Workshop
11/20/12
5:00 P.M.

EXHIBIT A

TASK AUTHORIZATION No. 12-01

FOR

2012 PORT ST. JOE DISTRIBUTION SYSTEM PROFILE AND PILOT STUDY

This Exhibit shall be incorporated in and become part of the Agreement for Professional Services between Preble Rish, Inc. (PRI), and CDM Smith Inc. (CONTRACTOR), dated _____ hereafter referred to as the Agreement.

PROJECT BACKGROUND

The City of Port St. Joe (City) began reporting complaints of discolored water in portions of its distribution system in September 2009, shortly after its new 6 million gallons per day Surface Water Treatment Plant (Plant) began delivering water to the distribution system.

The Plant treats surface water from the Chipola River with ferric flocculent in solids contact clarifiers followed by microfiltration. Sodium hydroxide is used to adjust pH, and a phosphate based corrosion control product is added after disinfection. The Plant can use free chlorine or chloramines as a disinfectant, but only free chlorine has been used since it went on line.

The City has attempted several measures to address the discolored water complaints, including changing the dose and composition of the corrosion control product, intermittent flushing (both unidirectional and spot flushing), installation of autoflushing devices, and replacement of selected galvanized and cast iron pipe portions of the distribution system. To date, these measures have been unsatisfactory.

The City has requested that a systematic sampling and study program be undertaken to identify and provide long-term solutions to the discolored water problem.

This scope of work is in response to that request.

SCOPE OF WORK

The following is a description of the services to be provided under this Task Authorization.

TASK 1 - GAP ANALYSIS

The CONTRACTOR will collect additional available data about the City's water distribution system, document City priorities for implementation of solutions, prepare a System Data Base Map for recording data (water age, pipe information, water quality, complaint information), and prepare for the next task, Profile Testing.

Subtask 1.1 - Kick off Meeting and Data Gathering

The CONTRACTOR will meet with the City staff to begin this phase. The kickoff meeting will address the following issues:

- Recap of history of red water issue from City's perspective
- Discussion of specific issues to be addressed, so the City's concerns are documented
- Review additional existing or historical distribution system data to be collected and used in the profile and pilot studies, including:
    - Iron level water quality data leaving the plant and in the distribution system
    - Chlorine residual data collected by the City
    - Temperature data collected by the City
    - pH data collected by the City
    - Phosphate type, blend and data at the plant and in the distribution system
    - locations of suitable (i.e., stainless steel or PVC) sample ports in the distribution system
    - Information about the discolored water complaints (time, date, location, etc.)
    - Other available and relevant data and information
- Propose and discuss a testing protocol for the City's collection of data in response to distribution system complaints, including the collection of analytical data
- Planning Profile Sampling, including staffing requirements
- Discussion with the City of options, implications and priorities for red water management
- Discussion of potential pilot study alternatives
- Discussion of and planning for pipe coupon harvesting and preparation (by City)

Subtask 1.2 - Base Map Preparation

The CONTRACTOR will assist Preble Rish in preparation of a base map showing pipe material (and service type material if available), complaint locations, water age, and sampling location data including chlorine residual, iron level, phosphate residual and other water quality data. The CONTRACTOR will provide guidance via an email and follow up conference call to tell Preble Rish what the base map must contain and agree on format.

Subtask 1.3 - Summary Memorandum

The CONTRACTOR will prepare a Summary Memorandum that summarizes the information collected and decisions reached at the end of the Gap Analysis task. CONTRACTOR will submit copies of the Memorandum to Preble Rish for review.

TASK 2 - PROFILE TESTING AND REPORT

Task 2 may be revised or refined depending on the results of the Task 1 Gap Analysis.

The CONTRACTOR will assist in planning and training City staff in profile testing. The CONTRACTOR will provide a sample protocol (with suggested sample locations) and sample collection containers for the City to use in sample collection and assist in pipe conditioning set up.

Subtask 2.1 - Profile Testing Protocol and Draft Schedule

The CONTRACTOR will provide a written sample protocol (with recommended sample locations) and work with the City to produce a draft schedule for profile sampling. The CONTACTOR will work with the City to select between 5 and 10 total prioritized premises and (where appropriate and if suitable sample taps exist) distribution locations to sample. The City will contact appropriate parties to request access at an acceptable time for sampling. An acceptable time will be such that the water resides in the premises to be sampled for a minimum of 6 and up to 8 hours, and such that no other water will be used in the premises while sampling is being conducted. A total of 5 to 10 premises and/or distribution system (only to be used if adequate sample taps are available) sample sites will be required. The City will be responsible for notifying owners regarding the sampling and procedures. It is anticipated that each sampling location will be sampled one time.

Subtask 2.2 - Profile Sampling and Testing

The CONTRACTOR will participate with the City in at least one sample set for training purposes. All analytical equipment for field sampling will be provided by the City. Field analytical work will include the following:

- Chlorine (mg/L free chlorine)
- pH (Standard Units)
- Dissolved Oxygen (mg/L)
- Orthophosphate (mg/L as PO4)
- Information about the premise plumbing
  - Service line material
  - Information about any treatment system in the premise
  - Type and material of premise plumbing
  - Any information or complaints from the premise users

The City will perform all sampling (the initial sampling eventwill be done in conjunction with the CONTRACTOR). The City will perform all testing in accordance with the testing protocol. The City will prepare and ship the samples to the CONTRACTOR's designated laboratory. It is anticipated that the CONTRACTOR anticipates performing the following analysis, but parameters may change based on initial results of investigation:

- Iron (total and dissolved)
- Copper (select sites)

- Lead (select sites)
- Chloride
- Hardness (mg/L $CaCO_3$)
- Alkalinity (mg/L $CaCO_3$) (Total and P)
- Sulfate
- Sodium
- Calcium
- Magnesium
- Aluminum
- Silicon
- Phosphorus
- Arsenic
- Cadmium
- Potassium
- Cobalt
- Vanadium
- Corrosive Bacterial Analysis.

Subtask 2.3 - Profile Sampling and Testing Report

The profile sampling report will provide a summary of findings, including observed sources of discoloration; potential interim changes with potential consequences; and recommendations for pilot testing. Preble Rish will incorporate the profile test data into the data map on a schedule so that the report will contain the updated data map as appropriate. If appropriate, the profile sampling test report may make interim recommendations for process or distribution system operation changes.

Subtask 2.4 - Harvesting and Conditioning of Coupons

On the same visit the CONTRACTOR makes to provide the profile sampling training, the CONTRACTOR will assist Preble Rish and the City in setting up the conditioning the coupons using Plant water. When this Task Order is authorized, the CONTRACTOR will provide written instructions to Preble Rish on pipe coupon harvesting, and it is understood by the CONTRACTOR that all required coupons will have been harvested and properly stored prior to the first Profile Sampling visit. It is the responsibility of Preble Rish to coordinate with City to harvest the required coupons from the distribution system per the

instructions provided by the CONTRACTOR. Preble Rish will provide or locally purchase miscellaneous equipment required for pipe conditioning, at the CONTRACTOR's direction. Pipe conditioning will consist of 90 days of low flow conditioning of the pipe loop with Finished Treatment Plant water.

TASK 3 - PILOT TESTING AND REPORT

Subtask 3.1 - Pilot Testing

Task 3 may be revised or refined depending on the results of Task 2.

In this task the CONTRACTOR will test potential alternatives and determine recommended alternatives for addressing discolored water utilizing the harvested pipe coupons conditioned previously. Based on current information about colored water complaints, it is anticipated that the Pilot testing will be performed off site with finished water from the Plant shipped by Preble Rish per instruction from the CONTRACTOR. **This may be subject to change depending on the results of Tasks 1 and 2.**

The CONTRACTOR will perform 12 weeks of pilot testing on up to four water chemistries; up to three proposed alternatives and one control.

At this time it is anticipated that the following three alternatives plus a control condition may be pilot tested, but the results of the profile testing may call for the testing of different alternatives. Changes to the proposed alternatives will be made with the concurrence of the City.

- Change 1 in pH and Ortho/Poly phosphate blend
- Change 2 on pH and Ortho/Poly phosphate blend
- Addition of lime, carbon dioxide and phosphate based corrosion control chemical addition

Prior to pilot testing the CONTRACTOR will provide to PRI a test protocol and schedule.

Subtask 3.2 - Pilot Testing Report

The CONTRACTOR will submit a draft Pilot Test Report (Report) to PRI. The Report will summarize the results of the pilot testing, provide conclusions, and make recommendations for the various alternatives. The recommendations will provide potential pros and cons for each solution, along with a conceptual cost of capital and operation for implementation.

The final Report will incorporate recommendations for plant and distribution system operation with the recommended alternative, should the recommended alternative be a change in current process.

Subtask 3.3 - Additional Pilot Testing (Optional Task: Not part of this task authorization)

Should results after 12 weeks of testing prove inadequate to make recommendations, the CONTRACTOR may recommend additional testing, the extent of which will be determined at that time.

TASK 4 - MEETINGS, PROJECT MANAGEMENT AND QUALITY CONTROL

Activities performed under this task consist of those general functions required to maintain the project on schedule, within budget, and that the quality of the work products defined within this scope is consistent with CONTRACTOR's standards and PRI's expectations.

Activity	Duration	From/To	Cumulative Duration
Profile Testing Report Review	1 Week	Delivery of Draft Report to PRI/Receipt of Comments to CDM Smith	11 Weeks
Development of Pilot Testing Protocol	3 Weeks	Receipt of Comments to CDM Smith/Delivery of Protocol to PRI	14 Weeks
Review of Pilot Testing Protocol	1 Week	Delivery of Protocol to PRI/Receipt of Comments to CDM Smith	15 Weeks
Final Pipe Conditioning	1 Week	Week 11 of pipe coupon conditioning; coincides with receipt of Pilot Testing Protocol Comments/Final Pipe Conditioning	16 Weeks
Pilot Testing and Draft Report Testing Development	16 Weeks	Start of Pilot Test/Delivery of Draft Report	32 Weeks
Review of Pilot Test Report	1 Week	Delivery of Pilot Test Report to PRI/Receipt of Comments by CDM Smith	33 Weeks
Incorporation of Comments and Delivery of final report	2 Weeks	Receipt of Comments by CDM Smith/Incorporation of Comments and Delivery of final report	35 Weeks

ASSUMPTIONS

The following are assumptions this scope of work is based on:

City will provide all relevant information related to treatment plant operations and distribution system complaint data.

This scope of work is developed assuming that iron corrosion from galvanized and unlined iron pipes is the cause of the discolored water problems. The analysis to be performed is to confirm these assumptions and assist in determining proposed solutions. Should analysis indicate that there are other causes of the discolored water, a change in scope and compensation may be required.

DELIVERABLES

The CONTRACTOR will provide the following deliverables to PRI:

1. Gap Analysis Summary Memorandum (draft and final) in PDF® format via email (Subtask 1.3)
2. Profile Testing Protocol and Draft Schedule in PDF® format via e-mail (Subtask 2.1)
3. Profile Sampling and Testing Report (draft and final) in PDF® format via email (Subtask 2.3)
4. Coupon Harvesting Protocol in PDF® format via email (Subtask 2.4)
5. Pilot Test Protocol and Schedule in PDF® format via email (Subtask 3.1)
6. Pilot Test Report (draft and final) in PDF® format via email, with three final hard copies (Subtask 3.2)

TIME OF COMPLETION/SCHEDULE

The CONTRACTOR will complete the above tasks within a 9-month timeframe, given the assumptions below. Timeliness of deliverables and the ability to meet the overall project schedule will be contingent on responsiveness of the project stakeholders in providing the required data and review of deliverables. The CONTRACTOR will keep track of schedule on a monthly basis and notify the PRI if slippage occurs. If schedule slippage occurs due to issues beyond the CONTRACTOR's control, an adjustment to the contract amount may be required, as outside contractors will have costs during various phases that continue.

The anticipated schedule is provided below.

Activity	Duration	From/To	Cumulative Duration
Draft Gap Analysis Memo	2 Weeks*	Kickoff Meeting/Draft Memo	2 Weeks
Gap Analysis Memo Review	1 Week	Delivery of Draft Memo to PRI/Receipt of Comments by CDM Smith	3 Weeks
Profile Testing (by City)	3 Weeks	Review of Comments by CDM Smith/Final Profile Sampling	6 Weeks
Coupon Harvesting (City)	*1 Week*	*(Proceeds concurrently with Profile Testing)*	NA
Draft Profile Testing Report	4 Weeks	Final Profile Sampling/Draft Report Delivery	10 Weeks

The CONTRACTOR will utilize an outside professional for analytical and off site pilot testing work.

City will provide historical and current data and information related to the water treatment plant, distribution system, including maps, and any other information deemed valuable for this project.

The City will maintain the same current operations at the Plant during the profile sampling to make sure the sample results are representative of current operations and water quality conditions.

City will provide all labor for profile sampling, except for initial sample where CONTRACTOR will accompany the City Staff for training purposes. Analytical work related to field sampling such as chlorine and phosphate residual, pH, premise plumbing information, and other relevant information will be collected by the City.

Pipe conditioning will be performed at the plant and will run for 12 weeks.

Based on the latest descriptions of discolored water episodes, the pilot test will be performed off-site and will run for a total of 12 weeks. The pilot will run for 6 weeks and then an intermediate reassessment will be performed. Alternatives may be adjusted or changed at this point.

Preble Rish will be responsible for obtaining and shipping water on a weekly basis to the test site using a shipping account provided by CDM Smith. Water from the plant must be finished water before and after the application of phosphate.

The City will provide labor as described above for conditioning and will cooperate with the CONTRACTOR during conditioning.

Preble Rish will be responsible to coordinate with the City to harvest and preserve coupons as required for pilot testing per CONTRACTOR's instructions.

The City will provide water, space and electricity as required for pipe conditioning, including weekly maintenance checks.

The City will provide access to the conditioning assembly as required by the CONTRACTOR

The coupon conditioning can be started at the time indicated in the schedule above. If this is delayed, it will impact the schedule.

Timely reviews of deliverables will be provided.

The CONTRACTOR may move task order amounts between Direct Costs and Outside Professionals as deed necessary by the CONTRACTOR.

An extension of schedule for the pilot study testing into Phase 2 may require an increase in the task authorization amount to compensate for additional analytical and outside professional expense.

COMPENSATION AND PAYMENT

For the services performed under this Task Authorization, the PRI agrees to pay the CONTRACTOR the lump sum fee of $60,000. Partial payments to be made on a monthly basis in proportion to the percentage of work completed. For invoice purposes only the value of each task is as shown in **Table 1: Task Value**. CONTRACTOR will submit monthly written status reports to accompany each invoice. Attachment 1 "Cost Breakdown for Exhibit A" provides additional detail.

Table 1: Task Value

Task No.	Task Description	Task Amount
1	Gap Analysis	$2,000
2	Profile Testing and Report	$12,000
3	Pilot Testing and Report	$45,000
4	Meetings, Project Management and Quality Control	$1000
	Total	$60,000

CDM Smith, as an accommodation to the City and Preble Rish, without admitting any liability and in the interest of working with the City and Preble Rish to identify the cause of and to develop a solution to the City's red water issues has not included any costs for its labor in the performance of its services under this Agreement.