



Making a difference...together

**GANGES SEWER LOCAL SERVICES COMMISSION  
ANNUAL GENERAL MEETING**

Notice of Meeting on Friday, November 5, 2021 at 10:00 AM  
Salt Spring Island Library Meeting Room, 129 McPhillips Avenue, Salt Spring Island, BC

Gary Holman      Gary Utter      Jodie Miller      David Toynbee      Mike de Carle

**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 2020 fiscal year.

**AGENDA**

- 1. Territorial Acknowledgement / Call Meeting to Order**
- 2. Limited Space Meeting Resolution**

That this resolution applies to the Ganges Sewer Local Services Commission for the meeting being held on November 5, 2021, 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 Commission because:

- a. The available meeting facilities cannot accommodate more than (20) people in person, including members of the Commission and staff, and
- b. There are no other facilities presently available that will allow physical attendance of the Commission and the public in sufficient numbers; and

That the 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.

**Zoom Link:** <https://us06web.zoom.us/j/84833788467>

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*To ensure quorum, advise Shayla Burnham 250 537 4448 if you cannot attend.*

EXEC-1295039085-2414

- 3. Approval of Agenda 1-2**
- 4. Adoption of Minutes of the 2019 Annual General Meeting held on October 27, 2020 3-4**
- 5. Chair's Report**
- 6. Report**
  - 6.1 Annual Report for 2020 Fiscal Year 5-12**
- 7. Election of Officers**
- 8. New Business**
- 9. Next Meeting - TBD**
- 10. Adjournment**



Making a difference...together

**Minutes of the Fiscal Year 2019 Annual General Meeting for Ganges Sewer Local Service Commission**  
**Held October 27, 2020 at Lions Hall 103 Bonnet Ave, Salt Spring Island, BC**

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**DRAFT**

**PRESENT:**

**Commission Members:** Rod Scotvold, David Toynbee, Director Holman  
**Staff:** Karla Campbell, Senior Manager, SSI Administration; Dan Robson, Manager, Saanich Peninsula and Gulf Islands Operations; All Xu, Manager of Engineering; Lia Xu, Manager Finance Services; Tracey Shaver, Recording Secretary.  
**Absent:** Gary Utter, Mike de Carle

David Toynbee acting as Chair called the meeting to order at 10:03 am.

- 1. Territorial Acknowledgement was provided.**
- 2. Limited Space Meeting Resolution**

**MOVED** by Commissioner Scotvold, **SECONDED** by Director Holman,  
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:

- The available meeting facilities cannot accommodate more than (30) people in person, including members of Ganges Sewer Commission and staff, and
- 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:

- 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,
- By making the minutes of the meeting available on the CRD website following the meeting.

**CARRIED**

- 3. Approval of Agenda**

**MOVED** by Commissioner Scotvold, **SECONDED** by Director Holman,  
That the October 27, 2020, Annual General Meeting Agenda of the 2019 Fiscal Year for the Ganges Sewer Local Service Commission be approved.

**CARRIED**

- 4. Adoption of Minutes of the 2018 Annual General Meeting held on April 18, 2019**

**MOVED** by Commissioner Scotvold, **SECONDED** by Director Holman,  
That the April 18, 2019 minutes of the 2018 Fiscal Year Annual General Meeting for the Ganges Sewer Local Service Commission be approved.

**CARRIED**

5. **Chair’s Report** – no report

6. **Report**

6.1 **Annual Report for 2019 Fiscal Year**

Brief review of report which was received for information.

7. **Election of Officers**

Request for volunteers was advertised as directed by legislation and having received no nominations, Commissioner Utter will be asked if he is interested in continuing with another term. Commissioner Scotvold disclosed that he is not returning.

Staff will directly seek a volunteer from the Health Authority or the School District to match the structure of the Ganges Sewer Commission Membership.

8. **New Business** - none

9. **Adjournment**

**MOVED** by Commissioner Scotvold, **SECONDED** by Director Holman,  
That the Ganges Sewer Local Service Commission meeting adjourn at 10:23 am.

**CARRIED**

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**CHAIR**

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**SENIOR MANAGER**

# Ganges Sewer Service

2020 Annual Report

CRD | Sewer Service

## INTRODUCTION

This report provides a summary of the Ganges Sewer Service for 2020. 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.

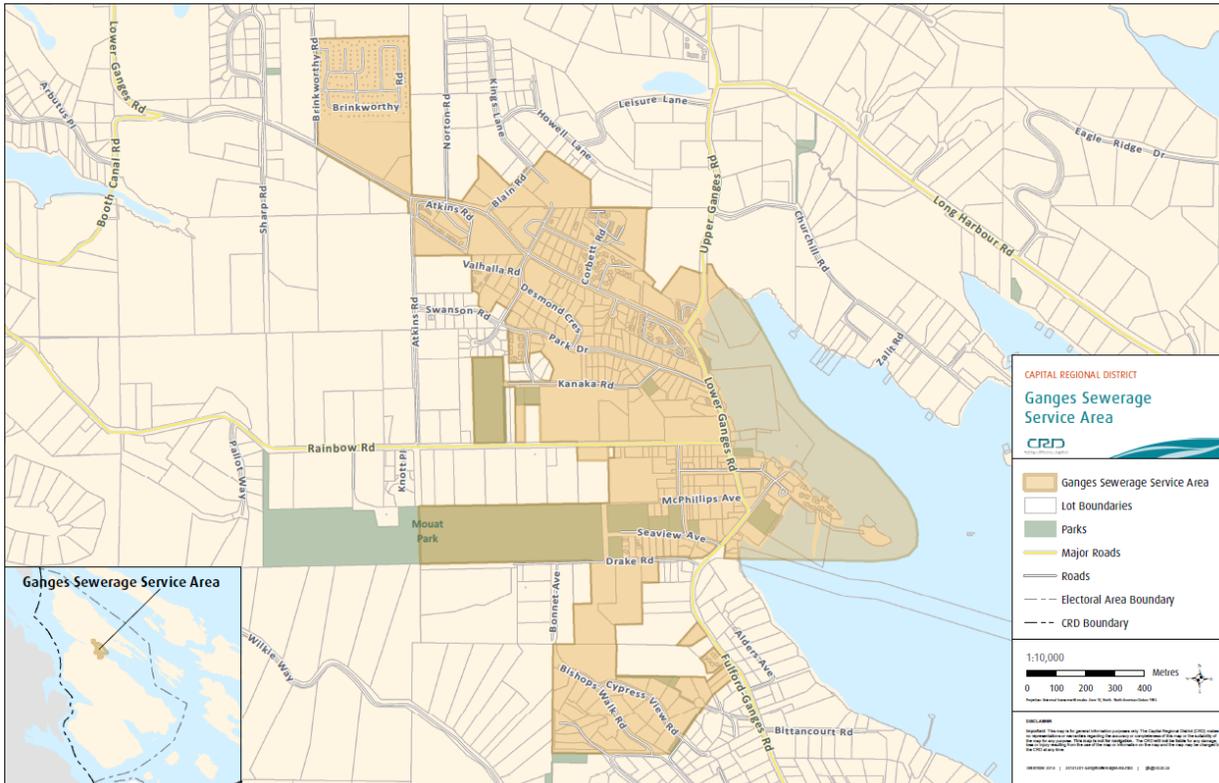


Figure 1: Ganges Sewer Service Area

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<sup>3</sup>/day to 800 m<sup>3</sup>/day and utilizing membrane plates for sludge thickening (1998);
- replacing the MBR with ones of higher capacity to increase from 800 m<sup>3</sup>/day to 1,000 m<sup>3</sup>/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 m<sup>3</sup>/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 were all below the allowable provincial maximums in 2020, unlike 2019 when there were two exceedances due to a heavy rain event. Effluent quality met provincial and federal regulatory requirements for all compliance 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 to assess risk to human health and the environment. In 2020. Of the 190 priority substances analyzed, 69 were detected at standard detection limits in effluent. Substances detected in 2020 included conventionals, metals, naphthalene, phenanthrene, low molecular weight and total polycyclic aromatic hydrocarbons (PAHs), and 1,4-dioxane. 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, cadmium, 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**

Effluent was also tested for acute toxicity to assess risk to organisms living around the outfall. The effluent sample from July was non-toxic during the 96-hour Rainbow trout acute toxicity test with 100% survival of test organisms. In 2019 there was some temporary ammonia related toxicity observed following the treatment plant upgrades when processes were still being optimized. The sample also passed the 48-hour Daphnia acute toxicity test with 100% survival, consistent with 2011-2019.

### **Sludge (Mixed Liquor)**

Ganges Harbour WWTP sludge (mixed liquor) is monitored to inform the CRD Regional Source Control Program (RSCP). All 2020 monthly sample results met the criteria for BC Organic Matter Recycling Regulations (OMRR) Class A Biosolids, including copper which exceeded guidelines for the first time in 2019. Copper monitoring will continue to confirm whether the 2019 exceedance was a one-off occurrence or an indicator of a new contaminant source into the system. Mercury has also exceeded limits in the past, but has been below guidelines since late 2008, largely due to successes of the implementation of the RSCP dental office code of practice.

### **Receiving Water**

Routine receiving water monitoring is required every four years at the Ganges Harbour WWTP, with 2020 being a scheduled year. This sampling involves collecting 5 samples in a 30-day period for comparison to provincial guidelines set to protect people who are recreating in the vicinity of the marine outfall. In 2020, all results were well below the applicable health guidelines. Routine sampling is next required in 2024.

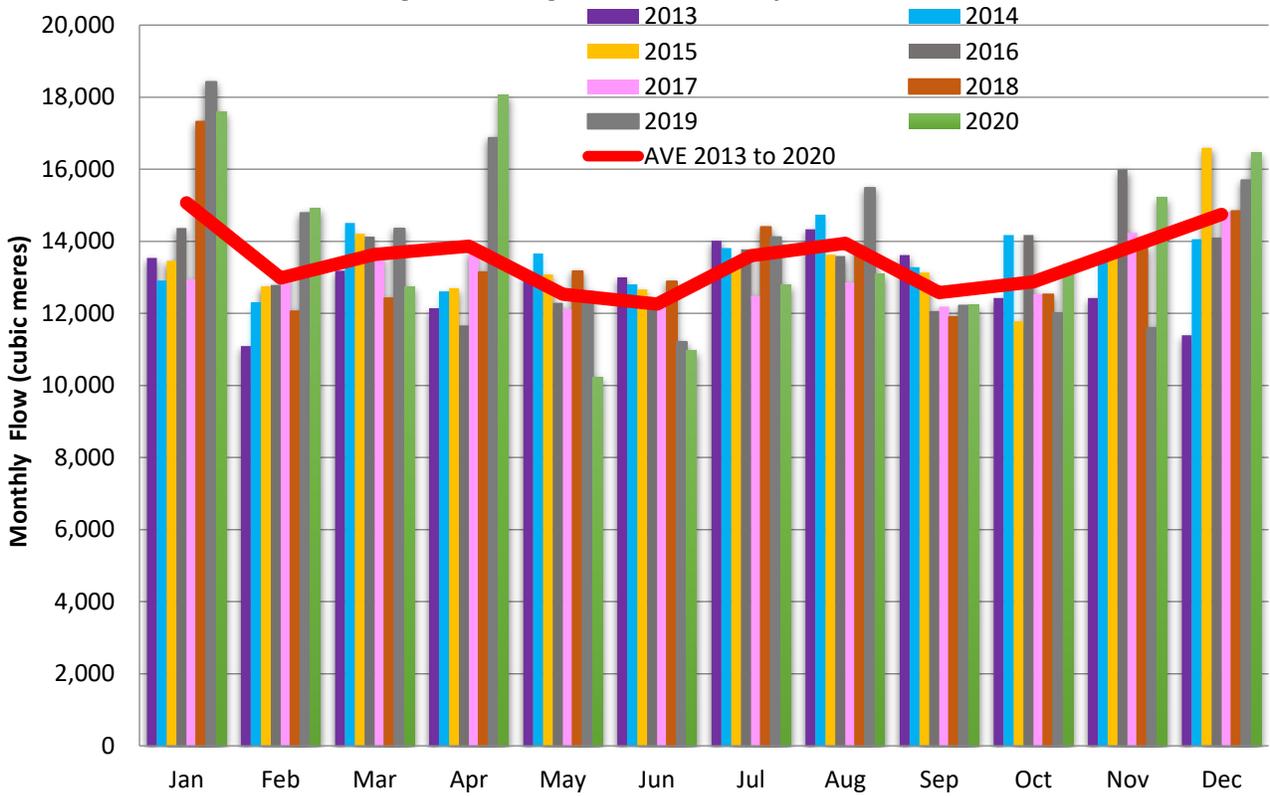
Receiving water sampling is also required if there are planned bypasses, plant failures/overflows, or wet weather overflows that exceed 3 days duration in the winter or 1 day duration in the summer. There were no such events requiring sampling in 2020, unlike in 2019 when sampling was required after conveyance system repairs led to a sewage spill into Ganges Creek.

### **Annual Flow**

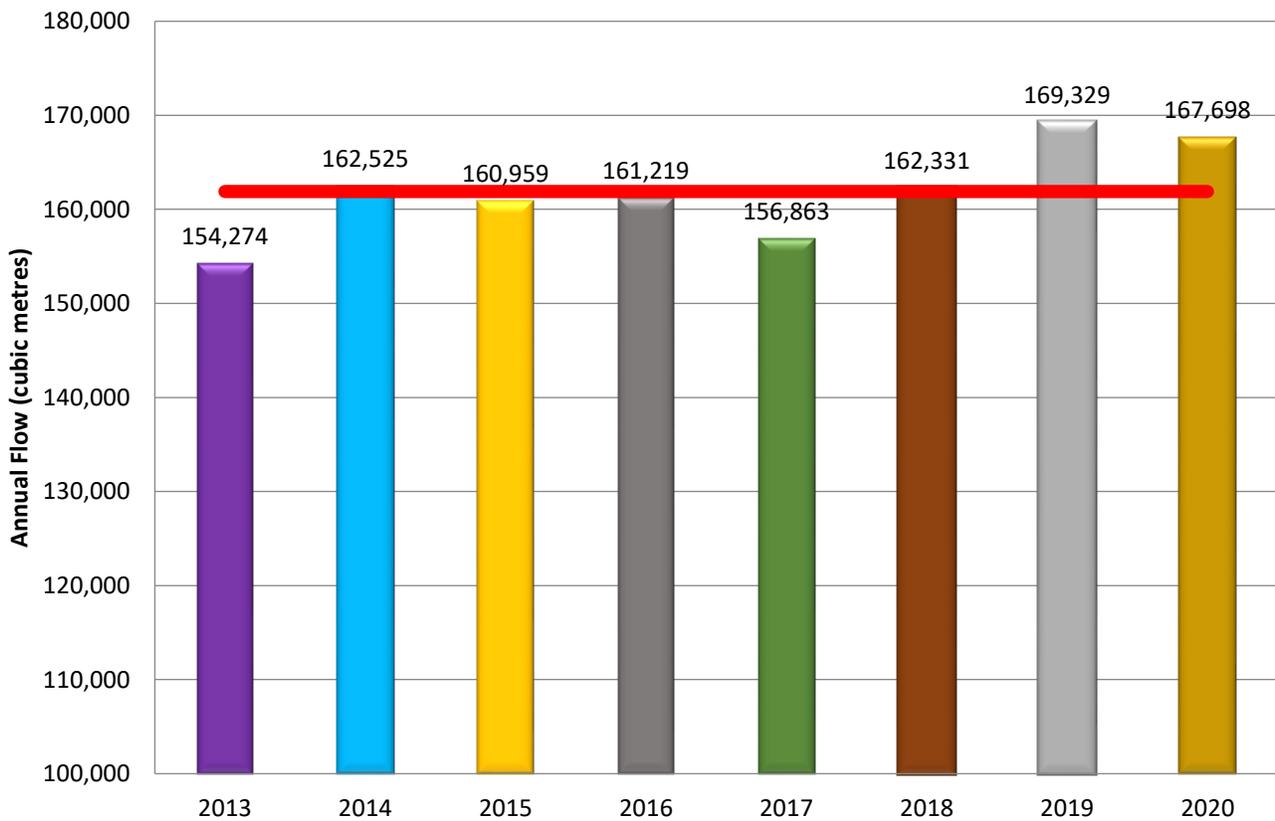
The monthly flows and the total annual flow over the past 8 years are shown in Figures 1 and 2 below. The graphs indicate that the 2020 wastewater flows were about 3.6% higher than the 8-year average. The monthly flows show the seasonal variations due to peak tourist times (in the summer) and inflow 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.

**Figure 1 - Ganges WWTP Monthly Flow**



**Figure 2 - Ganges WWTP Annual Flow**



## OPERATIONAL HIGHLIGHTS

The following is a summary of the major operational issues that were addressed during the 2020 operating period:

- Additional sludge hauling and disposal costs due to challenges with the operation of the sludge thickening system.
- Wastewater treatment facility railing system corrective maintenance (repairs).
- Wastewater treatment facility potable water service line corrective maintenance.
- Harbour House Pump Station pumps corrective maintenance.
- Emergency response to SCADA system failure.
- Compliance and Environmental Incident Reporting
  - Compliance data is reported to provincial regulators on a monthly basis, with individual environmental incident reports (EIR) issued if there was an incident at the plant. There were two EIRs issued for Ganges in 2020:
    - compliance flow meter malfunction.
    - high flows bypassing the membrane bioreactors.

It is important to note that neither event above triggered additional receiving environment sampling requirement.

## CAPITAL IMPROVEMENTS

The following is a summary of the major capital improvements including year ending spending for 2020:

Ganges Sewer Rehabilitation (CE.476.8301) | Inflow and Infiltration Repairs (CE.476.8302):

Project	Spending
Budget	\$3,900,000
Rehabilitation	
Project Management	(\$744,820)
Contract	(\$1,941,806)
Equipment Supplies Materials	(\$901,489)
Inflow and Infiltration	
Project Management	(\$69,265)
Contract	(\$157,219)
<b>Project Closed Balanced Returned to CRF</b>	<b>\$85,402</b>

Safe Work Procedures (CE.699.4507): The work scope includes reviewing and developing safe work procedures for operational and maintenance tasks.

Project	Spending
Budget	\$7,000
Project Management	(\$1,882)
Contract	(\$3,316)
Equipment Supplies Materials	(\$1,739)
<b>Project Closed Balance Returned to CRF</b>	<b>\$64</b>

SCADA Upgrade (CE.771.7000): Upgrade supervisory control and data acquisition (SCADA) system to hot-standby system.

Project	Spending
Budget	\$20,000
<b>Remaining Balance</b>	<b>\$20,000</b>

Ganges WWTP Storage (CE.714.8300): Detailed designs for lab and crew room/facility and blower room expansion for Ganges WWTP.

Project	Spending
Budget	\$30,000
Project Management	(\$7,104)
Contract	(\$15,362)
<b>Remaining Balance</b>	<b>\$7,534</b>

## 2020 FINANCIAL REPORT

Please refer to the attached 2020 Financial Report. Revenue includes parcel taxes (Transfers from Government), fixed user fees (User Charges), interest on savings (Interest Earnings), a transfer from the Operating Reserve Fund, 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 funds 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.

## WASTEWATER SYSTEM PROBLEMS – WHO TO CALL:

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

<b>CRD wastewater system emergency call centre:</b>	<b>1-855-822-4426 (toll free)</b>
<b>CRD wastewater system emergency call centre:</b>	<b>1-250-474-9630 (toll)</b>
<b>CRD wastewater system general enquiries</b>	<b>1-800-663-4425 (toll free)</b>

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

Submitted by:	Matthew McCrank, MSc., P.Eng, Senior Manager, Wastewater Infrastructure Operations
	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
	Rianna Lachance, BCom, CPA, CA, Senior Manager Financial Services
	Karla Campbell, BPA, Senior Manager, Salt Spring Island Electoral Area
Concurrence	Ted Robbins, BSc, C.Tech, General Manager, Integrated Water Services

Attachment: 2020 Financial Report

For questions related to this Annual Report please email [saltspring@crd.bc.ca](mailto:saltspring@crd.bc.ca)

## CAPITAL REGIONAL DISTRICT

**GANGES SEWER**  
**Statement of Operations (Unaudited)**  
**For the Year Ended December 31, 2020**

	<b>2020</b>	<b>2019</b>
<b>Revenue</b>		
Transfers from government	54,128	54,130
User Charges	920,914	905,650
Other revenue from own sources:		
Interest earnings	586	804
Other revenue	1,548	1,723
Transfer from Operating Reserve	31,693	58,966
<b>Total Revenue</b>	<b>1,008,869</b>	<b>1,021,273</b>
<b>Expenses</b>		
General government services	29,970	28,502
Contract for Services	35,506	73,489
CRD Labour and Operating costs	366,175	322,871
Debt Servicing Costs	246,651	237,867
Other expenses	272,867	331,385
<b>Total Expenses</b>	<b>951,169</b>	<b>994,113</b>
<b>Net revenue (expenses)</b>	<b>57,700</b>	<b>27,160</b>
Transfers to own funds:		
Capital Reserve Fund	30,000	-
Operating Reserve Fund	27,700	27,160
<b>Annual surplus/(deficit)</b>	<b>-</b>	<b>-</b>
Accumulated surplus/(deficit), beginning of year	-	-
<b>Accumulated surplus/(deficit), end of year</b>	<b>\$ -</b>	<b>-</b>

## CAPITAL REGIONAL DISTRICT

### GANGES SEWER Statement of Reserve Balances (Unaudited) For the Year Ended December 31, 2020

	Capital Reserves	
	2020	2019
<b>Beginning Balance</b>	754,283	827,367
Transfer from Operating Budget	30,000	-
Transfers from Completed Capital Projects	104,378	-
Transfer to Capital Project	(43,500)	(95,912)
Interest Income	14,123	22,829
<b>Ending Balance</b>	<b>859,285</b>	<b>754,283</b>

	Operating Reserve	
	2020	2019
<b>Beginning Balance</b>	41,360	68,138
Transfer from Operating Budget	27,700	27,160
Transfer to Operating Budget	(31,693)	(58,966)
Transfers from Completed Projects	-	2,640
Interest Income	1,128	2,387
<b>Ending Balance</b>	<b>38,495</b>	<b>41,360</b>