

RESOLUTION 20-07

A RESOLUTION OF THE CITY OF PANAMA CITY BEACH, FLORIDA APPROVING TASK ORDER # 2020-01 TO THE MASTER SERVICES AGREEMENT FOR WATER UTILITY ENGINEERING SERVICES WITH DEWBERRY ENGINEERS, INC., RELATED TO RISK RESILIENCY ASSESSMENT AND EMERGENCY RESPONSE PLAN IN THE AMOUNT OF \$45,150; AUTHORIZING EXECUTION AND PROVIDING AN IMMEDIATELY EFFECTIVE DATE.

BE IT RESOLVED that the appropriate officers of the City are authorized to deliver and execute on behalf of the City that certain Task Order # 2020-01 to the Master Services Agreement for Utility Engineering Services between the City and Dewberry Engineers, Inc., relating to the Risk and Resiliency Assessment and Emergency Response Plan, in the basic amount of Forty-Five Thousand, One Hundred Fifty Dollars (\$45,150.00), in substantially the form attached and presented to the Council today, with such changes, insertions or omissions as may be approved by the City Manager, whose execution shall be conclusive evidence of such approval.

THIS RESOLUTION shall be effective immediately upon passage.

PASSED in regular session this 24th day of October, 2019.

CITY OF PANAMA CITY BEACH

By: _____

Mike Thomas, Mayor

ATTEST:



Mary Jan Bossert, City Clerk

COMBINED TASK ORDER AND
NOTICE TO PROCEED

TASK ORDER NO. GWSRU 2020-01

DATE: October __, 2019

Reference is made to that certain MASTER SERVICES AGREEMENT BETWEEN CITY OF PANAMA CITY BEACH AND DEWBERRY ENGINEERS INC. (formerly PREBLE-RISH, INC.) RELATING TO PROFESSIONAL UTILITY ENGINEERING SERVICES (General Water and Sewer and Reclaimed Utility) dated April 8, 2014, (the Agreement), the terms, conditions and definitions of which are incorporated herein as if set forth in full. Neither party is in breach of the Agreement.

Pursuant to the Agreement, Engineer agrees to perform the specific tasks set forth upon incorporated Attachment A, Scope of Services, relating to a **Risk and Resiliency Water System Assessment**.

Engineer's total compensation shall be (check one):

a stipulated sum of **\$45,150**; or
 a stipulated sum of \$ _____ plus one or more specified allowances listed below which may be authorized in writing by the City Manager or his designee,
Allowance of \$ _____ for _____, and
Allowance of \$ _____ for _____; or
 a fee determined on a time-involved basis with a maximum cost of \$ _____;

Work shall begin on October __, 2019, and shall be completed within Two hundred Forty (240) calendar days. The date of completion of all work is therefore May __, 2020. Liquidated delay damages, if any, are set at the rate of \$0 per day. There are no additional rights and obligations related to this Task Order other than as specified in the Agreement.

Upon execution of this task order by both Engineer and City, Engineer is directed to proceed.

IN WITNESS WHEREOF the parties have caused these presents to be executed in their names on the date shown.

Witness:

DEWBERRY ENGINEERS, INC.

By: _____ Date: _____
Its:

CITY OF PANAMA CITY BEACH, FL.

ATTEST:

City Clerk

By: _____ Date: _____
City Manager

WATER SYSTEM
AWWA J100 RISK AND RESILIENCE ASSESSMENT
SCOPE OF WORK

INTRODUCTION

With the advent of formal standards and best practices for assessing and managing risk and resilience at water and wastewater facilities, it is becoming more critical for utilities to begin the formal process of risk and resilience management. In October of 2018, the Federal Water Infrastructure Security Act of 2018 was signed into law, with a requirement specifically for water systems to perform risk and resilience assessments (see excerpted wording below). The City of Panama City Beach (CLIENT) has sought assistance from the Dewberry (CONSULTANT) to assess and provide recommendations on managing the risks and resilience of their water system and to comply with the new federal law.

(1) IN GENERAL

Each community water system serving a population of greater than 3,300 persons shall conduct an assessment of the risks to, and resilience of, its system. Such an assessment

(A) shall include an assessment of

(i) the risk to the system from malevolent acts and natural hazards;

(ii) the resilience of the pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer or other automated systems (including the security of such systems) which are utilized by the system;

(iii) the monitoring practices of the system;

(iv) the financial infrastructure of the system;

(v) the use, storage, or handling of various chemicals by the system; and

(vi) the operation and maintenance of the system; and

(B) may include an evaluation of capital and operational needs for risk and resilience management for the system.

Dewberry will work with City of Panama City Beach through the seven step AWWA J100 Risk and Resilience standard (J100) process using the compliant version of the Vulnerability Self-Assessment Tool (VSAT) software to organize the decisions made through the process and develop the necessary reporting. The process will be focused and completed through workshops, with each workshop covering areas of the assessment. The workshop format is critical to success and to producing valid inputs to the VSAT software.

The City of Panama City Beach resources needed to complete the assessment should be comprised primarily of utility staff, with subject matter experts available as needed for specific areas of concern such as electrical, process, management, engineering, SCADA, IT, etc. Dewberry will provide guidance on specific staff positions who should attend.

TASK 1 - INFORMATION REQUEST

Within two weeks after receiving a Notice to Proceed (NTP), Dewberry will provide a formal information request, which will generally cover the following:

- A summary of assets in the system (asset register).
- The most current record drawings, primarily focused on site layout, piping and process flow at the plant and each major facility.
- Plans and information regarding current chemicals stored and used on site, including layout, piping, storage, quantities, etc.
- Complete system maps.
- Any existing security, vulnerability, risk, or emergency preparedness/response documents, etc.
- Existing physical security related design documents and plans.
- A summary of all existing employee related and formally adopted policies/procedures/training programs, especially as they relate to security or emergency response.

TASK 2 - WORKSHOPS

The key to successful completion of a J100 based risk and resilience assessment, even using the VSAT software, is open discussion and collaborative decision making in a workshop setting. Multiple workshops are recommended to allow for adequate discussion and decision-making time.

Dewberry will begin scheduling and planning for the workshops necessary to complete the following steps of the J100 assessment, including the Kick-Off/Chartering within 30-days after the formal NTP is received.

Kick Off/Chartering Meeting

Dewberry will begin with a kick off meeting generally covering the following: Introductions, project goals, scope and schedule review, change management, communication, deliverables, quality control, workshop scheduling and critical success factors.

Workshop Number 1

Step 1 - Asset Characterization

In the first workshop, Dewberry will facilitate step one of the seven step J100 standard that includes determining the City of Panama City Beach's mission and objectives in order to develop criteria, then applying those criteria in a process that ultimately determines the most critical assets.

Not all system assets are truly critical, and this workshop will be designed to filter out and identify those truly critical assets. To be considered critical, the asset should be identified as a single point of failure at each major facility. The number of critical assets to be taken through the entire assessment process is a key element in the level of effort required for the assessment. For the assessment, this scope will cover critical assets, including at least one from each major facility (tank, PS, etc.) in the system.

Step 2 - Threat Characterization

Also in the first workshop, step two of the J100 standard will look at the range of possible threats to your assets and then identify the few specific threats to be applied to your most

critical assets for the purposes of the full risk and resilience assessment process. Using the full range of potential threats, from the J100 standard, as a starting point, Dewberry will lead the City of Panama City Beach through the process of determining the most relevant threats to carry forward. For this assessment, this scope will cover a couple of specific threats, presumed to apply to each of the critical assets from step 1.

Workshop Number 2

Step 3 - Consequence Analysis

Aligning with step three of the J100 standard, Dewberry will facilitate this analysis for the worst reasonable consequences that can be caused by the specific threats on the assets identified above. The consequence analysis estimates the results of threat scenarios using VSAT that include consideration of system damage, number of fatalities, or serious injuries, financial loss to the CLIENT, and economic losses to the community.

Step 4 - Threat Analysis

In addition, during this second workshop Dewberry will complete step four of the J100 standard, developing the framework necessary to estimate the likelihood for each of the three (3) threats from step two, the threat characterization above, to impact the critical assets. The estimation will be developed through the VSAT software.

Also during this workshop, Dewberry will develop the additional metrics, beyond threat likelihood and vulnerability, needed to assess resilience. These are duration, or the time period for a threat induced outage in days, and severity, or the amount of daily service denied in gallons per day. Factored together, these two produce a numerical value for service denial.

Each workshop necessary to complete the steps above is presumed to last no more than four (4) hours per duration, taking place during one day for each at the CLIENT's site.

Deliverables for each workshop will include notes summarizing the relevant discussion items, decisions and assessment process for each step of the plan with the relevant information incorporated into the VSAT data file.

TASK 3 - SITE VISITS and VULNERABILITY ANALYSIS

Vulnerability is one of the three variables that make up risk and resilience and is addressed in step five of the J100 standard. It is determined by looking at the number, type and effectiveness of the existing countermeasures assigned to each asset. In order to gather this information, Dewberry will lead site visits, with key representatives from the City of Panama City Beach covering the selected critical assets above, as well as the major facilities where they are located. Dewberry will document all apparent, existing vulnerabilities. Worksheets, checklists and group discussion will be used to capture and later input the relevant information available during the site visit into VSAT.

Step 5 - Vulnerability Analysis

Dewberry will summarize the countermeasures observed and documented from the site visit(s), then analyze them relative to each asset-threat pair determined above, which leads to vulnerability. This includes estimating the likelihood that, given the occurrence of the threat, the consequences documented above will occur. This will be developed through VSAT.

Cyber security may be reviewed at a high level and only as it pertains to the water utility assets specifically. A OWNER wide cyber review is not part of this assessment, however a more direct look at the water system holistically.

The number of days needed to complete all site visits is presumed to be two (2) days by Dewberry in the water system. Each of the two days of site visits is presumed to be no more than six (6) hours in length and the two days are anticipated to take place back to back. Deliverables will include notes summarizing the countermeasures and relevant vulnerabilities for each critical asset relative to the threats selected above.

TASK 4 - DRAFT RISK AND RESILIENCE ANALYSIS

Following the site visits, and outside of a formal meeting or workshop with the City of Panama City Beach, Dewberry will analyze the vulnerabilities and the effectiveness of existing countermeasures and develop the baseline or draft risk and resilience analysis through VSAT. This generally equates to step six of the J100 standard.

Step 6 - Draft Baseline Risk and Resilience Analysis

Dewberry will combine the results of the prior five steps into a draft baseline/risk and resilience analysis, through VSAT, that incorporates the values developed for the consequence analysis, the threat analysis and vulnerability analysis, relative to each asset-threat pair identified in steps 1 and 2 above. This establishes the existing level of monetary risk and resilience for each of the asset-threat pairs.

TASK 5 - DRAFT BASELINE RISK AND RESILIENCE ANALYSIS WORKSHOP (Workshop Number 3)

Dewberry will deliver the draft baseline risk and resilience analysis from VSAT, to the City of Panama City Beach at least one week prior to this workshop. After receipt of the analysis by the City, staff will review and provide comments or questions, as appropriate, for discussion during this workshop. Dewberry and the City of Panama City Beach will come to a mutually agreed upon resolution for each comment. This workshop will also provide discussion of possible risk reduction and resilience improvement methods, or proposed countermeasures, that may be incorporated into the risk and resilience management plan, improvements that either 1) mitigate/reduce consequences, 2) reduce the likelihood of damage, i.e., address asset vulnerabilities, or 3) reduce the likelihood of the threat. Taken as a group together, these improvements will be applied to the baseline analysis to come up with a level of monetary risk reduction and resilience improvement for each asset-threat pair, and therefore a proposed, reduced level of risk. This workshop is presumed to be no more than four (4) hours in length, taking place during one day at the City of Panama City Beach.

As a follow up to this workshop, with the agreed upon comment resolutions incorporated and the direction on risk reduction and resilience improvement methods established, Dewberry will update the draft baseline risk and resilience analysis and incorporate it into a draft management plan, using VSAT generated standard reports. The improvements in this plan will be grouped together and organized, along with a planning level cost to implement, then prioritized based on approximate risk reduction benefit versus cost.

Step 7 - Draft Risk and Resilience Management Plan

One electronic PDF copy of the draft management plan will be delivered to the City of Panama City Beach within 30 days following the workshop. This equates to step seven, the final step of the J100 standard.

TASK 6 - FINAL RISK AND RESILIENCE MANAGEMENT PLAN

The City of Panama City Beach will review the draft risk management plan and provide any final written comments back to Dewberry. A meeting will be scheduled to receive and discuss any comments approximately two weeks after delivery of the draft management plan and is presumed to be no more than two (2) hours in length, taking place during one day at the City of Panama City Beach's site. A final risk management plan, in PDF format, will be delivered to the City within 30 days following receipt and review of the City's comments.

SCHEDULE AND FEE

Dewberry will complete this scope of work within six (6) months of receiving the formal notice to proceed for the Risk and Resiliency Assessment and Management Plan. Completion of the updated Emergency Response Plan (ERP) will be finalized within 60 days of completing Risk and Resiliency Assessment Management Plan. Dewberry proposes the following scope of work and associated deliverable for a Lump Sum fee of **\$45,150.00**.