

Board of County Commissioners

**Request for Shoreline
Alteration/Dredge and Fill Permit**

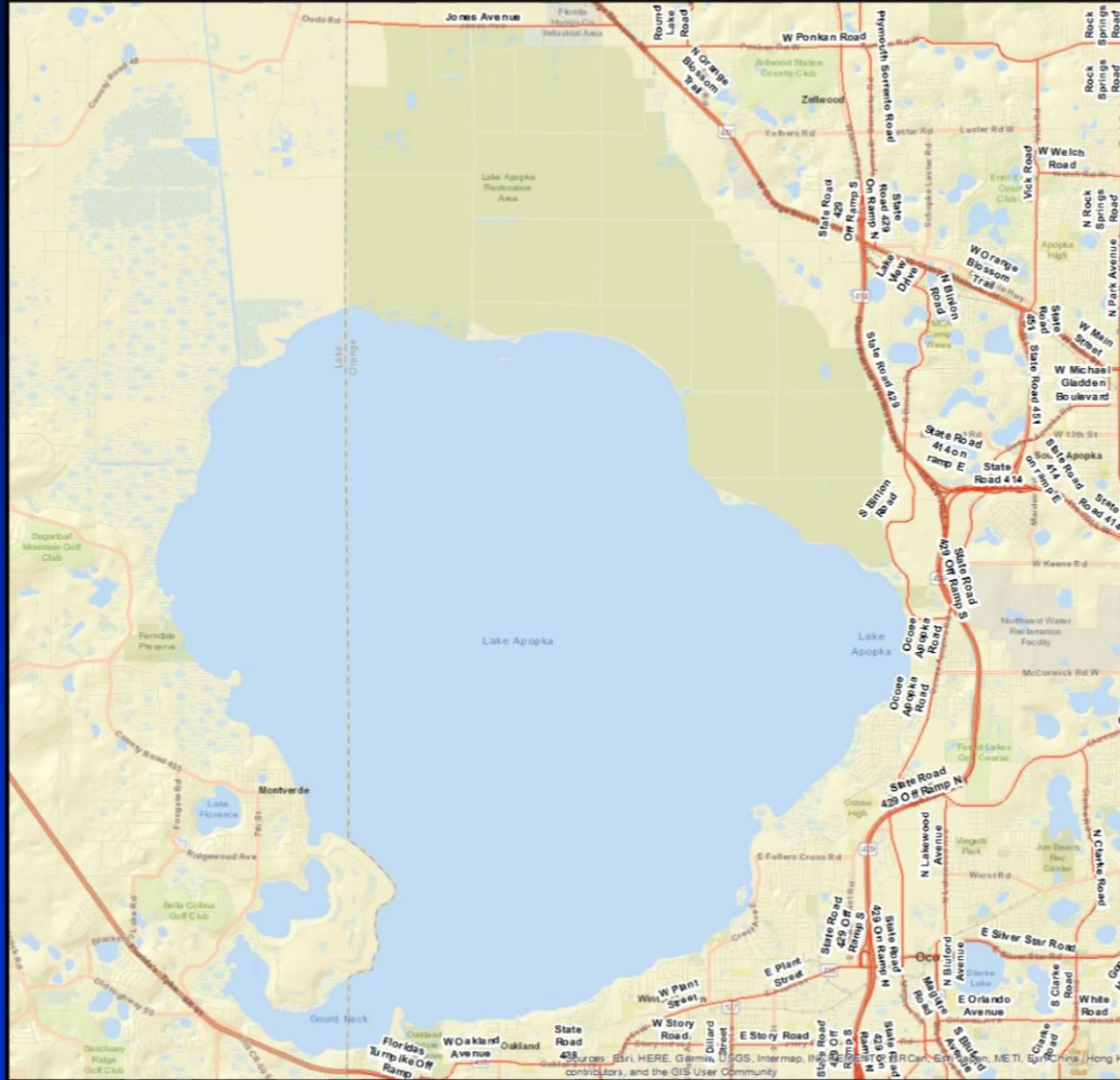
SADF-19-02-002

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

December 17, 2019



Location Map





Lake Apopka Restoration Conceptual Project

- **The Lake Apopka Restoration Conceptual Project is for the future implementation of management activities to improve the water quality of Lake Apopka.**
- **A surficial layer of unconsolidated flocculent (UCF) sediment that contains high nutrient levels (including phosphorus) has been documented within the lake.**
- **The removal of the UCF and associated phosphorus load has been determined to be the best course of action to allow ecologically vital Submerged Aquatic Vegetation (SAV) to recruit into the littoral zone.**
- **Maximizing the extent of SAV throughout Lake Apopka's littoral shelf is considered by the SJRWMD to be vital in restoring Lake Apopka.**



Project Scope

- **The Lake Apopka Restoration Conceptual Project, will provide a framework for seven future construction phases consisting of:**
 - Dredging and removal of UCF within 12,825 acres of Lake Apopka
 - Pumping of slurry and placement of dredged material in specified cells within 9,630 acres of wetlands in the Lake Apopka North Shore (LANS) area
 - Plantings within 300-600 acres of the littoral zone of the lake
- **The intent of the applicant is to obtain Board approval of the dredging concept in order for EPD staff to issue permits for the actual phased dredging operations.**



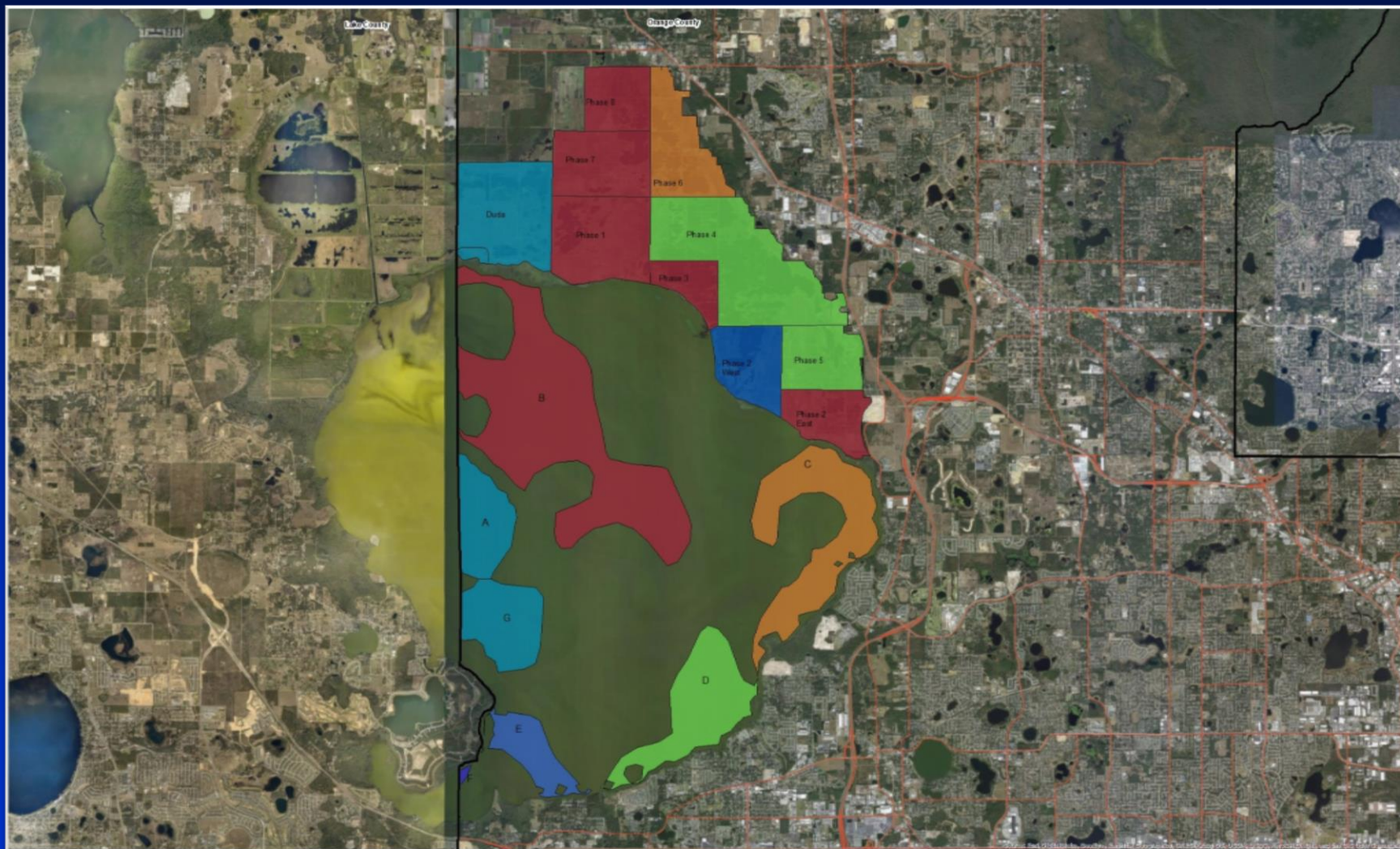
Aerial – LANS Area



Lake Apopka North Shore Restoration Area

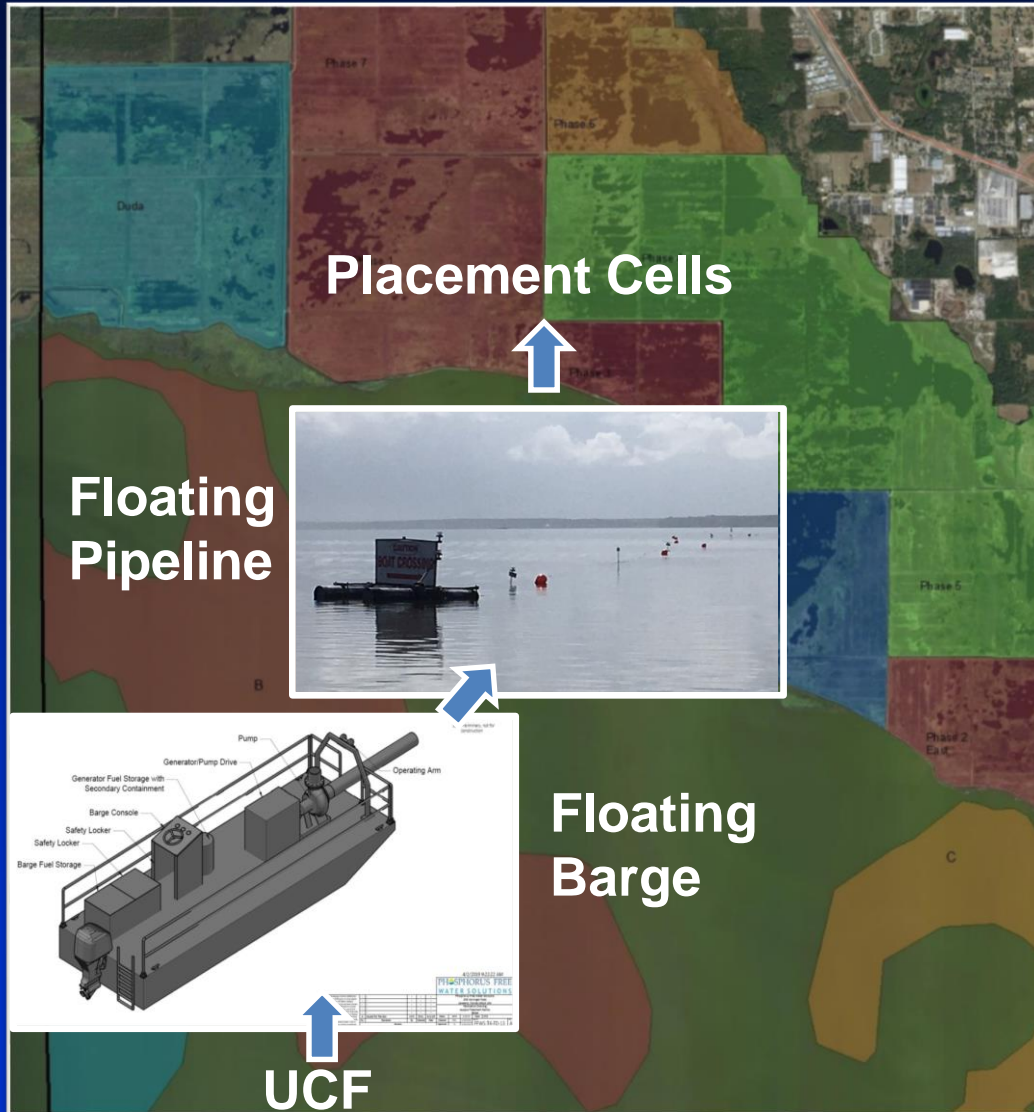


Aerial – Dredging & Placement Areas





Dredging Process



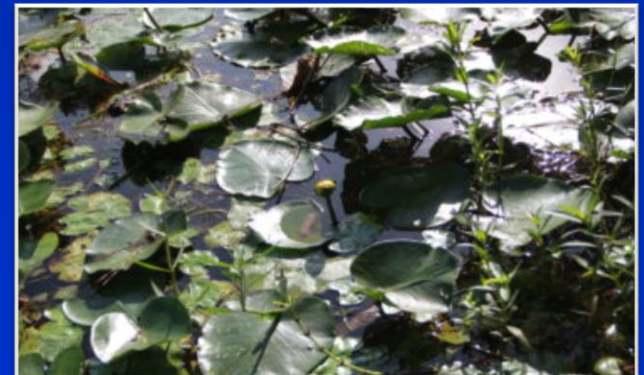
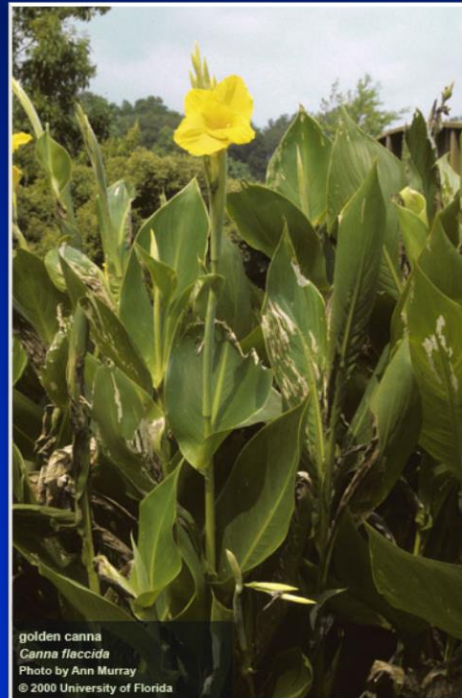
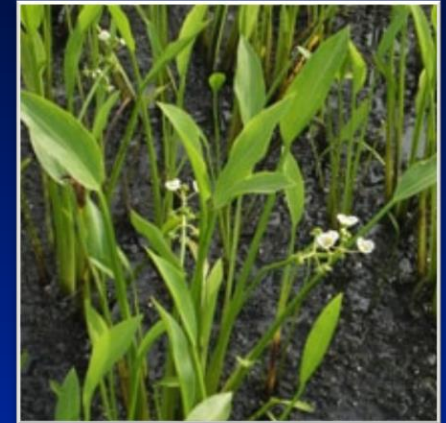


Existing Conditions: Placement Cells





Littoral Zone Plantings





Existing Conditions: Lake/Littoral Zone





Review Criteria

- Pursuant to Chapter 15, Article VI, Sec. 15-218(e), “The Board, in order to prevent undesirable situations which might result from the performance of any of the activities listed in this section, shall obtain such engineering or other data and hear such testimony under oath as may be necessary to determine:”
 - (1) The effect of the proposed plan or development on the use of said waters in said county for transportation and recreational or other public purposes and public conveniences.
 - (2) The effect of the proposed plan or development on the free use of waters and waterways within the county.



Review Criteria (cont.)

- (3) The effect of the proposed plan or development upon erosion control in the said county.**
- (4) The effect of the proposed plan or development upon the flow of waters in said county.**
- (5) The effect of the proposed plan or development upon formation of stagnant pockets likely to collect debris.**
- (6) The effect of the proposed plan or development upon the natural beauty and recreational advantage within said county.**
- (7) The effect of the proposed plan or development upon the conservation of wildlife, marine life, and other natural resources.**
- (8) The effect of the proposed plan or development upon the upland surrounding or necessarily affected by said plan or development.**



Considerations

- Each construction phase will individually and cumulatively supplement SJRWMD's ongoing restoration efforts of Lake Apopka.
- The dredged material placed within the cells will bind with and cover the historic pesticide contamination and restore historic wetland elevations to allow more effective management of the LANS.
- SJRWMD currently does not have funding for each phase of the project; however, the conceptual approval will allow for expedited review of the construction phases, which often have strict funding deadlines.
- Conceptual permit proposed to be valid for 20 years.
- EPD staff will review detailed construction plans for each phase and issue administrative approval under this conceptual permit.



Considerations

- Pursuant to Orange County Code, Chapter 15, Article VI, EPD staff has evaluated the conceptual permit application and the required documentation therein and made a finding that the applicant has demonstrated that the proposed conceptual restoration activities will result in an overall improvement in the water and habitat quality of Lake Apopka and the LANS and that the request is consistent with Section 15-218.



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**