

EXHIBIT “A” – SCOPE OF WORK

ORANGE COUNTY WATER ATLAS MAINTENANCE STATEMENT OF SERVICES 1-June 2015 – 31-May 2016

GENERAL

This document will define the scope of services to be provided by the UNIVERSITY of South Florida Water Institute’s (UNIVERSITY) Water ATLAS Program to Orange COUNTY (COUNTY). Unless the COUNTY changes the tasks listed in this statement of services, there will be no change in the cost of annual services of Sixty Five Thousand dollars (\$65,000). The Services will begin on June 1, 2015 and end on May 31, 2016.

OBJECTIVE

The primary focus of this task is to maintain the Orange COUNTY Water ATLAS (ATLAS) for a period of one year and to enhance portions of the website as desired by COUNTY staff and users of the ATLAS, reduce long-term maintenance costs by improving the back-end data management system and website application, and design new user-friendly page groups and tools. The deliverable product is for maintenance of a fully functional website for the COUNTY and community to use for a period of one year, during which time data will be updated to the ATLAS and the application will be upgraded as indicated in the Scope.

BASIC AND STANDARD LEVELS OF SERVICE

All maintenance and support efforts that will ensure the ATLAS is available and fully functioning are grouped within this task group. The level of service is for one year and is comprised of all the services required to maintain and update the ATLAS. Two tasks exist within the Task Group. The first, *Basic Level of Services*, ensures updates and maintenance of the common databases managed for ATLAS applications, and the basic functionality of the ATLAS website and toolsets. The second, *Standard Level of Services*, adds additional services that are required to ensure the unique nature of a ATLAS website, and to maintain unique datasets required for this maintenance.

TASK 1: BASIC LEVEL OF SERVICES

DATA UPDATES

Whenever possible, the ATLAS application is designed to update water quality, hydrology, and other data using automated database tools. So long as each data provider continues to support the automated data update protocols developed for the ATLAS, the UNIVERSITY will ensure that these tools continue to provide updated data for the duration of this Agreement. The UNIVERSITY will work with data providers to periodically update/edit sample site locations of existing datasets, and to allow new data to be accessible via the web interface. Data update frequency will be scheduled to match as closely as possible the update frequency of the data provider based on historical data. It is important to note that these data updates are scheduled to provide the timeliest updates but at a reduced cost to the Project. Table 1 indicates the primary datasets currently included as part of the Basic Level of Services ATLAS Project.

In addition to GIS and parametric data, the ATLAS is also designed to include numerous electronic documents and links to other websites. With limited assistance from the UNIVERSITY, the COUNTY or its designees will be responsible for maintaining the published documents and links on the ATLAS using the password-protected web-based ATLAS Content Management System

(WRAD-CMS). Also, the COUNTY will be responsible for accepting and replying to most email received via the ATLAS relative to inquiries about the contents; however, the UNIVERSITY will respond to email comments related to the technology behind the ATLAS, such as reports of bugs or error. The COUNTY may, at its discretion, share these responsibilities with staff from partner government agencies.

Table 1. Orange COUNTY Water ATLAS Data Update Datasets

Data Set	Data Type	Update Frequency
FNAI Managed Lands	GIS	Annually
Land Use / Land Cover	GIS	Annually
Roads	GIS	Annually
WBID Boundaries and Verified Impairments (EPA & DEP)	GIS	Annually
Waterbodies	GIS	Monthly
Sampling Locations	GIS	Monthly
IFAS_FAWN	Parametric	Near Real-time
LAKECO_SWWQ	Parametric	Quarterly
LAKEWATCH_SUPP	Parametric	Every 2 Months
LAKEWATCH_V	Parametric	Every 2 Months
SEMCO_MACROINV	Parametric	Varies
SEMCO_PWHYDRO	Parametric	Varies
SEMCO_PWWQ	Parametric	Quarterly
SFWMD_HYDRO	Parametric	Weekly
SFWMD_WQ	Parametric	Monthly
SJRWMD_HYDRO	Parametric	Near Real-time
SJRWMD_WQ	Parametric	Quarterly
USGS_NWIS	Parametric	Daily

Site Maintenance and Shared Web Services

All of the ATLAS Projects hosted at the UNIVERSITY share in the hardware, software, and other associated costs, such as new technology or components. The advantage of this system is reduced costs of ATLAS web-hosting for all Water ATLAS partners. This component includes:

Shared Site Software Maintenance Costs:

The UNIVERSITY will maintain all software necessary to ensure that the web interface is online and accessible to the public. Software licenses to be maintained as part of this task include: Microsoft SQL 2008 or higher, Microsoft Web Services, and .NET, ESRI, ArcIMS and ArcSDE, a web statistics software package, and other miscellaneous software.

Shared Site Hardware Maintenance Costs:

The UNIVERSITY will also provide hardware necessary to complete this task. Hardware requirements necessary to ensure that the ATLAS will be available to all users with reasonable access times and minimal downtime have been planned according to projected demands. However, these demands may change due to increased or decreased user demand and will be evaluated on a yearly basis. Currently, this task is accomplished by serving the ATLAS Web Interface from servers

located at the UNIVERSITY. However, if necessary, the UNIVERSITY reserves the right to serve the ATLAS from servers not located at the UNIVERSITY.

Water ATLAS Application Maintenance:

The UNIVERSITY is constantly in the process of improving, upgrading, and actively managing ATLAS Projects throughout the State of Florida. All of the ATLAS Projects hosted at the UNIVERSITY share in the new component development and component upgrades, as well as upgrades to web technology. This sharing of components and web technology leads to a reduced costs of ATLAS updates and program improvements for all ATLAS Partners.

Web Management and Statistics:

The UNIVERSITY will function as Web Manager for the ATLAS. The UNIVERSITY will provide web usage statistics on a quarterly basis or when requested by the COUNTY. The UNIVERSITY currently uses Google Analytics for all web usage statistics.

Software Fixes and Upgrades:

During the annual contract period, the UNIVERSITY will likely make modifications to existing functionality as part of contractual agreements with other ATLAS Project Partners. Whenever feasible, the UNIVERSITY will implement these changes to all ATLAS Projects at no additional charge to the COUNTY. The UNIVERSITY will notify the COUNTY by email when a change to the ATLAS is implemented and include the purpose and extent of the change.

Project Management:

The UNIVERSITY will provide one or more staff and faculty members listed in this Agreement who will provide planning, direction, coordination, and control necessary for the efficient and effective management of the ATLAS. Project Management services will include travel to project meetings, travel to maintain staff proficiency, and travel to present information or findings regarding the ATLAS Project at water resource-related conferences.

BASIC LEVEL OF SERVICE DELIVERABLES

- Data Management: Maintenance of all data sources listed in Table 1 for a period of one (1) year.
- Site Maintenance: One (1) year of site maintenance and web hosting, component upgrades as necessary.
- Project Management: One (1) year of faculty and senior staff management of the ATLAS Project and ATLAS components, and tools for the COUNTY.
- Final Report: The report will summarize work effort, site usage, and upgrades to the Water ATLAS.

TASK 1: BASIC LEVEL OF SERVICES COST = \$25,000 per year

BASIC LEVEL OF SERVICES TOTAL = \$100,000 FOR FOUR (4) YEAR TERM

TASK 2: STANDARD LEVEL OF SERVICES

UNIQUE DATA UPDATES

Orange COUNTY has unique water quality data that will be managed under this task. These data cannot be automatically added as is the case for STORET or USGS. The datasets found in Table 2 are also updated more frequently and normally require individual actions by senior staff and faculty. This task includes both GIS and Data Team and Faculty costs. The task also includes quality assurance checks for data and data sources, and the preparation and update of metadata.

Table 2. Unique Datasets and Update Frequency

Data Set	Data Type	Update Frequency
ORANGECO_DATA_LOGGERS	Parametric	Near Real-time
ORANGECO_STORM_RAINLEV	Parametric	Monthly
STORET_21FLORAN	Parametric	Quarterly
STORET_21FLORL	Parametric	Semi-Annually
WINTERPARK_WQ	Parametric	Semi-Annually
Municipality Boundaries	GIS	Annually
Color Aerials	GIS	When Available

Content Management, Content Management System Management, and Updates

The Standard Level of Service includes the work effort of a dedicated Content Manager who responds on a daily basis to inquiries made through the ATLAS. The Content Manager also manages the Content Management System which includes the Digital Library services and the current news and social media system. The Content Manager will also update other website content as required with information supplied by the COUNTY as a Standard Level of Service.

Product Improvement and Upgrades

The UNIVERSITY will continue the process of improving individual ATLAS Project applications and data update processes as part of a consolidated ATLAS application and data set structure. This effort will help standardize the ATLAS, improve quality control, improve navigation between current ATLAS websites, and reduce the work effort required to maintain existing ATLAS Projects. Work efforts required to accomplish this goal will be supported by individual projects as part of specific application update tasks paid by other project sponsors. Following this same approach, several of the tasks outlined in this Scope of Services will also benefit other Project Partners, including WQDMS improvements, Content Management System upgrades, homepage upgrades, upgrades to improve access by mobile device users, and updates to the mapping components. These services are funded by various Partners and eventually added to Standard ATLAS Partner websites and, when feasible, to Basic ATLAS Partner websites.

The following is a list of planned application upgrades:

- Continued improvements to the design of the ATLAS navigation to greatly improve usability based upon user testing;
- Viewing improvements for mobile device users and custom mobile pages when appropriate;
- Continued improvements to data management processes utilized to incorporate data from other providers in order to enhance quality assurance;
- Continued improvements to the mapping applications.

Project Management and Travel

A faculty or staff member is assigned as Principal Investigator (PI) to all ATLAS Projects. Three quarterly reports and one site visit, as well as full availability of the PI are provided to ensure that the ATLAS fully meets the needs of the COUNTY and citizens. This component task includes quarterly reports and invoices, and an undetermined number of called meetings for specific aspects of the ATLAS. The PI interfaces with other UNIVERSITY staff to ensure that COUNTY requirements are properly met.

STANDARD LEVEL OF SERVICE DELIVERABLES

- Data Management: Maintenance of all data sources listed in Table 2 for a period of one (1) year.
- Product Improvement and Upgrades: One (1) year of product improvements and upgrades to the unique page groups and mapping features available on the ATLAS. These services are conducted on a continuous basis and include the update of content as well as functionality for shared and unshared components.
- Project Management: One (1) year of Water ATLAS Project management to include management meetings, the answering of citizen inquiries, and assistance as required by the COUNTY to ensure optimum usage of the ATLAS.
- Maintenance: Maintenance of software and hardware necessary to host the ATLAS with reasonable access time and minimal downtime for a period of 12 months ATLAS application upgrades and fixes provided for a period of 12 months.
- Quarterly reports: Three (3) reports which summarize work effort, site usage, and upgrades submitted within 30 days of the end of the quarter.

TASK 2: STANDARD LEVEL OF SERVICES COST = \$25,000 per year

STANDARD LEVEL OF SERVICES TOTAL = \$100,000 FOR FOUR (4) YEAR TERM

TASK 3: SERVICES

WQDMS

The online water quality data management system (WQDMS) was designed to reduce staff time and simplify the tasks of providing data for distribution via the ATLAS and also updating STORET. As part of the maintenance of this system, the UNIVERSITY will assist the COUNTY with the following tasks for COUNTY and City of Orlando data:

- Assistance with the management of sampling site locations, including loading of new sampling locations into STORET, or modification of existing sample site information.
- Quarterly loading of data into Florida STORET, including troubleshooting of load errors.
- Oversight of automated processes and tools, including the data loggers, which ensure the inclusion of data on the Water ATLAS that has been chosen by COUNTY/City staff.
- General assistance with all tasks required to manage data using the water quality data management system.

WQDMS Cost: \$7,500

WEBPAGE DEVELOPMENT/MOBILE APPLICATIONS

Technology applications such as the ATLAS require updates, enhancements and reprogramming occasionally in order to continue to meet the needs of users. Each year, the COUNTY and UNIVERSITY will identify specific enhancements and updates to the ATLAS that will meet specific program needs of the COUNTY. New web pages will be developed for the water atlas each year, for the next four years; as well as other mobile-friendly projects; and/or web-based applications. The following enhancements and reprogramming efforts will be implemented in year one, during the period covered by this scope of work (June 1, 2015 – May 31, 2016).

Lake Management Web Pages: Orange COUNTY has several lakes that benefit from MSTU/MSBU taxes, which are directed to the management of each lake. The UNIVERSITY will build a Lake Management webpage displaying all of the MSTU/MSBU lakes and associated lake management projects in both list and map form. In addition, the page will educate visitors to the process of forming a new MSTU or MSBU in Orange COUNTY, provide contact information, show photos, and relevant links and documents. Throughout Orange COUNTY several civic groups have been organized into Lake Advisory Boards. The Lake Management page will list each of these Advisory Boards and provide a dedicated page showcasing each group's associated lake(s), related projects, and relevant links and documents.

Lake Management Web Pages Cost: \$3,000

Mobile-Friendly Data Mapper: The Near Real-time Data Mapper application presents data received from telemetry networks and mobile data sondes. Water quality, hydrologic, rainfall, and various weather data are amongst the types of information shown on the tool using a full page map with access to 24-hour, 7-day, and 31-day graphs for each sampled parameter. The existing Data Mapper application will be enhanced and reprogrammed to become mobile-friendly for use on tablets and mobile devices, specifically iPhones and Android devices. The application will be reengineered to be fast and easy to use on small screens with touch screen capabilities.

Mobile-Friendly Data Mapper Cost: \$4,500

TASK 3 SERVICES DELIVERABLES

- Updates and loading of new sampling locations into STORET.
- Quarterly loading of data into Florida STORET.
- Development of the new web pages and components as described above.
- Development of mobile-friendly web pages described above.

TASK 3: SERVICES COST = \$15,000 per year

SERVICES COST TOTAL = \$60,000 FOR FOUR (4) YEAR TERM

The key staff and faculty members from the UNIVERSITY that will be involved in this project include: Shawn Landry, Jan Allyn, Keith Bornhorst, Rich Hammond, and Jason Scolaro.

AGREEMENT CONTINUATION: The ATLAS Agreement may be continued by purchase order and with mutual agreement by UNIVERSITY and the COUNTY.

EXHIBIT "B" – PAYMENT SCHEDULE

SERVICE TYPE	COST PER YEAR	TERM	TOTAL
TASK 1: BASIC LEVEL	\$25,000	4 YEAR	\$100,000
TASK 2: STANDARD LEVEL	\$25,000	4 YEAR	\$100,000
TASK 3: SERVICES	\$15,000	4 YEAR	\$60,000
TOTAL FOR 4 YEAR AGREEMENT			\$260,000