

DATE: December 2, 2019
TO: Matt Jordan, General Manager
FROM: Kenneth R. Herd, Chief Science and Technical Officer *KRH*
SUBJECT: University of South Florida Research Agreement – Wetland Inundation Potential in the Northern Tampa Bay Area – No-cost First Amendment to Schedule – *Approve*

SUMMARY

Tampa Bay Water executed a Research Agreement with the University of South Florida in August 2019 to develop a better understanding of the relationships between increasing groundwater levels, wetland water level recovery and health, the connection of wetland systems and flow between them, and flooding complaints around multiple wellfields. A temporary delay in retaining two of the key research personnel has created the need for a no-cost time extension to the Agreement completion date and schedule of deliverables.

RECOMMENDATION

Approve the First Amendment to the Research Agreement with the University of South Florida for Ranking Inundation Potential of Wetlands in the Northern Tampa Bay Area with no increase in project cost.

COST/FUNDING SOURCE

No increase in project funds above the prior-approved amount of \$176,875.

DISCUSSION

Tampa Bay Water and the University of South Florida developed a project to investigate the potential for wetlands in the Northern Tampa Bay area to be in a state of inundation (full of water) and understand where the water flows from each wetland when the water level exceeds the top edge of the wetland. The work completed under this project will further our understanding of the relationships between the reduction in pumping from the wellfields, water levels in the Upper Floridan Aquifer and at land surface, and areas around the wellfields with repetitive flooding issues. This knowledge will help us provide meaningful data to the Southwest Florida Water Management District and member governments who directly respond to flooding complaints near our wellfields, optimize the distribution of pumping between the Consolidated Permit wellfields, and determine the acceptable pumping ranges of these wellfields for the future. A Research Agreement between Tampa Bay Water and the University of South Florida was approved at the August 19, 2019 Board meeting in the amount of \$176,875 using funds from our Fiscal Year 2019 budget.

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Dr. Geoff Fouad and Terrie Lee (formerly with the U.S. Geological Survey) are two of the principal investigators named in this Research Agreement. Tampa Bay Water staff was notified in mid-October that the University of South Florida had experienced a temporary delay in retaining these two research personnel in University positions; however, this delay has been resolved. All of the named research personnel in the Agreement are now employed by the University and the work has begun. The short hiring delay has created the need for a no-cost Amendment to the Research Agreement to extend the project completion date by three months and adjust the dates for other project deliverables.

The attached First Amendment to the Research Agreement has been approved as to form by Tampa Bay Water's General Counsel. Staff recommends approval of the attached no-cost First Amendment to the Research Agreement with the University of South Florida for Ranking Inundation Potential of Wetlands in the Northern Tampa Bay Area.

BACKGROUND

The investigations in this research agreement will be complete in June 2021. These data and analyses will be used in many future analyses by Tampa Bay Water staff including:

- Creation of meaningful data that the District and local governments can use in investigating flooding complaints,
- The updated land surface elevation map can be used in future survey, engineering, and construction work of the Agency,
- The individual wetland and basin characteristics will be used in the continued assessment of wetland recovery and health during the term of the renewed Consolidated Permit,
- The wetland connection and flow information will be used to develop additional wetland restoration and surface water management projects on the Consolidated Permit wellfields,
- The wetland information and wetland connection data can be used in future generations of our Integrated Hydrologic Model if we decide to explicitly include individual lakes and wetlands in the model,
- The relationships between the increases in water levels in the Upper Floridan Aquifer and overlying wetlands will be important in the understanding of environmentally-safe pumping ranges for the Consolidated Permit wellfields, and
- This body of work will help us answer the question, can additional water supply above the current 90 mgd annual average limit be re-developed without causing any environmental harm.

Attachment

**TAMPA BAY WATER, A REGIONAL WATER SUPPLY AUTHORITY
FIRST AMENDMENT
TO AGREEMENT NO. AGR2019-006**

THIS FIRST AMENDMENT is made and entered into this ___ day of _____, 201___, by and between **TAMPA BAY WATER, A Regional Water Supply Authority**, an interlocal governmental agency created and existing pursuant to Sections 163.01, 373.713 and 373.715, Florida Statutes, acting by and through its Board of Directors, the governing board thereof ("**TAMPA BAY WATER**"), and **THE UNIVERSITY OF SOUTH FLORIDA BOARD OF TRUSTEES**, a public body corporate, for the **UNIVERSITY OF SOUTH FLORIDA** ("**UNIVERSITY**").

WHEREAS, TAMPA BAY WATER retained UNIVERSITY in support of the research project entitled "Ranking inundation potential of wetlands in the Northern Tampa Bay area" under Agreement Number: AGR2019-006, hereinafter "the Agreement"; and

WHEREAS, TAMPA BAY WATER selected UNIVERSITY in accordance with the provisions of TAMPA BAY WATER'S procurement policy and applicable provisions of Florida law; and

WHEREAS, due to unforeseen delays in retaining the necessary personnel to perform the research, the UNIVERSITY has requested additional time to perform the required services identified in AGR 2019-006:

WHEREAS, TAMPA BAY WATER desires to continue to utilize the UNIVERSITY for services based upon the same amount funded and Scope of Work. When signed by authorized officials of both parties, this Amendment is effective as of December 16, 2019. All other terms and conditions set forth in the Agreement, as hereby amended.

NOW, THEREFORE, in consideration of the forgoing premises, which shall be deemed an integral part of this First Amendment to the Agreement, and for other good and valuable consideration, the sufficiency and adequacy of which are hereby acknowledged, TAMPA BAY WATER and UNIVERSITY, intending to be legally bound, agree as follows:

1. The Agreement is hereby amended as follows:
 - a. **CHANGE IN SCHEDULE OF DELIVERABLES**
The deliverables and meetings schedule in Attachment 2 have been updated
(The revised Attachment 2 is affixed to and incorporated in this First Amendment)
 - b. **CHANGE IN AGREEMENT END DATE**
The project end date is hereby revised from March 15, 2021 to June 15, 2021 to coincide with the updated Schedule of Deliverables
2. Notwithstanding anything herein to the contrary, the total amount of Assignments, including Additional Services and expense, under this Agreement shall not exceed \$176,875.

3. This First Amendment is hereby made a part of, and incorporated in its entirety, into the Agreement.
4. In all other respects, the Agreement, is hereby reaffirmed by the parties and remains in full force and effect. This First Amendment shall become effective on December 16, 2019, when signed by authorized officials of both parties.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their duly qualified representatives.

The University of South Florida Board of Trustees:

By: Keith Anderson

Name: Keith Anderson, M.S., CRA
Director, Sponsored Research

Date: 11-27-19

Read and Understood:

Kai Rains
Kai Rains, PhD

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

FPH
Frederic Skinner
ATTORNEY - University of South Florida

ATTEST:

TAMPA BAY WATER, A Regional Water
Supply Authority

Matt Jordan, General Manager

By: _____

Its: _____

Date: _____

(SEAL)

APPROVED AS TO FORM:

General Counsel

ATTACHMENT 2 (REVISED)**Deliverables and Meetings Schedule - Project Years 2019-2021**

Numbers in parentheses correspond to list of deliverables. Meetings indicated in evidence of completion will be conducted as conference calls, until the in-person presentation at the end of the project. The presentation will discuss the final report and any activities to conclude the project. A schedule of deliverables follows.

Deliverable	Cost	Evidence of Completion	Due Date
LiDAR DEM (1)/CFS grids (2)	\$12,000	Data	Jan 15, 2020
Validation (3)	\$12,000	Maps, data, and meeting	Mar 1, 2020
Hydrography (4)	\$12,000	Maps and data	Apr 15, 2020
Field validation (5)	\$10,000	Maps, guide, data, and analysis	May 15, 2020
Watersheds (6)	\$15,000	Data	Jun 15, 2020
Wetland watershed metrics (7)	\$19,000	Data and meeting	Sep 1, 2020
Wetland rankings (8)	\$16,500	Maps and data	Nov 1, 2020
Flooding complaints (9)	\$19,000	Maps, memo, and meeting	Jan 15, 2021
Wetland water levels (10)*/Draft report	\$19,000	Plots, tables, and meeting	May 1, 2021
Report (11)	\$7,000	Presentation	Jun 15, 2021
Total	\$141,500		

*Data from TBW required for this deliverable

The work will be administered through the University of South Florida grants office, with administrative costs at 25% of the total (\$35,375). This brings the total cost of the project to **\$176,875**.