

## AGENDA ITEM SUMMARY

<b>Meeting Date:</b>	OCTOBER 17, 2018
<b>Agenda Category:</b>	CONSENT BUSINESS
<b>Agenda Item Number:</b>	10 B
<b>Subject:</b>	EVALUATION OF BIOSOLIDS TREATMENT PROCESS (WASTEWATER TREATMENT DEPARTMENT)

<b>Attachments:</b>	Memorandum; proposal from Tetra Tech
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<b>Staff Contact:</b>	Wastewater Treatment Director Elmore
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<b>Background:</b>	In an effort to advance sound and fiscally responsible environmental practices, the Wastewater Treatment Department is requesting authorization to evaluate the City's aging biosolids treatment process. A proposal in the amount of \$48,000.00 has been submitted by Tetra Tech, the City's primary continuing services engineer.
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<b>Reference:</b>	Wastewater Treatment Department Budget
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<b>Suggested Action:</b>	Approve the proposal from Tetra Tech in the amount of \$48,000.00 for the evaluation of the biosolids treatment process
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## MEMORANDUM

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**TO:** Dr. Brenda Fettrow, City Manager  
**FROM:** Brian R. Smith, Asst. Director WWT  
**DATE:** October 5, 2018  
**SUBJECT:** Biosolids Study

*BRS*  
*approved to go to Council Dr. Fettrow 10/5/2018*

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As a part of the Wastewater Treatment Departments continuing commitment to advance sound and fiscally responsible environmental practices, the Wastewater Treatment Department would like to conduct an evaluation of the City's aging biosolids treatment process. This evaluation would look at the age of the present digester tanks and viability to continue with their function, and look at at least two (2) systems to produce a Class B biosolid byproduct.

I am recommending that we proceed with the proposed Biosolids Evaluation by our contracted engineering firm, Tetra Tech, at a cost of \$48,000 allocated from account No. 400-0035-535.3111.

Submitted for council approval.



March 9, 2018

Mr. James Elmore, Director  
Wastewater Treatment &  
Water Reclamation Facility  
City of Rockledge  
1700 Jack Oates Blvd.  
Rockledge, FL 32955

**Subject: City of Rockledge – WRF Class B Biosolids Treatment Evaluation  
Purchase Order No. – To Be Determined**

**Tt # 200BP Rockledge**

Dear Mr. Elmore:

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 Evaluation for the City of Rockledge (City) to consistently & reliably produce Class B biosolids.

#### **A. PROJECT DESCRIPTION**

The City owns and operates a wastewater collection system that serves customers connected to the City's wastewater reclamation facility (WRF). The City's WRF is not producing Class B sludge and currently hauling dewatering sludge to landfill(s) for disposal. The City is interested in expanding the sludge disposal options beyond landfilling by consistently and reliably producing Class B biosolids. Class B biosolids could potentially open up other disposal options for the biosolids disposal if landfilling is not available due to reasons beyond City's control. The City requests Tt to perform a 30-year present worth cost evaluation of the following two (2) alternative wastewater Class B biosolids treatment systems:

1. Add necessary biological unit processes on the WRF site and
2. A packaged system that requires a significantly lower footprint.

#### **B. SCOPE OF WORK**

1. **Kick-off Meeting:** Tt will prepare for and attend a kick-off meeting with City staff to discuss the project design criteria, points of contact, schedule, and data needs. Tt will prepare the agenda and summary of the kick-off meeting for distribution. The kick-off meeting is proposed to be combined with the site visit of a local installation of a vendor supplied system.
2. **Data Collection and Review:** Tt will develop and submit a data request outlining the data needs for the study. Tt will collect, assemble, review, and analyze available data. In areas where data are missing or otherwise unavailable, Tt will work with the City to develop reasonable estimates and assumptions for the study.
3. **Field Work:** None. Tt will use aerial images as a background to show proposed improvements.
4. **Conceptual Design of up to two (2) Alternative Class B Biosolids Treatment Systems:** Using the data, project design criteria, and EPA's biosolids guidelines, Tt will conceptually design (plan view

layout only) two (2) alternative biosolids treatment systems to consistently produce Class B solids for land application. Tt will use the conceptual layouts to develop preliminary quantities for performing a cost comparison for the 30-year present worth cost evaluation of each system. Lowest cost would be the most cost effective system from a capital and O&M standpoint. Tt will also develop a "non-cost factors" matrix, which may affect Tt's overall recommendation for the alternative systems. *TESTING METHODS? DETENTION TIMES?*

5. **Draft Technical Memorandum (TM):** Tt will prepare a draft TM summarizing the analysis and conclusions of Tasks 1 through 4 and provide three (3) hard copies and one (1) electronic copy of the draft report for the City review.
6. **Meetings:** Tt will meet with the City to discuss and review City comments on the TM. Tt has also budgeted another meeting to discuss the TM findings with other City departments as needed.
7. **Final TM:** Tt will incorporate the City's review comments on the draft TM and provide five (5) hard copies and one (1) electronic copy of the final TM to the City.

**C. SCHEDULE**

Work will commence upon receipt of the City's notice-to-proceed (NTP). A tentative schedule for major milestones in the project is presented below:

Activity	Months from NTP
Data Collection & Field Work	1
Conceptual Design of Alternative Systems	2
Draft TM	3
Draft TM Review Meeting	3.5
Final TM	4

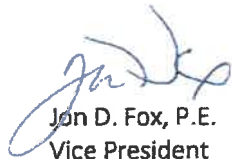
**D. COMPENSATION**

The total Lump Sum cost for all services described above will not exceed **\$48,000** as summarized in Attachment A.

If you should have any questions, please do not hesitate to contact us.

Very truly yours,

**Tetra Tech**



Jon D. Fox, P.E.  
 Vice President

JDF/ab/Rockledge/Master\_Planning/Septic Conversion Study/Scope

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

# Price Proposal

## Biosolids Evaluation

Submitted to: City of Rockledge (Attn: Mr. James Elmore)

Contract Type: Lump Sum

### Labor Plan

6 Resource

Task Pricing Totals	48,000
Specify Add'l Fees on Setup	0
Technology Use Fee	
<b>Total Price</b>	<b>48,000</b>

### Pricing by Resource

Project Phases / Tasks	Total Labor Hrs	Resource						Labor	ODCs	Task Pricing Totals
		Operations Manager	Project Manager	Sr. Process Engineer	Process Engineer	GIS Specialist	Admin			
Kick-off Meeting	18									
Data Collection and Review	14									
Conceptual Designs - 2 Alt. Class B Sludge Treatment System	192									
Biological Sludge Treatment	110									
Vendor provided package system	32									
Present worth evaluation	34									
Non-cost factors evaluation	16									
Draft Technical Memorandum (TM)	118									
Meetings (2)	23									
Final TM	29									
<b>Totals</b>	<b>394</b>	<b>5</b>	<b>43</b>	<b>88</b>	<b>174</b>	<b>52</b>	<b>32</b>	<b>46,922</b>	<b>1,078</b>	<b>48,000</b>