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GANGES SEWER LOCAL SERVICES COMMISSION
ANNUAL GENERAL MEETING

Notice of Meeting on Tuesday, October 27, 2020 10:00 AM
Lions Hall, 103 Bonnet Ave, Salt Spring Island, BC

Gary Holman Gary Utter Rod Scotvold David Toynbee Mike de Carle

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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 2019 fiscal year.

1. **Territorial Acknowledgement / Call Meeting to Order**

2. **Limited Space Meeting Resolution**

   That this resolution applies to the Ganges Sewer Local Service Commission for the meeting being held on October 27, 2020, and that the attendance of the public at the place of the meeting will be limited in accordance with the applicable requirements or recommendations under the Public Health Act, despite the best efforts of the Ganges Sewer Commission, because:

   a. The available meeting facilities cannot accommodate more than (30) people in person, including members of Ganges Sewer Commission and staff, and
   b. There are no other facilities presently available that will allow physical attendance of the Ganges Sewer Commission and the public in sufficient numbers; and

   That the Ganges Sewer Commission is ensuring openness, transparency, accessibility and accountability in respect of the open meeting by the following means:

   a. By making the meeting agenda, as well as the other relevant documents, available on the CRD website, and directing interested persons to the website by means of the notices provided in respect of the meeting,
   b. By making the minutes of the meeting available on the CRD website following the meeting.

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

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3. **Approval of Agenda**
4. **Adoption of Minutes of the 2018 Annual General Meeting held on April 18, 2019**
5. **Chair's Report**
6. **Report**
   - **6.1 Annual Report for 2019 Fiscal Year**
7. **Election of Officers**
8. **New Business**
9. **Adjournment**

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Minutes of the 2018 Annual General Meeting of the Ganges Sewer Local Service Commission
Held April 18, 2019 at 108 121 McPhillips Ave, Salt Spring Island, BC

DRAFT
PRESENT:

Director: Gary Holman
Commission Members: Gary Utter, David Toynbee, Rod Scotvold, Mike de Carle (via telephone at 10:45 am)
Staff: Dan Robson, Manager, Saanich Peninsula and Gulf Islands Operations; Malcolm Cowley, Manager, Regional Wastewater, Core Area, SPWWC, Small Sewers; Amber Donaldson, Manager, Financial Planning and Performance; Dan Ovington, Manager Parks and Recreation; Tracey Shaver, Recording Secretary

1. Call to Order

Chair Utter called the meeting to order at 10:04 am.

2. Approval of Agenda

MOVED by Commissioner Scotvold, **SECONDED** by Commissioner Toynbee,
That the Ganges Sewer Local Service Commission 2018 Annual General Meeting agenda for April 18, 2019 be amended and approved with the inclusion of item 6.1 Appointment to Liquid Waste Commission.

CARRIED

3. Adoption of Minutes of the 2017 Annual General Meeting held on June 7, 2018

MOVED by Commissioner Toynbee, **SECONDED** by Commissioner Scotvold,
That the 2017 Ganges Sewer Local Service Commission Annual General meeting minutes of June 7, 2018 be approved as submitted.

CARRIED

4. Chair's Report – no report

4.1 Director Holman briefly reported:

- The Liquid Waste Commission is considering options for dewatering on island with reed beds to save shipping costs.
- SD64 reclaimed water study found concentration of heavy metals to be unacceptable for field use due to location of creeks. Use of reclaimed water does not appear to be an available option. Would need additional treatment process. Director Holman willing to use Community Works Funding to help move project forward.

5. Report

5.1 Annual Report for 2018 Fiscal Year

Staff reviewed the various sections of the annual report which included waste water compliance, annual flow, operations, capital projects and financial information.

- Annual flows appear to be stable; possibly due to changes in plumbing fixtures
- Consider press release regarding success of capital project
- Healthy operating and capital reserves will allow eventual replacement of MBR membranes without additional borrowing.

Commissioner de Carl phones into meeting at 10:45 am

6. Election of Officers

Commissioners Toynbee and de Carle agreed to another two year term starting in 2020. Hearing no other nominations they were both appointed by acclamation.

6.1 Appointment to Liquid Waste Commission

Commissioner Scotvold agreed to continue as the Ganges Sewer representative on the Liquid Waste Commission and was voted in by acclamation.

7. New Business

Director Holman questioned if there was any plans for a sani-dump location on the island for motorhomes or campers. None identified.

8. Adjournment

MOVED by Commissioner Utter, **SECONDED** by Commissioner Toynbee,
That the meeting adjourn at 10:54 pm.

CHAIR

SENIOR MANAGER

Ganges Sewer System

2019 Annual Report

CRD | Sewer Facility

Introduction

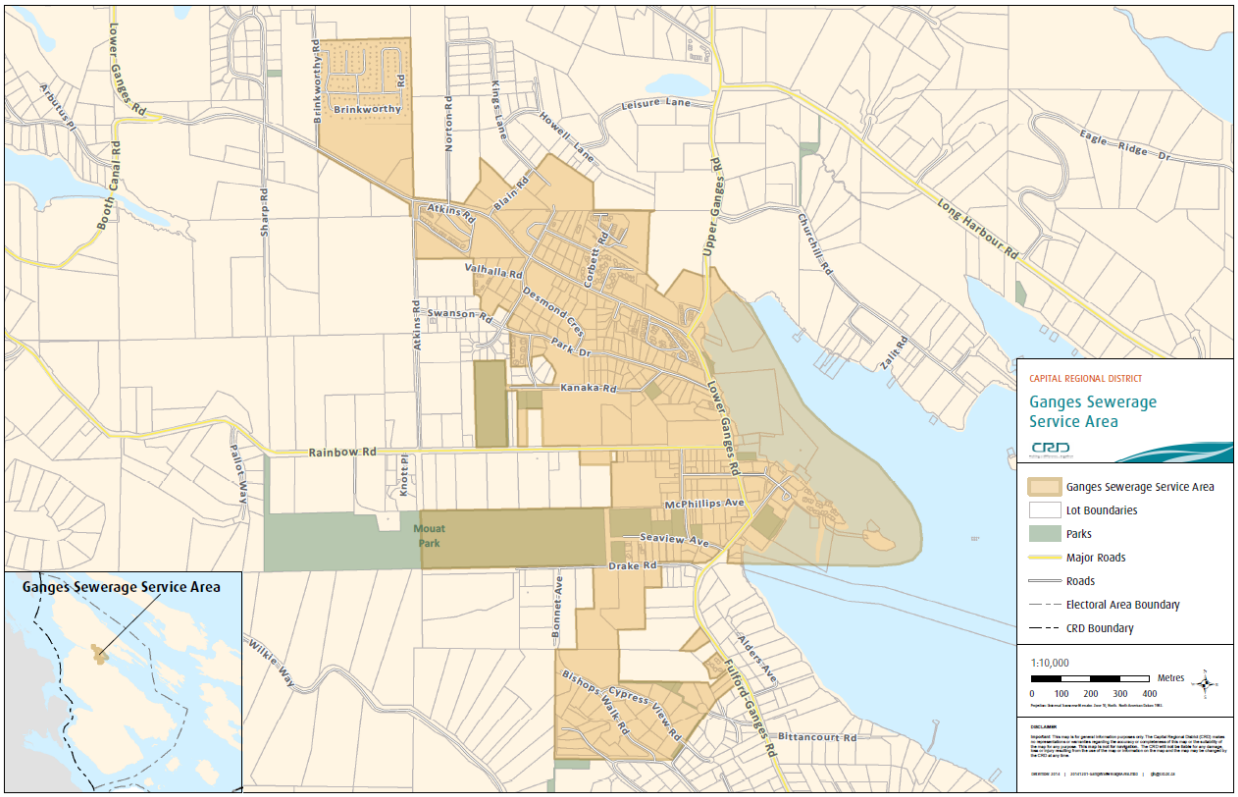
This report provides a summary of the Ganges Sewer Service for 2019. It includes a description of the service, summary of the treatment plant performance, volume of sewage treated, operations highlights, capital project updates and financial report.

The service is administered by the Ganges Sewer Local Services Commission.

Service Description

The Ganges Sewer Service was established in 1985. Ganges is the island's core area providing the majority of commercial services as well as several residential pockets. In addition to the commercial and residential customers, other customers include the hospital, three schools, Art Spring, community library, swimming pool and several senior and affordable housing sites. The system is owned and operated by the Capital Regional District (CRD) and services the Ganges Sewer Service Area, shown in Figure 1.

Figure 1: Ganges Sewer Service Area



The majority of the sewer system was built over a period between 1982 and 1988. Collecting and treating sewage began in 1985. There have been three significant upgrades to-date on the wastewater treatment plant including:

- Converting the treatment process from a rotating biological contactor (RBC) to a membrane bioreactor (MBR) which resulted in an increase in capacity from 400 m^3/day to 800 m^3/day and utilizing membrane plates for sludge thickening (1998);
- replacing the MBR with ones of higher capacity to increase from 800 m^3/day to 1,000 m^3/day (2005);
- adding ultra violet light disinfection (2011).

More recent upgrades (2018) include:

- replacement of the membrane bioreactors
- replacement of the sludge thickening equipment
- replacement of effluent pumps and filtrate pumps
- increasing influent storage capacity.
- replacement of standby power generator and electrical ancillary equipment.
- Electrical upgrades that included the conversion of a motor control center from 208 volt to 600 volt.
- Mechanical and electrical upgrades for both collection system pumping stations.

The wastewater system consists of:

- 8,000 m of 150 mm to 250 mm gravity sewer collection main pipes;
- 140 m of 75 mm pressure main pipe;
- 2 collection system pump stations;
- Manholes;
- 5,200 m of 200 mm polyvinyl chloride (PVC) and polyethylene (PE) outfall pipe;
- 1,090 m3/day Membrane Bioreactor (MBR) secondary wastewater treatment plant.

The system discharges treated effluent into the Ganges Harbour in Swanson Channel under authorization of the Municipal Wastewater Regulation.

Sewer System

Ganges Sewer Regulatory Compliance – Wastewater

The Ganges wastewater treatment plant is regulated by both the provincial and federal governments based on flow and effluent quality limits. Daily effluent flows on January 4th and 5th, 2019 exceeded the allowable provincial maximums due to a heavy rain event. This is the first regulatory flow exceedance at this facility in many years. Effluent quality met provincial and federal regulatory requirements for all

parameters, including total suspended solids (TSS), carbonaceous biochemical oxygen demand (CBOD), un-ionized ammonia, and fecal coliform bacteria.

Wastewater influent and effluent were also analyzed for a list of conventional and priority substances, as well as for acute and chronic toxicity, to assess risk to human health and the environment. Of the 190 priority substances analyzed, 78 were detected at standard detection limits in effluent. Substances detected in 2019 included conventionals, metals, total phenols, 2-methylnaphthalene, fluorene, naphthalene, phenanthrene, low and high molecular weight PAHs, diethyl phthalate, and trichloromethane. These parameters are similar to those detected in previous years.

As in previous years, most priority substances in the effluent were below the BC Water Quality Guidelines before application of the predicted minimum near surface initial environmental dilution of 419:1. Only 4 substances exceeded BC WQG in undiluted effluent: WAD cyanide, sulfide, copper and zinc. These substances, and all others, were well below the BC WQG after the minimum initial dilution factor was applied. Minimum near surface dilution represents the predicted concentration of effluent in the marine water column at a distance of 100 m away from the outfall.

Toxicity Testing

In 2019, the disinfected effluent sample from July 17, 2019 completed the 96-hour Rainbow trout acute toxicity test with 71% survival of test organisms. While this is fine from a regulatory perspective (50% survival or greater is acceptable), this is a deviation from previous years (2011-2018), where the tests have consistently resulted in 100% survival. This increased toxicity is likely due to changes in ammonia levels at the WWTP after the 2018 plant upgrades. Operators are continuing to refine operation of the facility to reduce ammonia concentrations and, thereby reduce future toxicity. The sample passed the 48-hour Daphnia acute toxicity test with 100% survival, consistent with 2011-2018.

Sludge (Mixed Liquor)

Ganges Harbour WWTP sludge (mixed liquor) met the criteria for BC Organic Matter Recycling Regulations (OMRR) Class A Biosolids in all monthly 2019 samples, except for December when copper exceeded guidelines. This is the first exceedance for copper at this facility; monitoring will continue to determine whether it was a one-off occurrence or an indicator of a new contaminant source into the system. None of the other metals, including mercury which has exceeded limits in the past, exceeded applicable OMRR Class A Biosolids limits. This monitoring is undertaken to inform the CRD Regional Source Control Program.

Receiving Water

Routine receiving water monitoring was not required at the Ganges Harbour WWTP in 2019. This monitoring is only required every 4 years unless there are planned bypasses, plant failures/overflows, or wet weather overflows that exceed 3 days duration in the winter or 1 day duration in the summer. The routine sampling last took place in 2016 and is next required in 2020.

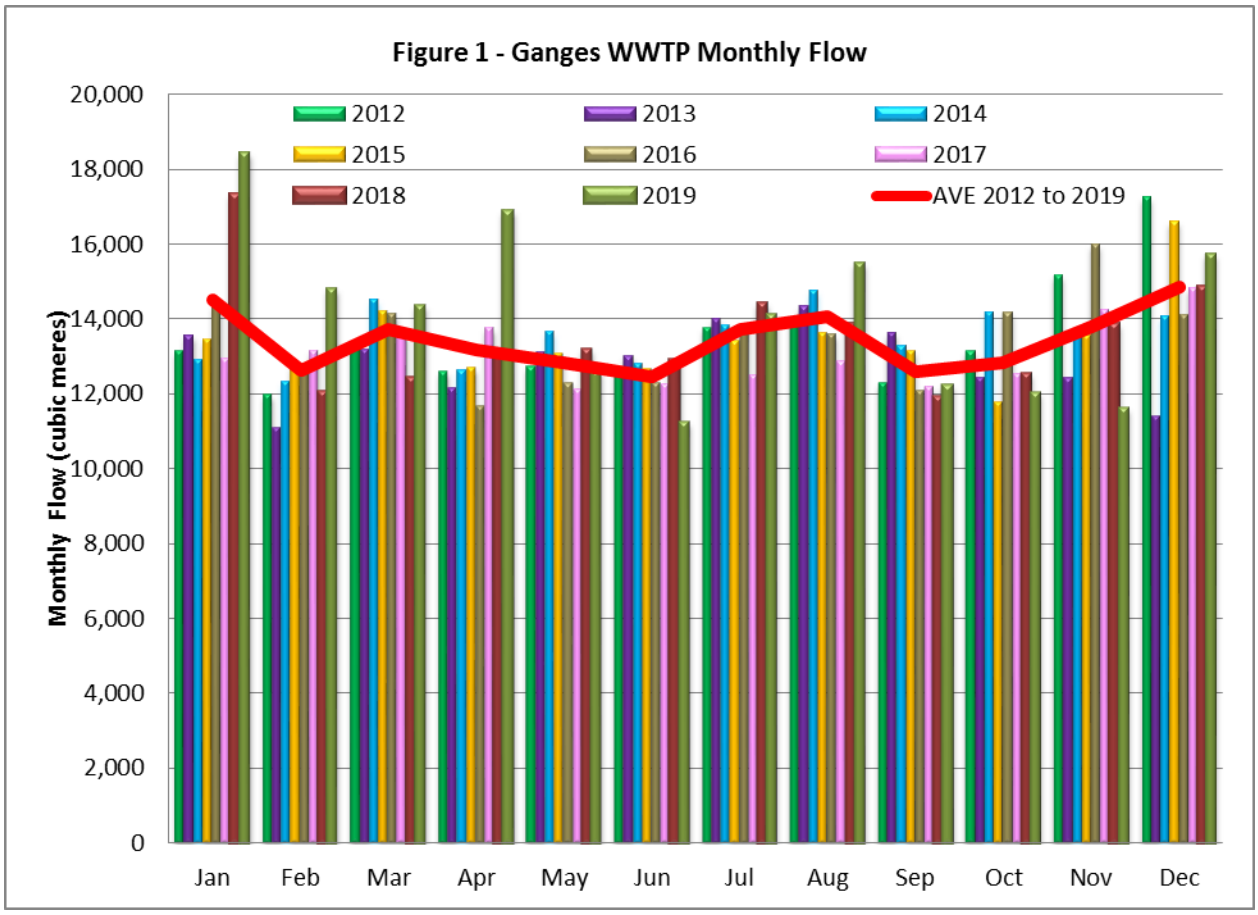
One emergency sampling event did take place in 2019 following repairs in the conveyance system that required rerouting the bypass pipe around a manhole. The repairs took longer than anticipated and

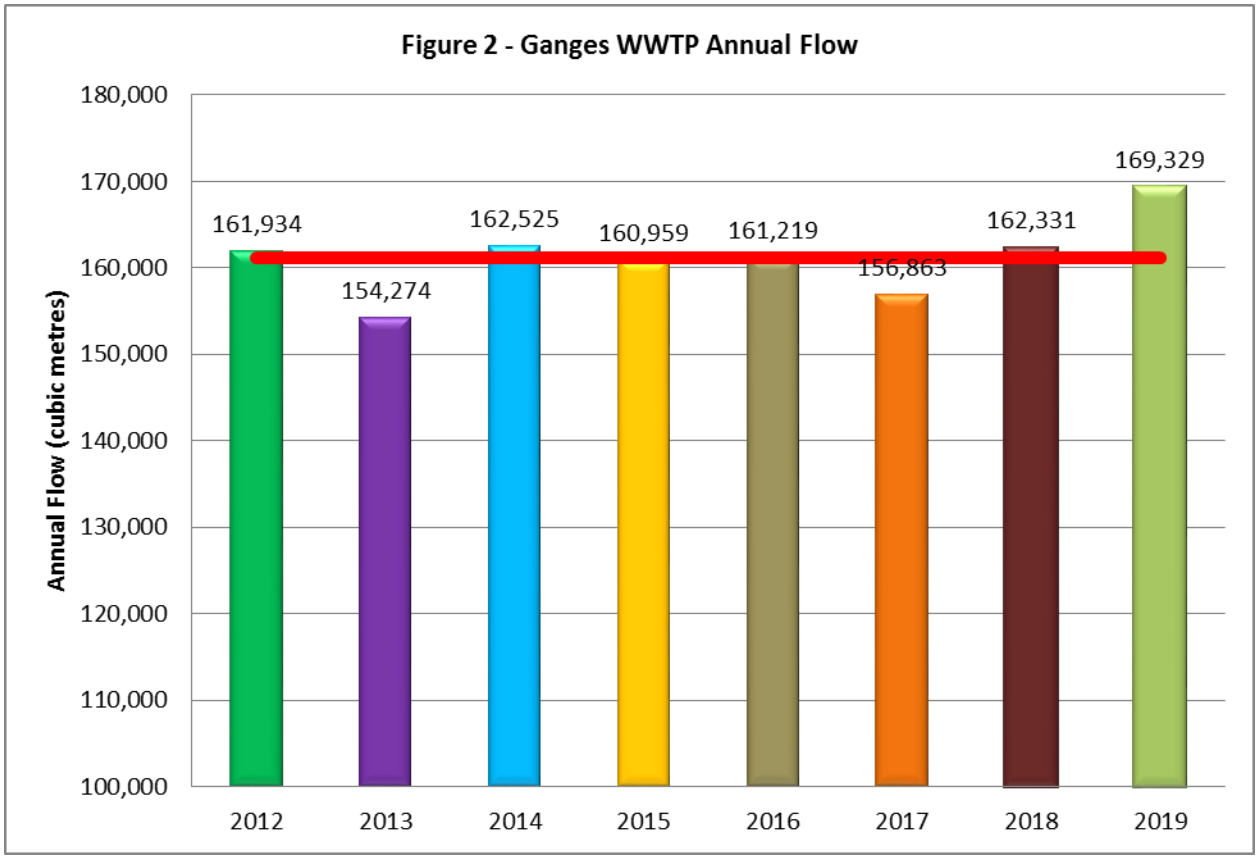
approximately 400 m^3 of treated and disinfected effluent was discharged to Ganges Creek. Shoreline sampling was conducted to monitor for potential bacterial exceedances of the creek discharge. Five of the sample locations were in the creek, while the remaining four were collected from the shoreline in the marine receiving environment. Most of the results from samples in the creek were above the Health Canada single sample Enterococci limit of 70 CFU/100 mL, whereas all marine receiving environment samples were below this limit. Because the effluent discharged to the creek was disinfected, exceedances in the creek were not expected; as such, there is likely another source of bacteria to the creek. Upstream investigations are ongoing in conjunction with Island Health.

Annual Flow

The monthly flows and the total annual flow over the past 8 years are shown in Figures 1 and 2 below. The graphs indicate that the 2019 wastewater flows were about 4.0% higher than the 8-year average. The monthly flows show the seasonal variations due to peak tourist times (in the summer) and inflow and infiltration (in the winter), but generally the average monthly flow is fairly stable and inflow and infiltration appears to be reasonable.

The Municipal Sewage Regulation (MSR) contains requirements for the treatment, reuse and discharge of municipal wastewater effluent. The regulation includes a requirement that sewer flows reaching treatment plants should not exceed 2.0 times “average dry weather flow” during storm events with less than a 5-year return period. Based on the measured flow rates, the Ganges sewer system meets that requirement.





Operational Highlights

The following is a summary of the major operational issues that were addressed during the 2019 operating period:

- Wastewater treatment plant process compressors (2) replacement.
- Corrective maintenance performed on the portable generator.
- Wastewater treatment plant screening compactor gear box replacement.
- Wastewater treatment plant process air blower replacement.
- Wastewater treatment plant SCADA server replacement.
- Emergency response to outfall equipment failure and temporary and permanent repairs.
- Ongoing operational optimization of the new Membrane Bioreactor (MBR) and new sludge thickening wastewater treatment plant capital improvements.

Capital Improvements

The Capital Projects that were in progress in 2019 included:

1. Ganges Infrastructure Renewal Project ($3,900,000 allocated, $3,723,704 spent) . The work includes civil, mechanical and electrical upgrades at Ganges WWTP, Harbour House and Manson pump stations, and an inflow and infiltration assessment. The project is mostly completed and will be closed by the end of 2020.

2. Safe Work Procedures ($7,000 allocated, 0 spent). The work scope includes reviewing and developing safe work procedures for operational and maintenance tasks. The work was not started in 2019. However it has commenced in early 2020 and is expected to complete in 2020.

3. Ganges Storage ($30,000 allocated, 0 spent). This work is to perform a conceptual design for chemicals storage building. This work was not started in 2019 and will commence in 2020.

Figure 3 – Ganges Sewer Project Costs as of Dec. 31, 2019

Ganges Sewer System Rehabilitation	Budget	Actuals	Remaining
Ganges WWTP, Outfall, Pump Station Upgrade	**3,602,000**	**3,497,221**	**104,779**
Project Management	220,000	220,152	**(152)**
Construction	1,715,000	1,699,085	**15,915**
Commission/Ops	100,000	256,294	**(156,294)**
Contingency	302,000	61,683	**240,317**
Design	340,000	332,804	**7,196**
Env/Arch Support	25,000	25,919	**(919)**
Equipment Supply	900,000	901,284	**(1,284)**
Inflow and Infiltration Analysis Remediation	**298,000**	**226,483**	**71,517**
Project Management	27,000	20,286	**6,715**
Contingency	16,000	0	**16,000**
Design	0	3,359	**(3,359)**
Flow Monitoring & Reporting	30,000	19,749	**10,251**
Modelling	25,000	21,834	**3,166**
CCTV & MH Inspect	120,000	114,236	**5,764**
Repairs	80,000	47,021	**32,979**
Grand Total	**3,900,000**	**3,723,704**	**176,296**

2019 Financial Report

Please refer to the attached Statement of Operations Revenue includes parcel taxes (Transfers from Government), fixed user fees (User Charges), flow-based user fees (Sewer Use – 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.

2019 User Fee charges were $751.31 per Single Family Equivalent (SFE) and 2019 Parcel Tax charges were $136.95 per Taxable Parcel.

Wastewater System Problems – Who to Call:

To report any event or to leave a message regarding the Ganges Wastewater System, call either:

CRD wastewater system emergency call centre:	**1-855-822-4426 (toll free)**
CRD wastewater system emergency call centre:	**1-250-474-9630 (toll)**
CRD wastewater 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 Electoral Area
Concurrence	Ted Robbins, BSc, C.Tech, General Manager, Integrated Water Services

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Salt Spring Administration
108 121 McPhillips Ave
Salt Spring Island, BC, V8K 2T6
250.537.4448 www.crd.bc.ca

CAPITAL REGIONAL DISTRICT

GANGES SEWER
Statement of Operations (Unaudited)
For the Year Ended December 31, 2019

	2019	2018
Revenue		
Transfers from government	54,130	54,130
User Charges	905,650	868,740
Other revenue from own sources:	-	-
Interest earnings	804	4,038
Other revenue	1,723	769
Transfer from Operating Reserve	58,966	-
Total Revenue	1,021,273	927,677
Expenses		
General government services	28,502	27,630
Contract for Services	72,226	41,962
CRD Labour and Operating costs	324,176	282,043
Debt Servicing Costs	237,867	143,665
Other expenses	331,342	250,506
Total Expenses	994,113	745,807
Net revenue (expenses)	27,160	181,870
Transfers to own funds:		
Capital Reserve Fund	-	155,240
Operating Reserve Fund	27,160	26,630
Annual surplus (deficit)	-	-
Accumulated surplus, beginning of year	-	-
Accumulated surplus, end of year	$ -	-

CAPITAL REGIONAL DISTRICT

GANGES SEWER
Statement of Reserve Balances (Unaudited)
For the Year Ended December 31, 2019

	Capital Reserve	
	2019	**2018**
Beginning Balance	827,367	662,295
Transfer from Operating Budget	-	155,240
Transfers from completed capital projects		
Interest Income	22,829	15,651
Transfer to Capital Project	(95,912)	(5,819)
Ending Balance	754,283	827,367

	Operating Reserve	
	2019	**2018**
Beginning Balance	68,138	38,600
Transfer from Operating Budget	27,160	26,630
Transfers from completed projects	2,640	1,600
Interest Income	2,387	1,308
Transfer to Operating Budget	(58,966)	-
Ending Balance	41,360	68,138