quality-reports>

2015 Financial Report

The 2015 parcel tax and user charge were:

- Parcel Tax: \$279.00
- Annual User Charge: \$812.95

Attached is a copy of the *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 \$58,173 including:

- \$19,350 of *Transfers from government* (parcel taxes);
- \$37,195 of *Sale of services* (user charges);
- \$167 of *Interest earnings*; and,
- \$1,460 of *Other revenue* including late payment charges.

Expenditures totalled \$54,883 including:

- \$2,820 of *General government services* (charges levied by CRD Corporate Services for accounting and billing);
- \$8,160 of *Contract for Services* for payments to JLB Services;
- \$25,852 of *CRD Labour and Operating Costs* for CRD staff time as well as the cost of equipment, tools and vehicles;
- \$11,087 of *Debt Service Costs* for principal and interest payments; and,
- \$6,964 of *Other expenses* (insurance, supplies, electricity, water testing, etc.)

\$2,505 was transferred to the capital reserve fund and \$1,000 was transferred to the maintenance reserve account, leaving a net difference between revenue and expenditures in 2015 of \$216. This amount was deducted from the surplus of \$8,316 carried forward from 2014 leaving a net surplus of \$8,100 which was carried forward to 2016.

The balance in the capital reserve fund at December 31, 2015 was \$56,453. The maintenance reserve account's balance was \$2,545.

The 2016 operating and capital budgets recommended by the Skana Water Service Committee were approved by the CRD Board in March 2016. The approved budget resulted in the following fees and charges for 2015.

- Parcel Tax: \$279.00
- Annual User Charge: \$813.11.

Water System Problems - Who to Call

To better serve our drinking water customers in the Skana Water Service Area, in addition to our General Inquires contact information, the CRD has implemented a new toll-free emergency phone number effective April 2016:

General Inquiries: 1.800.663.4425
Water Emergencies: 1.855.822.4426 (this replaces 250.474.9630)

When phoning with respect to an emergency, please specify to the operator the service area in which the emergency has occurred.

This additional service is being pilot-tested and will be evaluated at the end of 2016 to assess the use and need going forward.

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

Malcolm Cowley, P.Eng.
Senior Manager (A), Infrastructure Engineering

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

Rajat Sharma, B.Eng., MBA, CPA, CMA
Acting Chief Financial Officer

MM/MC/GH/RS:ls

Attachments:
Statement of Operations

	2015	2014
Revenue		
Transfers from government	19,350	19,352
User charges	37,195	35,772
Other revenue from own sources		
Interest earnings	167	377
Other revenue	1,461	948
Total revenue	58,173	56,449
Expenses		
General government services	2,820	2,822
Contract for services	8,160	9,754
CRD labour and operating costs	25,852	21,541
Debt servicing costs	11,087	12,772
Other expenses	6,964	9,144
Total expenses	54,883	56,033
Net revenue (expenses)	3,290	416
Transfers to own funds		
Capital Reserve Fund	2,505	15,727
Maintenance Reserve Account	1,000	1,000
Annual surplus (deficit)	(216)	(16,311)
Accumulated surplus, beginning of year	8,316	24,627
Accumulated surplus, end of year	\$ 8,100	8,316

