Making a difference...together

GANGES SEWER LOCAL SERVICE COMMITTEE
2008 ANNUAL GENERAL MEETING OPERATIONS REPORT
NOVEMBER 24, 2008

The following is provided for information to residents and users of the Ganges sewer local service.

GENERAL

The Ganges sewer area continues to see development of vacant properties and redevelopment of existing properties, adding to the loading of the wastewater plant. This year, projects to extend the sewer system south, up Fulford Ganges Road, have been completed with the first units constructed on the Three Point Properties sites. A number of applications have been received from properties surrounding the sewer area boundary prompting the committee to review the policy of boundary extensions in context of the Official Community Plan. The redeveloped membrane plant is performing admirably and a number of projects respecting the facility have been initiated this year.

GANGES MEMBRANE WASTEWATER TREATMENT PLANT OPERATIONS

The high quality of effluent from the Ganges plant is due to the use of membrane technology. The method of treatment essentially includes drawing the water from the effluent tank while leaving the solids behind. This is accomplished through a membrane filter (a plastic spaghetti like tube with microscopic holes in it). When subjected to a vacuum, like a drinking straw, liquid is separated from the solids component and drawn through these very tiny holes in the spaghetti tube. The tubes are assembled into bundles, and the bundles hung in racks into the sewage tank. A separate sludge thickening system, also based on membrane technology, continues to provide a much thicker waste product which reduces the cost of disposal through reduced hauling costs and reduced tipping fees at the regional dewatering facility at Burgoyne Bay.

To minimize the potential for physical damage to the membranes by coarse material in the sewage stream, a new solids removal screen was added to the head end of the plant. Solid material from the screen is washed and compacted to reduce the cost of disposal. There has been considerable effort made to strike a balance between screen throughput and volume of solids removed with staff fitting a variety of screen grid sizes to the screen in an effort to obtain the optimum combination.

The regional dewatering facility receives pump outs from restaurant grease traps. The grease traps are installed on each restaurant sewer connection specifically to avoid operational problems with the Ganges sewer system and membrane treatment plant. The CRD source control program maintains periodic inspections of the traps to ensure they are being maintained. What is good for the Ganges sewer has turned out to be an issue for the Burgoyne dewatering facility which receives the material. The material has resulted in a number of operational issues at the dewatering facility and while the facility is the appropriate location to deliver the product to, it is likely an additional process will need to be added at the facility to handle the material effectively. This may have some long term cost implications for Ganges and other island sewer systems as there may be capital costs associated with the installation of the side stream process and additional capital costs for its operation. The decision on how best to handle the material will be made as part of the design for the liquid waste facility upgrade project which was recently approved by taxpayers on Salt Spring Island.

CONTROL BUILDING UPGRADE

The control and maintenance building was extended this year with a small addition for an operators office. The previous office was located within the electrical and control room. To comply with WorkSafe BC and the BC Electrical Code requirements, the office needed to be relocated out of the active area where the electrical switchgear and electrical controls are housed. As part of this work, the roof on the main building was also replaced this year having aged to the point where leaks were inevitable. The cost of the upgrade works to the building amounted to $59,000. The building works will be completed in concert with the electrical system upgrade detailed following.

ELECTRICAL CODE DEFICIENCIES

The plant electrical system was fully inspected and with a number of problem areas defined, an upgrade was initiated. The entire electrical system was reviewed by an electrical engineer and upgrade works were tendered in September. Three tenders were received with the lowest total tender price for the works amounting to $94,290 submitted by EH Emery Electric Ltd. Although the prices were in excess of the budget struck last year, the additional costs were drawn from reserve funds avoiding the need for tax increase. The works are underway and will be completed in the Spring of 2009.

INFLOW AND INFILTRATION

Sewage flows to the plant continue to increase during rainfall events however the peak inflows seen over the past few years were not as evident this past winter with the exception of the snowmelt in early winter. The sewer system was overwhelmed by this event with considerable stormwater taken into the system from the Rainbow Road area which was flooded over manholes and along the Swanson Pond area where drainage modifications also appeared to channel water to the system. CRD staff have met with Ministry of Transportation (MOT) staff respecting the situation. It was generally agreed that in future, Ganges Village will need a more comprehensive stormwater management plan. Other rainfall events resulted in some inflow mostly due again to uncompleted systems on construction sites. To this end staff have been working with the building inspector to ensure that construction sites do not make improper or interim connections to the sewer for removal of surface water.

LOCAL SERVICE AREA GROWTH

The committee again reviewed a number of applications to extend the service area boundary this past year. The committee reviewed options to better coordinate sewer servicing and land development both inside and outside of the sewer area boundary. The committee agreed that significant up-zoning had occurred over the past years within the sewer area which might result in components of the existing sewer system being near to or at capacity. As a consequence, in the 2008 budget, the committee provided $30,000 to initiate a sewer model. The modelling with evaluate capacity within the system in each pipe section and pump station and highlight the need for upgrade works. If the study indicates the need for upgrade works, the decision to impose a development cost charge can be considered. The study will also indicate whether additional lands taken into the area need to fund downstream upgrade works.

Applications for inclusion were considered for properties on Rainbow Road. The committee tabled the applications at this time pending completion of the sewer model study. Preliminary results from the study are expected in the spring of 2009.

OPERATING BUDGET

At year-end 2007, the expenditures for the utility operations amounted to $480,410. The committee transferred $10,000 to the sewer capital fund and $36,400 to reserve funds also in 2007 for total commitments in 2007 of $526,810. The revenue for 2007 amounted to $506,397 which left a surplus carry forward of

$26,748 to 2008. A copy of the Statement of Financial Activities to 31 December 2007, as prepared by the CRD Finance and Corporate Services Department is attached for information.

The Ganges reserve fund, at year-end 2007 stood at $110,879.

MAJOR EVENTS 2007/2008

- Early December, 2007, major snowfall, SSI results in downtown flooding, high inflow to submerged sewer manholes. Event prompted review of hydraulic capacity of outfall and follow up evaluation of event with MOT.

GENERAL INFORMATION

	Sewer
Single Family Equivalents (Residential)	528
Taxable Parcels in Service Area	365
Average Annual Residential User Fee (includes a fixed residential fee of $150)	$407
Annual Parcel Tax	$118

Notes:

- The average annual residential user fee is an estimated value.
- Residential properties are assessed a variable user fee based on water use for eight months.
- Institutional properties are assessed a variable user fee based on water use.
- Commercial properties are assessed a variable user fee based on water use and a variable fee based on building square footage.

CAPITAL REGIONAL DISTRICT

SEWER REVENUE FUND
STATEMENT OF FINANCIAL ACTIVITIES (UNAUDITED)
For the year ended December 31, 2007

	Ganges Sewerage System
REVENUES	
Transfers from government	$ 39,589
Sale of services	453,450
Other revenue from own sources:	
Building permits	-
Interest earnings	224
Other revenue	12,995
Grants in lieu of taxes	139
	506,397
EXPENDITURES	
General government services	20,450
Other	456,384
Other fiscal services	3,585
Recovery	-
	480,419
NET REVENUES (EXPENDITURES)	25,978
Transfers to own funds:	
Sewer Capital Fund	10,000
Reserve Funds	36,400
Equipment Replacement Fund	-
Transfers from own funds:	
Sewer Capital Fund	-
Reserve Funds	-
CHANGE IN FUND BALANCE	(20,422)
Opening balance	47,170
CLOSING BALANCE	$ 26,748