

# 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 System and Communication Improvements Project

Date: June 25, 2015

In an effort to migrate from an antiquated radio communication system that requires Federal Communication Commission (FCC) licensing, and communicates through a 9600 baud serial interface, the City of Seguin requested a proposal from System Control and Instrumentation, LTD to design, engineer, and install an upgradeable Ethernet communication system.

City staff requested the proposal from System Control and Instrumentation, LTD due to their 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:** Design and engineering of the system by System Control and Instrumentation, LTD in the amount of \$67,350. Funding is available in the 2014-15 Budget.
- **Phase II:** The Construction and replacement of the current SCADA and Communication upgrades in the amount \$566,717 by System Control and Instrumentation, LTD. Partial funding for this phase in the amount of \$450,000 is included in the FY 2014-15 Utility Fund Capital Projects Budget, additional funding in the amount of \$185,000 will be requested through the FY 2015-16 budget process.

Staff is recommending approval of the Design and Engineering of the SCADA system for the Seguin Water Plant and the City's Communication System in the amount of \$67,350. Staff will be available to answer any questions at the Tuesday, July 07, 2015 Council Meeting.