STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
GRANT WORK PLAN

PROJECT TITLE: Florida WATER Tracker System (Water Assistance Tracking and Emergency Response)

PROJECT LOCATION: The Project will be subawarded to and managed by the Florida Rural Water Association (FRWA), 2970 Wellington Circle, Tallahassee, Florida, 32309. FRWA is a non-profit agency.

PROJECT CONTACTS:
Joni Synatschk, Program Administrator, Florida Department of Environmental Protection, (850) 245-8599.
Jamie Shakar, Environmental Administrator, Florida Department of Environmental Protection, (850) 245-8626.

PROJECT BACKGROUND: The Florida Department of Environmental Protection (DEP) is developing a replacement to the current emergency (StormTracker) and the Florida Water/Wastewater Agency Response Network (FlaWARN) Event Management Programs. The goal is to develop and implement an improved Florida's Disaster and Resource Tracking Program for drinking water and wastewater facilities. The application will include the needs of FlaWARN, Florida Rural Water Association (FRWA), components for Department of Health (DOH) and meet the American's Water Infrastructure Act (AWIA) hazardous spill notification requirements to protect water quality and public health during emergency events. The goal of this system is to assist in the detection of environmental changes and rapid recovery for systems within the counties declared in the major disaster declaration for Hurricane Michael.

Florida's WATER Tracker (Water Assistance Tracking and Emergency Response) will allow drinking water and wastewater utilities to report operational status, resource needs, and resources available following significant emergency events such as Hurricane Michael. The operational status, along with the reported needs of a utility, can be used to assess storm damage, mobilize resources, and distribute aid through FlaWARN and FRWA which will mitigate further impacts to water quality and public health. Based on operational status and resource(s) requested, a partner Utility can accept the request and supply the requesting Utility the resource(s) needed. The application would be able to graphically display with a dashboard or other options, locational information for Utilities, operational status and resources. Florida's WATER Tracker would evaluate updated information in real time and will retain this information for historical reporting.

The Florida WATER Tracker System will initially be tested within the counties that received public assistance following the Hurricane Michael Major Disaster Declaration, with the long-term goal to expand the system statewide.

Programming will include the development of a monitoring component, which leverages DEP's statewide water quality standards and rainfall/ water level stations. The monitoring phase will include surface water (78 fixed stations in streams, rivers and canals) and ground water (51 fixed stations: 26 unconfined aquifer wells, 23 confined aquifer wells, and 2 spring vents) monitoring stations developed by the DEP, incorporating additional stations into the application as the monitoring network is expanded. The

monitoring network will include flow gauging stations and will allow chemistry, discharge, and loading data to be displayed within the watershed. This information will be useful in predicting areas for potential flooding and allow the utility to develop resiliency measures. Chemistry and other field data will be used to determine illicit discharges. These components will assist in the detection of environmental changes and rapid recovery for systems within the counties declared in the major disaster declaration for Hurricane Michael.

PROJECT DESCRIPTION: Florida DEP will subaward to the Florida Rural Water Association (FRWA) to manage the development of the Florida WATER Tracker management software system. FRWA will also develop training materials for each functional area, utility operational status, resources requested needed by a utility, resources available, and various administrative levels which will provide access to assigning resources, tracking resources, updating utility status, and emergency response reporting.

LONGTERM OUTCOME: After testing of the system has been completed within the counties declared in the major disaster declaration for Hurricane Michael, the positive output will be the statewide implementation of the application for all utilities.

TASKS and DELIVERABLES:
Database Testing and Deployment

Task Description/Outcomes:
Initial work on the Florida WATER Tracker system will be to simplify and streamline the process of getting all water and wastewater facilities back to a fully operational status after any event while improving the accuracy of information, preserving historical data, and reducing the amount of manual data entry required. To accomplish this, WATER will combine the best features of the Storm Tracker and FlaWARN systems. Enhanced feature such as graphical maps showing the status of each county's water and wastewater plants and areas impacted by boil water notices will be integrated with many of the response needs for FRWA and DOH. In addition, WATER will automate the process of assigning needs to resources, which will expedite the provision of materials and services to utilities that are less than fully operational. The system will monitor the deployment of equipment, through GPS locational tracking in the system, and resources deployed that are assisting utility's needs.

FRWA will perform unit testing and regression testing for the system. When each software development sprint is code complete, the development lead will deploy the system to a Test server, where testers will perform all work described in the Sprint Statement of Work to ensure it functions as described. Any issues identified (functions or screens that do not perform as specified in the Statement of Work) are filed in a tracking system, given a status of New, and assigned to a developer. When FRWA corrects an issue, the status is changed to Ready to Test, and the tester goes back through the steps and updates the issue as fixed or re-opens it if the problem still occurs.

The system will be expanded to track sanitary system overflows, boil water notices throughout the year and send alerts to the water utilities in the event of a hazardous waste spill in their proximity. It will include a component to monitor operational water quality. The outcome of the programming of the enhanced features will tie WATER tracker to improved monitoring, and spill prevention. The system would monitor operational water quality to assure that no contaminates reach water bodies and affect water quality during an emergent event. A goal is for the system to check monitoring equipment at fixed monitoring stations to assure that water quality is tested in the event of a spill/ power outage etc.

Mobile applications will be developed so teams responsible for the post-event assessment of water and wastewater facilities can enter facility status and needs from the field. Upon completion, Florida's goal is to make the program available for other states to assist their recovery in an emergency.

The enhanced features will include connecting to the monitoring networks and dashboard visualizations such as mapping of reported spills and detected deviations to the monitored water quality. The projected cost of this software development is $588,500.00.

Deliverables/Outputs: FRWA will submit a monthly output list describing the progress of the software development by supplying the number of hours completed for that cycle and the accumulative sum of hours for the project.

Performance Standard: The DEP's Technical Grant Manager will rely on the DEP's Source and Drinking Water Program Administrator to determine if the deliverables meet the specifications in the Grant Work Plan and this task description. The Source and Drinking Water Program Administrator will inform the Department 's Technical Grant Manager when all of deliverables under this task have been reviewed and approved.

Payment Request Schedule: Subawardee may submit a payment request for cost reimbursement upon completion of the task and Department approval of all task deliverables.

PROJECT TIMELINE: The task must be completed by the corresponding task end date and all deliverables must be received by the designated due date.

Task/ Deliverable No.	Task or Deliverable Title	Task Start Date	Task End Date	Deliverable Due Date/Frequency
1	Database Deployment and Maintenance	2/1/2020	12/1/2021	Monthly

BUDGET DETAIL BY TASK:

Task No.	Budget Category	Budget Amount
1	Subawarded Services	$588,500.00
	Supplies/Other Expenses	N/A
	Equipment	N/A
	Land	N/A
	Total for Task:	**$588,500.00**
	Total for Task	**$588,500.00**

PROJECT BUDGET SUMMARY: Cost reimbursable grant funding must not exceed the category totals for the project as indicated below.

Category Totals	Grant Funding, Not to Exceed, $
Subawarded Service Total	$588,500.00
Total:	**$588,500.00**