Lake Holden Newsletter

Lake Link

2023 EDITION

INSIDE THIS ISSUE

Letter from the Advisory Board

https://lakeholden.org/

Dear Lake Holden Residents:

We admit it: we're a little obsessed with our water.

We're guessing you are too. Lake Holden is like an oasis in the middle of busy Orlando; a pristine waterbody pressed on all sides by the city skyline, residential neighborhoods, industrial activity, and major road and interstate systems. It's an amazing thing to be surrounded by so much civilization and still feel like you're living in a secret paradise. Lucky? Yes, we are.

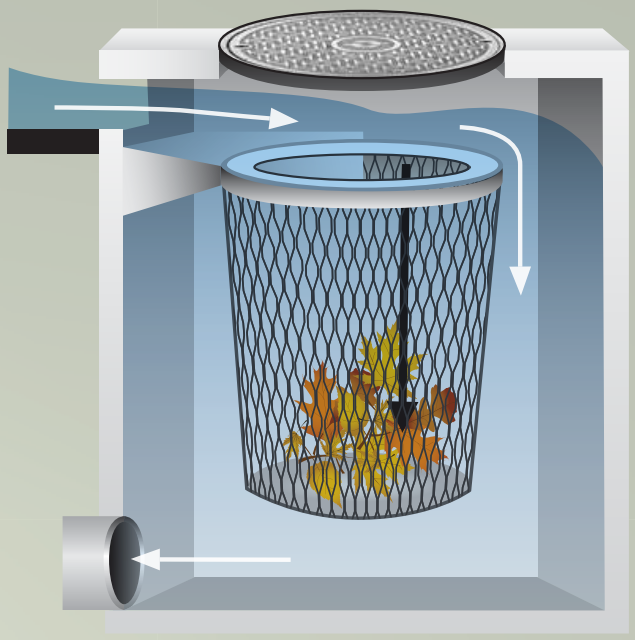
But Lake Holden wasn't always so beautiful. Newer residents might be surprised to learn that in the recent past, the lake suffered greatly from Orlando's rapid population and industrial growth. There are still people living here who remember when you could not see any further than a few inches into the water due to algae infestation and pollution. Fish washed up on the shore, starved of oxygen. Unable to support healthy biological life, Lake Holden was considered a "dead lake" by some experts.

Fortunately, members of the Lake Holden Water Advisory Board and other concerned residents enacted an ambitious plan to reverse the damage. It took years of hard work; planting thousands of indigenous, water-filtering plants by hand and investing in new technology to help keep chemicals from street runoff out of the waterbody. But slowly, the waters began to clear, allowing sunlight to penetrate and foster beneficial plant growth.

What you see today when you look at Lake Holden is the result of that decades-long effort: clear, clean water, healthy aquatic plants, and an abundance of wildlife, including fish, waterbirds and otters. It is living proof that with the right choices and practices, even a near-dead lake can be brought back to life.

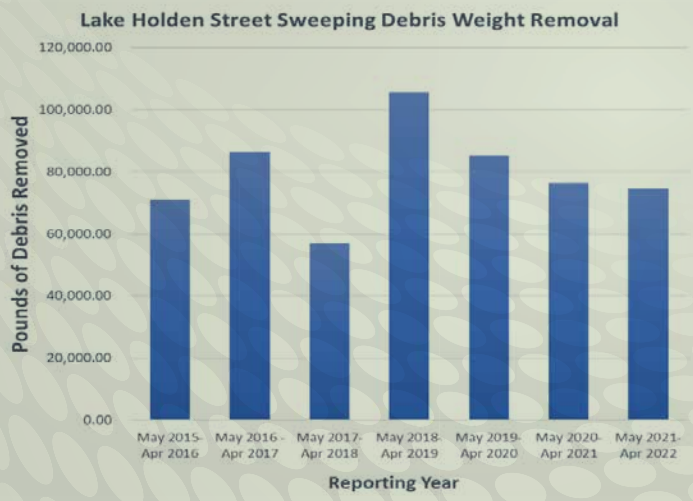
The Lake Holden Water Advisory Board meets every month to evaluate and maintain ongoing projects for the good of our water. Your Municipal Service Taxing Unit (MSTU) funds are crucial for us to foster best practice methods and ally with experts. We welcome and encourage you to attend these meetings to learn more about what we're doing to keep Lake Holden one of the healthiest lakes in central Florida.

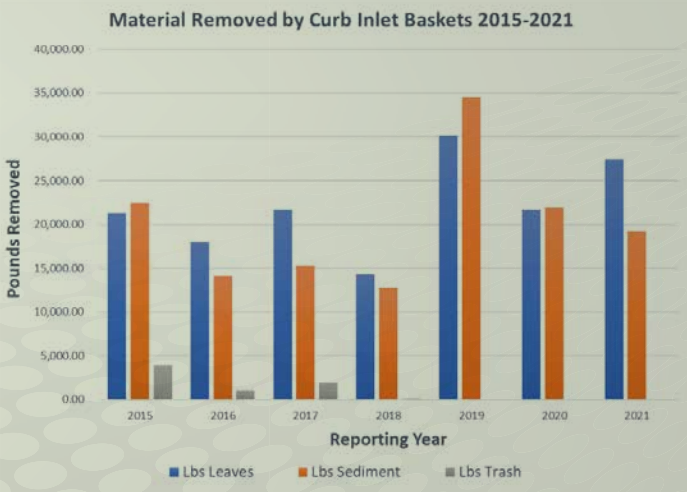
Lake Holden's BMPs



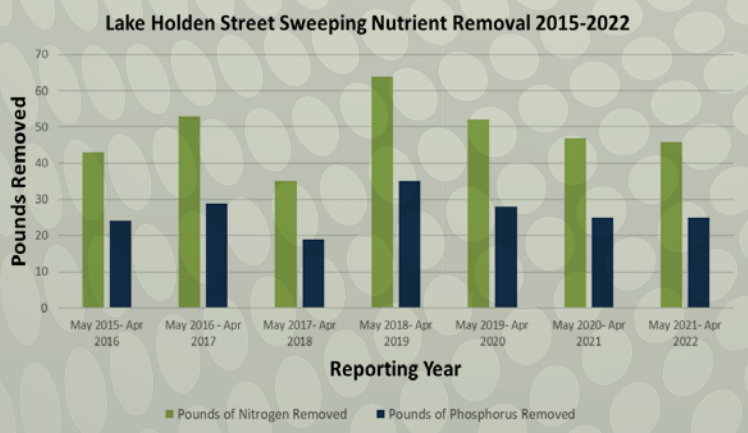
Street sweeping and curb inlet baskets are two of the best management practices (BMPs) used on Lake Holden.

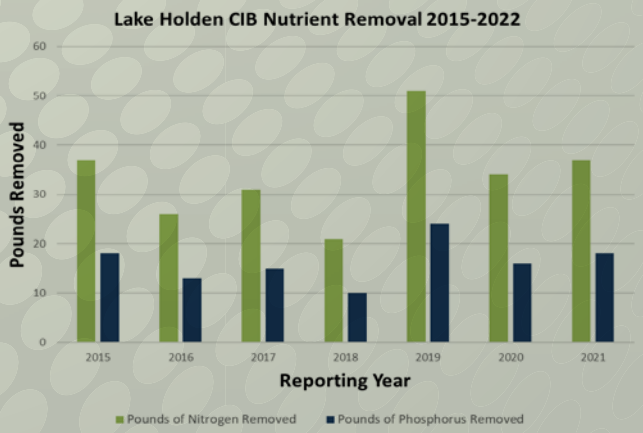
These BMPs help to reduce the amount of trash, debris and other nutrient sources from entering the lake. The Lake Holden Municipal Taxing District funds over 800 miles of street sweeping each year. On average, street sweeping removes just over 79,000 pounds of debris each year. The graph to the bottom left shows the recorded debris weight removed (in pounds) each year since May of 2015.





The graph (above right) shows the pounds of leaves, sediment and trash removed by curb inlet baskets from 2015 to 2021. There are 115 curb inlet baskets installed within the Lake Holden drainage basin. It is estimated that these baskets have captured over 300,000 pounds of material since 2015, which equates roughly to 43,000 pounds every year.





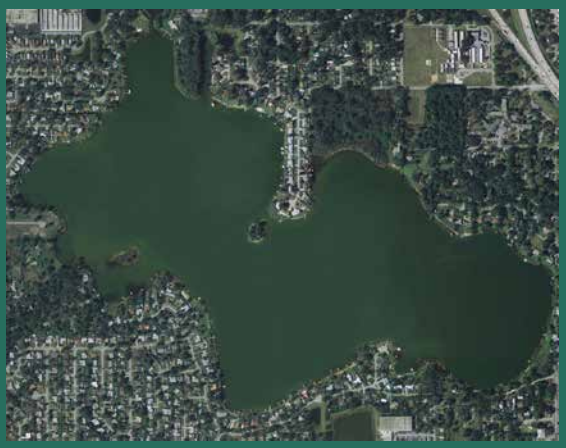
It is estimated that since 2015, the utilization of these two practices has resulted in 576 pounds of total nitrogen removed and 299 pounds of total phosphorus removed.

Aluminum Sulfate

$Al_2(SO4)^3$

Aluminum sulfate, or commonly known as alum, can be used in treatment of lakes with high phosphorus loading. The aluminum sulfate reacts with the water to form the precipitate aluminum hydroxide, also known as floc. This floc then binds with the available phosphorous in the water column to create the insoluble aluminum phosphorus compound. The floc binds with the phosphorus, and sometimes other suspended particles in the water, as it settles to the bottom of the lake. This helps to remove phosphorus and other nutrients and particles that can be used by different algae organisms. The phosphorus that binds to the floc remains in the sediments of the lake and can no longer be used by algae in the water column. This helps to reduce excess nutrients and the risk for algae blooms within the lake and improving overall water quality.

Lake Holden has a history of varying water quality, and has been listed as an impaired water body by the Florida Department of Environmental Protection (FDEP). With the usage of whole-lake alum treatments, an alum stormwater treatment facility, and other best management practices, Lake Holden's water quality has improved greatly. The top right picture depicts Lake Holden in 2006. The lake had low visibility in the water, increased nutrients and algal activity. The bottom right picture depicts Lake Holden in 2010. The lake had greatly increased visibility and water quality. Lake Holden currently has three in-line alum injection locations that release alum into the lake during increased stormwater influxes.



Have you seen the Stewardship Guide for Orange County Lakefront Homeowners?

Topics covered:

- Stormwater 101
- Runoff Rundown
- Lake-Friendly Landscaping
- Lake-Friendly Shoreline
- Lake-Friendly Fertilizing
- Shoreline Vegetation & Permitting
- Docks • Ramps & Seawalls
- Conservation Easements
- Buffers • Berms & Swales
- Pools, Spas & Aquariums
- The Truth About Florida's Lakes

Read it on-line and save paper:
http://www.orange.wateratlas.usf.edu/upload/documents/Lakefront_Homeowners_Guide-June2022.pdf

Wood Duck Box Giveaway!

The Lake Holden MSTU is funding a habitat restoration project and is looking for lakefront property owners who want duck boxes professionally installed along your shoreline **FREE OF CHARGE***! Additional boxes may be available depending on the amount of public interest. The installation will also include planting of duck-friendly vegetation.

For information about wood ducks, visit:
https://myfwc.com/wildlifehabitats/profiles/birds/waterfowl/wood-ducks/.

To request a duck box, contact:
Marissa Drake
Orange County Environmental Protection Division
407-836-1524 or Marissa.Drake@ocfl.net

*Supplies are limited—subject to approval based on location along lake shoreline

ORANGE COUNTY GOVERNMENT FLORIDA


Photo credit: Brett Barner

Triploid Grass Carp

Aquatic Weed Problems

Plants are a natural part of most waterbodies in Florida and can provide food, breeding areas and shelter for many bird and aquatic species. Plant coverage of about 30 to 50 percent is recommended to maintain a healthy balance in a waterbody. However, the overgrowth of vegetation in ponds, lakes and rivers causes serious problems throughout the state of Florida. Exotic plants are typically the culprits for aquatic weed problems, but native plants can also become problematic. Affordable solutions are needed for the control and alleviation of aquatic weed problems.

What are Triploid Grass Carp?

Grass carp (*Ctenopharyngodon idella*), also known as white amur, is a fish native to Asia that feeds only on aquatic plants. They were introduced to Florida in 1970 to control nuisance aquatic plant growth. In 1984, a method to sterilize grass carp was developed, which enabled the production of the triploid grass carp used today. Triploid grass carp are fish that have been genetically altered at hatcheries to prevent them from reproducing. Triploid grass carp are a biological and economical means of controlling particular aquatic weeds in waterbodies.

State Requirements to Use Triploid Grass Carp

A permit must be obtained from the Florida Fish and Wildlife Conservation Commission (FWC) prior to stocking a lake with triploid grass carp. Lake property owners must give 100 percent approval for triploid grass carp to be stocked in a lake.

For Additional Information Contact:
Florida Fish And Wildlife Conservation Commission
Telephone: 407-858-6170
https://myfwc.com/wildlifehabitats/habitat/invasive-plants/grass-carp/

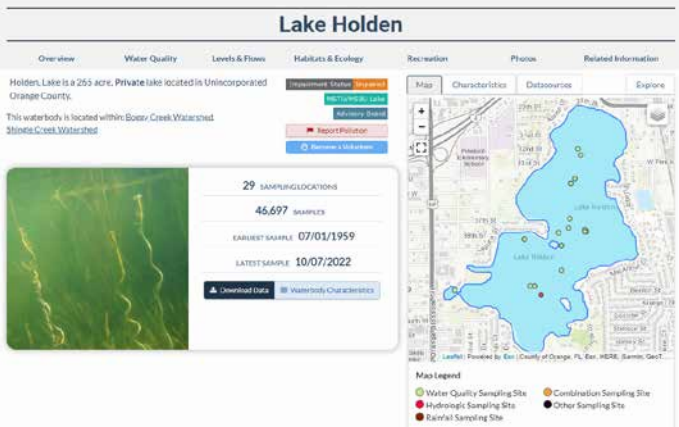
Feeding Preferences of Triploid Grass Carp

Commonly Eaten Plants	Rarely Eaten Plants
1 Hydrilla	1 Water Lily
2 Muskgrass or Chara	2 Water Lettuce
3 Southern Naiad	3 Water Hyacinth
4 Brazilian Waterweed or Elodea	4 Cattail
5 Watermeal	5 Torpedograss
6 Duckweed	6 Coontail

The Orange County Water Atlas

The Orange County Water Atlas (https://www.orange.wateratlas.usf.edu/) is designed to provide citizens, scientists, professionals, and planners with comprehensive and current water quality, hydrologic, and ecological data, as well as information about recreational opportunities and a library of scientific and educational materials on water resource issues. Typically, the scientists and citizens who live and work on water resources have found it difficult to gather the information they need from the myriad of agencies that collect the related data.

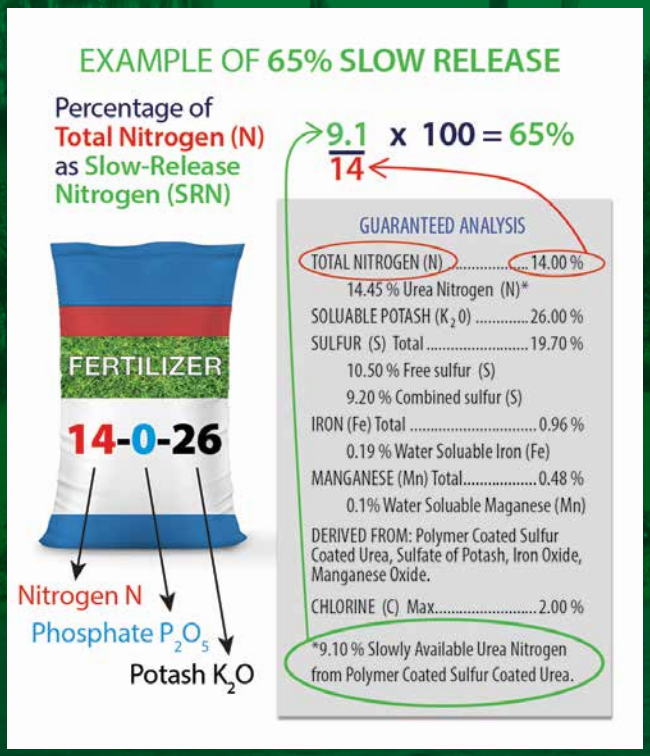
To solve this problem, we conceived of the Atlas as a "one stop information shop" for concerned citizens and scientists alike. The Atlas functions as a warehouse for a variety of water resources information, including documents and educational links. We have also strived to make the Atlas a rich resource that educates citizens about the data presented and gives scientists easy access to the specialized information they need. We encourage you to use the Atlas as a tool to help in maintaining and improving our vital water resources. Information specific to Lake Holden can be found at: https://www.orange.wateratlas.usf.edu/waterbodies/lakes/140248/.



Fertilizer Management Ordinance

- Use fertilizer that is phosphorus free and contains at least 65 percent slow-release nitrogen.
- Keep all fertilizer at least 25 feet away from wetlands or surface waters.
- Maintain 10-foot low maintenance zone (planted area with no fertilizin or mowing) adjacent to water bodies.

To learn more, visit www.ocfl.net/FertilizeResponsibly.



Orange County 311

Orange County 311 is the non-emergency help & info center that serves citizens. By partnering with internal divisions, 311 streamlines the process of connecting with local government services. Citizens can speak directly with a specialist in any of our partner disciplines during extended service hours and receive information and immediate service. The call center's activities are enhanced by online chat, mobile app and call-tracking portal technologies.

Are you signed up for OCFL Alerts?

There are two ways to sign up for ***OCFL Alerts***: download the smartphone app or sign up with your phone number to receive text messages.

Smartphone app:
OCFL Alerts is an emergency notification app that provides critical information during times of emergency. In addition to emergency notifications, the OCFL Alert system provides notices for lake herbicide treatments and water-use restrictions. Search for ***OCFL Alerts*** in the App Store or Google Play.

Text Message/Email:
Visit OCAlert.net and click on "SIGN UP HERE."
You will receive time-sensitive messages wherever you specify, such as via your home, mobile or business phones, email address, text messages and more.

Available on the App Store

ANDROID APP ON Google play

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Newsletter

ORANGE COUNTY DISTRICT 3

Mayra Uribe is your District 3 Commissioner
Visit: https://www.ocfl.net/BoardofCommissioners/District3Commissioner.aspx

Sign up for District 3 email newsletter: https://www.orangecountyfl.net/BoardofCommissioners/District3Commissioner/Newsletter.aspx

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You are getting this newsletter because you live within the boundary of the Lake Holden Municipal Service Taxing Unit (MSTU) or live within the contributing drainage area.

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