TRIUNFO SANITATION DISTRICT
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May 20, 2019

Board of Directors
Triunfo Sanitation District
Ventura County, California

LAS VIRGENES/TRIUNFO JPA FY 2018-19 ADDITIONAL BUDGET APPROPRIATIONS

Summary

At the April 29, 2019, Las Virgenes/Triunfo JPA Board Meeting, the JPA Board approved a Change Order with Wunderlich-Malec in the amount of $68,600 for SCADA System related services (see attached). Triunfo Sanitation District's (TSD) prorated share of the additional cost is $16,246.44 (29.4% of the $55,260 budget increase). This cost was not included in the TSD FY 2019-2020 Adopted Budget. As a result, staff is requesting that the Board approve a budget increase in the amount of $16,246.44 to cover this expense.

Please contact me at 805-658-4621 or email marknorris@vrsd.com if you have any questions or need additional information.

Fiscal Impact

Approval of appropriations recommended would reduce existing cash balance.

Recommendation

It is recommended that the Board:

A. Approve a supplemental appropriation of $16,246.44; and

B. Direct staff to increase the TSD FY18-19 Adopted Budget for JPA CIP appropriations by same amount.

REVIEWED AND APPROVED: _____
Mark Norris, General Manager

Attachment: Item 6B from April 29, 2019, JPA Board Meeting

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April 29, 2019 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

Subject : Tapia SCADA System Upgrade Project: Approval of Scope Change

SUMMARY:

On October 23, 2018, the LVMWD Board accepted a proposal from Wunderlich-Malec and authorized the Administering Agent/General Manager to execute a professional services agreement, in the amount of $79,700, to document existing field conditions and compile all available records to develop a comprehensive summary of the existing SCADA infrastructure at Tapia. The data is required as a baseline to develop an RFP for contractual services to assist the District in implementing the Tapia SCADA System Upgrade Project.

During their initial research, Wunderlich-Malec representatives discovered that there was a significant amount of programming documentation missing from the as-built records, programming files, and piping and instrumentation diagrams (P&IDs). In addition and during the course of work, Wunderlich-Malec identified and proposed a new industrial WIFI system that would improve wireless communications at Tapia, create a backbone network for additional security cameras and reduce the number of workstations required for the project.

As a result, staff recommends approval of a scope change, in the amount of $68,660, to Wunderlich-Malec that includes field verification of activities; development of P&IDs, schematics and process descriptions; and design of an industrial WIFI network that can support important security enhancements at Tapia. An additional appropriation, in the amount of $55,260, is required to complete the work.

RECOMMENDATION(S):

Approve an additional appropriation, in the amount of $55,260, and authorize the Administering Agent/General Manager to execute a change of scope, in the amount of $68,660, to Wunderlich-Malec for providing additional services for the Tapia SCADA System Upgrade Project.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

Funding is available in the adopted Fiscal Year 2018-19 JPA Budget under CIP Job No. 10520, in the amount of $93,100. An additional appropriation, in the amount of $55,260, is required to complete the work. The cost of the project is allocated 70.6% to LVWMD and 29.4% to Triunfo Sanitation District.

DISCUSSION:

The JPA uses a Supervisory Control and Data Acquisition (SCADA) system for its wastewater treatment and recycled water facilities. The SCADA system provides automation of processes, alarm protocols, data collection for analysis and reporting, and remote control and monitoring of processes and equipment. The SCADA network includes field instruments, programmable logic controllers (PLCs), a communication network and a human machine interface (HMI).

Most of the PLCs installed at the Tapia Water Reclamation Facility are obsolete and no longer available or supported by the manufacturer. The JPA's current HMI is also obsolete and cumbersome due to its age and modifications that have been made over time. Many expansions, modifications and capital improvements have been made at Tapia over its 53 years of service, and there is limited documentation of the existing SCADA infrastructure. Programming adjustments have been made or modified through phased plant expansions over the life of the Tapia Water Reclamation Facility.

In addition to modifications performed through planned capital improvement projects, programming changes due to operational needs were often made by in-house staff or through outside consultants. Many of these changes lack historical documentation and are not reflected in system records. A comprehensive as-built network schematic of the field inputs and outputs, hardware, HMI, software and communication protocols is not available. Documenting the existing SCADA infrastructure is necessary as part of the RFP development process to enable interested firms to have an equal understanding of the project scope and to support a fair and competitive bidding environment.

The purpose and intent of the original proposal from Wunderlich-Malec was to provide professional services to assist the JPA in developing as-built documentation of the SCADA infrastructure at the Tapia Water Reclamation Facility and to provide scope and bidding documents to solicit bids for the Tapia SCADA System Upgrade Project. During this process, it was discovered that there was significant missing documentation that must be produced for future bidding of the project. As such, Wunderlich-Malec provided a proposal for a scope of change that would address the following additional activities:

- Field verification of inputs and outputs for P&ID creation.
    - Verifying instruments and naming for creation of P&ID documents.

- Developing P&IDs
    - Creating all missing P&IDs for each process.

- Developing process descriptions for each plant process to coincide with P&IDs.
    - Meeting with operators to provide written descriptions of each plant process to coincide with P&IDs and clearly delineate control philosophy.