

**SEMINOLE COUNTY GOVERNMENT
AGENDA MEMORANDUM**

SUBJECT: Work Order #8 for the Agreement between Seminole County and the University of South Florida for Work on the Seminole County Watershed Atlas Project

DEPARTMENT: Public Works **DIVISION:** Roads - Stormwater

AUTHORIZED BY: W. Gary Johnson **CONTACT:** Mark E. Flomerfelt **EXT.** 5709
W. Gary Johnson, P.E. Mark E. Flomerfelt, P.E., Manager
Director, Public Works Dept. Roads - Stormwater

Agenda Date 12/14/04 Regular Consent Work Session Briefing
Public Hearing – 1:30 Public Hearing – 7:00

MOTION/RECOMMENDATION:

Approve and authorize Chairman to execute Work Order #8 for the Agreement between Seminole County and the University of South Florida for Work on the Seminole County Watershed Atlas Project.

COUNTYWIDE – (Mark E. Flomerfelt, P.E.)

BACKGROUND:

The Seminole County Watershed Atlas is available on the World Wide Web at <http://www.seminole.wateratlas.usf.edu> and is regarded as the pre-eminent water resource Web site in the state. It has earned praise from citizens, businesses (real estate, engineering firms, etc.), environmental groups (Friends of Lake Jesup, Friends of Wekiva) and regulatory agencies (FDEP, SJRWMD, EPA, etc.) alike. Work Order #8 in the amount of \$59,091, includes the required annual maintenance, updates, upgrades, and the completion of additional lake assessments. These tasks are needed for the Atlas to continue to function properly, as well as to improve its efficiency and usefulness. Partial funding for this work comes from cost shares provided by the 7 cities and the Florida Department of Transportation (\$45,000).

Attachment: Work Order #8 Document

Reviewed by: _____
Co Atty: SR
DFS: _____
Other: _____
DCM: [Signature]
CM: [Signature]

File No. CPWS01

**WORK ORDER FOR
AGREEMENT FOR WORK ON THE SEMINOLE COUNTY
WATERSHED ATLAS PROJECT**

WORK ORDER NO.: 8

PURCHASE ORDER NO.: _____ (For billing purposes only, to be assigned by COUNTY after execution.)

PROJECT: Watershed Atlas Project

COUNTY: SEMINOLE COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA

CONTRACTOR: UNIVERSITY OF SOUTH FLORIDA

Execution of the Work Order by COUNTY shall serve as authorization for the CONTRACTOR to provide for the above project, professional services as set out in the Scope of Services attached as Exhibit "A", to that certain Agreement of _____, 20____ between the COUNTY and the CONTRACTOR and further delineated in the specifications, conditions and requirements stated in the following listed documents which are attached hereto and made a part hereof.

ATTACHMENTS:

- drawings/plans/specifications
- scope of services
- special conditions
- _____

The CONTRACTOR shall provide said services pursuant to this Work Order, its attachments and the above-referenced Agreement, which is incorporated herein by reference as if it

had been set out in its entirety. Whenever the Work Order conflicts with said Agreement, the Agreement shall prevail.

TIME FOR COMPLETION: The work authorized by this Work Order shall be commenced upon issuance of a Notice To Proceed by COUNTY. This Work Order shall terminate upon completion of the work authorized herein, or five (5) years from the issuance of the Notice to Proceed, whichever comes first.

METHOD OF COMPENSATION:

(a) This Work Order is issued on a:

- fixed fee basis
- time basis method with a not-to-exceed amount
- time basis method with a limitation of funds amount

(b) If the compensation is based on a "Fixed Fee Basis", then the CONTRACTOR shall perform all work required by this Work Order for the sum of FIFTY NINE THOUSAND NINETY ONE DOLLARDS (\$59,091.00). In no event shall the CONTRACTOR be paid more than the Fixed Fee Amount.

Payment to the CONTRACTOR shall be made by the COUNTY in strict accordance with the payment terms of the above-referenced Agreement.

It is expressly understood by the CONTRACTOR that this Work Order, until executed by the COUNTY, does not authorize the performance of any services by the CONTRACTOR and that the COUNTY, prior to its execution of the Work Order,

reserves the right to authorize a party other than the CONTRACTOR to perform the services called for under this Work Order if it is determined that to do so is in the best interest of the COUNTY.

IN WITNESS WHEREOF, the parties hereto have made and executed this Work Order on this __ day of _____, 20__, for the purposes stated herein.

ATTEST: UNIVERSITY OF SOUTH FLORIDA

_____ By: _____

(CORPORATE SEAL) Date: _____


ATTEST:

BOARD OF COUNTY COMMISSIONERS
SEMINOLE COUNTY, FLORIDA

_____ By: _____
MARYANNE MORSE _____, Chairman
Clerk to the Board of
County Commissioners of Date: _____
Seminole County, Florida.

For use and reliance
of Seminole County only.
Approved as to form and
legal sufficiency.

As authorized for execution by
the Board of County Commis-
sioners at their _____,
____, regular meeting.



County Attorney

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SEMINOLE COUNTY WATERSHED ATLAS PROJECT

SCOPE OF WORK

Work Order #8

Contract Term 17-December 2004 through 30-September 2005

INTRODUCTION

The primary focus of this project is to maintain and upgrade the Seminole County Watershed Atlas (www.seminole.wateratlas.org) between 1-December, 2004 and 30-September, 2005.

TASK 1: DATA UPDATES

Wherever possible, the Watershed 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 contract. Many data providers do not have the ability to configure their data management systems in such a way as to allow automated data updates. Therefore, it is always necessary to manually update and import some of the data included on the Atlas. The University will work with Seminole County staff and data providers to update data for non-automated data sources once per month, quarterly, bi-annually or annually, depending upon the data provider. On a quarterly basis, the Watershed Atlas GIS sample site dataset, hydrography GIS dataset, and the Atlas database will be updated to include new sampling locations added to the sampling programs of existing data providers to allow new data to be accessible via the web interface. Reference layer GIS datasets, such as watershed boundaries and roads, will also be updated on a biannual basis when necessary as a result of updated data provided by the GIS data source.

The data sources that are currently maintained on the Seminole Watershed Atlas are:

- Florida Department of Environmental Protection Stream Condition Index
- Florida Department of Environmental Protection Aquatic Vegetation
- Florida Fish and Wildlife Conservation Commission – Grass Carp Data
- GIS Reference Data
- LAKEWATCH water quality volunteer and supplemental data
- Orange County Water Quality
- Seminole County Public Works – Hydrology Data
- Seminole County Public Works – Near Real Time Water Quality
- Seminole County Public Works – Near Real Time Weather
- Seminole County Water Quality
- SJRWMD hydrology layer and water quality
- STORET water quality
- USGS National Water Information System (NWIS)
- Watershed Action Volunteer (WAV) Water Quality Data

As part of Task 1 the University will upload Seminole County water quality data into STORET. This upload will occur once during the contract period.

In addition, this task will include updates of photos and documents on the website as they are submitted, and a quarterly CD update for the County's demonstration laptop.

Cost: \$15,471

TASK 2: WEBSITE AND SERVER MANAGEMENT

The University will function as web manager for the Atlas. The University will provide password protected access to the Water Resource Atlas Database (WRAD), where the County can:

- Add/Edit Metadata
- Add/Edit Documents
- Add/Edit Organizations
- Edit Learn More Sections
- Approve/Edit Photos
- Add/Edit Announcements
- Add/Edit Bathymetric Maps
- QA SWADE Data
- Add/View/Edit/Delete Water Levels Data

The University will provide the County with two quarterly reports that provide web usage statistics, including the number of users, number of web page requests, and other standard web statistic metric, as well as statistics related to number of data records or sample locations added, number of email comments received, and number of photos or documents entered. The University will maintain all software and hardware necessary to ensure that the web interface is online and accessible to the public. Software licenses to be maintained as part of this task includes: Microsoft SQL 2000 or higher, GreenPoint Webcharts 3D or another graphing software package, and a web statistics software package. 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.

Cost: \$10,020

TASK 3: APPLICATION MAINTENANCE AND UPGRADES

The Atlas is an application that has been developed over several years as part of separate contracts and grants with multiple local governments and agencies. The web interface and database applications have been programmed to use available server software such as ESRI Server (IIS) 5 for web components, and Microsoft SQL Server 2000 as the database platform. The University will provide these upgrades to the County on a yearly basis. If the County maintains the Website and Server Management task of its maintenance contract, the University will also install and configure these upgrades.

This task also includes server upgrades, quarterly usage and webstats reports, application tuning, link tests and fixes, and website ArcIMS changes and upgrades.

Cost: \$10,800

ATLAS ENHANCEMENT TASKS

Prior to the development of this project plan, seven (7) Atlas enhancements were identified by Seminole County and Water Atlas Staff, and are listed follows.

- Comprehensive coverage of bathymetric contours for ArcIMS: Task 4
- Daily rainfall summary table: Task 5
 - USGS meteorological station (several stations) data made available in the Atlas realtime data interface
 - Landfill meteorological station data made available in the Atlas realtime data interface
- Field Data Interface for Water Quality Management System: Task 6
- Station ID Standardization: Task 7
- Generic water quality data SOP for local governments within Seminole County: Task 8

TASK 4: FIELD DATA INTERFACE FOR WATER QUALITY MANAGEMENT SYSTEM

As part of the currently operational contract, the University is developing a Water Quality Data Management System that in effect reconciles laboratory parameter descriptions with STORET, provides the data owner or steward (i.e., Seminole County) to review and release data, and then automatically loads these data to STORET.

The enhancement identified herein, would provide a similar service for field data. The University will develop and implement a system in the Seminole County Atlas with which field data that are collected using an in-situ system (e.g. multiparameter sonde) and stored electronically in that

system, can be uploaded to a specially developed table for automatic transfer to STORET. Seminole County will be responsible for initiating the transfer of field data from their sondes (or from a field data repository) to the Water Quality Management System

Cost: \$4,300

TASK 5: NEW RAINFALL DATA SERVICE

The University will develop a standard report in an agreed upon format of all rainfall data that are currently being gathered into the WRAD including Seminole County Public Works, USGS, and the Seminole County Landfill. These data will be organized and summarized into daily and monthly rainfall tables that will be sent automatically to Seminole County.

As part of this enhancement, the University will make data from all USGS stations currently measuring and reporting rainfall in Seminole County available through the realtime data interface in 15-minute increments. In addition, rainfall data (and other meteorological parameters if already available) currently being collected at the county landfill will also be made available through the realtime data interface.

Cost: \$5,300

TASK 6: BATHYMETRIC DATA PRESENTATION ENHANCEMENTS

The University will develop comprehensive bathymetric GIS coverage for use in the Atlas mapping system that integrates data from all surveyed lakes (approximately 96) in Seminole County. This coverage will allow users to quickly view and download bathymetric data for all surveyed lakes.

Cost: \$5,000

TASK 7: RIVER REACH SEGMENTS AND INTER-ATLAS NAVIGATION

At present, Seminole Staff are investing considerable time assisting some users with navigation to sites. USF Staff have identified a means by which to simplify user navigation to river sites. This application upgrade includes programming maps of river reach segments that will be a part of the Water Quality Index presentation for rivers and creeks, and should improve end-user ease of use.

Cost: \$4,700

TASK 8: STANDARDIZATION OF STATION ID NAMING SYSTEM

Seminole County and Water Atlas Staff have identified that the variability of station name forms in the various databases has created confusion and at times presented unnecessary difficulties during data updates and upgrades. The University will develop and implement a nomenclature

(standardized naming system) for station IDs. This system will then be applied to all existing, as well as all new stations names. Atlas Staff will also make any corrections necessary to ensure that the weather station PDA software is compatible with this new Station ID nomenclature.

Cost: \$3,500

PROJECT DELIVERABLES

- o Maintenance of established automated data-update tools and manual updates to non-automated data sources for a period of one year.
- o Quarterly CD for laptop update
- o One STORET Upload
- o Maintenance of software and hardware necessary to host the Atlas with reasonable access time and minimal downtime for a period of one year.
- o Quarterly reports that include statistics on web usage and data uploads.
- o Atlas application upgrades one for period of contract
- o Comprehensive coverage of bathymetric contours for ArcIMS
- o Daily and monthly rainfall summary reports
- o USGS meteorological station (several stations) data made available in the Atlas realtime data interface
- o Landfill meteorological station data (probably rain only) made available in the Atlas realtime data interface
- o Automated Field Data Interface for Water Quality Data Management System
- o River Reach Segments and Inter-Atlas Navigation
- o Standardized station ID naming system

TOTAL PROJECT COST: \$ 59,091

PROJECT FACULTY:

Kyle Campbell, Christi Schumann, Shawn Landry, Ron Chandler