



Lake Management Guide

2011-12 Edition



City of Casselberry • 95 Triplet Lake Drive • Casselberry, FL 32707

www.casselberry.org/lakes

A Note from the Lakes Management Advisory Board.....

Dear Lakefront Property Owner,

As part of its Stormwater, Lakes Management, and Water Quality Program, in recent years the City of Casselberry has been stepping up efforts to let citizens and businesses know how they can help protect our lakes and water quality. These outreach efforts are being conducted in cooperation with the Florida Fish and Wildlife Conservation Commission, the Florida Yards and Neighborhoods Program, and the City's own Lakes Management Advisory Board, which is composed of volunteer citizens.

The City realizes that lakefront property owners and residents are usually not given an "instruction manual" on how to best manage and protect their lakefront at the time of purchase. This updated Guide is part of this program. New for 2011-2012 is a revised, more convenient format, as well as updated and more comprehensive information. This guide, as well as a wealth of other lake-related information, is available electronically at casselberry.org/lakes.



This guide and related educational efforts are part of a sustainable projects and practices program called Green Up Casselberry. Find out more about the program at casselberry.org/greenup.

Several topics related to our lakes are covered in this Guide to help you protect your property and the lakes. For a **quick reference** overview of topics, refer to [page 15](#). For **simple steps** you can take to **help protect our lakes**, see [pages 8 & 9](#). For more detailed information about lake concerns, just start below!



Water Quality Concerns

In general, Casselberry's lakes exhibit average to good water quality compared to State standards. However, like most urban lakes in Central Florida, there is always a concern with excess nutrients reaching the lakes, which can result in poorer water quality and lead to undesirable effects such as algae blooms and possible fish kills. Excess nutrients can reach the lakes from multiple sources, including nutrients that are carried in stormwater runoff (from yards, storm pipes, streams, etc.) as it discharges into the lakes. There are federal regulations that require local governments to clean up the pollution caused by these excess nutrients. This can be a very expensive process. Taking simple steps to **prevent pollution** in the first place, such as being mindful of landscaping and fertilizer choices, is a great **moneysaving** method for everyone.

In addition to excess nutrients, illegal dumping into lakes, streams, storm inlets, etc. can have a detrimental impact to lake systems. If you suspect or witness any **illegal dumping**, **PLEASE REPORT IT** online through the **Seminole County Watershed Atlas** at seminole.wateratlas.org, or contact Public Works at **(407) 262-7725**.

The City regularly conducts quarterly water quality sampling of twelve lakes in order to monitor these lakes for various pollutant levels and other water quality indicators. In addition, residents may participate in the **Florida Lakewatch** Volunteer Water Quality Monitoring Program, which provides free training and equipment to committed volunteers. Find out more at lakewatch.ifas.ufl.edu.

Go "Green" With Florida Friendly Landscaping

Fertilizer used for turf grasses and landscaping can be a major source of excess nutrients that reaches our lakes. Use of phosphorus free and time-released fertilizers in moderation can help reduce impacts. **Save money while saving our lakes:** if you currently irrigate using the City's reclaimed water or water from your lake, you may be able to reduce or eliminate phosphorus in your fertilizer - both reclaimed water and lake water already contain significant nutrients that help plants grow, including phosphorus. Testing your soil can help determine true fertilizer needs. Some plants also require much more irrigation than others, so plant selection is key.



"Florida Friendly Landscaping" includes a focus on selecting the right plant for the right place and watering and fertilizing only when needed. **Recycling grass clippings and composting** can also create a more environmentally friendly yard. Also, storm inlets often discharge directly to lakes, so it's a good practice to avoid placing grass clippings and leaf litter where they may be washed into nearby inlets. Such litter pollutes the lakes with excess nutrients and also reduces the flood control effectiveness of storm drains. Visit seminolecountyfl.gov/fyn for more information on the **Florida Yards and Neighborhoods** program, including detailed information on key principles that can help protect your waterfront.

“Beaches”, Seawalls, and Docks



In Florida, it is often a common site to see manmade, sandy **beaches** on lakes. This is not, however, good for the lake or the environment, and there are several local and state regulations that prohibit this activity. Beaches are usually constructed by importing sand and clearing a part of the shoreline. Importing sand may constitute a **fill violation** due to its **impact to the floodplain**, and it is subject to **erosion**, increasing the sediment load to the lakes while eating away at shorelines.

Seawalls are also quite common along lakes, often constructed in an attempt to abate erosion and/or increase usable yard space. While there are times when seawalls are necessary, in many circumstances they are not the best solution to erosion concerns, and **excess fill** brought in as part of seawall construction is often a **violation** of floodplain regulations. Beaches and seawalls can also disrupt native vegetation and natural habitat. Land disturbance due to clearing can increase the chances of non-native, invasive species taking hold. These species are often difficult to control, and they crowd out native plants, disrupting the lake’s ecosystem. A better alternative is to develop a plan for maintaining and/or **restoring native plantings** to the lakefront. **Docks** can often be incorporated well into properly maintained shorelines. However, it is important to consider balancing the recreational needs associated with the dock while taking efforts to minimize shoreline and lake habitat impacts. Docks cannot extend farther than 20 feet from the shoreline without sufficient lighting. Both docks and seawalls require proper **permits** prior to construction. **Contact Public Works at (407) 262-7725 before engaging in any construction, filling, or clearing activity near a lake.** A permit through Florida Department of Environmental Protection (FDEP) may also be required for certain docks and seawalls. Find out more at dep.state.fl.us/water/wetlands.

Aquatic Plant Management and Shoreline Restoration

In addition to being beautiful, **native vegetation**, such as bald cypress trees and cordgrass, can provide **erosion protection**, **water quality improvement** through nutrient uptake, and **improved habitat** for natural wildlife. Many shorelines in Casselberry are either overrun with invasive species, or they have been cleared entirely and replaced with sod or sand. There are City and state restrictions on clearing of shorelines, so it is always best to **ask before engaging in any clearing activity**. City and Florida Fish and Wildlife staff can provide assistance in properly planning and permitting shoreline restoration and plant management for lakefront property owners.



In addition to shoreline plants, Casselberry’s lakes feature several native, beneficial submerged plants, such as eelgrass, coontail, and muskgrass. However, there are some invasive species, such as **hydrilla**, within the City’s lakes. On City lakes with a means of public access, the City provides regular treatment as needed to try to keep invasives in check. Residents who use the lakes, especially for boating, can help by **closely inspecting** their equipment for any remnants of invasive species before placing it in or near the lakes. This will help prevent **“cross contamination”** from other lakes outside the City. Find out more about aquatic plant management at casselberry.org/lakes or myfwc.com/license/aquatic-plants, or contact C.J. Green with FWC at (407) 858-6170 or carl.greene@myfwc.com.



Boating, Blueway Trail System, and No Wake Zones

The City does not allow motorized vessel launching from any of its public properties (except for authorized lake management activities.) This does not, however, prevent lakefront residents from launching motorized vessels from their own property. Launching of passive vessels, such as kayaks or canoes, from designated public areas is permitted as well. The City has introduced a public **Blueway Trail System** on its Triplet Chain of Lakes, which can be accessed at Secret Lake Park. Kayak and canoe rentals are also available at this location.

The City has several regulations within its City Code (available at municode.com) that apply to boating and personal watercraft (Chapter 94, Code of Ordinances). This includes **wake restrictions within 100 feet of the shoreline**, as well as speed restrictions within 40 feet of a shoreline (10 mph) and through canals (5 mph). Passive (non-motorized) vessels have the right of way under City Code, limiting the speed at which motorized vessels can be operated in proximity to passive vessels. There are also restrictions on water skiers and associated boats coming within 100 feet of a dock or shoreline.

For any water body within the City, City Code sets **limits on operating hours for personal watercraft** to: 9AM to 7:30PM from April to September, and 9AM to 5:30PM from October to March. Both **City Code and state law prohibit dangerous weaving or wake jumping** using personal watercraft (Florida Statutes 327.39(4)). By State law, persons operating personal watercraft must be at least the age of 14. There are also **boating safety education requirements** for persons age 21 or under, administered by the Florida Fish and Wildlife Conservation Commission (FWC). For more information on required education and how to get a Boating Safety Education Identification Card, as well as the importance of **life jackets**/personal flotation devices, please visit myfwc.com/boating. You can report suspected State boating and wildlife law violations by calling **(888) 404-3922**.

Septic Tanks and Sanitary Sewer Availability

Several homes on lakes within the City use septic systems. Septic systems can have harmful impacts to lake systems, especially if they are failing. If your home uses a septic system, making sure it is well maintained and **operating properly** can help protect the lakes.



Where available, sanitary sewer is a better choice than septic systems. Not only does the City's sanitary sewer system centralize and treat wastewater, but that highly treated wastewater is also then reused for irrigation (**recycling!**), providing positive environmental benefits. Sanitary sewer is not readily available at all locations within Casselberry. While the City is constantly working to expand its system, this is a gradual and often expensive process. Keep this in mind, however, should sanitary sewer become available at your address: switching to sanitary can help better protect our lake systems.

Not sure if sewer is available? Contact Public Works at **(407) 262-7725** to find out!



Fish Stocking: Game Fish and Grass Carp

For **game fish**, most lakes in the City of Casselberry are not eligible for public fish stocking through Florida Fish and Wildlife (FWC). If you are interested in stocking your lake, you may wish to use a private hatchery to provide the fish. Generally no permit is required if the fish are native and not being used for fish farm purposes. A note of caution: often fish stocking does not

work well. For more information, contact Eric (Bubba) Thomas with FWC at **(352) 732-1225** or eric.thomas@myfwc.com.

Tripliod **grass carp** are a special type of fish often used to combat invasive **hydrilla**, as they eat it preferentially over many native plant species. The City, in cooperation with FWC, stocks many of its lakes with carp. These carp do not reproduce, and stocking them requires an FWC permit and careful consideration of stocking rates. For more information, contact C.J. Greene with FWC at **(407) 858-6170** or carl.greene@myfwc.com, or visit myfwc.com/license/aquatic-plants.

Floodplain and Flood Insurance

At least a portion of most properties on or near a lake is likely within the 100 year floodplain, also called the **Special Flood Hazard Area (SFHA)**. This means that in any given year, that portion of property has a one percent chance of being inundated. Those chances may sound slim, but over the life of a mortgage, the **chances of flood are significant**. As a result, for homes located within the SFHA, flood insurance is often required by mortgage lenders. Flooding is a serious concern and should always be considered with any construction near a lake. Consider that, for most lakes in the City, Tropical Storm Fay (2008) did not result in 100 year flood levels. In many cases, the projected 100 year flood level would be much higher. Because of these concerns, the City has several regulations that apply to most construction within the floodplain. **Even if your lender does not require it**, flood insurance is often a good idea for lakefront properties. Consider that almost 25% of flood insurance claims come from areas with low to moderate flood risk.

FEMA flood maps are available online at msc.fema.gov. Also, the City will provide a flood propensity letter for your property free of charge upon request; this letter will typically provide you with a precise 100 year flood elevation for your property. The City does not, however, provide surveying services for properties. Surveys are usually necessary to complete a FEMA Elevation Certificate and/or a Letter of Map Amendment (LOMA) for flood insurance purposes. There are several local surveyors available who can help you with this task if needed. For more information, call Public Works at **(407) 262-7725** or visit floodsmart.gov

PANEL 0165F

FIRM

**FLOOD INSURANCE RATE MAP
SEMINOLE COUNTY,
FLORIDA
AND INCORPORATED AREAS**

PANEL 165 OF 330

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

<u>COMMUNITY</u>	<u>NUMBER</u>	<u>PANEL</u>	<u>SUFFIX</u>
ALTAMONTE SPRINGS, CITY OF	120290	0165	F
CASSELBERRY, CITY OF	120291	0165	F
LONGWOOD, CITY OF	120292	0165	F
SEMINOLE COUNTY	120289	0165	F
WINTER SPRINGS, CITY OF	120295	0165	F

Notice to User: The **Map Number** shown below should be used when placing map orders, the **Community Number** shown above should be used on insurance applications for the subject community



**MAP NUMBER
12117C0165F**

**MAP REVISED
SEPTEMBER 28, 2007**

Federal Emergency Management Agency

Permitting Requirements

Many activities in or near a lake, including clearing, fill, and construction of almost any type, require a permit, often from multiple agencies. When in doubt, it is always best to err on the side of caution and **request whether a permit is required**. Call Public Works at **(407) 262-7725** for more information.



Compliance with City Code and State Law is an important consideration for any project. Such regulations are designed to protect the property, property owner, the lake, and users of the lake. Some examples of permits required are below:

- ☒ Dock and seawall construction typically requires permits from **both** the City and the Florida Department of Environmental Protection. The City requires site plans and building permits for docks, as they are considered a conditional use.
- ☒ **Construction, regrading, clearing, or fill of any kind** along the lakeshore and within the floodplain typically requires permits from the City
- ☒ The use of **any herbicide** on the shoreline and/or the removal of exotic plants outside of the access corridor (equivalent to 50 feet or 50% of the linear feet of shoreline, **whichever is less**) requires an **Aquatic Plant Management Permit** through the Florida Fish and Wildlife Conservation Commission (FWC). Physical removal of vegetation (hand removal, mechanical harvesting) within the access corridor is exempt and doesn't require a permit, but it is best to check with FWC first prior to conducting any aquatic plant removal/alterations on the shoreline (contact C.J. Greene with FWC at **(407) 858-6170** or **carl.greene@myfwc.com**, or visit **myfwc.com/license/aquatic-plants**.)

Regulations and Enforcement Consequences

The City of Casselberry Code of Ordinances contains multiple regulations related to our lakes. Regulations cover, but are not limited to, floodplain, lakeshore protection, wetland protection, building permits, site plan requirements, and engineering permits. While the most important reasons to comply with the Code should be safety and protection of the environment, there are also potential financial consequences. Below are some possible civil infraction citations and fines contained in Chapter 2 of the City Code related to lakes. It is important to know these **finances can be assessed per day** of continued violation:



- Filling or excavating in a floodplain without a permit - **\$50 per day**
- Removal of trees without permit - **\$50 per day**
- Construction without a permit - **\$200 per day**
- Land clearing, excavation or fill without site plan approval - **\$200 per day**

Beyond the City, State agencies such as Florida Department of Environmental Protection (FDEP) and the Florida Fish and Wildlife Conservation Commission (FWC) have their **own regulations** and enforcement procedures.

Everything is connected

No matter where you live, you can help protect our lakes with these 8 simple choices at home...

Best Management Practices

There are many Best Management Practices (or BMPs) that you can apply at home to help protect our watersheds. **Even if you don't live on a lake, your daily choices can make a real difference.** Following are just a few examples of good BMPs.



1. Keep Grass Clippings, Leaves, and Other Yard Waste Out of the Streets and Storm Drains

Grass clippings, leaf litter, and other yard waste are major yet often overlooked sources of pollution. If allowed to enter the storm drains, these can lead to clogging and street flooding, and as they decay, the excess nutrients pass into our streams and lakes, contributing to poor water quality. Rather than letting it get into streets and storm drains, keep yard waste at home and put it to work for you instead through recycling or composting, or dispose of it properly by having it picked up on your yard waste day.

2. Water Efficiently and Only When Needed

A yard that thrives mainly on rainfall once plants are established conserves Florida's precious water resources and saves money on your water bill. A few tips to conserve water are 1) Group plants with similar water needs together, 2) Water your lawn and plants only when they show signs of stress. Let your plants tell you when they need water, 3) Put a rain gauge in your yard to track rainfall and avoid unnecessary watering, 4) Use rain sensors and have a soil moisture sensor or other smart irrigation technology connected to your irrigation system, and 5) Mow lawns high to encourage a deeper, more drought- and pest-tolerant root system.



3. Use Fertilizer, Pesticides, & Herbicides Appropriately & Only When Needed

Using fertilizer appropriately reduces potential pest problems and maintenance requirements. Unnecessary fertilizer can burn root systems, make plants more susceptible to pests, and severely pollute our water supply. Managing insects, diseases, weeds, and other pests using Integrated Pest Management (IPM) methods allows you to reach optimum health in your landscape and minimizes the risk of pesticide contamination in your yard and in our water supply. Find out more about fertilizer and IPM at casselberry.org/lakes or seminolecountyfl.gov/fyn



To find out more about these and other Best Management Practices to help protect our lakes and water resources, visit casselberry.org/lakes

4. Dispose of Household Hazardous Waste Appropriately

Household Hazardous Waste (HHW) includes many common products such as paints, solvents, insecticides, batteries, fluorescent lights, and much more. Improper disposal of these items can lead to health hazards and damage to our water resources. Disposal of HHW is free of charge for the residential households of Seminole County. HHW items are not picked up at curbside and require special handling and disposal. HHW is accepted **FREE OF CHARGE** at all times during regular business hours at the Seminole County Central Transfer Station. In addition, free Tire Collection Events are held several times a year at the Central Transfer Station and Seminole County Landfill—proper disposal of tires helps reduce pollution and mosquito breeding.



5. Choose the Right Plant for the Right Place

Choosing low maintenance plants and planting them in areas that already have the light, soil, and water conditions they require conserves water, reduces the amount of chemicals near your home and in our threatened waterways, and saves time and money by having healthier plants that need less fertilizer, pesticides, water, and pruning.

6. Reduce Runoff—Plant a Rain Garden or Use Rain Barrels

Stormwater runoff can contribute to flooding and water quality problems as it carries excess nutrients and other pollutants to our lake systems. However, stormwater runoff can also be a useful resource if managed well. Rain gardens and rain barrels are two ways to intercept runoff at your home and use it for your landscape needs. With careful planning and plant selection, you can conserve water and save money while also helping protect our lakes and streams. Be sure to visit the City's Lake Concord Park's demonstration rain barrel and rain garden installations, which can help inspire your own project at home.



7. Clean Up After Pets & Avoid Feeding Wildlife

Please **pick up after pets, even in yards at home**, and dispose of the waste. Otherwise, as it rains, this concentrated source of nutrients can leach into the lakes and **cause harm**. Even for properties not near a lake, runoff from pet waste can reach streets and storm sewers, which ultimately flow to our lakes. Also, water fowl can be a great example of natural wildlife, but feeding them can result in high concentrations of birds that our urban environment cannot support. Not only can this be harmful to our lakes, it can be harmful to the birds themselves by disrupting their natural, healthy diet and migratory patterns.

8. Report Suspected Illegal Dumping, Improper Disposal, Illicit Discharges, and Water Pollution

You can use the Seminole County Watershed Atlas website to **report discharges or dumping** into lakes, streams, rivers, canals, ditches, stormwater ponds, or even into a manhole, storm drain or curb inlet in the street. You can also use it to report apparent **water pollution** events and other environmental issues such as algal blooms and fish kills. The Atlas also provides useful information about many of the lakes throughout Seminole County. Access the Watershed Atlas online at seminole.wateratlas.org



Natural, Beautiful, Vital~

Natively Vegetated Shorelines Protect Our Lakes

There are a variety of native aquatic plants that benefit Florida's lakes and can be used in re-vegetation projects—below are just a few. Visit casselberry.org/lakes to see more plant lists, pictures, descriptions, and benefits.



Bald Cypress (Scientific name *Taxodium distichum*)

Bald Cypress is a Florida native and Florida-friendly tree often found in wetlands and lake shorelines. It prefers full sun and is highly drought tolerant, and so it is well suited to wet-dry cycles. Bald Cypress is a deciduous tree; its leaves turn brown and are shed during the fall and winter months, giving it a bare or “bald” appearance.

Cord Grass (Scientific name *Spartina bakerii*)

Cord Grass is a Florida native and Florida-friendly grass that prefers full sun. It is highly drought tolerant but can also withstand extended periods of flooding, making it an excellent choice for revegetating shoreline and upland areas near lakes. Cord Grass also provides good erosion control.



Golden Canna (Scientific name *Canna flaccida*)

Golden Canna, also called the Yellow Florida Canna Lily, is a Florida native and Florida-friendly flower that produces showy yellow flowers, its most identifiable feature. Golden Canna attracts butterflies and prefers full sun and moist soils. It is often found along shorelines of lakes and ponds and is an excellent plant for transitional areas where moisture levels fluctuate.



Pickerelweed (Scientific name *Pontederia cordata*)

Pickerelweed is most easily recognized by its bright lavender flowers, which attract bees and butterflies. It blooms from late spring to early fall. Pickerelweed is a Florida native plant commonly found near water's edge of lakes and ponds. It is very hardy and prefers full sun.



More native, beneficial species...



Lance-leafed Arrowhead (Scientific name *Sagittaria lancifolia*)

Lance-leafed Arrowhead is most easily distinguished from other wetland plants by its showy white flowers on tall bloom spikes. It blooms from late spring to early fall. It is also known as duck potato, in reference to underground, potato-like “corms” that sometimes form. Arrowhead is a Florida native plant commonly found near water’s edge of lakes, swamps, and streams. It prefers full sun.

Spatterdock (Scientific name *Nuphar lutea* subsp. *advena*)

Spatterdock has heart shaped leaves and distinctive yellow flowers. Much of the plant is underwater, including large, rootlike “rhizomes” that spread and sprout the floating portions of the plant. Spatterdock provides good shade and habitat for fish and competes against invasive plant species such as hydrilla for space, light, and nutrients. Other similar natives such as fragrant water lily provide similar benefits.



Coontail (Scientific name *Ceratophyllum demersum*)

Coontail (a common name due to its feathery leaves arranged in whorls on its stem, resembling a raccoon’s tail) is a submersed (below the water surface), free floating plant. Coontail is a beneficial native that provides valuable fish habitat and improved water clarity. It is **often mistaken for invasive hydrilla**, as are many other native submersed species such as chara (muskgrass) and southern naiad.

Eelgrass (Scientific name *Vallisneria spiralis*)

Eelgrass, also known as tape grass, is a submersed beneficial native plant. It provides fish habitat, improved water quality, as well as competition for invasive hydrilla.



Non-native, invasive plant species—below are just a few to watch out for!

Hydrilla

(Scientific name *Hydrilla verticillata*)

Hydrilla is an aggressive submersed (underwater) plant. It can grow and expand very quickly. If broken into pieces, each piece can grow into a separate plant. Thus it spreads easily, and so it is important to **inspect boat equipment for remnants** of the plant. It outcompetes many beneficial, native submersed species. Millions of dollars are spent each year in Florida attempting to control hydrilla by chemical (herbicide), mechanical (harvesting), and biological (grass carp) means.



Parrot feather

(Scientific name *Myriophyllum aquaticum*)

Parrot feather is an emersed (rising above the water surface) aquatic plant. It gets its name from its feathery, bright green leaves. It's frequently found in lakes and canals.

Torpedograss

(Scientific name *Panicum repens*)

Torpedograss is an aggressive invasive weed commonly found in Florida near canal banks and lake shorelines. It can grow on land and in the water, quickly displacing native, beneficial vegetation.



Water hyacinth

(Scientific name *Eichhornia crassipes*)

Water hyacinth is an aggressive invasive that is a problem in much of the world, including Florida. It is a floating plant that links to form large mats that can clog waterways and impede navigation.

More non-native, invasive plant species...

Alligator weed

(Scientific name *Alternanthera philoxeroides*)

Alligator weed is a common invasive species found in Florida. It can grow in the water or on land, and it can form sprawling mats. Alligator weed is one of a handful of success stories for “biological control”: in the 1960s and 70s, three South American insects were released in Florida that together have largely kept the weed in check. However, it is still present to some degree in over 80% of Florida’s public waters.



Wild Taro

(Scientific name *Colocasia esculenta*)

Wild taro is a very common non-native, emersed plant that can grow in the water or on land. Its sap can irritate the skin, and if ingested raw, all parts of the plant can cause irritation. It often outcompetes native species, forming dense growths near lake shorelines and in wetland areas. Wild taro is similar in appearance to another non-native species *Xanthosoma sagittifolium* (called elephant ear) that can grow even larger but is less widespread.



Brazilian pepper

(Scientific name *Schinus terebinthifolius*)

Brazilian pepper is a very aggressive invasive tree, commonly found in both aquatic and upland habitats. Brazilian pepper may exhibit allelopathic abilities, meaning it inhibits growth of other plant species, thereby reducing native habitat. Cutting and removing Brazilian pepper alone does not typically control it—herbicides are typically needed to prevent remnant stumps from sprouting new growth.



Chinese tallow

(Scientific name *Sapium sebiferum*)

Chinese tallow, also called the popcorn tree due to the appearance of its seeds, is an aggressive invasive tree commonly found in Florida in a variety of habitats. Chinese tallow historically was used as a popular landscape ornamental in Florida, in part due to its attractive fall foliage. Unfortunately, its seeds are easily dispersed by birds and streams, so it has become a serious invader and disruptor of native Florida habitat. Attractive native alternatives to Chinese tallow include red maple (*Acer rubrum*) and river birch (*Betula nigra*).





Additional Online Resources

casselberry.org/lakes

A comprehensive one-stop resource for lake-related information for the City of Casselberry. There you will find information on upcoming projects, educational events, water quality reports, plant lists, and many additional resources. A PDF version of this Lake Guide is also there!

seminole.wateratlas.org

This link will take you to the Seminole County Watershed Atlas, a valuable resource for lake-related information for all of Seminole County. There you will find information on lakes in the County, upcoming events, and you can even **report water pollution**.

myfwc.com

This is the website for the Florida Fish and Wildlife Conservation Commission (FWC). There you can find out information about boating requirements, aquatic plant management permitting, grass carp, wildlife, and more. You can also use this website to **report wildlife law violations**.

seminolecountyfl.gov/fyn

Use this website to find out more about the nine principles of Florida Friendly Landscaping, upcoming free Florida Yards and Neighborhoods classes, and a wealth of other Extension Services offered through Seminole County and the University of Florida Institute of Food and Agricultural Sciences (IFAS).

floridayards.org

This is a good companion site for Florida Friendly Landscaping information. It includes a Florida Friendly Plant Database—a great reference when choosing plants!

plants.ifas.ufl.edu/guide

This is the website for Plant Management in Florida Waters. Use it to find out more about native, beneficial and non-native invasive aquatic plants.

seminolecountyfl.gov/pw/roadstorm/education_serv.aspx

Find out more about the Seminole Education, Restoration & Volunteer Program (SERV) at this website. Volunteer lake restoration and invasive plant removal projects are coordinated through this program. It's a great way to get involved hands-on!

lakewatch.ifas.ufl.edu

Find out more about Florida Lakewatch: Florida's volunteer water quality monitoring program and how to get involved.

dep.state.fl.us/water/wetlands

Find out more about the Florida Department of Environmental Protection (FDEP) Environmental Resource Permitting (ERP) program and whether your project (e.g., docks and seawalls) may need a separate FDEP permit.

casselberry.org/greenup

A "sister" site to the City's lakes website, this website provides information on Green Up Casselberry projects and related educational programs and other events.



Lake Management Quick References

General Inquiries (When In Doubt!) call Casselberry Public Works (407) 262-7725 or visit casselberry.org/lakes for more information

Water Quality Concerns

- Check water quality of individual lakes and **report illegal dumping , pollution, or illicit discharge** at seminole.wateratlas.org

Go “Green” With Florida Friendly Landscaping

- Limit use of fertilizer, especially phosphorus containing fertilizers
- Follow the nine principals of Florida Friendly Landscaping/ Florida Yards & Neighborhoods: seminolecountyfl.gov/fyn
- Avoid letting grass clippings and leaf litter enter storm inlets

“Beaches”, Seawalls, and Docks

- Do not install “beaches”
- Carefully plan and permit docks and seawalls to minimize impact; both require City permits and FDEP review: dep.state.fl.us/water/wetlands

Aquatic Plant Management and Shoreline Restoration

- Native vegetation can provide a beautiful shoreline, erosion protection, and native habitat
- Ask the City and Florida Fish and Wildlife for guidance before engaging in any clearing or herbicide activity: myfwc.com/license/aquatic-plants or contact CJ Greene at (407) 858-6170
- Inspect boating equipment for invasive plant remnants to avoid cross contamination

Fish Stocking

- Check with FWC for more info: for grass carp (407) 858-6170; for game fish (352) 732-1225

Floodplain and Flood Insurance

- Find out if you are in the 100 year floodplain: msc.fema.gov
- Find out more about flood insurance: floodsmart.gov
- The City can provide you the flood elevation for your property– call (407) 262-7725

Pet Waste and Feeding Water Fowl

- Pick up after pets using biodegradable pet waste bags
- Avoid feeding waterfowl to avoid overpopulation and disease

Boating, Blueway Trail System, and No Wake Zones

- Be aware of boating rules, wake restrictions, and operating hours in Chapter 94 of City Code: municode.com
- Report state boating or wildlife law violations to FWC at (888) 404-3922
- Wear personal flotation devices, and get mandatory education if under 21: myfwc.com/boating

Septic Tanks and Sanitary Sewer Availability

- Make sure septic systems are operating properly and well maintained
- Switch to sanitary sewer when available (call (407) 262-7725 to check availability)

Permitting Requirements

- **For any construction, filling, or clearing activity near lakes, always ask first: Public Works (407) 262-7725**

