

## **EXHIBIT 1A**

### **ASSET MANAGEMENT PROGRAM SERVICES**

#### **1) PROJECT UNDERSTANDING**

Indian River County Department of Utility Services (IRCDUS) owns and operates both water and wastewater utility infrastructure and serves approximately 50,000 accounts. This infrastructure consists of water production facilities, water wells, potable water distribution networks, wastewater treatment facilities, wastewater collection systems, and reclaimed water distribution networks. This infrastructure is comprised of a considerable number of assets in the form of equipment, buildings, property, pipelines, manholes, supply wells, a storage well, and a variety of other components used in operating the systems. These assets require preventative and corrective maintenance with a limited service life requiring eventual replacement. In addition, the systems will expand over time as new customers connect to the system, adding additional assets to the infrastructure.

IRCDUS desires enhancements to its existing asset management practices including defining organizational goals, objectives and performance measures, improving processes and practices, and understanding staffing needs to strengthen and formalize a comprehensive asset management (AM) Program. As a result, IRCDUS has identified a need to develop an overall AM Program to manage its assets with the goal of minimizing catastrophic failures, maintaining service levels, and maximizing renewal investment decisions. The development of the Program will occur over several phases. The original Phase I scope of work was not completed as anticipated during FY 18 and \$89,777.60 remains unused from the project original budget. A Phase IA is proposed to complete the remaining Task 1 and Task 7 work during FY 19 and include a small amount of additional scope to create a process for IRCDUS to become self-sufficient with condition and risk assessment by utilizing their existing Computerized Maintenance Management System (CMMS). The Phase IA scope of work will complete the condition and risk assessment pilot and create a process for on-going condition and risk assessments which includes:

- Performing a Pilot Condition, Consequence of Failure and Risk Assessment to create a formalized SOP to support additional assessments
- Creating an ongoing Condition Assessment process within the exiting CMMS product for data collection and reporting

Detailed scope of work follows.

#### **2) SCOPE OF SERVICES**

Upon authorization to proceed from IRCDUS, the CONSULTANT will provide the following identified services.

## **Task 1 – PROJECT MANAGEMENT AND KICKOFF MEETING**

This task consists of overall management of the project including budget management, invoicing, monthly status reports, project scheduling, and coordination with IRCDUS.

- 1.1 **Project Management.** Services provided will include project staffing, budget, schedule management, monthly invoicing, status reports, quality assurance, and deliverable review over the anticipated life of this project. Project Management will be ongoing for the duration of the project.

## **Task 7 - PILOT ASSET CONDITION AND RISK ASSESSMENT**

This task consists of applying the draft Condition and Risk Assessment SOP created in task 6.6 to validate the SOP meets the needs of IRCDUS. Approximately 4 days of field physical condition assessment will be conducted at select facilities in addition to desktop evaluations to complete the inventory and calculate a risk score for each asset as well as a remaining life estimate.

- 7.1 **Asset Inventory and Supporting Data:** The CONSULTANT will use the exports from the existing maintenance management software to populate the initial inventory database and request data for review related to the consequence of failure and performance criteria established. All information including facility as built drawings will be reviewed by the assessment team leader prior to field work.
- 7.2 **Field Physical Condition Assessment:** The CONSULTANT will assemble an assessment team consisting of a mechanical, electrical, and structural engineer to visually assess assets for up to 4 days. The team will utilize the CONSULTANT's Asset Hound tablet-based data collection system to update and validate the inventory and collect the appropriate physical attributes and condition scoring.
- 7.3 **Desktop Assessment and Risk Scoring:** The CONSULTANT will hold a half day workshop directly following the field condition assessment with IRCDUS operations and maintenance staff to score the other asset failure modes, consequence of failure and redundancy as defined in the draft SOP. This will facilitate an overall risk score for each asset as well as a remaining life estimate. Planning level replacement cost estimates will be calculated by the CONSULTANT for each asset based upon the methodology established in task 6.4. Useful Life estimates based upon task 6.4 will also be applied to facilitate long term funding needs projections.
- 7.4 **Results Review Workshop and Final SOP:**  
The CONSULTANT will conduct a half day workshop to review the outcomes of the pilot, discuss lessons learned and take any comments for revisions to the draft SOP. Recommendations will be presented regarding asset replacements needed in the 5-year Capital Improvement Program (CIP), the 30-year funding needs and any enhanced maintenance program needs.

### **7.5 CMMS Data Integration, Update Process, and Reporting:**

The CONSULTANT will work with the IRCDUS existing CMMS vendor, SEMS, to effectively import the condition and risk assessment data from Phase I. The CONSULTANT will also work with SEMS to create a work order process for IRCDUS to perform ongoing condition and risk assessments through creating specific work order types for electrical, mechanical, and structural physical condition, performance condition, and consequence of failure, that can be scheduled and filled out either on paper or laptop with the data populated into SEMS for decision making. A stored procedure or view will be created in SEMS to pass the data into the Power BI reporting template that will be created as part of Task 7.3.

### **Task 7 Deliverables:**

- Materials and facilitation of the Results Review Workshop
- Excel or Access database containing pilot area inventory condition and risk calculations, including 5- year CIP needs for asset replacement and 30- year funding projections
- Final SOP for aboveground condition and risk assessment methodology
- Upload of Pilot Condition and Risk Information into SEMS
- SEMS work order process for physical condition, performance condition, consequence of failure, and useful life evaluation
- Process for reporting data from SEMS into Power BI to support CIP and Maintenance Planning

### **3) SCHEDULE**

<b>Task</b>	<b>Start Date</b>	<b>End Date</b>
<b>1 – Project Management</b>	12/1/18	2/1/19
<b>7 – Pilot Asset Condition and Risk Assessment</b>	12/1/18	2/1/19