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WATER AND WASTEWATER CONTROL SYSTEMS SOFTWARE UPGRADES

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, April 19, 2005, from the Commissioner of Transportation and Works:

1. RECOMMENDATIONS

It is recommended that:

1. The Region enter into contract with CB Automation in respect to the purchase of Supervisory Control and Data Acquisition Software (Intellution iFIX) and services for \$194,071.62 exclusive of applicable taxes pursuant to the sole source provisions of the Purchasing By-Law.
2. The Regional Chair and Regional Clerk be authorized to enter into the above contract, subject to the prior review of Legal Services.

2. PURPOSE

The purpose of this report is to outline the rationale for entering into a sole source contract with CB Automation to provide the Supervisory Control and Data Acquisition software and services for the remote operations of the York Region's Water and Wastewater facilities.

3. BACKGROUND

Supervisory Control and Data Acquisition (SCADA) for the control and automation of the Water and Wastewater system is an essential operational and business component for the Water and Wastewater branch. The branch uses this computer based system to centrally control and monitor its one hundred and thirty (130) facilities. It is also used to collect data for regulatory reporting. The branch has utilized Intellution FIX32, supplied and supported by CB Automation over the past ten years for its SCADA software.

In February 2005 a SCADA Master Plan was completed that identified the need to perform upgrades for both the software and hardware components of the SCADA system. The upgrades are required to allow the branch to fulfill its operational requirements, support increasing stringent operating regulations and reporting requirements imposed by the Ministry of the Environment, and support the use of operational data for business needs such as key performance indicators. The SCADA Master plan provides a

functional analysis of competing products and analyses market trends for both control software and hardware. The SCADA Master Plan also recognizes the installed costs of the current hardware and software including both the invested capital and training costs.

4. ANALYSIS AND OPTIONS

The SCADA Master Plan identified issues with respect to the existing SCADA system:

- It will not support the Branch's current and future needs and operational goals.
- New hardware is not compatible with the current SCADA software.
- Replacement hardware to run the current operating system is no longer supported by the industry and is no longer manufactured.
- CB Automation has indicated that they will terminate support for the current SCADA software in the near future.

The options available to the Region are either to upgrade the SCADA software system with the latest release of the existing software or to purchase an alternate system.

The recommendation in the SCADA Master Plan is to continue with the existing software (application) because of the following reasons:

- Large hardware and software investment that is compatible with the latest release of the SCADA software.
- Staff is already familiar with the programming skills required to manage the system.

Implementation of the plan requires thirty three nodes (computer workstations) distributed throughout the water and wastewater facilities complete with the necessary software (Intellution iFIX). The workstations will be provided through Regional IT Services. The Intellution iFIX software and one year support have been quoted by CB Automation in an amount of \$164,275.00 and \$29,796.62 respectively for a total of \$194,071.62 exclusive of applicable taxes.

5. FINANCIAL IMPLICATIONS

The purchase price for the Supervisory Control and Data Acquisition Software (Intellution iFIX) is based on the implementation program identified within the SCADA Master Plan for the purchase of thirty three nodes for \$194,071.62 exclusive of applicable taxes. There is sufficient funding identified in the approved 2005 budget.

6. LOCAL MUNICIPAL IMPACT

The upgrades to this software will enable staff to have a fully supported platform for the remote operations of the Water and Wastewater facilities. This will better support Water and Wastewater quality of service to the local municipalities.

7. CONCLUSION

It is recommended that staff be authorized to proceed with a sole source contract with CB Automation for the purchase of Supervisory Control and Data Acquisition Software (Intellution iFIX), for \$194,071.62 exclusive of applicable taxes pursuant to the sole source provisions of the Purchasing By-Law.

Funding for this project has been included and approved in the 2005 budget.

The Senior Management Group has reviewed this report.