

JUL 14 2015 NP/CAS

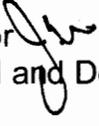


Interoffice Memorandum

AGENDA ITEM

June 19, 2015

TO: Mayor Teresa Jacobs
—And—
Board of County Commissioners

FROM: Jon V. Weiss, P.E., Director 
Community, Environmental and Development
Services Department

CONTACT PERSON: **Lori Cunniff, CEP, CHMM, Deputy Director
Community, Environmental and Development
Services Department
(407) 836-1405**

SUBJECT: July 14, 2015 — Consent Item
Florida Department of Environmental Protection Grant
Agreement No. LP6839 for Little Wekiva River Water Quality
Improvement Initiative, Amendment No. 5

The Environmental Protection Division (EPD) is requesting approval of Amendment No. 5 to the Florida Department of Environmental Protection (FDEP) Grant Agreement No. LP6839 (Agreement). Amendment No. 5 extends the completion date of the Agreement from October 31, 2015 to June 30, 2016, and revises the project work plan.

The Board of County Commissioners approved the original \$1,000,000 Agreement in June 2008. Amendments 1 and 2 extended the completion dates of the Agreement and Amendment 3 extended the completion date of the Agreement and amended the project work plan. Amendment 4 extended the completion date of the Agreement and revised several provisions related to FDEP standard contract language.

The Little Wekiva Canal has been identified as impaired under the Impaired Water Rule (IWR) for nutrients, dissolved oxygen and fecal coliform bacteria. The Little Wekiva Canal is at the center of a watershed surrounded by older residential, commercial and institutional land uses, most of which were built before the requirements for onsite stormwater treatment. This project will install approximately 200 curb/grate inlet baskets in existing curb and grate storm drain inlets. The inlet baskets are designed to capture trash, sediment and debris therefore reducing the nutrient load to the canal and the Little Wekiva River.

Page Two

July 14, 2015 – Consent Item

Florida Department of Environmental Protection Grant Agreement No. LP6839 for Little Wekiva River Water Quality Improvement Initiative, Amendment No. 5

The Agreement was reviewed by the County Attorney's Office and approved as to form.

ACTION REQUESTED: Approval of State Financial Assistance Agreement DEP Agreement No. LP6839 Orange County Amendment No. 5 between the Florida Department of Environmental Protection and Orange County for the Little Wekiva River Water Quality Improvement Initiative. Districts 2 and 5

JW/LC: mg

Attachments

STATE FINANCIAL ASSISTANCE AGREEMENT
DEP AGREEMENT NO. LP6839
ORANGE COUNTY
AMENDMENT NO. 5

THIS AGREEMENT as entered into on the 17th day of June, 2008, and amended on the 13th day of December, 2010, and the 6th day of February, 2012 and the 3rd day of July, 2012, and the 2nd day of June, 2014, between the FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (hereinafter referred to as the "Department") and ORANGE COUNTY (hereinafter referred to as the "Grantee") is hereby amended. Collectively, the Department and the Grantee shall be referred to as "Parties" or individually as a "Party".

WHEREAS, the Grantee has requested a revision in the scope of work and a reallocation of the budget for the project; and,

WHEREAS, the Grantee has requested an end date that extends beyond the current authorized funding period; and,

WHEREAS, certain provisions of the Agreement need revision.

NOW, THEREFORE, the parties hereto agree as follows:

1. Section 2. of the Agreement is hereby revised to change the completion date of the Agreement from October 31, 2015, to June 30, 2016.
2. Section 3B. of the Agreement is hereby revised to change the final Disbursement Request Package submittal date from January 31, 2016, to September 30, 2016.
3. Section 13. of the Agreement, as amended, is hereby deleted and replaced as follows:

The Department's Grant Manager for this Agreement is identified below.

Justin Johnson
State Revolving Fund Management
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, MS 3505
Tallahassee, Florida 32399-3000
Phone: (850) 245-2920
Email: Justin.T.Johnson@dep.state.fl.us

Any changes to the contact information shown above must be reduced to writing in the form of a Change Order to this Agreement.

4. **Attachment A-4**, Revised Project Work Plan, is hereby deleted in its entirety and replaced with **Attachment A-5**, Revised Project Work Plan, attached hereto and made a part of

the Agreement. All references in the Agreement to any prior **Attachment A's**, shall hereinafter refer to **Attachment A-5**, Revised Project Work Plan.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

This Amendment 5 to State Financial Assistance Agreement LP6839 shall be executed in two or more counterparts, either of which shall be regarded as an original and all of which constitute but one and the same instrument.

ORANGE COUNTY, FLORIDA

By: Board of County Commissioners

By: *Teresa Jacobs*
Teresa Jacobs, County Mayor

Date: 7.14.15

ATTEST: Martha O. Haynie, County Comptroller
As Clerk of the Board of County Commissioners

By: *Jessica Moore*
for Deputy Clerk



ATTACHMENT A-5
REVISED GRANT WORK PLAN
ORANGE COUNTY
LP6839

Project Title: Little Wekiva River Drainage Basin Curb/Grate Inlet Basket Installation: Little Wekiva River Water Quality Improvement Initiative

Project Location: This project is located in the Little Wekiva River Drainage Basin

Project Background: Lake Lawne (WBID 3004C) has been identified as a nutrient (nitrogen and phosphorus) impaired water body in the Group 2 Middle St. Johns River Basin and has been assigned a TMDL (Gao, 2007). Lake Lawne is the first lake (headwaters) in the Little Wekiva River Basin system. It has six (6) distinct canal/ditch outfalls (point sources) entering the lake. These two projects will significantly reduce the loadings from two of these point sources.

C-7 Wet Detention Pond Project: The C-7 Canal conveyed untreated runoff from a 108 acre residential drainage basin into Lake Lawne. This canal was deeply cut into the existing landscape, and has caused excessive draining of hardwood wetland areas adjacent to the canal. A water quality improvement feasibility study for the C-7 canal was performed by Environmental Research and Design (ERD), Inc. during 2007, and a wet detention pond was recommended with a residence time that should achieve 75% removal of total phosphorus from the residential basin. This project constructed the recommended 3.77 acre (@ normal high water elevation) wet detention pond on a 7 acre undeveloped parcel adjacent to Lake Lawne with a system to re-circulate surface water through the pond. Existing land use on the parcel is a combination of wooded, disturbed land, and altered wetlands. The detention pond bisects the existing C-7 canal and replaces the existing deep canal to provide stormwater treatment for the 108 acre residential watershed as well as restore normal sheet flow into the altered wetlands. The property for the project is already under the ownership of Orange County, and Capital Improvement Projects (CIP) budget funds have been identified for matching costs. Discharges from the detention pond will be released in a diffuse manner, restoring the historical natural overland flows.

The work outlined under the original work plan for the C-7 wet detention pond project was successfully completed. Under Amendment 3, Orange County was granted approval to use the remaining funds for an additional water quality project outlined below that would serve not only Lake Lawne but also the Little Wekiva River system, both TMDL nutrient-impaired systems. In addition Orange County was granted approval, as part of this amendment, for reimbursement for funds expended for engineering, design and permitting that have been invoiced for the Lake Lawne Stormwater Reuse Projects since July 1, 2011.

Lake Lawne Stormwater Reuse Project: This innovative and demonstrative project will take untreated stormwater from Pine Hills Road and surrounding area and collect it into a new 2-stage pond designed to meet proposed new stormwater quality standards. This pond's first (1st) stage will consist of a sedimentation and floatable screening area where the majority of

suspended and floatable materials will be retained. The clarified effluent from this first pond will then flow into the second (2nd) stage “storage” pond. This portion will not only store the pre-treated water but will also be used as an alternative source of irrigation for the adjacent public county park. This will not only remove nutrients from entering Lake Lawne but will also be a self-sustaining water source for irrigation needs and in part reduce the current potable water requirements. The project will also include a solar powered pond aeration diffuser system.

Orange County (County) completed the bid process for the Lake Lawne Solar Reuse project in March 2015. The County received only one bid for the project and it was approximately 60% over the engineer’s estimate. After review of the bid and budget for the project, the County has decided not to move forward with the construction of this project at this time. As part of this Amendment, the County is requesting approval to use the remaining grant funds for the Little Wekiva River Drainage Basin Curb/Grate Inlet Basket Installation project described below.

Little Wekiva River Drainage Basin Curb/Grate Inlet Basket Installation Project: The Little Wekiva Canal (WBID 3004G) has been identified as impaired under the Impaired Water Rule (IWR) for nutrients, dissolved oxygen and fecal coliform bacteria. The Little Wekiva Canal is at the center of a watershed surrounded by older residential, commercial and institutional land uses, most of which were built before the requirements for onsite stormwater treatment. This project will install approximately 200 curb/grate inlet baskets in existing curb and grate storm drain inlets. The inlet baskets are designed to capture trash, sediment and debris therefore reducing the nutrient load to the canal and the river.

Project Description:

C-7 Wet Detention Pond Project: This project will design, permit and construct a wet detention pond and a system to re-circulate surface water during periods of low flow, with a 120 day residence time that should remove 75% of the phosphorus from this sub basin’s stormwater entering Lake Lawne. The TMDL Report: Nutrient TMDLs for Spring Lake (WBID 2987A), Lake Florida (WBID 2998A), Lake Orienta (WBID 2998C), Lake Adalaide (WBID 2998E), Lake Lawne (WBID 3004C), Silver Lake (3004D), and Bay Lake (WBID 3004G) in the Wekiva Study Area by Xueqing Gao prepared on November 2, 2007 describes the nature of the impairments to Lake Lawne. These include nitrogen and phosphorus which lead to algal blooms. A report by CDM on the Little Wekiva prepared in 2007 describes the Little Wekiva and Lake Lawne watershed, and also identifies the land uses and pollutant loads. A feasibility study on the watershed, specific site location, loading rates and cost estimates was performed by ERD, Inc. and documented in the report Lake Lawne C-7 Canal Nutrient Reduction Feasibility Evaluation, July 2007. The loading from this sub-basin is 77 pounds of phosphorus per year.

Project Tasks:

Task 1: Prepare Construction Plans
Cost: \$75,000 (Orange County Funding)
Deliverables: N/A
Timeline for completion: Completed

Budget Information:

Contractual: \$75,000 (Engineering Design & Permitting was paid for by Orange County Funding)

Performance Standard: The DEP Grant Manager will review periodic requests for funds for the deliverables to ensure they are eligible for reimbursement.

Task 2: Construction

Cost: \$1,549,349 FDEP Funding, Orange County Funding and land value were utilized for the construction cost

Deliverables: Select Contractor; Notice to Proceed; Invoice for Purchase of Solarbee Aeration System; As Built Plans

Timeline for Completion: Completed

Budget Information:

Contractual: \$1,549,349 (\$801,550 FDEP Funding, \$747,799 Orange County land value and Orange County Funding)

Performance Standard: The DEP Grant Manager will review periodic requests for funds for the deliverables to ensure they are eligible for reimbursement.

Task 3: Post Construction Monitoring

Cost: \$23,467 FDEP Funding for purchase of auto samplers, Orange County in kind services

Deliverables: Monitoring Plan and QAPP; Invoice for Purchase of Auto Samplers; Photos of Installed Auto Samplers; Quarterly reports of Samples Analyzed; Final Monitoring Report

Performance Measures: Final report submitted on time

Timeline for Completion: Completed

Budget Information:

Contractual: \$23,467 (\$21,249 FDEP Funding, \$2,218 Orange County in kind services)

Performance Standard: The DEP Grant Manager will review periodic requests for funds for the deliverables to ensure they are eligible for reimbursement.

Lake Lawne Stormwater Reuse Project:

The project will divert untreated stormwater from Pine Hills Road and the surrounding area into a new wet detention pond, with a reuse component, before entering Lake Lawne.

Currently, stormwater enters Lake Lawne through an open ditch on the south end of the lake, draining approximately 177 acres (Dierberg, et. al. 1993). This project will utilize a portion of the existing open ditch that runs through the Orange County Park (Barnett Park).

Once the stormwater reaches the new pond, it will enter a deeper basin to allow the sediments to settle. This portion will be deep enough to function as a stilling basin, but not deep enough to allow anoxic conditions to develop, which have the potential to release nutrients into the water column. This portion of the pond will be positioned and constructed to allow for easier service and maintenance than the rest of the pond system.

The pond will then transition into a traditional wet pond system. The pond will incorporate appropriate depths to ensure that short circuiting does not happen and to ensure that anoxic areas do not develop. The third treatment element of the project will incorporate irrigation from the pond (stormwater reuse) on the County park site.

Any of the unused treated stormwater will be allowed to discharge to Lake Lawne. All other elements of this project will be consistent with the permitting requirements in place at the time of permit application. This project is within the jurisdiction of the St. Johns River Water Management District and will comply with all of their requirements.

Project Tasks:

Task 4: Prepare Construction Plans

Cost: \$149,594

Deliverables: Construction Plans; Water Management District Approved Permit

Timeline for completion: May 2014

Budget Information: Professional services are being paid by Orange County Funding and FDEP Funding. Professional services that will be subcontracted include design, engineering, and permitting.

Contractual: \$149,594 (\$74,797 FDEP Funding, \$74,797 Orange County Funding)

Performance Standard: The DEP Grant Manager will review periodic requests for funds for the deliverables to ensure they are eligible for reimbursement.

Task 5: Curb/Grate Inlet Basket Manufacturing and Installation

Cost: \$202,590

Deliverables: Copy of Contractor invoices for manufacturing and installation

Timeline for completion: June 30, 2016

Budget Information: FDEP funding and Orange County funding.

Contractual: \$202,590 (\$102,404 FDEP Funding, \$100,186 Orange County Funding)

Performance Standard: The DEP Grant Manager will review periodic requests for funds for the deliverables to ensure they are eligible for reimbursement.

Total Budget by Tasks:

Tasks	DEP Funding	Matching Funds and Source	
		Matching Funds	Source of Funds
1 Prepare Construction Plans: C-7 Wet Detention Project	\$0	\$75,000	Orange County Funds
2 Construction: C-7 Wet Detention Project	\$801,550	\$747,799	Land, Orange County Funds
3 Post-Project Monitoring (C-7 Wet Detention Project)	\$21,249	\$2,218	Orange County In- Kind Services
4 Prepare Construction Plans: Lake Lawne Stormwater Reuse Project	\$74,797	\$74,797	Orange County Funds
5 Curb/Grate Inlet Basket Manufacturing and Installation	\$102,404	\$100,186	Orange County Funds
Total:	\$1,000,000.00	\$1,000,000.00	
Project Total:	\$2,000,000.00		