WINTER GARDEN

April 11, 2025

The Honorable Daniel Webster
U.S. House of Representatives
2184 Rayburn House Office Building
Washington, DC 20515

City of Winter Garden

P: 407.656.4111

300 West Plant Street
Winter Garden, FL
34787
wintergarden-fl.gov

Re: Community Project Funding request for the Lake Apopka Shoreline Restoration Project

Dear Congressman Webster:

The City of Winter Garden would like to submit a Community Project Funding request for the Lake Apopka Shoreline Restoration Project for $4M and certifies that it intends to meet all program requirements.

Stakeholders

Project stakeholders include:

- City of Winter Garden (submitter) – The City will manage the award and benefits from improved water quality, submerged aquatic vegetation, boat navigation, and enhanced ecotourism opportunities.
- St. Johns River Water Management District (SJRWMD) – This project supports its long-term plan to remove legacy nutrients from the lake and meet TMDL requirements.
- Friends of Lake Apopka (FOLA) – This NGO represents community residents and their desire for improved water quality and recreational use of the lake.

Project Description

Problem

Once lined with dozens of fish camps, Lake Apopka was formerly recognized as the bass fishing capital of the Eastern U.S. However, chronic nutrient overloading from agriculture runoff has led to degradation in water quality, toxic algal blooms, muck buildup, die offs of healthy, native submerged aquatic vegetation (SAV), and the proliferation of Hydrilla, one of the fastest growing and most invasive species of nuisance plants that can clog canals and cause flooding in surrounding communities.

Much of the bottom of Lake Apopka is covered by a consolidated muck layer which is mostly decayed plant matter. Above the consolidated muck layer is an unconsolidated flocculant layer made up mostly of dead algae. These muck and flocculant layers, contribute to nutrient overloading, inhibit recovery efforts for SAV in the lake, and are a nuisance to boaters.

Native SAV is critical to the health of this ecosystem as it cycles out excess nutrients that can cause algal blooms, cleans and oxygenates the water column, stabilizes sediments to prevent flooding and sediment resuspension, helps to outcompete nuisance vegetation which must be sprayed with costly herbicides, and creates vital habitat for fish and other wildlife.

The muck layer on the bottom of the lake creates shoreline water depths too shallow for boaters to navigate without disturbing the muck layer. Suspended muck sediments cause two undesirable consequences: the presence of malodorous and aesthetically displeasing black plumes of muck, and damage to boat motor cooling systems from muck entrained in outboard engines.

Solution

To address the issue, in 2023, The City of Winter Garden and SJRWMD commissioned an engineering study to design and permit channel dredging and near shore habitat dredging and disposal of 60 acres of muck in the vicinity of the lake's Newton Park located at 31 W Garden Ave, Winter Garden, FL 34787. The park is near the rejuvenated historic downtown district that attracts locals, tourists, and West Orange Trail riders with its small-town atmosphere and trendy shops and restaurants.

The proposed dredging will provide water quality benefits to Lake Apopka by removing unconsolidated floc easily resuspended by wave energy. Dredging the channel also provides a benefit by removing sediment for improved boat navigation.

While the SJRWMD has made great strides in addressing the lake's issues, this plan is intended to support the District's long-term goal to fully restore the lake.

Funding and Phases

This is a multi-phase project aimed at dredging 60 acres (273,000 cubic yards) of organic muck and unconsolidated flocculant matter from the Newton Park area of Lake Apopka. Funding requested is $4M to mobilize and dredge Phase 1 of this 5-Phase project. Future phases will focus on continuation of dredging as funding becomes available. The City will seek additional funding through federal, state, and county water quality improvement grants, state legislative funding, and NGO contributions. The City of Winter Garden and St. Johns River Water Management District have provided $300,000 to design and permit the project in 2023.

Good Use of Taxpayer Dollars

This project is a good use of taxpayer dollars because it will:

- Remove a deep layer of organic muck and legacy nutrients that contribute to algal blooms and poor water quality
- Reduce sediment resuspension. Wind driven waves and boater disturbance frequently resuspend the muck layer.
- Prepare the sediment for expansion of native submerged aquatic vegetation which will help to clean and oxygenate the water column, stabilize the sediment, and restore habitat for fish and other wildlife
- Remove invasive vegetation, specifically Hydrilla, which spreads quickly and can pose flood control issues
- Reduce the need for costly spraying of herbicides to control Hydrilla

- Enhance boat access to the lake. Shoreline water depths are now too shallow for boaters to navigate without disturbing the muck layer.
- Enhance ecotourism, fishing opportunities, and surrounding property values

Budget Breakdown

If awarded, the $4M would be used to administer and construct phase one of the project. Funds would be used to administer the award, hire a qualified contractor, secure a staging/dewatering site, mobilize the dredging operation, install erosion controls, dredge approximately 30,000 cubic yards of muck from the bottom of the lake, and dispose of the material. Funding would allow for all labor, materials, equipment, bonds, and insurance. Future phases would seek to dredge the balance.

Plans/Maps

The project is currently in design and permitting through engineers WSP. The final design plan can be made available upon completion. Below is a map of the intended dredge and disposal areas.

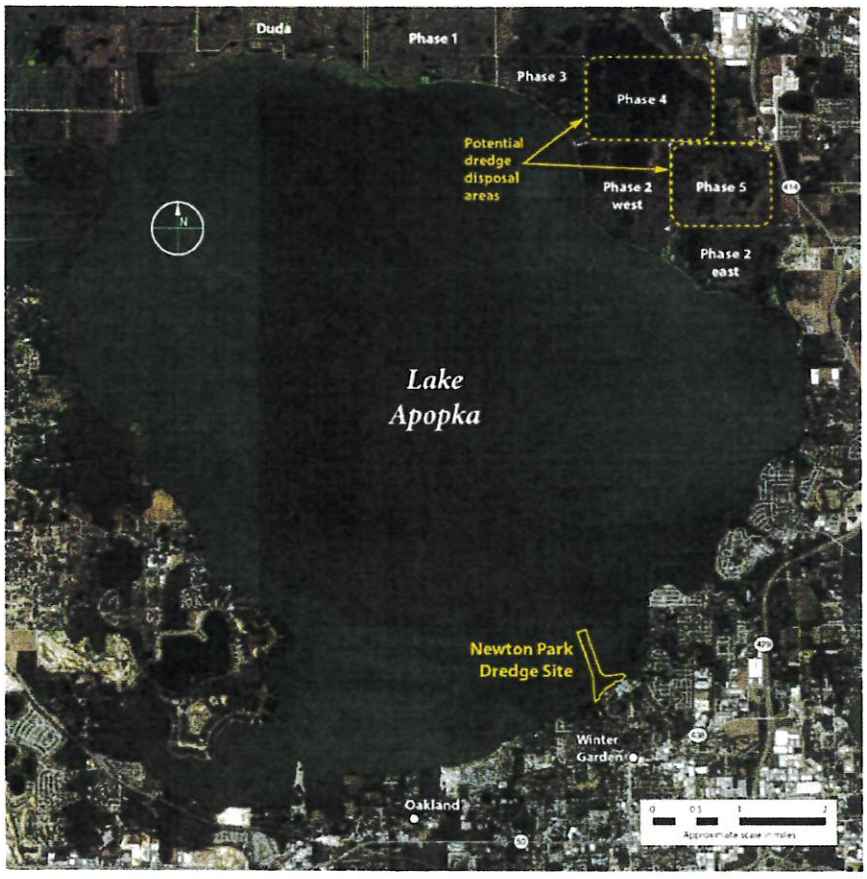

Figure 1 - Newton Park Dredge Site and Potential Dredge Disposal Areas

Thank you for your consideration and for your service to our community and our nation. Please feel free to contact me should you have any questions.

Sincerely,

Jon C. Williams
City Manager
City of Winter Garden
300 W Plant Street, Winter Garden, FL 34787
407-656-4111 ext. 2267 | jwilliams@cwgdn.com

Observer
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FORECAST: For the love of the lake

Winter Garden is partnering with Friends of Lake Apopka and the St. Johns River Water Management District to develop a plan to dredge Lake Apopka near the Newton Park boat ramp.

- **By** Annabelle Sikes
- **9:00 a.m. January 8, 2023**

Photo courtesy of Daniel Whitehouse

The demise of Lake Apopka dates all the way back to 1893, when the destruction was foreshadowed by the construction of the Apopka-Beauclair Canal. The new canal lowered the 50,000-acre lake by 3 feet, exposing the shallow northern portion of the lake.

In 1941, farmers constructed a levee across Lake Apopka to drain the top 20,000 acres, creating muck farms to grow vegetables during World War II.

Fifty years of nutrients from the farms, wastewater from nearby towns and byproducts from citrus processors created repeated algal blooms and turned the lake pea green, killing all native aquatic vegetation.

Long considered the largemouth bass capital of the eastern United States, Lake Apopka went from an angler's paradise to Florida's most polluted lake.

In the last 25 years, progress has been made, largely thanks to efforts from Friends of Lake Apopka and the St. Johns River Water Management District, and the restoration of Florida's fourth largest lake is continuing.

The latest project? Develop a plan to design and permit channel dredging and near-shore habitat dredging in the vicinity of the Newton Park boat ramp.

"The Newton Park dredging project would be another in a long list of efforts that are contributing to the improvements we've already seen," SJRWMD Media Outreach Manager Ashley Evitt said. "The design effort is a necessary step toward implementing the project. The restoration of Lake Apopka has been a focus of the district's efforts for many years. While many successes have been achieved to date, the restoration of the lake will require the continued collaboration of state, regional and local partners."

PROJECT PLANNING

In 2016, the Florida Legislature granted SJRWMD $5 million per year for the restoration of Lake Apopka. One of the initiatives the district sought out with the money was to conduct an engineering study of what it would take to dredge Newton Park.

Just as soon as the initiative began, the money dried up, because the Legislature decided to spend the money elsewhere. The project went dormant.

In early 2022, Joe Dunn, FOLA immediate past president, and other FOLA members approached the district and asked what it would take to resurrect the study. The district said if the city of Winter Garden was willing to do a collaboration, the project could move forward.

FOLA met with former City Manager Mike Bollhoefer and current City Manager Jon Williams, who both agreed the city would put up $100,000 for the project, while the district contributed $200,000 through a legislative appropriation focused on Lake Apopka water quality improvement, meeting the $300,000 needed to finish the study.

A draft Request for Proposal was created with review from the involved parties. The focus of the project is to conduct an engineering evaluation of what it would take to dredge the water near Newton Park, which is separate from the actual dredging, with the planning being conducted in a phased approach.

The district will be the lead agency hiring and managing an engineering firm to complete the final design and permitting of the project.

The engineering firm selected will study the plans with design and permitting anticipated to require 24 months before coming back and giving recommendations for dredging and best practices to the district and city.

The dredging timeline will depend on funding; about $5 million is needed for completion. The district has grants through the state that can be utilized to help pay for the project up to 25%. Other opportunities for funding could be entities such as Orange County or the U.S. Department of Environmental Protection.

Dunn said part of FOLA's mission will be to help the city secure funding.

However, because the project still is in its planning stages, Dunn said funding is not currently being discussed.

"With any engineering study and with any science, there are unknown unknowns," he explained. "You just don't know what might come up. This is a really critical phase."

INSPECTING IMPACTS

According to the SJRWMD, placement of dredge material can be on district-owned Lake Apopka north shore property or potentially dewatered and used for an alternative beneficial use.

"The proposed dredging will also provide a Lake Apopka water quality benefit by removing unconsolidated floc easily re-suspended by wave energy," Evitt said. "Dredging the channel provides a benefit by removing sediment for boat navigation."

Dunn agreed, saying eliminating the muck would allow native vegetation to proliferate.

"The muck is the dead vegetation covering the sandy bottom," he said. "Emergent vegetation that sits on the surface like lily pads and submerged aquatic vegetation like eelgrass don't like the muck. They can grow in it but prefer a cleaner sand base."

In terms of navigation, Dunn thinks a majority of anglers prefer not to put their boats in at the dock because of the large amounts of muck that enter the motor.

"There are a lot of reasons for it from an ecological standpoint," he said. "To decrease the turbidity of the water. That muck gets in the water column and the lake doesn't get through. Because it's a large shallow lake, the wind stirs up the muck, so getting the muck out will increase oxygen, light, native vegetation and make it easier to put a boat in."

Assistant City Manager Steve Pash said the city decided to contribute financially toward the design to improve the community.

"Dredging the area in front of our dock will be beneficial to our citizens, as well as those that are putting boats in at that location," Pash said.

Daniel Whitehouse, FOLA member and avid lake user, said the fishing has improved dramatically over the last few years and is continuing to improve. Howver, it still can be better.

"We need more native submerged vegetation in the lake to help aid not only the lake health but also the game fish and the overall natural habitat," Whitehouse said. "The challenges the lake is facing are visible but also non-visible. When the lake levels are low, anyone who is putting a boat in at the ramps around the lake will quite easily notice the muck aspect. You start idling your boat out, and the water gets churned up, and you get that brown muck color. You can also notice the clarity of the lake and the water color. In some lakes, you can see 15 or 20 feet down clear as day. In some areas of Lake Apopka it's hard to see 6, 8, even 12 inches down because of the turbidity. The more muck we get out of the lake, the more it will help with that."

However, Dunn said there are also a lot of mechanical and engineering challenges that go along with the process, and dredging is actually the easier portion.

"You're going to take a bunch of phosphorus-laden muck and stir it up and get phosphorus back in the water, so you need to understand what's going to happen and what dynamic is going to occur in terms of the phosphorus levels," he said. "So once the muck comes up, what do you do with it? That is a big part of the engineering study. One of the reasons we wanted to do the study is so they had scientific and engineering facts instead of emotion, because one of the solutions is to have just a bunch of dump trucks pull up to Newton Park, load it up, drive it away and dump it somewhere."

Dunn said he thinks another option would be to utilize a series of barges with pumps to put the muck on the north shore, which is generally the preferred solution. The distance from the park to the northeastern corner of the lake is about 6 miles.

"Every decade that they farmed on the north shore, the ground dropped a foot, so that 20,000 acres on the north shore that used to be farms is 5 feet lower than the lake," he said.

"You have lots of room to take muck and put it on the north shore, but you've got to get it up there."

However, the pumping raises yet another series of challenges.

With the continuous running of pipes and pumps with motors for an undetermined time, how can the project impact the least amount of citizens?

"Dredging by itself won't 'fix' the lake, but it's just another way we can help the lake recover," Whitehouse said. "The current plan that the city is working on is minimal in the grand scheme of things — the amount of muck they're going to dredge for the purpose of navigation. If we were ever to get to the scale where there was a project to remove all of the muck on the bottom then that becomes a much larger concern of where all of that muck would go."

HOW DID WE GET HERE?

Lake Apopka is the headwaters of the Ocklawaha Chain of Lakes, located in northwest Orange and southeast Lake counties and is fed by a natural spring, rainfall and stormwater runoff.

Water from Lake Apopka flows through the Apopka-Beauclair Canal and into lakes Beauclair and Dora. From Lake Dora, water flows into Lake Eustis, then into Lake Griffin and then northward into the Ocklawaha River, which flows into the St. Johns River.

Although there was outrage and many calls for action in the 1960s, 1970s and 1980s, little was done to combat the lake's declining health.

Muck farmers could generate three crops a year rather than their traditional one crop per year, leading productivity to an enormous nutrient loading in the remaining 30,000 acres of the lake.

Biologist Jim Thomas in 1991 founded FOLA with the sole mission of advocating for the restoration of Lake Apopka.

In 1998, the state Legislature spent $100 million to purchase the muck farms, ending the primary source of nutrient loading into the lake. SJRWMD then spent the next 25 years restoring the muck farms to natural wetlands.

At its worst, Lake Apopka was almost 300 parts-per-billion of phosphorus as a key barometer of the lake's health used by biologists. Today, the phosphorus level is down to 80 ppb. The target is 55 ppb.

Key initiatives that drove 25 years of SJRWMD restoration efforts included: Converting 20,000 acres of muck farms into natural wetlands, creating a 760-acre Marsh Flow Way naturally filtering 40% of the lake's volume water every year, removing a million pounds of gizzard shad from the lake each year and increasing native submerged aquatic vegetation.

As the lake recovered, ecotourism flourished. Birdwatchers flock to the new wetlands on the north shore, where 270 species of birds congregate in the winter during migration. The 11-mile Lake Apopka Wildlife Drive opened in 2015 and attracts almost 200,000 visitors per year. Fishing efforts on Lake Apopka have more than doubled in the past few years.

Looking ahead, bicycle trails around the lake will be connected to create a safe 42-mile cycling route around Lake Apopka in 2024.

Dunn said his passion for the lake is fueled by his two grandchildren.

"That lake will not be completely restored in my lifetime, but I want that lake completely restored in their lifetime," he said. "The lake is my backyard, so it hits close to home with the way I care for it. Jim Thomas was such an inspiration and an incredible man. I want his legacy to continue to live."

author

Annabelle Sikes

News Editor Annabelle Sikes was born in Boca Raton and moved to Orlando in 2018 to attend the University of Central Florida. She graduated from UCF in May 2021 with a bachelor's degree in journalism and a minor in sociology. Her past journalism experiences include serving as a web producer at the Orlando Sentinel, a reporter at The Community Paper, managing editor for NSM Today, digital manager at Centric Magazine and as an intern for the Orlando Weekly.

FRIENDS OF
LAKE APOPKA

April 11, 2025

The Honorable Daniel Webster
U.S. House of Representatives
2184 Rayburn House Office Building
Washington, DC 20515

Re: Community Project Funding request for the Lake Apopka Shoreline Restoration Project

Dear Congressman Webster:

Founded in 1991 by local biologist Jim Thomas, the Friends of Lake Apopka (FOLA) is a citizen advocacy group that actively advocates for the continued restoration of Florida's 4th largest lake. As the headwaters of the Ocklawaha River Basin, Lake Apopka is a crucial water resource for the State of Florida.

FOLA fully supports the City of Winter Garden in their pursuit of improving water quality by dredging the shoreline near Newton Park, a critical access point to the lake.

The $4M project will also improve submerged aquatic vegetation, boat navigation, and enhance ecotourism revenues.

Thank you for your consideration of this project and for your effective representation of our region in Washington. Please feel free to contact me should you have any questions.

Sincerely,

JP Dunn Jr

Joe Dunn
Board of Directors
Friends of Lake Apopka

joe.dunn@fola.org
(352) 433-6975