

AGENDA ITEM SUMMARY

Meeting Date:	JUNE 5, 2019
Agenda Category:	NEW BUSINESS
Agenda Item Number:	11 B
Subject:	REALLOCATION OF FUNDS FOR THE BIO-SOLIDS TREATMENT PRELIMINARY DESIGN (WASTEWATER TREATMENT DEPARTMENT)
Attachments:	Memorandum; proposal
Staff Contact:	Wastewater Treatment Director Elmore
Background:	Because the SCADA Phase II project is behind schedule and cannot be completed by the end of this fiscal year, the Wastewater Treatment Department is requesting authorization to reallocate funds from SCADA Phase II to the Bio-Solids Treatment Preliminary Design. The design phase of this project will include, but not be limited to, gathering information, reviewing existing equipment, and developing 30-percent completion level drawings. Tetra Tech has submitted a proposal in the amount of \$78,221.00.
Reference:	FY 2019 Wastewater Treatment Budget
Suggested Action:	Authorize the reallocation of funds from SCADA Phase II to the Bio-Solids Treatment Preliminary Design and to approve the proposal from Tetra Tech in the amount of \$78,221.00

MEMORANDUM

TO: Dr. Brenda Fettrow, City Manager

FROM: Jim Elmore, WWT Director *Jim*

DATE: May 29, 2019

SUBJECT: Reallocation of funds for the Bio-solids Treatment Preliminary Design

*approved to
go to Council.
Dr. Fettrow
5/29/2019*

The Wastewater Department is requesting the reallocation of funds from the SCADA Phase II (400-0037-535.6403) to fund the following project:

The purpose of this preliminary design is to gather information and review existing equipment, O&M manuals and mechanical design calculation, civil and structural designs, perform electrical system design and develop 30% completion level drawings.

The Preliminary design will also include Topographical surveys of the portion of the treatment facility where the bio-solids improvements will be constructed and conduct a topographic survey in Local State Plane Coordinates system that meet the requirements set forth in the Florida Statutes and the Florida Administrative Code.

I have attached a proposal from Tetra Tech in the amount of \$78,221.00 to begin this task under the Master Professional Service Agreement signed on January 18, 2017.

The SCADA Phase II project is behind schedule and cannot be completed by the end of this fiscal year. We will complete the SCADA project in the next fiscal year.

Submitted for Councils approval.



March 29, 2019

Mr. Brian Smith
Assistant Director Wastewater
City of Rockledge
Wastewater Treatment and Water Reclamation
1700 Jack Oates Blvd.
Rockledge, FL 32955

Subject: City of Rockledge – WRF Class B Biosolids Treatment Preliminary Design

Dear Mr. Smith:

Tetra Tech (Tt) is pleased to submit this Task Authorization No. 18-08 under the master professional services agreement signed on January 18, 2017 for the WRF Class B Biosolids Treatment Preliminary Design for the City of Rockledge (City).

A. PROJECT DESCRIPTION

The City is interested in expanding its wastewater residuals disposal options by improving the WWTP's residuals handling and treatment systems to reliably produce Class B biosolids. In October 2018, the City authorized Tt to initiate Biosolids Treatment Evaluation to perform an alternatives evaluation of treatment processes to produce Class B biosolids. Tt issued final Biosolids Study report in February 2019. This report presents and compared estimates of capital costs associated with implementation of three (3) potential Class B sludge treatment process alternatives. Alternative A - Aerobic/Anoxic Digestion was the least expensive alternative from capital cost basis. Since then, the City has requested Tt prepare this proposal for the next phase to include the preliminary design including field services (surveying) for the Class B biosolids improvements.

B. SCOPE OF SERVICES

The scope of work herein generally includes preliminary design of a new sludge thickening facility (near the existing digesters), a new aerobic/anoxic digester, repairs to the existing digesters, and new blowers to be housed in the existing blower building.

To provide logical, orderly completion of this assignment, the scope has been broken down into two (2) distinct tasks. Services to be completed in each task are further described herein. Certain assumptions have been made in preparing this Scope of Services. To the extent possible, these assumptions are stated, and reflected in the project budget attached to this Scope of Services.

Task 1 – Preliminary Design

The purpose of the preliminary design is to gather information, develop, evaluate, & present the basis of design, and configuration of the proposed sludge handling system improvements. This phase will also present a budgetary cost estimate to assist the City in planning future expenditures. Tasks to be completed in this phase are described below:

- Prepare for and attend a project kick-off meeting with the project team and the City staff to establish lines of communication, contract requirements, and schedule. Tetra Tech will be responsible for recording and preparing meeting summary for distribution.
- Collect and review existing MORs & other operating data, O&M manuals, record drawings, and other data that is available.
- Perform preliminary process/mechanical design calculations of the major components of the project, including thickening structure (open-sided metal building), thickened sludge pumps, replacement of existing blowers with 4 new blowers, new digester including concrete tank, mixers, & aeration system, improvements to the existing digesters, and associated yard piping.
- Perform civil & structural preliminary design for the improvements. Incorporate existing digesters structural inspection recommended repairs in the preliminary design document.
- Perform electrical and I&C system preliminary design. A new pre-cast concrete electrical building (near the digesters and thickening building) is anticipated to house electrical and I&C components including VFDs, MCs, and control panel.
- The facility will be controlled by the existing SCADA control room or from the new electrical building.
- Perform HVAC preliminary design for the new electrical room.
- Develop 30% completion level drawings illustrating the preliminary site plan, P&IDs, and process drawings for the new thickening and digestion facilities.
- Prepare a preliminary Engineer's opinion of probable construction cost.
- Prepare a preliminary design report presenting the basis of design, configuration of the proposed facilities, and Engineer's opinion of the probable construction cost. Three (3) hard copies and one (1) electronic in PDF format of the report will be provided for review.
- Meet with the City staff to discuss the draft preliminary design report and receive City's comments.
- Finalize the draft report pursuant to City's comments. Three (3) hard copies and one (1) electronic copy in PDF format will be provided of the final report.

Task 2 – Field Services

The following surveying services will be provided in the preliminary design phase:

1. **Topographical Survey** – Tetra Tech will provide the following surveying services:
 - a. Survey the portion of the WRF site where improvements are shown in the Biosolids Study (February 2019).
 - b. Conduct a topographic survey in local State Plane Coordinates system (NAD 1983(86)) that meets the requirements of Chapter 472, Florida Statutes, and Chapter 5J-17, Florida Administrative Code, and shall provide sufficiently detailed information to meet the design requirements of this project

C. ASSUMPTIONS

- Services not specifically included in this scope:
 - Final Design, Sub-surface Utility Locates, Geotechnical Investigations, Permitting, Bidding, Construction Administration or any other services.

D. COMPENSATION

The total lump sum compensation for the scope of services described above is summarized below. Attachment A presents a detailed breakdown of the estimated compensation.

Task	Fee
Task 1 – Preliminary Design	\$64,777
Task 2 – Topographical Surveying	\$13,445
Total Fee	\$78,221

E. SCHEDULE

The project schedule below is a preliminary estimate of the number of months anticipated for this preliminary design phase. Factors that may affect the schedule include delays in receiving information from others or in obtaining authorizations and review comments.

Task	Months
Tasks 1 to 2	5 months



Mr. Brian Smith
City of Rockledge
March 29, 2019
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If you should have any questions, please do not hesitate to contact us.

Very truly yours,

Tetra Tech

A handwritten signature in blue ink, appearing to read 'Jon D. Fox', written over the printed name and title.

Jon D. Fox, P.E.
Vice President

Attachments

JDF/ab/Rockledge/Biosolids_Study/Preliminary Design/Scope

C: Rasesh R. Shah, P.E., Tetra Tech

