

MEMORANDUM

To: Mayor and City Council Members
Douglas Faseler, City Manager

From: Emery E. Gallagher, Director of Water and Wastewater Utilities

Through: Rick Cortes, Assistant City Manager

Subject: SCADA Construction and Replacement Project – Phase II

Date: September 18, 2015

On July 7, 2015, the Seguin City Council approved Phase I of the SCADA Construction and Replacement Project, comprising of the proposal from System Control and Instrumentation, LTD (SCI) to design, engineer, and install an upgradable Ethernet communication system. This project would allow the City to migrate from an antiquated radio communication system that requires Federal Communication Commission (FCC) licensing, and communicates through a 9600 baud serial interface.

The proposal was requested due to SCI's in-depth knowledge of the Supervisory Control and Data Acquisition (SCADA) operation system currently utilized at the Seguin Water Plant. Please note that the system currently utilized is over twelve years old and the existing system does not meet the current Narrow Band Frequency Modulation (NBFM) regulations. Additionally, the company that originally supplied the software to the City is no longer in the SCADA business, and does not support the software.

The proposed system will not be required to be licensed under FCC regulating SCADA telemetry; however it will require a complete replacement of the entire telemetry system. As such, the request for proposal included the upgrade of the SCADA system at the Seguin Water plant and system communication improvements.

The proposed Ethernet communication system will:

- utilize the latest technology microwave Ethernet communication system
- contain greater security measures
- be over 10,000 times faster than the existing system
- not require an FCC license
- is upgradeable in both bandwidth and platform

This project is proposed to be funded and approved in two phases:

- **Phase I:** On July 07, 2015, City Council approved the design and engineering of the system by SCI in the amount of \$67,350 and this was funded from the 2008 Utility Revenue Bonds.
- **Phase II:** The Construction and replacement of the current SCADA and Communication upgrades in the amount \$566,717 by SCI. Partial funding for this phase in the amount of \$382,650 is being funded from the 2008 Utility Revenue Bonds. Additional funding in the amount of \$185,000 was approved by City Council in the FY 2015-16 Budget.

Staff is recommending approval of **Phase II**, the Construction and replacement of the SCADA system for the Seguin Water Plant and the City's communication system in the amount of \$566,717. Staff will be available to answer any questions at the October 6, 2015 Council meeting.