



Interoffice Memorandum

December 2, 2019

TO: Mayor Jerry L. Demings  
-AND-  
Board of County Commissioners

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

CONTACT PERSON: David D. Jones, P.E., CEP, Manager  
Environmental Protection Division  
(407) 836-1405

SUBJECT: December 17, 2019 – Public Hearing  
St. Johns River Water Management District – Shoreline  
Alteration/Dredge and Fill Permit Application (SADF-19-02-  
002)

The St. Johns River Water Management District (SJRWMD) (applicant) is requesting conceptual approval of a Shoreline Alteration Dredge and Fill (SADF) permit for dredging of the Unconsolidated Flocculent Sediment (UCF) layer within approximately 12,825 acres of Lake Apopka, pumping of the dredged material onto approximately 9,630 acres of wetlands in the Lake Apopka North Shore Area (LANS) and planting approximately 600 acres of littoral zone of Lake Apopka with native vegetation. The project is proposed with the intent of improving the water clarity and quality in Lake Apopka. The project is located in Districts 1 and 2.

The Florida Department of Environmental Protection (FDEP) has adopted a Total Maximum Daily Load (TMDL) for Total Phosphorus for Lake Apopka, and the lake is located within both the Upper Ocklawaha River Basin Management Action Plan (BMAP) and the Wekiva River BMAP areas. Lake Apopka includes a narrow littoral shelf vegetated with native emergent, floating-leaved and aquatic species. The remainder of the lake is open water.

**Historic Lake Water Quality and Habitat Restoration Efforts:**

The 1985 Lake Apopka Restoration Act and 1987 Surface Water Improvement and Management (SWIM) Act directed the SJRWMD to restore Lake Apopka to Class III water quality standards (i.e., fishable and swimmable). Several decades ago, as one of the first steps towards improving the water quality in Lake Apopka, the SJRWMD acquired the floodplain muck farms now known as the LANS. Since then, the SJRWMD has conducted a series of restoration activities both within Lake Apopka and LANS. The restoration activities include control of water levels and the remediation of pesticide levels within LANS, the construction of a wetlands flow way to aid in the reduction of phosphorus levels within the lake and dredging at the mouth of the canal connecting Lake Apopka to Lake Beauclair. The long-term vision for the LANS and Lake Apopka itself includes the continued active

management of surrounding lands and the waters of the lake, and establishment of floating-leaved, emergent and submerged aquatic vegetation (SAV) communities that provide important natural resource benefits and recreational opportunities. Phosphorus nutrient management has been identified as a primary resource management goal by the SJRWMD. Other SJRWMD goals include wetland habitat maintenance and management and flood storage. Constraints identified with respect to the SJRWMD goals include the presence and broad distribution of phosphorus-rich and heavily-subsided organic soils, phosphorus present in the lake water in both the dissolved and particulate forms, and the continued presence of pesticides and/or pesticide residuals in the soils of the LANS.

### **Proposed Activities and Permitting Process:**

The applicant proposes the following:

1. To dredge approximately 12,825 acres of UCF from Lake Apopka.
2. To pump the dredged material onto approximately 9,630 acres of wetlands in the LANS.
3. To plant approximately 600 acres of the littoral zone of Lake Apopka with native vegetation.
4. A 20-year permit that provides conceptual approval by the Board of the activities listed above and provides a mechanism to allow the Environmental Protection Officer (EPO) [i.e., Environmental Protection Division (EPD) Manager] to issue construction permits as the activities are phased over time.

### **UCF Removal and Dredging Project**

The areas contemplated for dredging under this request are located within Orange County and include Parcel ID Nos. 12-21-27-0000-00-006, 01-22-27-0000-00-083, 07-21-27-0000-00-002, and 31-21-28-2855-24-000. The SJRWMD has obtained a permit from FDEP for the proposed work within Orange and Lake counties.

This project is intended to remove soft UCF from the lake. UCF contains high concentrations of nutrients including phosphorus. These high nutrient concentrations result in the deterioration of water quality within the lake and promote the growth of algae. Wind-driven re-suspension of UCF in the water column often contributes to reduction in the amount of light penetration necessary for SAV growth. The removal of UCF in the water column and associated reduction of the amount of nutrients within the lake have been determined by the SJRWMD to be the best courses of action to allow ecologically vital SAV to repopulate Lake Apopka's littoral zone and improve water quality.

The applicant proposes to dredge the UCF in the water column using specialized dredging heads attached to a floating intake barge. The UCF will be piped under pressure to the LANS property that is known to be contaminated with residual pesticides. The UCF will be distributed across cells within the LANS.

### **UCF Placement within the LANS**

The placement of UCF in the LANS will raise the elevation within the cells to historic wetland elevations, but will not result in the creation of uplands. The wetlands are Class I systems and are comprised primarily of nuisance and exotic vegetation with occasional native species. There are some areas of higher quality in the cells with greater occurrence of native herbaceous vegetation interspersed throughout the proposed placement areas. The cells will be isolated from Lake Apopka. The UCF is anticipated to bind with the contaminants in the soil. The degree of stabilization of the contamination is dependent upon the capacity and the amount of UCF ultimately discharged. The water discharged during UCF placement will not be discharged back into Lake Apopka unless necessary. If discharge into Lake Apopka is necessary (e.g., in the event of flooding), the water will first flow through an alum treatment area (a chemical process that allows for settlement of the suspended solids prior to discharge) or through the Wetland Flow Way for treatment to ensure compliance with the Class III, predominantly Fresh Waters Criteria found in Rule 62-302.530, Florida Administrative Code (F.A.C.). Orange County will receive copies of records and results of the analytical testing of the discharge. The placement cells are predominantly wetlands with some areas of open water. The dredging and placement of the UCF will be conducted in seven phases as funding is appropriated.

The applicant will also collect water samples at various locations to ensure that the criteria in Rule 62-302.530, F.A.C. are not exceeded. The applicant will sample for turbidity outside of the dredge area during active dredge operations, within the placement cells and at the discharge point in the event of a discharge from the LANS to Lake Apopka. During a February 20, 2019 pilot test conducted by Phosphorus Free Solutions, two samples of UCF slurry were taken from their proposed dredge intake area and an analytical report of these samples documented the presence of chromium in concentrations that may result in the leaching of chromium from the slurry to surface water should it be present in the placement area. In addition, the detection limit of the analytical method was too high to demonstrate that concentrations of arsenic, selenium, and silver in the slurry samples submitted for analysis met the applicable Direct Exposure and/or Leachability Criteria found in Table II of Chapter 62-777, F.A.C. Accordingly, EPD has requested that the applicant add arsenic, chromium, selenium, and silver to the list of analytical parameters tested for in samples collected from the UCF and placement cell locations. The list of analysis parameters to be sampled within the placement cells and in the event of discharge to Lake Apopka includes dissolved oxygen (both concentration in milligrams per liter and relative percent saturation), pH, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, copper, total phosphorus (TP), and total nitrogen (TN).

In order to address concerns with potential wildlife mortality, the applicant will monitor avian use in the placement areas in accordance with the plan mandated in the U.S. Fish and Wildlife Service (USFWS) *Lake Apopka North Shore Biological Assessment for Active Management for Phases 1 through 8 and Duda* to aid in preventing any large-scale bird mortality event. In the event that bird mortality occurs, the applicant will implement the Contingency Plan as required in the biological assessment.

In order to address navigational hazard concerns, the applicant will equip the barge and all the floating pipes from the barge to the placement areas with all navigational equipment required by U.S. Coast Guard standards.

The applicant will protect water quality during construction by installing best management practices (BMPs) that shall be maintained at all locations where there is the possibility of transferring suspended solids to adjacent wetlands and surface waters outside the boundaries of the permitted activity.

The applicant will provide a figure illustrating the proposed UCF sample collection locations as part of the submittal for each individual construction project. In addition, a minimum of 10 samples of UCF material will be collected from the proposed dredging locations and tested for the target parameters outlined in permit conditions to demonstrate prior to dredging in any phase that the applicable Soil Cleanup Target Levels (SCTLs) found in Table II, Chapter 62-777, F.A.C. are not exceeded.

The proposed dredging activities are expected to result in an improvement of the water clarity and quality within Lake Apopka and the placement of UCF in LANS is expected to restore wetland elevations and bind pesticides remaining in the soil. Therefore, EPD has determined that the impacts will result in an improvement of existing wetland and surface water conditions and that mitigation is not required.

### **Restoration Planting Project**

The applicant also proposes to plant up to 600 acres of littoral zone with native emergent, submerged, and floating-leaved species in order to accelerate the reestablishment of native aquatic plants in Lake Apopka. A vegetated littoral zone functions to improve water quality by filtering and trapping sediments in surface runoff and removing nutrients in the water as well as providing habitat for fish and wildlife. There will be various techniques implemented for planting and anchoring the littoral vegetation. Planting activities will typically be conducted from boats and no upland shoreline access is needed. This activity will assist in establishing native plant communities in the littoral zone.

Planting will occur in areas that are outside the dredging footprint or within a dredging footprint after dredging has been completed. Although not likely, it is possible that planting may occur within an area anticipated for dredging where work has not yet started. Such planting areas would be identified by vegetative survey and avoidance measures would be implemented if dredging were later conducted in that area. At least 30 days prior to conducting any planting activity, the applicant will provide a detailed planting plan to EPD, including specific locations, planting techniques and locations of any existing beds of native vegetation with greater than 10 percent areal coverage for review under the conceptual SADF permit. The applicant requests and EPD agrees that such submittals not be subject to the public noticing requirements required for the conceptual SADF permit. The planting project will also be implemented in phases as funding is appropriated.

### **Conceptual Approval and Construction Permit Processing**

The applicant requests that the Board conceptually approve the UCF dredging and placement, and planting concepts and authorize the EPO to approve future construction-level plans for the actual phased dredging operations and restoration activities. EPD staff will review the detailed construction plans for each phase to ensure that the proposed construction plans meet the criteria and specifications approved under the conceptual permit. If the construction plans are outside the limits of the conceptual permit, EPD staff will request additional information and outline the revisions needed to bring the construction plans in compliance with the conceptual permit. When the construction plans are in accordance with the criteria and specifications of the conceptual permit, EPD will issue administrative approval of the construction plans for each phase under review. The applicant currently does not have funding for each phase of the project; however, the conceptual approval will allow for future expedited review and authorization of the construction phases, which often have strict deadlines related to the particular funding source.

EPD has evaluated the permit application and required documentation pursuant to Orange County Code, Chapter 15, Article VI. In response to the criteria in Section 15-218(e), the applicant has indicated the following:

1. Demonstrate the proposed plan or development will not negatively affect the use of the waters in the County for transportation and recreational or other public purposes and public conveniences.

*The long term water quality improvement and the binding of residual pesticides will protect the public utilizing the walking trails within the LANS, improve fisheries, decrease the negative effects of UCF on boat motors and improve the aesthetics of Lake Apopka. The project will improve the use of Lake Apopka and LANS for recreational purposes and will not adversely affect the use of the waters for transportation or other public purposes and public conveniences.*

2. Demonstrate the proposed plan or development will not negatively affect the free use of waters and waterways within the County.

*There will be temporary impacts to navigation during the active dredging phases due to the presence of the dredge barges and the floating pipelines. These temporary impacts will be minimized by the implementation of all protective measure required by Coast Guard standards. The temporary impacts will be localized within each phase and will not impact navigation throughout the entire lake.*

3. Demonstrate the proposed plan or development will not have a negative effect upon erosion control in the County.

*Harmful erosion is not anticipated. During construction, stormwater and erosion control Best Management Practices (BMPs) will be implemented to ensure applicable water quality standards. Monitoring will be implemented throughout dredge operations to ensure turbidity will be within the applicable water quality standards.*

4. Demonstrate the proposed plan or development will not negatively affect the flow of waters in the County.

*The project is entirely located within Lake Apopka and adjacent LANS areas and each phase will implement BMPs. The project is proposed in phases and will not negatively affect the flow of water northward to the Chain of Lakes and beyond. The discharge water is managed within LANS and it is isolated from Lake Apopka except during high rainfall events that may result in potential flooding; therefore, placement of UCF will not negatively affect the flow of water.*

5. Demonstrate the proposed plan or development will not form stagnant pockets likely to collect debris.

*The dredging will be accomplished utilizing specialized heads that will limit the dredging to the thin, soft layer of UCF above consolidated lake bottom sediments. The consolidated sediments will not be subject to dredging. Subaqueous surveys have approximated the thickness of the UCF over the lakebed for reference during the dredge operations. The specialized heads and reference survey provide reasonable assurance that stagnant pockets will not result from the proposed dredge activities.*

6. Demonstrate the proposed plan or development will not negatively affect the natural beauty and recreational advantage within the County.

*Beneficial effects to the aesthetic and recreational values of Lake Apopka and the LANS are anticipated through improvements to the water clarity and improvement to habitats within the lake and LANS.*

7. Demonstrate the proposed plan or development will not negatively affect the conservation of wildlife, marine life, and other natural resources.

*The project is expected to result in an improvement of water quality which will benefit fisheries, freshwater snails, wading birds, diving birds and small mammals such as otters. In addition, the sequestration of the remaining pesticides resulting from the placement of UCF in the LANS is a benefit to all fish and wildlife utilizing Lake Apopka and the LANS area. The littoral zone plantings will provide improved spawning and protective coverage for fisheries and foraging for wading birds and small mammals. The proposed project will result in an improvement above existing wetland and surface water conditions.*

8. Demonstrate the effect of the proposed plan or development upon the upland surrounding or necessarily affected by said plan or development.

*No impacts to uplands surrounding the project area are expected. Appropriate BMP's will be implemented to ensure areas outside of the project limits are not impacted.*

In accordance with Orange County Code, Chapter 15, Article VI, Section 15-218(d), notification of the public hearing was sent to property owners within 500 feet of the project site. The applicant was also notified prior to the public hearing.

There is no current enforcement action on the subject property.

Based on the documentation and justifications provided by the applicant, the applicant has demonstrated that the project will not materially affect any of the rights and interests of the public set out in Article VI or result in adverse environmental harm. If proposed construction phases of the conceptual project are successful, the removal of UCF and associated phosphorus will further the goal to improve the water quality in the lake, improve the property for fish and wildlife, improve recreational uses for the residents of Orange County and visitors, and assist with the total phosphorus reductions mandated by the adopted TMDL for Lake Apopka.

Pursuant to Orange County Code, Chapter 15, Article VI, EPD staff has evaluated the SADF permit application and required documents and has made a finding that the request is consistent with Section 15-218.

### **Staff Recommendation**

Approval of the Shoreline Alteration/Dredge and Fill Permit Application subject to the following conditions:

#### **Specific Conditions**

1. This permit shall become final and effective upon expiration of the 30 calendar day appeal period following the date of issuance, unless an appeal has been filed within this timeframe. Any appeal shall stay the effective date of this permit until any and all appeals are resolved.
2. The permittee must submit detailed construction plans in conformance with the conceptual plans prepared by Wood Environment & Infrastructure Solutions, Inc., dated as received by EPD on July 30, 2019 for EPD review and approval prior to commencing any construction including, but not limited to, staging, laying of pipes and mooring of dredge vessels. The detailed construction plans and submittals shall include all the information outlined in these permit conditions and EPD reserves the right to request additional information for any submittal. EPD may approve detailed construction plans that are consistent with and conform to all of the conditions listed in this SADF permit without further approval by the Board.
3. In the event there are inconsistencies between the conceptual construction plans referenced above and any future construction proposal(s) in any geographic area or parameters established by the conditions of this permit are exceeded, the conceptual SADF permit shall be amended and approved by the Board prior to approval of any construction plans.
4. This permit shall be valid for a period of 20 years.
5. Public notice shall be provided via standard mail to property owners within 500 feet of any construction phase at least 30 days prior to commencement of construction. EPD shall be copied on the notice.
6. All construction phases will be subject to the 'Fish Kill Contingency Plan' received by EPD on February 26, 2019 (Attachment A).

7. Native vegetation, including but not limited to *Taxodium distichum*, *Taxodium ascendens*, *Panicum hemitomom*, *Juncus effusus*, *Canna flaccida*, *Cladium jamaicense*, *Cyperus sp.*, *Iris virginica*, *Sagittaria sp.*, *Eleocharis sp.*, *Scirpus sp.*, *Pontederia cordata*, and *Nymphaea odorata*, may not be removed from the shoreline outside of the specified dredge area, specific to project.
8. No filling of wetlands to create uplands is approved with this permit.
9. The permittee shall submit the following for each phase of construction for review and approval by EPD. The review period shall comply with the timeframes in Section 125.022, Florida Statutes (FS) (2019):
  - a. Detailed construction plans that are signed and sealed by a professional engineer, licensed in the State of Florida. The construction plans shall include:
    - i. A table containing the estimated amount of material to be excavated and the resulting elevation to which the fill will be placed in the LANS wetland cells.
    - ii. The limits of the dredging footprint.
    - iii. The proposed location for the material placement, including maximum placement elevations.
    - iv. The proposed locations for all floating pipelines, booster pumps, floating intake or outfall pipes.
    - v. A plan demonstrating that the barge, floating pipelines and any intake or outfall pipes have all required navigational safety equipment in accordance with Coast Guard requirements per 33 CFR 88.15 and 33 CFR 88.13.
    - vi. A detailed 'Sediment and Erosion Control Plan.' Construction activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Turbidity and sediments shall be controlled to prevent violations of water quality pursuant to Rules 62-302.500, 62-302.530(117) and 62-4.242 Florida Administrative Code (F.A.C.). Performance-based BMPs shall be implemented prior to and be maintained during and after construction as needed to prevent adverse impacts to the water resources and adjacent lands. Appropriate dredging BMPs shall be implemented, unless a project specific erosion and sediment control plan is approved or other water quality control measures are incorporated as part of the construction phase approval.
    - vii. A map of all equipment staging, boat launching and boat mooring areas to be utilized within Orange County during the project. The map must include EPD-approved wetland lines for all wetlands within 50 feet of any staging area. A minimum 25-foot upland buffer between the wetland boundary and the staging area must be provided to the greatest extent possible depending on the location and configuration of the available uplands. A separate Conservation Area Impact permit will be required to address and mitigate for any permanent direct and/or secondary impacts to wetlands outside of the scope of the actual dredging operations and placement in the wetland cells.



- b. A water quality monitoring program that will monitor water quality conditions to ensure compliance with permit conditions. The monitoring plan shall include at a minimum:
  - i. Two (2) control sites to provide background conditions during dredging.
  - ii. Two (2) sentinel sites near the dredge to provide project conditions during dredging.
  - iii. Monitoring events shall occur twice daily while work is being performed (beginning of workday and end of workday).
  - iv. Parameters shall include turbidity measurements.
  - v. Work shall cease in the event of any observation of turbidity greater than 29 NTUs above background within the work area. Turbidity monitoring will continue for the lesser of seven (7) days or until turbidity measurements within the work area fall below 29 NTUs above background for two consecutive readings.
  - vi. Upon completion of the dredging project turbidity monitoring will continue for two days or until post-construction turbidity values remain less than 29 NTUs above background values for two consecutive readings.
  - vii. Copies of data and field notes shall be submitted quarterly to EPD at [wetlandpermitting@ocfl.net](mailto:wetlandpermitting@ocfl.net) for the length of each construction phase.
- c. A survey of existing aquatic vegetation within the littoral zone of the proposed dredge footprint for each construction phase. Dredging activities will avoid all beds of native vegetation with greater than 10 percent areal coverage. Within 90 days of completion of dredging activities for each project, the permittee shall review the avoidance areas identified in the pre-dredge survey. Any dredge impacts to vegetation within those avoidance areas shall be restored to background conditions (similar species and density) within 90 days following completion of dredging. A copy of the restoration plans shall be submitted to EPD at [wetlandpermitting@ocfl.net](mailto:wetlandpermitting@ocfl.net) at least 14 days prior to implementation of planting.
- d. A geotechnical report including a characterization of the coring data within the dredging footprint to include a delineation of the limits of UCF (horizontally and vertically).
- e. Details regarding the specialized heads utilized during hydraulic dredging and how the vertical control of the heads will be established and maintained during project dredging operations. These details shall be submitted to EPD at [wetlandpermitting@ocfl.net](mailto:wetlandpermitting@ocfl.net) at least 30 days prior to commencement of construction.
- f. An 'Emergency Action Plan' in the event of an emergency (such as a hurricane or fuel spill) for each phase of construction.
- g. A monitoring plan to be conducted weekly at one central location within the UCF placement cell(s) currently receiving dredged material during dredging operations. Monitoring plan analytes include dissolved oxygen (both concentration and relative percent saturation), pH, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, copper, total phosphorus (TP), and total nitrogen (TN).

- h. If a discharge to Lake Apopka from the placement cells in the LANS occurs during construction, sampling at the point of discharge to Lake Apopka shall include pH, total and dissolved metals, turbidity, Total Suspended Solids, TP and TN and shall be required monthly only for the duration of the discharge to the lake.
- i. Fish sampling data that is less than five years old for each UCF placement cell within that construction phase. The analysis shall include the concentration of organochlorine pesticides and those in the U.S. Environmental Protection Agency's (EPA's) Resource Conservation and Recovery Act (RCRA-8 metals plus copper).
- j. Mr. Robert Naleway P.E., Project Manager, and Ms. Susan Davis, Intergovernmental Coordinator, shall be the primary points of contact (POCs) for SJRWMD on this project. It is the responsibility of the permittee to provide updated point-of-contact information for the POCs as needed.
- k. A figure illustrating the UCF sample collection locations and the analytical results from a minimum of 10 samples for the target parameters listed in Attachment B:
  - i. In addition, the results will include synthetic precipitation leachate procedure (SPLP) analysis using EPA Method 1312 for the three samples that exhibit the greatest concentrations of arsenic.
  - ii. All sample laboratory analysis results, chain-of-custody forms, and other supporting documentation will be provided to EPD.
  - iii. Please note that if compliance with one or more of the SCTLs found in Table II, Chapter 62-777, F.A.C., is to be demonstrated, it is necessary to ensure that the method detection limits (MDL) of the analytical method(s) selected are appropriate. Please be sure that the laboratory chosen for sample analysis can achieve the appropriate MDL.
- 10. All field activities will be in general accordance with FDEP's Standard Operating Procedures for Field Activities, DEP-SOP-001/01, dated January 2018, effective April 16, 2018 or as amended/updated. Field sampling activities may be modified, as necessary, to facilitate collection of the targeted UCF and assist in meeting appropriate MDLs. Details of the modified sampling protocols shall be included in the submittals for each individual construction project.
- 11. The permittee can plant up to 600 acres of the littoral zone of Lake Apopka with appropriate native plants.

#### General Conditions

- 12. Subject to the terms and conditions herein, the permittee is hereby authorized to perform or cause to be performed, the impacts shown on the application and approved drawings, plans, and other documents attached hereto or on file with EPD. The permittee binds itself and its successors to comply with the provisions and conditions of this permit. If EPD determines at any time that activities, including without limitation the performance of the required mitigation, are not in accordance with the conditions of the permit, work shall cease and the permit may be revoked immediately by the EPO. Notice of the revocation shall be provided to the permit holder promptly thereafter.

13. The permittee shall require the contractor to maintain a copy of this conceptual SADF permit and any subsequent approved permits/construction plans, complete with all approved drawings, conditions, attachments, exhibits, and modifications in good condition at the construction staging site. The permittee shall require the contractor to review the permit prior to commencement of the activity authorized by this permit. The complete permit shall be available upon request by Orange County staff.
14. Issuance of this permit does not warrant in any way that the permittee has riparian or property rights to construct any structure permitted herein and any such construction is done at the sole risk of the permittee. In the event that any part of the structure(s) permitted herein is determined by a final adjudication issued by a court of competent jurisdiction to encroach on or interfere with adjacent property owner's riparian or other property rights, the permittee agrees to either obtain written consent or to remove the offending structure or encroachment within 60 days from the date of the adjudication. Failure to comply shall constitute a material breach of this permit and shall be grounds for its immediate revocation.
15. This permit does not release the permittee from complying with all other federal, state, and local laws, ordinances, rules and regulations. Specifically, this permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities upon property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 15, Article VI.
16. If these permit conditions conflict with those of any other regulatory agency the permittee shall comply with the most stringent conditions. The permittee shall immediately notify EPD of any conflict between the conditions of this permit and any other permit or approval.
17. Turbidity and sediments shall be controlled to prevent violations of water quality pursuant to Rules 62-302.500, 62-302.530(117) and 62-4.242 F.A.C. BMPs, as specified in the Florida Stormwater, Erosion, and Sedimentation Control Inspector's Manual, shall be installed and maintained at all locations where the possibility of transferring suspended solids into wetlands and/or surface waters may occur due to the permitted activity. If site-specific conditions require additional measures, then the permittee shall implement them as necessary to prevent adverse impacts to wetlands and/or surface waters.
18. The permittee is hereby advised that Section 253.77, FS, states that a person may not commence any excavation, construction, or other activity involving the use of sovereignty or other lands of the state, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

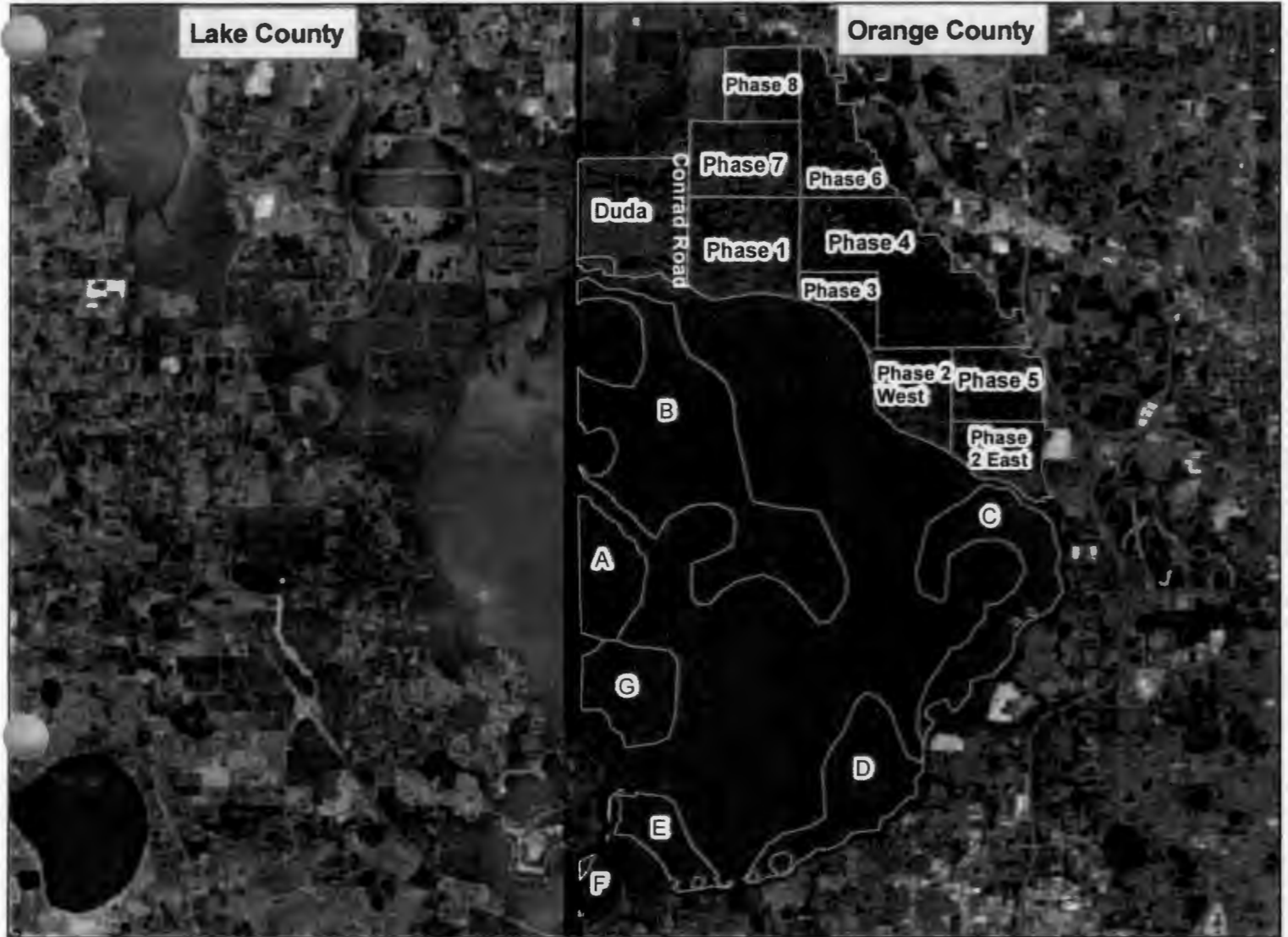
19. Should any other regulatory agency require changes to the property or permitted activities, the permittee shall provide written notification to EPD of the change prior to implementation so that a determination can be made if a permit modification is required.
20. EPD shall have final construction plan approval to ensure that no modification has been made during the construction plan process.
21. The permittee shall immediately notify EPD in writing of any previously submitted information that is later discovered to be inaccurate.
22. EPD staff, with proper identification, shall have permission to access any portion of the site to inspect, sample, or test to ensure conformity with the plans and conditions approved by the permit.
23. The permittee shall hold and save the County harmless from any and all damages, claims or liabilities which may arise by reason of the activities authorized by the permit.
24. All costs, including attorney's fees, incurred by the County in enforcing the terms and conditions of this permit shall be required to be paid by the permittee.
25. The permittee agrees that any dispute arising from matters relating to this permit shall be governed by the laws of Florida, and initiated only in Orange County.
26. Pursuant to Section 125.022, FS, issuance of this permit by the County does not in any way create any rights on the part of the applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the County for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law.
27. Pursuant to Section 125.022, FS, the applicant shall obtain all other applicable state or federal permits before commencement of the activity authorized herein.

**ACTION REQUESTED: Acceptance of the findings and recommendation of the Environmental Protection Division staff and approval of Shoreline Alteration/Dredge and Fill Permit Application (SADF-19-02-002) for the St. Johns River Water Management District, subject to the conditions listed in the Staff Report. Districts 1 and 2**

JVW/DDJ: mg

Attachments

# Shoreline Alteration/Dredge and Fill Permit Request



**Shoreline Alteration/ Dredge and Fill  
Permit No. SADF-19-02-002  
Districts #1 and 2**

**Applicant: St. Johns River Water  
Management District**

**Address: 3451 Lust Road, Apopka**

**Parcel IDs: Portions of:**

12-21-27-0000-00-006

01-22-27-0000-00-083

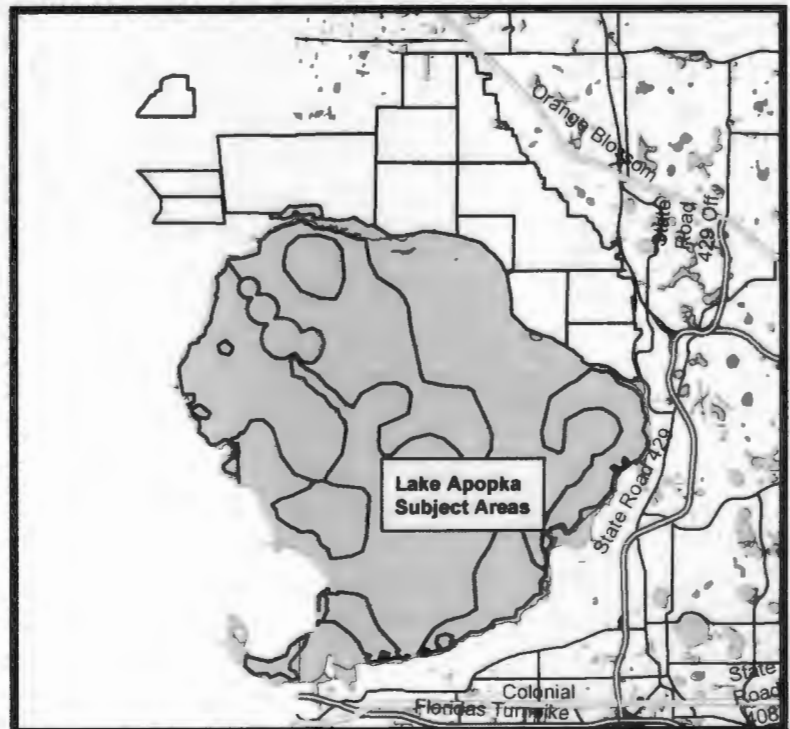
07-21-27-0000-00-002

31-21-28-2855-24-000

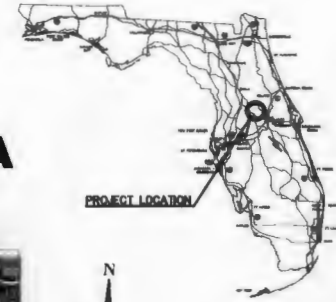
**Project Site**



**Property Location**



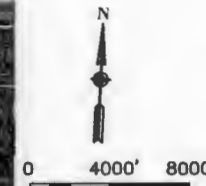
# LAKE APOPKA DREDGE AND PLACEMENT TYPICAL PLAN ORANGE AND LAKE COUNTY, FLORIDA



**wood.**

ENVIRONMENT AND  
INFRASTRUCTURE SOLUTIONS  
6256 GREENLAND ROAD  
JACKSONVILLE, FL 32256  
(904) 396-5173  
CERTIFICATE OF  
AUTHORIZATION LICENSE  
NUMBER 5392

INDEX OF DRAWINGS	
SHEET NO.	SHEET TITLE
1	COVER SHEET/PROJECT LOCATION
2	LAKE APOPKA BATHYMETRY MAP
3	LAKE APOPKA UNCONSOLIDATED FLOCCULENT (UCF) SEDIMENT THICKNESS MAP
4	TYPICAL DREDGE EXISTING & PROPOSED CROSS-SECTION (1)
5	TYPICAL DREDGE EXISTING & PROPOSED CROSS-SECTION (2)
6	DREDGE PLACEMENT AREA MAP
7	MATERIAL PLACEMENT SITE TYPICAL CROSS-SECTIONS



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN CHANGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

**GOVERNING SPECIFICATIONS:**  
FLORIDA FISH AND WILDLIFE  
CONSERVATION COMMISSION (FWC);  
FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION (FDEP);  
U.S. ARMY CORPS OF ENGINEERS  
(USACE)  
IN THE EVENT OF A CONFLICT, THE  
MOST RESTRICTIVE APPLIES.

PLANS PREPARED BY:

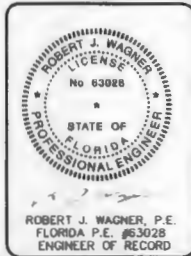
**wood.**

WOOD ENVIRONMENT AND  
INFRASTRUCTURE SOLUTIONS, INC.  
6256 GREENLAND ROAD,  
JACKSONVILLE, FLORIDA 32256  
TEL: (904) 396-5173  
WEBSITE: WWW.WOODPLC.COM  
EMAIL: Joseph.Wagner@woodplc.com  
ENGINEER OR RECORD: ROBERT J.  
WAGNER, P.E., D.NE. (FL63028)  
CERTIFICATE OF AUTHORIZATION: FL  
5392

PROJECT OWNER:



ST. JOHNS RIVER WATER  
MANAGEMENT DISTRICT  
4049 REID STREET, PALATKA,  
FLORIDA 32177



PROJECT:  
**LAKE APOPKA  
DREDGING AND  
PLACEMENT**

APPLICANT:  
**ST. JOHNS RIVER WATER  
MANAGEMENT DISTRICT**



WOOD PROJECT No:  
6735-17-9417

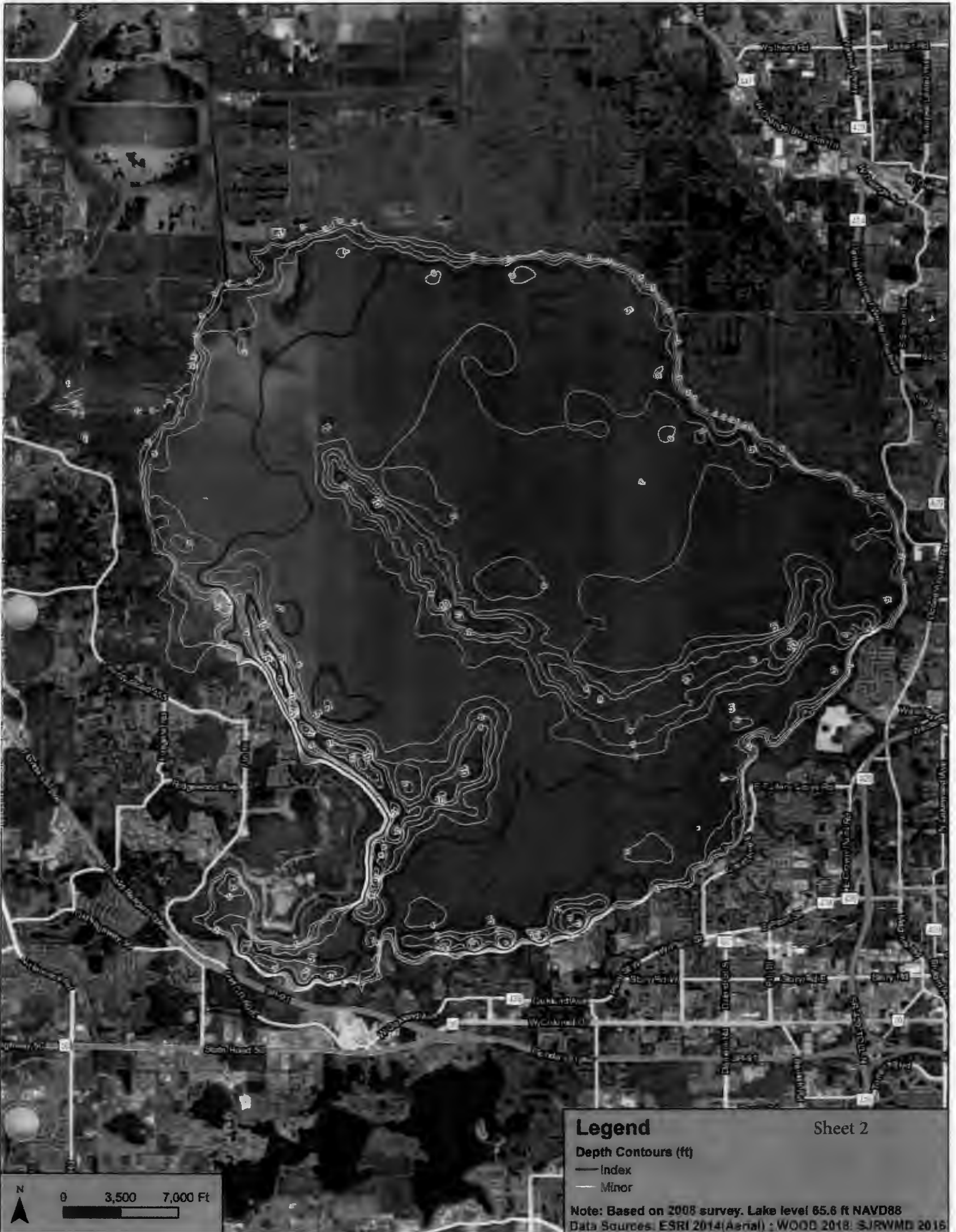
REVISIONS			
NO.	DATE	BY	APPROVED

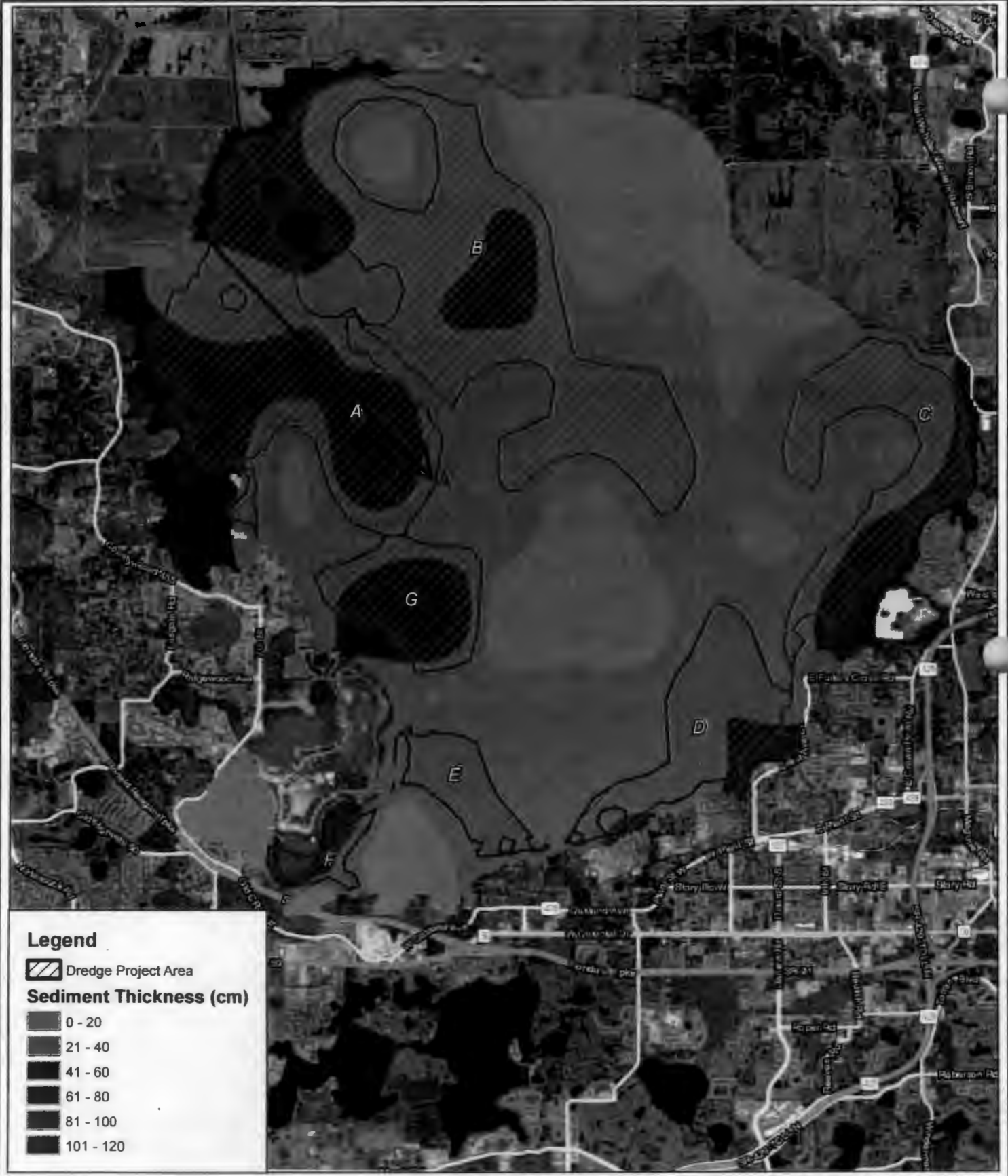
DESIGNED BY:	OTHERS
DRAWN BY:	RJA
CHECKED BY:	TGD
APPROVED BY:	RJW
DATE:	1/21/2019

SHEET TITLE:  
**COVER SHEET**

SHEET NUMBER:	REV. #
1	
SHEET 1 OF 7 SHEETS	

NOTE: CONCEPTUAL FOR PERMITTING PURPOSES











**Legend**

 Dredge Project Area

**Sediment Thickness (cm)**

-  0 - 20
-  21 - 40
-  41 - 60
-  61 - 80
-  81 - 100
-  101 - 120

Source: Imagery, ESRI 2017; Wood 2018



0 3,500 7,000 14,000 Feet

**Lake Apopka Dredging Project**

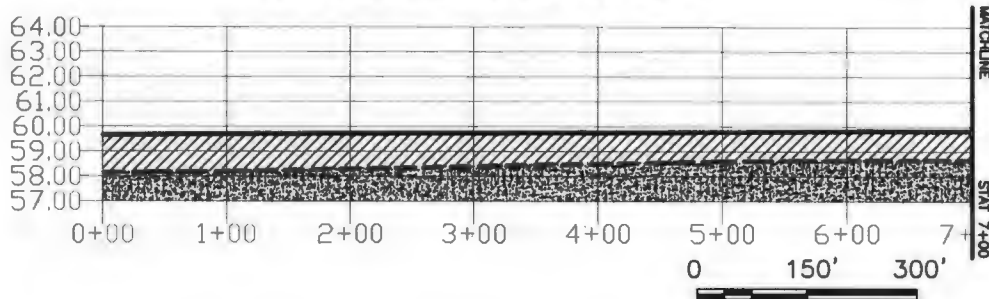
**UCF Thickness Map**

Drawn	Date	Gainesville Florida Project No. 5735179417		Sheet 3
DLA	1/15/2018			
Checked	Date			
MFC	1/15/2019			

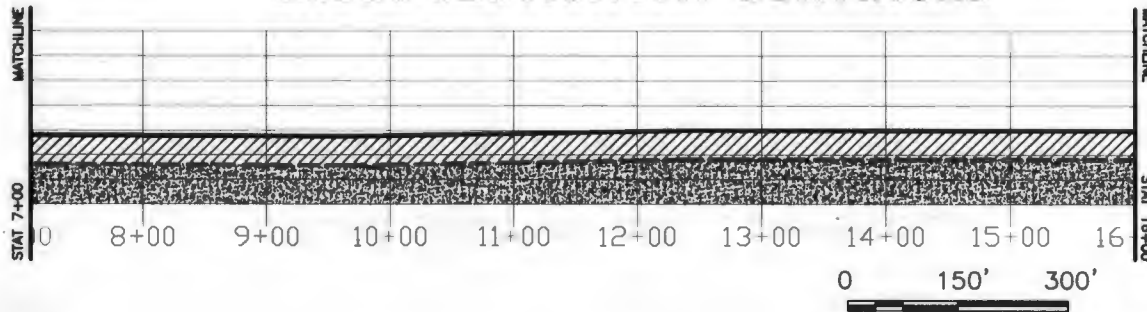


Lake Apopka Water Elevation - 06/16/2019 = 65.83 feet NAVD  
 Normal High Water Elevation = 66.89 feet NAVD

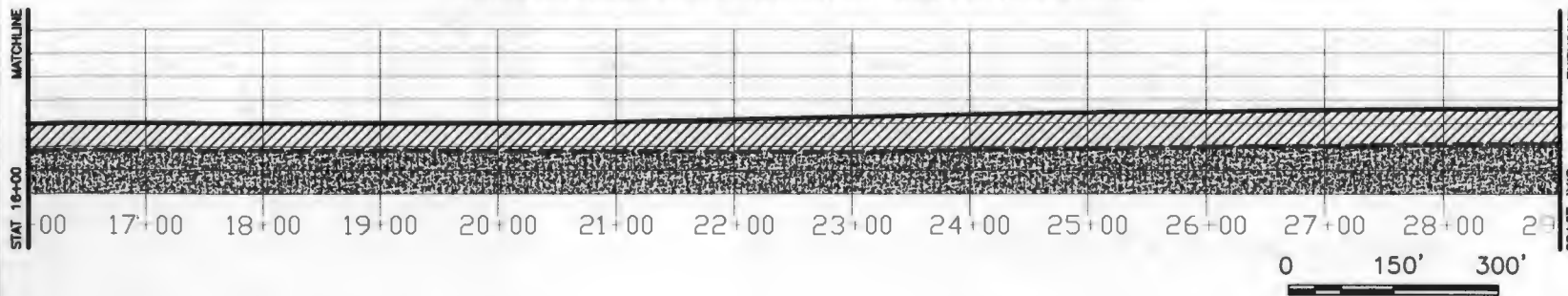
### CROSS-SECTION A-A'



### CROSS-SECTION A-A' CONTINUED



### CROSS-SECTION A-A' CONTINUED



0 2000' 4000'

- LEGEND**
- CROSS-SECTIONS
  - - - VERTICAL LIMITS OF DREDGING
  - EXISTING SURFACE
  - ▨ UNCONSOLIDATED FLOCCULENT (UCF)
  - ▩ UNDERLYING SEDIMENT
  - PROJECT AREA
  - 1.31' UNCONSOLIDATED FLOCCULENT (UCF) SEDIMENT THICKNESS

NOTE: CONCEPTUAL FOR PERMITTING PURPOSES

DATA SOURCE: ESRI IMAGERY, WOOD  
 ELEVATION: NAVD88

**wood.**

ENVIRONMENT AND  
 INFRASTRUCTURE SOLUTIONS  
 5205 GREENLAND ROAD  
 JACKSONVILLE, FL 32256  
 (904) 396-2173  
 CERTIFICATE OF  
 AUTHORIZATION LICENSE  
 NUMBER 5392

PROJECT:

**LAKE APOPKA  
 DREDGING AND  
 PLACEMENT**

APPLICANT:  
**ST. JOHNS  
 RIVER WATER  
 MANAGEMENT  
 DISTRICT**



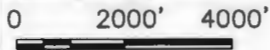
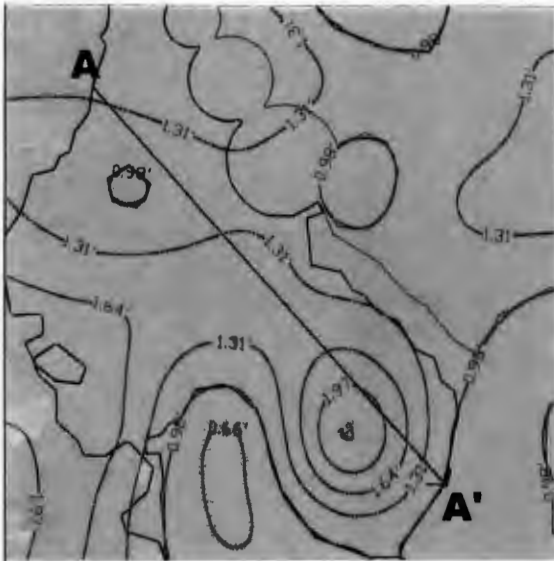
WOOD PROJECT No.  
 6735-17-9417

REVISIONS			
NO.	DATE	BY	APPROVE

DESIGNED BY:	OTHERS
DRAWN BY:	R.J.L.
CHECKED BY:	T.G.D.
APPROVED BY:	R.J.V.
DATE:	1/21/2019

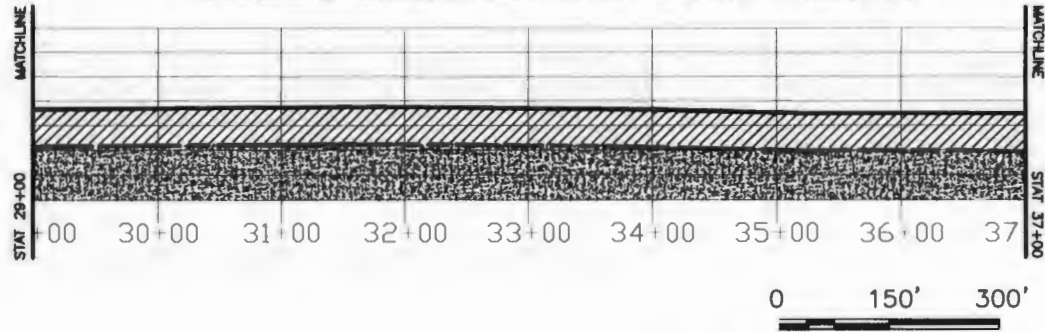
SHEET TITLE:  
**TYPICAL DREDGE  
 EXISTING  
 & PROPOSED  
 CROSS-SECTION (1)**

SHEET NUMBER:	REV. #
4	
SHEET 4 OF 7 SHEETS	

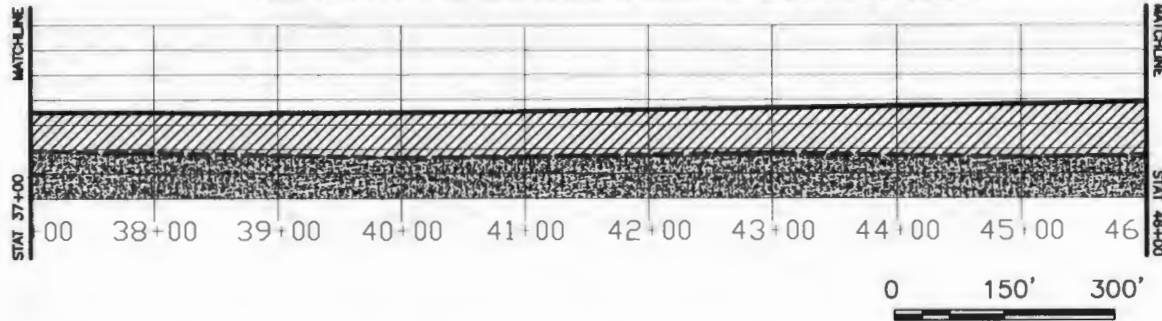


Lake Apopka Water Elevation - 06/16/2019 = 65.83 feet NAVD  
 Normal High Water Elevation = 66.89 feet NAVD

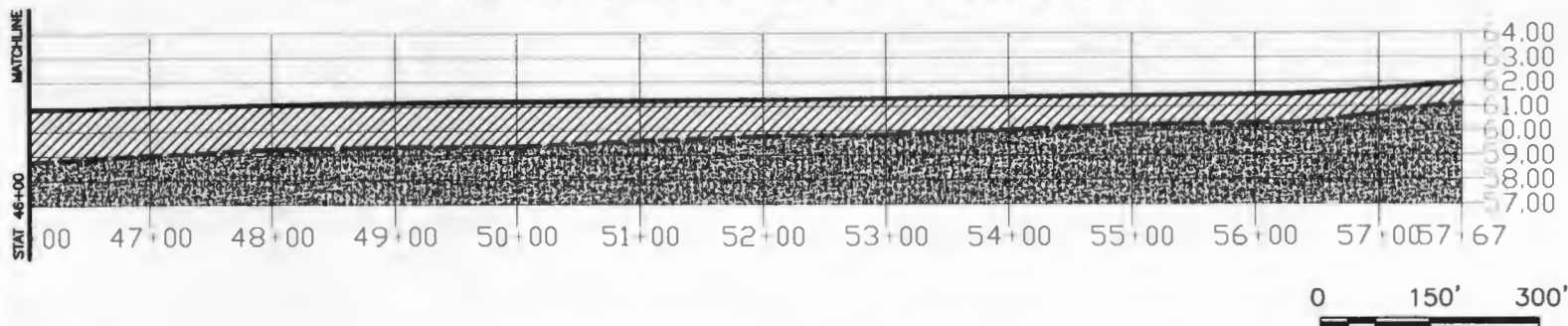
### CROSS-SECTION A-A' CONTINUED



### CROSS-SECTION A-A' CONTINUED



### CROSS-SECTION A-A' CONTINUED



NOTE: CONCEPTUAL FOR PERMITTING PURPOSES

DATA SOURCE: ESRI IMAGERY, WOOD  
 ELEVATION: NAVD88

**wood.**

ENVIRONMENT AND  
 INFRASTRUCTURE SOLUTIONS  
 5256 GREENLAND ROAD  
 JACKSONVILLE, FL 32258  
 (904) 398-5173  
 CERTIFICATE OF  
 AUTHORIZATION LICENSE  
 NUMBER 5392

PROJECT:

**LAKE APOPKA  
 DREDGING AND  
 PLACEMENT**

APPLICANT:  
**ST. JOHNS  
 RIVER WATER  
 MANAGEMENT  
 DISTRICT**



WOOD PROJECT No:  
 6735-17-9417

REVISIONS			
NO.	DATE	BY	APPROVE

DESIGNED BY:	OTHERS
DRAWN BY:	RJL
CHECKED BY:	TGD
APPROVED BY:	RJV
DATE:	1/21/2019

SHEET TITLE:  
**TYPICAL DREDGE  
 EXISTING  
 & PROPOSED  
 CROSS-SECTION (2)**

SHEET NUMBER	REV #
5	
SHEET 5 OF	SHEETS

**wood.**

ENVIRONMENT AND  
INFRASTRUCTURE SOLUTIONS  
6256 GREENLAND ROAD  
JACKSONVILLE, FL 32256  
TEL: (904) 396-5173  
CERTIFICATE OF  
AUTHORIZATION LICENSE  
NUMBER 5392

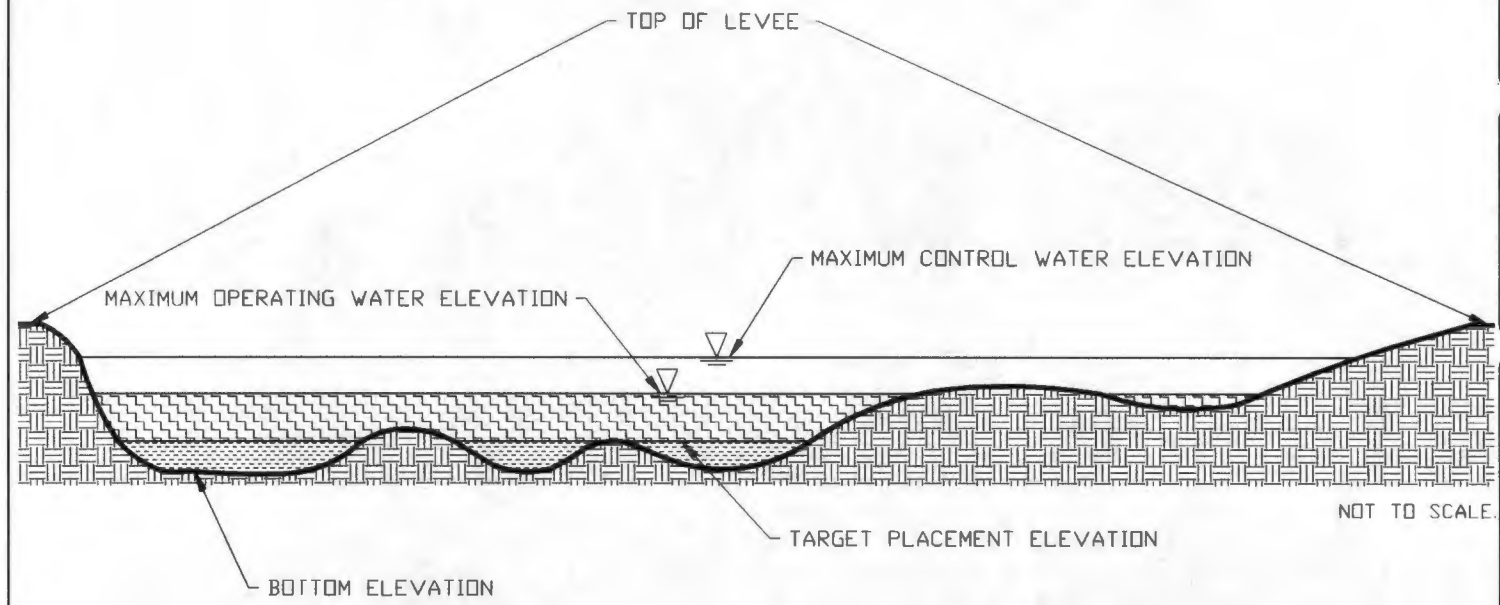
PROJECT:

**LAKE APOPKA  
DREDGING AND  
PLACEMENT**

APPLICANT:  
**ST. JOHNS  
RIVER WATER  
MANAGEMENT  
DISTRICT**



WOOD PROJECT No.  
6735-17-9417



NOTE:  
CONCEPTUAL FOR PERMITTING PURPOSES.





MAXIMUM CONTROL WATER ELEVATION - THE LEVEL AT WHICH  
MANAGEMENT INFRASTRUCTURE IS THREATENED. SJRWMD  
DISCHARGES WATER TO THE INTERNAL WATER MANAGEMENT  
SYSTEM AS NEEDED TO AVOID EXCEEDING THIS ELEVATION.

MAXIMUM OPERATING WATER ELEVATION - THE MAXIMUM WATER  
ELEVATION THAT WILL BE ALLOWED DURING PLACEMENT OF  
SEDIMENT. EXISTING GROUND ELEVATIONS WILL NOT BE  
AFFECTED ABOVE THIS ELEVATION.

TARGET PLACEMENT ELEVATION - THE MAXIMUM ELEVATION  
FOR PLACEMENT OF SEDIMENT IF THE ENTER PLACEMENT  
CAPACITY OF THE CELL WERE USED, THIS LEVEL WOULD BE  
THE NEW BOTTOM ELEVATION.

BOTTOM ELEVATION - 5TH PERCENTILE OF STAGE AREA  
CURVE.

LEGEND

-  EXISTING SURFACE
-  GROUND
-  SHALLOW PLACEMENT AREA
-  DEEP PLACEMENT AREA

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	OTHERS
DRAWN BY:	R.JL
CHECKED BY:	SEM
APPROVED BY:	R.J.W
DATE:	01/21/2019

SHEET TITLE:  
**MATERIAL PLACEMENT  
SITE TYPICAL  
CROSS-SECTIONS**

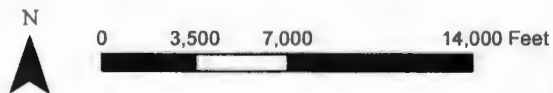
SHEET NUMBER:	REV #
6	
SHEET 6 OF 7 SHEETS	



Source: Imagery, ESRI 2017, NWM 2017, Wood 2018

### Lake Apopka Dredging Project

### Dredge Material Placement Map



Drawn	Date	Gainesville Florida Project No. 8735179417
DLA	1/4/2019	
Checked	Date	
MFC	1/4/2019	

**wood.**

Sheet  
7



**ENVIRONMENTAL PROTECTION DIVISION**

**David D. Jones, P.E., CEP, Manager**

3165 McCroxy Place, Suite 200  
Orlando, FL 32803  
407-836-1400 • Fax 407-836-1499  
[www.ocfl.net](http://www.ocfl.net)

August 28, 2019

Dr. Ann Shortelle  
c/o Mr. Joe Wagner  
Wood Environmental & Infrastructure Solutions, Inc.  
Email: [joseph.wagner@woodplc.com](mailto:joseph.wagner@woodplc.com)

**Subject: HB 7103 - Notice of Completeness  
Shoreline Alteration/Dredge and Fill  
Lake Apopka Restoration Conceptual SADF Permit  
Lake Apopka and Lake Apopka North Shore  
Parcel ID Nos.: 12-21-27-0000-00-006, 01-22-27-0000-00-083,  
and 07-21-27-0000-00-002  
Application No.: SADF-19-02-002  
Orange County Commission Districts: 1 and 2**

Dear Mr. Wagner:

The Orange County Environmental Protection Division (EPD) has received your response to our July 23, 2019 Request for Additional Information for the above-referenced project. In accordance with Chapter 2019-165, Florida Statutes (FS) (House Bill 7103), EPD is hereby providing notice that all the required information has been received and the application is complete.

In accordance with Chapter 2019-165, FS, once the application has been deemed "complete", the County must approve, approve with conditions or deny the permit application within 180 days of this notice since this application requires final action through a public hearing. To that end, EPD will be working towards securing a date for the required Public Hearing before the Board of County Commissioners. In accordance of the notification procedures in Article VI, you will be notified in writing of the confirmed Public Hearing date. The public hearing will also be advertised in a newspaper of general circulation.

No construction, dredging/excavating, clearing, filling, alterations or grading is allowed within or immediately adjacent to conservation area without first obtaining proper authorization from EPD.

If you should have any questions concerning this review, please contact me at 407-836-1496 or [Karen.Garrett-Kraus@ocfl.net](mailto:Karen.Garrett-Kraus@ocfl.net).

Sincerely,

A handwritten signature in blue ink that reads "Karen Garrett-Kraus".

for

Karen Garrett-Kraus  
Senior Environmental Specialist

KGK/NT/TMH/ERJ/DJ/gfdjr:

c: Dr. Ann Shortelle, St. Johns River Water Management District, [ashortelle@sjrwmd.com](mailto:ashortelle@sjrwmd.com)  
Dr. Mitchell Katz, Orange County EPD, [Mitchell.Katz@ocfl.net](mailto:Mitchell.Katz@ocfl.net)

*Serving our community by conserving, protecting, and enhancing the environment for current and future generations.*

Attachment B

<b>Parameter</b>	<b>Analysis Method</b>	<b>Parameter</b>	<b>Analysis Method</b>
4,4'-DDD	EPA 8081	Endrin ketone	EPA 8081
4,4'-DDE	EPA 8081	gamma-BHC (Lindane)	EPA 8081
4,4'-DDT	EPA 8081	gamma-Chlordane	EPA 8081
Aldrin	EPA 8081	Heptachlor	EPA 8081
alpha-BHC	EPA 8081	Heptachlor epoxide	EPA 8081
alpha-Chlordane	EPA 8081	Iron	EPA 6010
Aluminum	EPA 6010	Lead	EPA 6010
Arsenic	EPA 6010	Mercury	EPA 7471
Barium	EPA 6010	Methoxychlor	EPA 8081
beta-BHC	EPA 8081	Oxychlordane	EPA 8081
Cadmium	EPA 6010	Selenium	EPA 6010
Chlordane (total)	EPA 8081	Silver	EPA 6010
Chromium	EPA 6010	Toxaphene	EPA 8081
cis-nonachlor	EPA 8081	trans-Nonachlor	EPA 8081
Copper	EPA 6010	Total Organic Content	DBE SOP MVP/COE 3-73
delta-BHC	EPA 8081	Nitrogen, Ammonia	EPA 350.1
Dieldrin	EPA 8081	Nitrogen, Kjeldahl	EPA 351.2
Endosulfan I	EPA 8081	Nitrogen, Total	EPA 351.2
Endosulfan II	EPA 8081	Nitrogen (NO2 and NO3)	EPA 353.2
Endosulfan sulfate	EPA 8081	Phosphorus, Total	EPA 365.4
Endrin	EPA 8081	Percent Moisture	ASTM D2974-87
Endrin aldehyde	EPA 8081	Total Solids	ASTM D2974-87