

Lake George Environmental Management Inter-Agency Update



Report compiled by the East Central Florida Regional Planning Council
June 2018

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Executive Summary

The East Central Florida Regional Planning Council has been in correspondence with the St. Johns River Water Management District (SJRWMD), Volusia County, the Town of Pierson and Pine Island Fish Camp stakeholders on an ongoing basis since June 2017 regarding the voluminous buildup of muck along the eastern shores of Lake George. As part of this ongoing outreach, the following has been determined.

Statement of the Issue

- Hyacinth spraying along the shores of Lake George has, over time, led to the buildup of dead sediment at the bottom of Lake George. This dead sediment slowly turned into muck.
- The 2016 hurricane season produced destructive winds that pushed this muck from west to east across the Lake. This resulted in a large buildup of muck along the lake's eastern shores, centered at Pine Island Fish Camp (see figure 1).
- As a result, water quality has been diminished, the Pine Island fish camp is barely accessible, and economic development generators such as blue crab cultivation have become vulnerable.

As a regional stakeholder, the East Central Florida Regional Planning Council is interested in identifying the correct party and funding method to alleviate this important environmental and economic issue.

Of particular concern is the identification of the controlling agency of the water body for application purposes. Due to the fact that Lake George is a "water of the state", it is unclear if Volusia County or Pierson can be an applicant for a Water Management District grant or a non-grant-funded dredging application.

This document contains information involving potential solutions to the problem (with associated costs), identification of potential funding sources, questions for the St. Johns River Water Management District, and a summary of all interagency outreach that has been done regarding this matter.

The East Central Florida Regional Planning Council would like to thank you for your continued correspondence and helpfulness regarding this very important matter.

Hugh W. Harling Jr., P.E.
Executive Director
East Central Florida Regional Planning Council
(407) 245-0300, extension 303

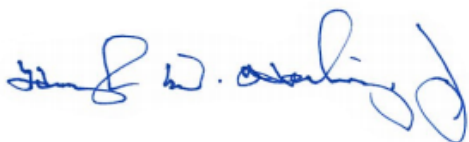


Figure 1: Project Area and Scenario



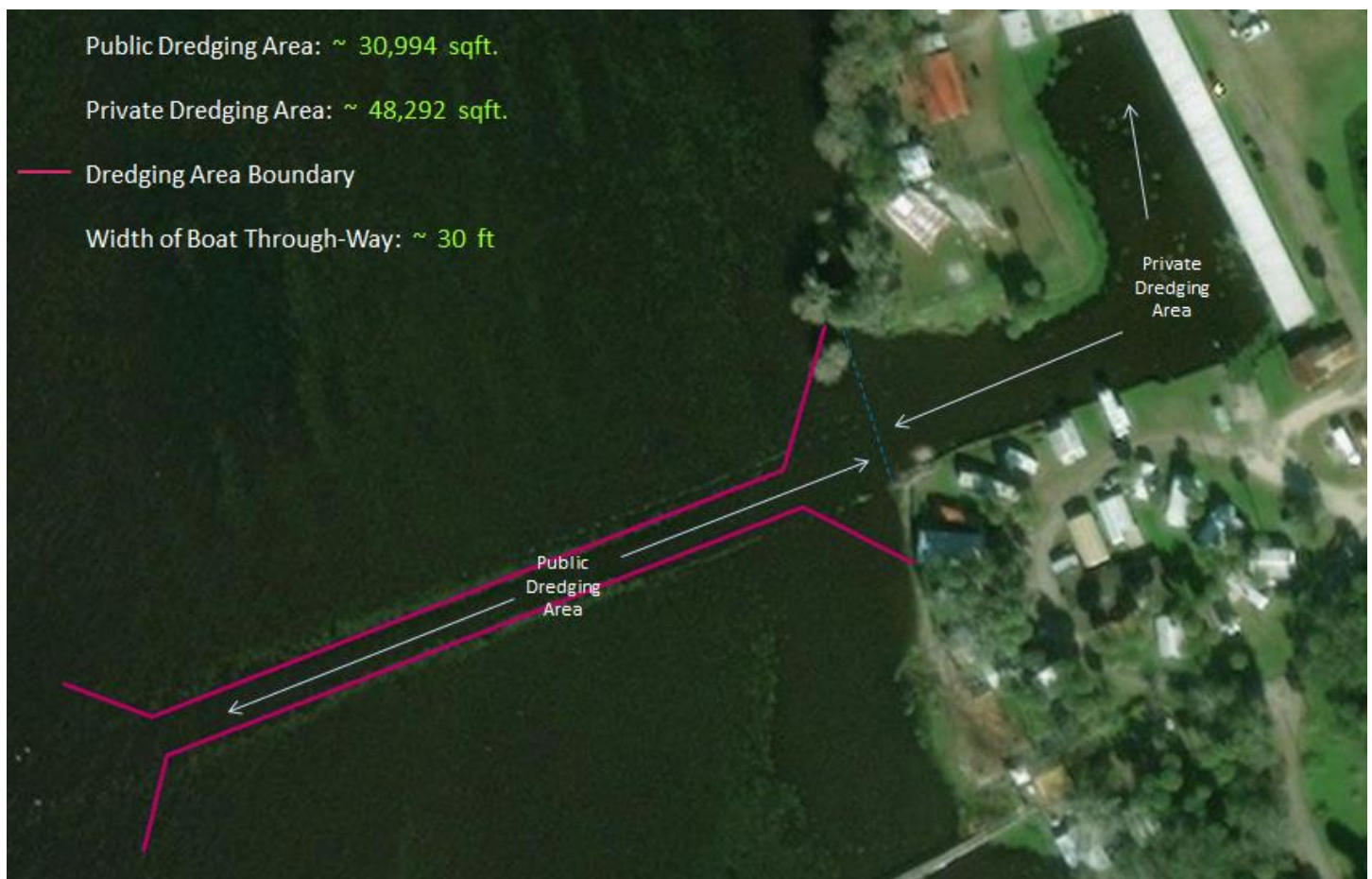
Identified Solutions and Costs

The East Central Florida Regional Planning Council has put together graphics depicting a potential solution to this issue that involves dredging the boat access zone, which is within the “waters of the State”, and dredging of the marina, which is situated on private property. The inclusion of the private property is explained later in this report.

The potential project would include dredging to allow access for boats traveling in and out of the marina. The “public dredging area” would consist of approximately 247,952 cubic feet of the water body (assuming an average depth of 8 feet). The cost of this project, at \$1.85 dredging cost per cubic foot with 15% overhead, would be approximately **\$527,517**

The graphic below depicts this potential project:

Figure 2: Potential Dredging Strategy



Assuming a dredging cost of \$1.85 per cubic foot, the cost of dredging the “private dredging area” would be approximately **\$821,929** with 15% overhead included. The total cost of all dredging would be approximately **\$1,349,446**.

Benefits of the Project

- **Access to/from Marina:** This project would restore normal access to the marina, enhancing access to the lake for people with businesses including fishermen. Recreational utility would increase for local residents and visitors.
- **Complete Material Removal:** The dredged material can be stored on a neighboring parcel, as agreed upon by the fish camp owner and the neighboring parcel owner.
- **Water Quality and Clarity:** The removal of the muck would increase navigation and water depth, and overall water clarity and quality.
- **Ecosystem Restoration:** Vital ecosystems that thrive in the littoral and benthic zones would also benefit from an increase in clarity and a decrease in the volume of suspended solids.

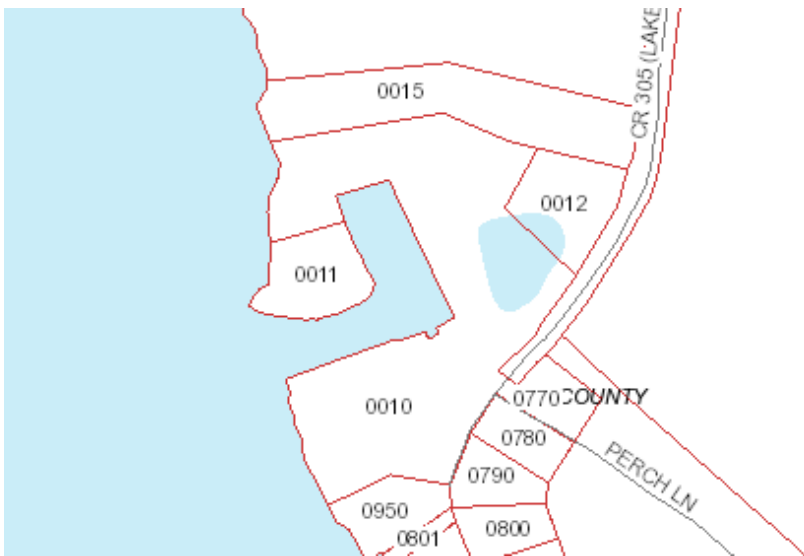
Stakeholder Interests

For purposes of clarity, the ECFRPC has identified the interests of all stakeholders involved in this process. These interests are defined below:

- **Town of Pierson** – Economic development within the Town of Pierson is directly affected by activities on the lake. The Town is located approximately 3.5 miles to the southeast of the Pine Island Fish Camp.
- **Volusia County** – The lands and parcels affected by muck buildup are primarily located in unincorporated Volusia County, Florida. In addition, economic development in the County is directly tied to the health of the lake.
- **State of Florida** – The state holds jurisdiction over the lake as a “water of the state”. The blue crab industry and the tourism industry are directly tied to the health of Lake George. In addition, Lake George flows into a number of other water bodies that could, in the long term, see a decrease in water quality due to hydro connectivity to Lake George.
- **SJRWMD and FDEP** – Hold authority over dredging projects to be performed in the lake. Tasked with maintaining water quality in the state of Florida within associated water management districts.
- **Pine Island Fish Camp** – A private fish camp that has been devastated by the muck buildup and exacerbated by Hurricane winds. The fish camp requires access to the lake in order to rent out boat parking spaces.

Parcel Information

The fish camp contains the following parcels.



Information pertaining to parcels 0010 and 0011 is summarized below:

Parcel 0010

Parcel ID: 474200000010

City: Unincorporated Volusia County

Owner: [Riley May K Solmonson \(FS – Fee Simple\)](#)

Business Name: Mary's Pine Island Resort

Address: 1600 Lake George Road, Seville, FL 32190

PC Code: 3600 – Camps

Land Value: \$160,250; Assessed Value: \$309,100; Taxable Value: 280,097

Special Assessment Project #: 5030; Description: Stormwater; Amount: \$131.04

Parcel 0011

Parcel ID: 474200000011

City: Unincorporated Volusia County

Owner: [United States Department of the Interior](#)

Business Name: None

Address: 1590 Lake George Road, Seville, FL 32190

PC Code: 8000 – Vacant Governmental

Land Value: \$679; Assessed Value: \$1,770; Taxable Value: \$0

Special Assessment: None

Outreach Summary

Mr. Dale Jenkins, PG, of the St. Johns River Water Management District responded to an earlier version of this report in writing. The following answers, in green, were provided to the questions previously included in this report (May 2018):

- Pierson, a REDI community, has direct economic ties to the marina but the marina is not within its jurisdiction. Can Pierson apply for a SJRWMD grant due to the economic hardship imposed by the presence of muck? **No, Pierson cannot be the Applicant for cost-share since the project is not located within their jurisdiction.**
- Can Volusia County apply for a SJRWMD grant for projects in Lake George, even though the lake is within “waters of the state”? Does Volusia County have those rights within state waters? **Yes – Volusia County can be considered an Applicant.**
- If Volusia County cannot apply for a SJRWMD grant, then would the responsibility be placed on the state of Florida? The East Central Florida Regional Planning Council is available to assist in any way. **No need to answer this question since Volusia County is a potential Applicant.**
- Can the Pine Island Fish Camp apply for hurricane disaster assistance to dredge their private property? The ECFRPC has not completed satisfactory research to determine if an economic hardship has indeed been imposed on the fish camp as a result of hyacinth spraying and hurricane winds. **Hurricane disaster assistance questions should be directed to FEMA for consideration.**
- Additional Comments: **As you suggested, it is a good idea to meet and discuss the potential project in further detail. As you may recall at the October meeting, our Districtwide cost-share program is an annual, competitive process and potential projects must provide a demonstrated benefit to at least 1 of the District’s 4 core missions (including water supply, water quality improvement, natural systems restoration, and flood protection). The next Districtwide cost-share program solicitation process will be launched in January 2019, with projects recommended for funding presented to our Governing Board in April 2019. Funding, pending Board approval will become available on October 1, 2019.**

Discussions with Pine Island Stakeholders (May 2018)

- Hugh Harling spoke with Jamie Solmonson, a local stakeholder, to discuss the muck problem and the current status of the fish camp. It has been determined that the muck situation has gotten worse.
- Members of the fish camp community would like to see hurricane funds applied to dredging out the muck growth present on the fish camp’s private property.

Development of Concept Maps and Pricing for the County (May 2018)

- Hugh Harling and PJ Smith created visuals showing a potential dredging area and plans for a chain link fence.

Discussion with Tim Baylie (March 2018)

- PJ Smith emailed Tim Baylie inquiring on the status of any Lake George dredging in the near future. Tim Baylie told PJ that they are still working on getting funding for the park to the south of Pine Island. Nothing is currently being planned for Pine Island.
- PJ Smith stated that the ECFRPC will continue to assist in any way we can in terms of inter-agency assistance with the County. We can provide technical assistance or engage regional and statewide stakeholders.

Meeting with SJRWMD (October 31, 2017)

- Hugh Harling and PJ Smith met with the SJRWMD to discuss the Pine Island Resort and the Shell Harbor Marine Park and the availability of funding.
- Present were ECFRPC staff, Tim Baylie (Volusia Parks Dept.), Dale Jenkins (SJRWMD), Ann Shortell (SJRWMD), James Sowell (Pierson Mayor), Pat Patterson (Volusia County Council)
- Maps of the two projects as well as a map of the entire lake were provided. These maps are available at the ECFRPC.
- SJRWMD staff discussed that the two projects must be on separate applications for grant funding, and that the grant funding does not cover maintenance, private property or any outside infrastructure such as roadways and retention ponds. The funding goes to dredging and other mitigating tasks.

- REDI communities (Rural Economic Development Initiative) like Pierson are eligible for cost-sharing funding, however neither of the projects discussed are within the city.
- It is possible that the county could pursue a conservation easement within the existing Pine Island Resort parcel to cover the inlet leading to the private boat ramps. However, it is paramount that the Pine Island staff continues to own and maintain the boat facilities. Public ownership is not in the interest of Pine Island's owners.
- The SJRWMD was not aware that contractors are spraying in such magnitude along the lake shore. It is a bit unclear if FWC does the spraying, but that was what is assumed at this point.
- Dale and the SJRWMD team will work with grant writers to make them better. Grants must hit a minimum score to be considered. Once grants are awarded, leftover moneys could be given to runners-up if some projects are not ready to be implemented.
- The Shell Harbor Marine Park is currently in good standing for a grant because money is already in place for infrastructure (roads and retention) next to the proposed grant project. Tim Baylie (Parks) has a line item in place for grant funding at the park.
- The Pine Island project would be best positioned if the grant application focused on the reduction in water quality and increase in suspended solids from boat propellers kicking up muck. This can hurt blue crab and other marine populations.
- Grants can be found at this link: <https://www.sjrwmd.com/localgovernments/funding/>

Hugh Harling Email to Dr. Ann Shortell (September 14, 2017)

- Hugh Harling emailed Dr. Ann Shortell, Executive Director of the St. Johns River Water Management District, regarding the Pine Island Resort situation.

Pine Island Resort Boat Trip (July 12, 2017)

- Hugh Harling and PJ Smith toured the Pine Island Resort and Lake George via air boat with Pierson Mayor James Sowell and Pine Island staff.
- ECFRPC staff viewed the boat marina, which was filled with muck, as well as the lakeshore which included hyacinth overgrowth and muck extending outward up to 300 feet. The muck is up to 8 feet deep in areas where the water depth is less than one-foot. Along the lakeshore, methane bubbles protrude an odor that is not pleasant to lake visitors.
- PJ Smith received video of lake spraying; video is available at the ECFRPC

Submitted a DEO Technical Assistance Grant (June 2017)

- Submittal included 1) Economic Assessment & Valuation Analysis of the Lake (\$20,000); 2) Environmental Analysis of FDEP Data and BMAP Information (\$15,000); and 3) Best Practices Manual for Fiscally Responsible Environmental Mitigation (\$15,000)
- Total Submittal: \$50,000 --- the grant application was not selected for funding