

CITY COUNCIL AGENDA: OCTOBER 7, 2014

SUBJECT: REQUEST FOR SPECIALIZED SERVICES WITH TESCO CONTROLS

SOURCE: Public Works Department – Wastewater Treatment Facility

COMMENT: The City of Porterville Wastewater Treatment Facility (WWTF) uses a Supervisory Control and Data Acquisition (SCADA) system that monitors and controls the entire wastewater treatment processes. The SCADA system acquires equipment and instrumentation data through remote telemetry units and sends the data to a central computer. The central computer performs graphic display presentations, alarm reporting, report generation, data archiving and database maintenance.

The WWTF has used the existing TESCO SCADA system since 1994. An upgrade is needed on the hardware, software, graphics and alarms. The upgrades will allow the WWTF to incorporate equipment added after 1994 and equipment from several upcoming Capital Improvement Projects (CIP) such as the electric blowers, dewatering equipment and headworks washer compactor.

The project consists of upgrades to the existing plant process control telemetry system. Currently, the SCADA system receives all plant statuses and alarms from the process controllers via a hardwired network. The new system will use a high frequency and secure, ethernet based wireless network.

The upgrade will also include the latest software version, including two rack mounted computers, dual power supplies and redundant internal hard drives. TESCO will also upgrade the SCADA screen graphics and alarms. TESCO's cost to the City for the upgrades is \$194,295. The WWTF has set aside funding specifically for the SCADA upgrade.

Staff is sensitive to Council's desire that all projects be advertised for competitive bids and/or proposals. If the City elects to openly bid the SCADA Upgrade Project, staff will need to advertise for consultant design services. The design consultant will generate "generic" plans and specifications that will allow other "telemetry installation" companies to bid on the project. Staff estimates that telemetry design services will cost approximately \$75,000. Upon acceptance of the plans and specifications, staff would request Council authorization to advertise for bids on the SCADA Upgrade project.

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Staff is of the opinion that the proper course of action is to authorize the Public Works Director to negotiate a full service SCADA upgrade contract with TESCO in an amount not to exceed \$194,295 for the following reasons:

1. The existing SCADA system provided by TESCO is over 20 years old and has performed exceptionally well.
2. It is more prudent to spend City funds towards the SCADA upgrade as opposed to spending \$75,000 or more towards designing a new and generic SCADA system.
3. Carollo Engineers have estimated the base replacement cost of the existing SCADA system to be \$590,200.
4. TESCO has provided excellent technical support in the past, are a known quantity, and staff has every reason to believe that TESCO's future performance will not diminish.
5. Staff is familiar and competent in the use of the TESCO SCADA system and anticipates minimal, if any, new training on the new TESCO SCADA system.
6. Upgrades to the 20 year old SCADA system can begin immediately upon award of contract. If the "new design" route is chosen, upgrades to the SCADA system at the WWTF will be delayed by at least six months.

Funding for this project is from the WWTF Capital Reserve as budgeted in the 2014/2015 Annual Budget.

RECOMMENDATION: That City Council approve the request for Specialized Service for the upgrade of the WWTF SCADA system with TESCO Controls, Incorporated, at a cost not to exceed \$194,295.