



Making a difference...together

GANGES SEWER LOCAL SERVICE COMMISSION
Notice of Meeting on **TUESDAY, April 15, 2014 at 2:00 PM**
School Board Office at 112 Rainbow Road, Salt Spring Island, BC

Rod Scotvold
John Sprague

Gary Utter
Wayne McIntyre

Kevin Bell

Louis Pepin

AGENDA

- 1. Approval of Agenda**
- 2. Adoption of Minutes of November 29, 2014**
- 3. Reports**
 - 3.1 Ganges Wastewater Treatment Plant - Emergency Capital Equipment Replacement**

The the Ganges Sewer Local Services Commission approve up to \$30,000 to undertake emergency equipment replacement of the two membrane bioreactor sludge return pumps at the Ganges sewer treatment plant.

- 4. Adjournment**

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



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**Minutes of the Regular Meeting of the Ganges Sewer Local Service Commission
Held November 29, 2013, 145 Vesuvius Bay Road, Salt Spring Island, BC**

DRAFT

Present: **Alternate Director:** Peter Lake
Commission Members: Louis Pepin, John Sprague, Gary Utter
Staff: Karla Campbell, Senior Manager; Brian MacDonald, Manager Financial Planning and Treasury Corporate Services; Ted Robbins, GM Integrated Water Services; Dan Robson, Manager of Operations Integrated Water Services Saanich Peninsula and Gulf Islands; Peter Sparanese, Senior Manager Infrastructure Operations; Sarah Shugar, Recording Secretary
Also Present: Kevin Bell
Absent: Rod Scotvold, Tom Toynbee (Chair)

Commissioner Utter called the meeting to order at 2:20 pm.

1. Approval of Agenda

Addition of Item 1.1 Minutes of October 29, 2013 Regular Meeting

MOVED by Commissioner Sprague, **SECONDED** by Commissioner Utter,
That the agenda be approved as amended.

CARRIED

1.1 Adoption of Minutes – October 29, 2013

MOVED by Commissioner Sprague, **SECONDED** by Commissioner Pepin,
That the minutes of the October 29, 2013 Regular Meeting be approved as circulated.

CARRIED

2. 2014 Operating and Capital Budget

T. Robbins reviewed the 2014 Operating and Capital Budget Report dated November 29, 2013.

There was discussion regarding the replacement of the membranes. Staff will look into the lease option.

MOVED by Commissioner Sprague, **SECONDED** by Commissioner Pepin,
That the Ganges Sewer Local Service Commission recommend that the Capital Regional District Board increase the parcel tax to \$128 per taxable folio.

CARRIED

MOVED by Commissioner Sprague, **SECONDED** by Commissioner Pepin,
That the Ganges Sewer Local Service Commission recommend that the Capital Regional
District Board approve the 2014 operating and capital budget for the Ganges Sewer Local
Service as amended.

CARRIED

MOVED by Commissioner Pepin, **SECONDED** by Commissioner Sprague,
That the Ganges Sewer Local Service Commission recommend that the Capital Regional
District Board balance the 2013 actual revenue and expense on the 2014 transfer to the
reserve fund.

CARRIED

3. New Business

There were no new business items at this time.

4. Adjournment

MOVED by Commissioner Pepin, **SECONDED** by Commissioner Sprague,
That the meeting be adjourned at 3:15 pm.

CARRIED



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**REPORT TO GANGES SEWER LOCAL SERVICES COMMISSION
MEETING OF APRIL 15, 2014**

**SUBJECT GANGES WASTEWATER TREATMENT PLANT - EMERGENCY CAPITAL
EQUIPMENT REPLACEMENT**

ISSUE

One of the membrane bioreactor (MBR) sludge return pumps at the wastewater treatment plant has failed and the second pump is at risk of failing soon. Replacement of these pumps is critical to the operation of the plant, addressing public health and Ministry of Environment compliancy requirements.

BACKGROUND

One of the two MBR sludge return pumps at the wastewater treatment plant failed on April 5, 2014. The purpose of these pumps is to recirculate, on a continuous basis, the sludge that builds up in the MBR tank and return it to the beginning of the treatment process. The second sludge return pump is also not in good condition and has very limited life left. The two pumps are more than 15 years old. Maintenance records indicate that these pumps have already been refurbished and, in essence, have reached the end of their service life. Typical life span for a pump depends on service conditions but is in the range of 10-15 years.

These pumps were to be replaced as part of the 2015 Capital Membrane Replacement Project (\$500,000). Engineering staff are preparing a report for the Commission's consideration to consider capital improvements identified as part of a Stantec Report dated 2011 (see attached). The improvements identified in the report require the Commission's approval for a referendum and loan authorization bylaw. This report is in progress and will be sent to the Commission for consideration as soon as possible. In the meantime, the pumps need to be replaced immediately. The pump component could then be removed from the list of capital improvements identified in the Stantec Report and forthcoming staff report.

These two return pumps are critical to the operation of the wastewater treatment process. Without these pumps the proper function of the plant is not possible and, as a result, the effluent from the plant will not meet the required regulations. Not meeting the required regulations has consequences as defined under the *Environmental Management Act*, section 120(11) as well as the federal *Wastewater Systems Effluent Regulations* of the Federal government according to section 121(1) of the *Environmental Management Act*.

An engineering review for the current pump replacement options has indicated that the original pump model (i.e. an exact replacement for the existing pumps) is no longer available. A replacement model has been selected which has more capacity and higher efficiency than the existing pumps. The expedited delivery of the pumps once ordered is 5 weeks.

The cost for the work is estimated at \$30,000. CRD staff will undertake this work and the estimated cost breakdown is as follows:

• Pump/Motor (2)	\$ 17,000
• Labour	\$ 3,000
• Engineering (15%)	<u>\$ 3,000</u>
• Subtotal	\$ 23,000
• Contingency (30%)	<u>\$ 7,000</u>
Total Cost	\$ 30,000

We are hoping that the one remaining pump continues to function over this period. Should it also fail, we risk a complete failure of the wastewater treatment plant. To mitigate this possibility we may need to look at renting submersible gas powered pumps and operate them manually. The cost of this scenario is undetermined but could cost up to \$500 per day until the pumps are replaced.

ALTERNATIVES

Alternative 1: That the Ganges Sewer Local Services Commission approve up to \$30,000 to undertake emergency replacement of the two membrane bioreactor sludge return pumps at the Ganges Wastewater Treatment Plant.

Alternative 2: That the Ganges Sewer Local Services Commission not approve the works.

IMPLICATIONS

Alternative 1 - The works would proceed immediately to ensure the Ganges Wastewater Treatment Plant continues to function properly in order to meet Provincial and Federal regulated effluent quality requirements, and to ensure public health and Ministry of Environment compliancy requirements.

The estimated cost for replacing the failed MBR Sludge Return Pumps is \$30,000. It is proposed that the funding come from unspent budget in the capital fund. There are two completed projects: Ganges UV System Control Replacement Budget and Ganges Upgrade Replacement with a combined project budget of \$215,000 and, to date, only \$184,520 has been spent. The savings from these two completed projects of \$30,480 could be used to fund the \$30,000 required to replace the MBR Sludge Return Pumps. Please note that, if these funds are not used, the practise is to return unspent capital project budget to the Capital Reserve Fund for future capital work.

Alternative 2 - The works would not proceed and, as a result, the wastewater treatment plant will not be able to produce a wastewater effluent quality that meets Provincial and Federal standards. As a result, the treatment plant would be deemed out-of-compliance and be subject to possible significant penalties under the Municipal Wastewater Regulation, as well as a risk to public health.

CONCLUSION

The failure of both sludge return pumps would mean that the treatment plant will not function as designed, and discharges would be out of compliance. This is an unacceptable risk and needs to be mitigated as soon as possible by the emergency replacement of both pumps.

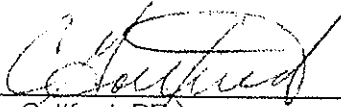
RECOMMENDATION

That the Ganges Sewer Local Services Commission approve up to \$30,000 to undertake emergency equipment replacement of the two membrane bioreactor sludge return pumps at the Ganges Wastewater Treatment Plant.

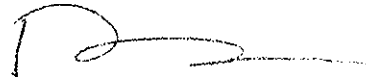
Karla Campbell
Senior Manager, SSI Administration



Dan Robson, AScT
Manager, Infrastructure Operations



Craig Gottfred, PEng
Manager, Regional Wastewater
Infrastructure Engineering



Peter Sparanese, PEng
Senior Manager, Infrastructure Operations
Concurrence



Tim Tanton, PEng
Senior Manager, Infrastructure Engineering
Concurrence

DR/CG/TT/PS:ls