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**REPORT TO GANGES SEWER LOCAL SERVICE COMMITTEE  
MEETING OF TUESDAY 02 SEPTEMBER 2008**

**SUBJECT      GANGES WASTEWATER TREATMENT PLANT ELECTRICAL SERVICE AND SYSTEM  
UPGRADE**

**PURPOSE**

To obtain a recommendation from the Ganges Sewer Local Service committee (GSLSC) to award a contract to upgrade the electrical service and electrical switchgear at the Ganges wastewater treatment plant and to obtain approval for additional funding for the work.

**BACKGROUND**

GSLSC has approved a capital project to provide a number of upgrade works to the Ganges wastewater plant including construction of a 140 square foot addition to the main control building to isolate the operators office area from the electrical service room, re-roofing the building and replacement of motor control centre and isolation of low and high voltage equipment. The first two work items are now largely complete however there is some finishing work required on the building extension which needs to be funded. The electrical works portion of the project have been designed and tendered with quotations received from three contractors.

**Description of Works**

The control building has been extended to provide the operator with an office away from the electrical equipment. The structure has been completed, however there are some finishing works which have been deferred at this time as the cost of the primary construction was higher than anticipated.

The electrical works include supply and installation of new motor control centre sections, rewiring of existing panels and service components to ensure service personnel are protected from high voltage sources and to ensure the electrical installation is brought up to current electrical code standards. With several upgrades of the facility completed since construction some changes made do not meet current code posing potential safety risks to service personnel. The works were initially estimated to cost in the order of \$60,000 however the estimates were prepared in advance of the detailed design works being carried out by an electrical engineer.

**Outstanding Works**

Works remaining to be completed include the upgrade of the electrical system and some minor finishing works on the building extension including flooring, trim and washroom renovations.

Tenders were called for the electrical works and closed on 14 July 2008. Three contractors submitted tenders as follows:

1.	Emery EH Electric Ltd.	\$94,290.00
2.	Brewis Electric Company Ltd.	\$109,515.00
3.	Houle Electric Ltd.	\$115,212.30

The low tenderer has worked for Capital Regional District (CRD) on many such projects over the years. All three quotations exceed the available budget hence it will be necessary to increase the funding for the capital project to allow the work to proceed. The quantity of work can not be easily reduced and still maintain the necessary outcome.

An estimate of works to complete finishing for the building amount to \$10,000.

**Costs and Financing**

The overall project approved by the committee for the three items amounted to \$125,000. The design, construction and contract administration for the building and roof was estimated at approximately \$45,000 and has cost \$59,000. Design cost for the electrical works has amounted to \$8,500 resulting in a total project cost to date of \$67,500. The remaining \$57,500 in the project is insufficient to allow the needed electrical upgrade to proceed and to provide funds to finish the building extension. To complete the project the committee will need to authorize an increase in the project by \$37,500 to cover the cost of the electrical contract, \$10,000 for finishing works and by \$15,000 to fund contract administration costs to a total of \$187,500.

The last major upgrade of the Ganges wastewater system was completed in concert with the installation of the new membranes. There are some residual funds remaining in the capital fund from that project plus some interest earned, totalling \$44,000 which can be used to finance most of the cost overrun. The committee had also approved some expenditures from the reserve fund for a new cover on the sludge thickener which is unlikely to be completed this year due to other time commitments. In this regard a further \$18,500 needed for the project could be reallocated from the proposed reserve fund expenditures.

**ALTERNATIVES**

1. That the Ganges Sewer Local Service committee approve an increase in the present capital project for upgrade of control building, roof and electrical system by a total of \$62,500 to \$187,500 with the increase in funds drawn from residual capital funds and approved reserve fund expenditures and authorize the general manager of the Environmental Services division to award a contract to Emery Electric Ltd. in the amount of \$94,290.00 to complete the necessary electrical upgrade.
2. That the Ganges Sewer Local Service committee elect not to undertake the work at this time and to direct staff to budget for the increase in the project in 2009.

**SUMMARY**

The GSLSC has approved a capital project for \$125,000 to complete works primarily necessary to protect the well being of service personnel working in proximity to the electrical service and control equipment at the Ganges wastewater treatment plant. The civil works completed to date have been in excess of budget and tender prices received from electrical contractors to complete the works are all considerably higher than anticipated. To complete the works as desired the committee will need to increase the total available funds in the capital project to allow a contract to be let for the electrical works and to provide funds to finish the building extension or to defer the works. Three quotations were received for the electrical contract. Emery Electric has the lowest tender of \$94,290 and is recommended to be awarded the work.

**RECOMMENDATION**

That the Ganges Sewer Local Service committee approve an increase in the present capital project for upgrade of control building, roof and electrical system by a total of \$62,500 to \$187,500 with the increase in funds drawn from residual capital funds (\$44,000) and approved 2008 reserve fund expenditures (\$18,500) and authorize the general manager of the Environmental Services department to award a contract to Emery Electric Ltd. in the amount of \$94,290 to complete the necessary electrical upgrade.



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Gary Hendren, ASCT,  
Local Services Engineering Coordinator

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