GREETINGS FROM THE CHAIRMAN
OF THE Lake Jessamine Water Advisory Board

The primary responsibility of the five volunteer citizens on the Lake Jessamine Water Advisory Board (LJWAB) is to provide recommendations to the Orange County Board of County Commissioners on ways to improve and protect Lake Jessamine, Lake Bumby and Lake Tyner. We work primarily with the Orange County Environmental Protection Division, Sheriff’s Department, Parks & Recreation, UF/IFAS Orange County Extension Services and the Florida Fish & Wildlife Conservation Commission. The Advisory Board and employees in these agencies do a wonderful job helping to keep our lakes safe and enjoyable for everyone.

Recent items the LJWAB has worked on include a real-time water monitoring station, message board shelters at both boat ramps and additional shoreline vegetation plantings.

Ongoing projects include the treatment of stormwater inputs through street sweeping, inlet filter baskets and baffle boxes. Other projects include protecting and promoting vegetated shorelines and berm and swale systems in back yards through a matching incentive program. Ongoing is education on Florida-Friendly Landscaping and lawn-maintenance activities, newsletters, plant giveaways, stormdrain labeling and monthly meetings.

Additionally, a significant item is the management of the aquatic plant life with a focus on the treatment of invasive species. We continue to monitor the alum treatments applied to the entire lake in 2012 and 2013 to control the phosphorus levels. The encouragement of safe boating practices with regular patrols by the Sheriff’s Department are also provided along with boat ramp gate locking services and the installation and maintenance of shallow water buoys.

The resident’s that live near and around the lakes and those who recreate on the lakes are the best protectors and able to contribute the most to improving the lakes. We encourage all to get involved in protecting and improving the lakes. Please join us at our monthly meetings of the LJWAB. Enjoy your lakes and be a responsible steward of our precious natural resources.

Sincerely, Brett Barner

“BEE” A HERO! PLANTING TO PROTECT POLLINATORS
by Kelly Greer, UF/IFAS

By planting a pollinator-friendly garden you can make a difference for honeybees, native bees and butterflies. Did you know that pollinators around the world are responsible for pollinating one in every three bites of food we eat? Crops like apples, blueberries, tomatoes, pumpkins, coffee and chocolate are all pollinated by insects. You can help our local pollinators by planting a small area of your yard with native pollinator attracting plants. A nice combination of natives that will attract a diverse pollinator population is Turkey tangle frog fruit — a low growing sprawling native that blooms most of the summer and fall that usually reseeds and Spotted Beebalm — a medium perennial that blooms late summer to early fall. These natives will attract a variety of honeybees, sweat bees, leafcutter bees, bumble bees and butterflies making your yard a buzzy place. Many of these plants require little water and fertilizer once established, helping you protect water quality too! Learn more about pollinators at www.pollinator.org.
Pollutants in stormwater are trapped here in the swale.

Shoreline vegetation helps absorb chemicals and nutrients before they can add to the nutrient loading in the lake.

How would you like to help protect our lake water quality while beautifying your back yard? Installing a Berm & Swale system is a great method. A berm & swale is a physical barrier or shallow depression along your back yard that prevents pollutants from entering your lake. It allows stormwater runoff to naturally percolate and filter into the ground rather than flowing directly to the lake. The construction of a berm & swale can help reduce negative impacts from nutrients, fertilizers, pesticides, household chemicals, sediments, grass clippings and other yard debris.

A vegetated shoreline also acts as a barrier and filter for pollutants. A buffer of native plants along your shoreline absorbs chemicals and nutrients before they can negatively impact the lake. Vegetated shorelines enhance your property and protect water resources. Additional benefits include shoreline erosion protection, wildlife habitat and fewer algae blooms.

The Lake Jessamine MSTU will reimburse up to $1,000 for the construction of a berm & swale and/or $1,000 for the installation of a vegetated shoreline. Please contact Marson Nance for details and to request an application at Marson.Nance@ocfl.net or 407-836-1524.

Offering up to $2,000 per Property Address!

2017 Shoreline Vegetation and Berm & Swale Incentive Programs:
Protect, Improve, and Beautify!

A vegetated shoreline adds beauty to your property while protecting the environment.
LAKE JESSAMINE
Real-Time Monitoring Station
by Cindy McCurry, LJWAB Vice-Chair

In 2016, the Lake Jessamine Water Advisory Board approved the installation of a near real-time water-quality monitoring station (RTMS) at Cypress Grove Park. The RTMS measures and collects data on water pH, temperature, rainfall, dissolved oxygen (DO), oxygen saturation and specific conductance. This data can be used to get a snapshot of Lake Jessamine’s water characteristics and can be a good tool for water-quality management as well as for fishers and boaters. All the data is posted on the Orange County Water Atlas and can be accessed by PC or mobile device.

Here are some brief descriptions of some parameters the RTMS measures:

**Water Surface Elevation** – An indication of how high or low water level is in the lake. Can be influenced by rainfall, stormwater runoff and groundwater recharge.

**Temperature** – The degree or intensity of heat in water. The Water Atlas uses Celsius degrees. To convert Celsius to Fahrenheit, use the formula:

\[ T(°C) \times 1.8 + 32 = T(°F) \]

**pH** – A measure of how acidic or basic the water is. The higher the number, the more basic or alkaline, the lower the number the more acidic. A pH of 7 is considered neutral. Most aquatic plants and animals prefer a pH between 6.5 and 9.0.

**DO** – The amount of free oxygen dissolved (and hence available for aquatic life) in water. DO is an important indicator of health of a waterbody and its ability to support a balanced ecosystem. DO is typically higher during day and lower at night due to aquatic plant photosynthesis and biological oxygen demand.

Measurements from the RTMS and a host of other information are available to view online at the Orange County Water Atlas (www.orange.wateratlas.usf.edu).

Here is how to find and view RTMS data:

**Step 1.** Go to www.orange.wateratlas.usf.edu
**Step 2.** Scroll over ANALYSIS. A drop-down menu will appear. Click REAL-TIME DATA MAPPER.
**Step 3.** Read and click CLOSE HELP.
**Step 4.** Find Lake Jessamine (the green dot directly under ORLANDO in the center of the screen). When you scroll over the dot, a box will appear — Lake Jessamine at Cypress Grove Park. Click the dot.
**Step 5.** A box will appear with the most recently reported data. Click View additional details about this station in the top right corner of the box.
**Step 6.** A page will open giving you 24-hour, 7-day and 31-day graphs of the data collected. You can then download data using the Water Atlas Download Data Tool.

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Lake Jessamine MSTU ADVISORY BOARD

Brett Barner, Chairman
Cynthia McCurry, Vice Chairman
Carolyn Accola
David Geller
Judy Martin

Lake Jessamine Municipal Service Taxing Unit (MSTU) has a five member advisory board known as the Lake Jessamine Water Advisory Board (LJWAB) which is comprised of area residents appointed by the Orange County Board of County Commissioners. The LJWAB recommends projects for lake improvements including: invasive aquatic plant management, stormwater and water quality improvement projects, vegetation enhancement projects, canal maintenance, educational newsletters, and other lake conservation issues.

The LJWAB meets at 5 p.m. on the first Thursday of every month at the Cypress Grove Park Cottage, 290 West Holden Avenue, Orlando, Florida 32839. Visit the Orange County Calendar online at orangecountyfl.net/Home/CountyCalendar.aspx for current meeting schedules.

Useful LINKS

Orange County Environmental Protection Division
www.ocfl.net/epd

Orange County Water Atlas
orange.wateratlas.org

University of Florida Center for Aquatic and Invasive Plants
plants.ifas.ufl.edu

Florida Fish and Wildlife Conservation Commission
Invasive Plant Management Section
myfwc.com/wildlifehabitats/invasive-plants
You can help keep your lakes healthy and beautiful by being a lake-friendly landscaper!

**Reduce pollutants**
- Minimize herbicide, pesticide and fertilizer use.
- Never apply chemicals/fertilizers before heavy rains.
- Use mulch (not cypress) to prevent weeds and erosion.
- Adopt practices that prevent pest problems and decrease chemical use.
- Identify pests before spraying and use the least-toxic pesticide.
- Buy pesticide in amounts you will use and follow label directions.
- Install swales and rain gardens to keep stormwater on site.

**Yard waste**
- Never blow lawn clippings into streets, lakes, or down storm drains.
- Use leaves and pine needles as mulch.
- Compost yard waste and kitchen scraps.
- Pick up trash and litter.

**Conserve water**
- Use a rain barrel to capture runoff to use later for irrigation.
- Direct downspouts away from paved surfaces.
- Utilize Florida-Friendly Landscaping™ principles.
- Turn off irrigation systems during Florida’s rainy season (June 1 - Sept. 30).
- Install a rain or moisture sensor. On old systems, or make sure your sensors are working correctly.
- Direct sprinkler heads toward the landscape, not toward sidewalks, driveways and streets.
- Inspect sprinkler heads often and repair when needed.
- Have your sprinkler system professionally tuned up after major landscape changes or at least every five years.

**Help restore wildlife habitat**
- Plant native trees, shrubs and wildflowers.
- Replant white-sand beaches with native aquatic vegetation.
Water Quality Improvement and Navigation Management Projects

Accomplished Projects:

- Real-Time Monitoring Station to collect lake data
- Informational Sign Kiosks at Woodsmere and Bywater boat ramps
- 93 Curb & Grate Inlet Filter Baskets to capture debris in stormwater runoff
- Street Sweeping Services throughout the Lake Jessamine Drainage Basin
- 3 Nutrient Separating Baffle Boxes to Capture Debris in Stormwater Runoff
- Whole Lake Alum Treatment for phosphorus inactivation
- Storm Drain Labeling
- Lake Mary Jess Stormwater Pond (treatment of an interconnected lake)
- Lake Bumby and Lake Tyner sediment analysis (Interconnected Lakes)
- Invasive Aquatic Plant Management (chemical, physical and biological control)
- Triploid Grass Carp Stocking for Hydrilla Management
- Newsletter Distribution and Community Presentations (educational outreach)
- Aquatic Tree and Plant Giveaway Programs — More than 4000 planted since 2011.
- Wetland/Marsh Restoration
- Stormwater outfall and canal maintenance
- Shallow Water buoys
- Hydrologic/Nutrient Budget and Water-Quality Management Plan (full lake study)
- Daily Gate-Keeping Services at the Bywater and Woodsmere boat ramps
- Shoreline Vegetation and Berm & Swale incentive programs
Boating RECOMMENDATIONS

Lake Jessamine is used extensively for boating and recreational activities. Studies have shown that boating in shallow water has a negative impact on water quality due to resuspension of bottom sediments. Stirring up the bottom of the lake leads to decreased water clarity and increased algae blooms.

It is recommended that normal motor boating activities within Lake Jessamine be restricted to water depths of approximately 10 feet or more. For enhanced-wake boating activities, it is recommended to operate in depths of 15 feet or more. These proposed depth restrictions for full-speed activities will also assist in minimizing impacts to beneficial vegetation within the lake and reduce shoreline erosion.

Protect the health of Lake Jessamine: Use these maps to chart your course responsibly!
SAFE BOATING TIPS AND REGULATIONS

- In order to operate a motorboat of 10 horsepower or greater, Florida law requires anyone who was born on or after January 1, 1988 to successfully complete an approved boating safety course and obtain a Boating Safety Education Identification Card issued by the FWC.
  myfwc.com/boating/safety-education/id

- All operators are responsible for operating their vessel in a reasonable and prudent manner with regard for other vessel traffic, posted restrictions and other circumstances so as not to endanger people or property. Failure to do so is considered careless operation.

- A person must be at least 14 years of age to operate a personal watercraft in Florida.

- All vessels, with the exception of non-motor-powered vessels less than 16 feet in length, non-motor-powered canoes, kayaks, racing shells or rowing sculls, regardless of length, must be registered through your local Tax Collector’s Office. The Certificate of Registration must be on board and available for inspection by an enforcement officer whenever the vessel is operated.
  flhsmv.gov/dmv/faqboat.html

- Recreational vessels are required to display navigation lights between sunset and sunrise and during periods of reduced visibility (fog, rain, haze, etc.).

- Personal watercraft may not be operated from ½ hour after sunset to ½ hour before sunrise, even if navigation lights are used.

- The owner and/or operator of a vessel is responsible to carry, store, maintain and use the safety equipment required by the U.S. Coast Guard.
  uscgboating.org/fedreqs/default.html

To report unlawful activity on the lakes, contact the Orange County Sheriff’s Office Marine Patrol Unit at 407-836-HELP (4357)

DON’T LITTER. Trash looks bad, causes environmental damage, and threatens wildlife.

FOLLOW AT safe distances.

BE COURTEOUS to those who share the lake with you.

AVOID MAKING LARGE WAKES in shallow water or near the shoreline.

IT IS PROHIBITED TO OPERATE a vessel, water ski or wakeboard with a blood alcohol content of 0.08 percent or higher or while under the influence of drugs.
For more information go to myfwc.com/boating/regulations
BE A SHORELINE STEWARD
by Cyndy McCurry, LIWAB Vice-Chair

Whether you are new to lakefront living, or had the pleasure of viewing sunrises over your lake for many years, you quickly learn your shoreline requires upkeep. Orange County and The Florida Fish & Wildlife Conservation Commission (FWC) enforce rules and regulations regarding the state’s fish and wildlife resources. Florida Law, Statutes 369.20 and 369.22 outlines what is and isn’t permissible concerning aquatic plants. Orange County code requires lakefront homeowners to obtain a permit if they would like to work on their shoreline. The FWC may also require permits. Contact FWC prior to starting any work at 407-858-6170. Adding fill to the shoreline areas of a lake can cause damage to the environment. Shorelines are the most productive parts of a lake and should be handled with care. If you are considering altering your shoreline area, contact the Orange County Environmental Protection Division at 407-836-1400.

WHAT DOES UPKEEP AND MAINTENANCE OF MY SHORELINE ENTAIL? Rake your shoreline periodically to remove trash and any dead or uprooted plant material that washes up. Removing dead plant material keeps it from decaying on your shoreline and adding nutrients to the lake.

CAN I REMOVE ALL THE AQUATIC WEEDS ON MY SHORELINE? The answer is no. Within Orange County, a lakeshore homeowner is entitled to a vegetation-free access corridor of 20 percent or 30 feet of total linear shoreline, whichever is greater, without a permit. To remove more vegetation than this, you must apply for a Lakeshore Protection permit (LSP). This permit may allow you to remove exotic and nuisance vegetation, but will often require you to replant the area with native and beneficial species to maintain 80 percent coverage of native species.

HOW DO I MAINTAIN MY SHORELINE?? A property owner can choose to do this work themselves, or hire an experienced contractor to perform maintenance activities. Before hiring any lakefront maintenance company, be sure to review the laws and permitting requirements for the work you want done. Each property must be individually permitted before plants can be removed. It is up to the property owner to obtain permits and make sure the rules are being followed.

Ideally, a property owner should remove just enough vegetation so that they can have access to and enjoy the lake. Plants provide valuable habitat for wildlife and contribute to good water quality. By being responsible stewards of our shorelines, we can help the lake ecosystem thrive while enjoying a clean and healthy lake on which to boat, fish and play.
WETLANDS OF JESSAMINE
by Carolyn Accola, LJWAB Member

Wetlands are found all over Florida and we are very lucky to have our own here on Lake Jessamine. Lake Jessamine has two areas identified in the National Wetlands Inventory (NWI) as both emergent and forested shrub wetlands. These areas are located on the center lobe of the lake on both the east and west sides. The NWI also identifies the manmade canals leading to lakes Bumby and Conway as Lower Perennial Riverine Wetlands. These wetlands support organisms adapted to still waters. Generally, wetlands are defined as areas that are flooded or saturated with water at a frequency and duration sufficient to support plants typically adapted to life in saturated soil. Wetlands are wet! These ecosystems support a variety of plant and animal species and help keep our lake clean by filtering excess nutrients and trapping sediment from storm runoff.

The next time you’re on the lake boating, fishing, or paddle boarding, take time to look for and admire these natural areas. Common plant species to look for are bald cypress, cattails and rushes. These plants support a myriad of bird species such as wood ducks, herons, red-winged blackbirds and many species of migratory song birds.

OWN YOUR ZONE. Keep fertilizer at least 10 feet away from any lake, pond or canal shoreline, or wetland. Never allow fertilizer to get into the water. This zone is also a fantastic place to establish buffer plantings of flowering aquatic and riparian plants to attract wildlife and further filter runoff water.

DIRECT AND DEFLект! Broadcast spreaders must be equipped with a shield to deflect fertilizer from impervious pavement, rights-of-way, stormwater drains and ditches. Always sweep up fertilizer that lands on concrete, pavement or any other hard surface. By directing fertilizer to only where you need it, you save time, money and help keep our waterways clean.

NUTRIENTS IN SUMMER CAN BE A BUMMER. In our rainy season, June 1 to September 30, heavy rains can wash excess fertilizers into our lakes and streams, leading to algae blooms and green water — yuck! Only trained residents and commercial applicators may apply fertilizer during this period. For residential training opportunities, visit www.ocfl.net/epd.

The Orange County Fertilizer Ordinance is currently under review. Be on the lookout for updates and changes to these guidelines.

When it comes to fertilizer, more is not better. Determine the square footage of your yard’s area that needs fertilizer, and only use the amount directed by the package label. Grass that gets just the right amount — not too little and not too much — produces a dense root and shoot system capable of filtering pollutants from runoff.

Phosphorus-Free Is the Way to Be! Lawns and landscape plants in Florida typically receive plenty of phosphorus from the native soil. Rain and irrigation runoff can carry excess phosphorus into lakes and cause algae blooms and excessive growth of aquatic plants. Always choose a phosphorus-free fertilizer unless a soil test indicates a deficiency.

“N” that’s SLOW Is the Way to Go! Nitrogen fertilizer must be made of at least 50 percent slow-release nitrogen. By releasing nitrogen slowly, nutrients are available to your lawn and plants for an extended period of time, reducing nutrient leaching and saving you money.

OCFL 311 and OCFL Alert
FREE ORANGE COUNTY MOBILE APPS

OCFL 311 is a smartphone app that allows users to photograph, pinpoint and report problems from potholes to hazardous sidewalk cracks directly from their smartphone to Orange County’s 311 Service Center. OCFL 311 also maps relevant community information so that residents are aware of events that may impact their neighborhood.

OCFL Alert is a first-of-its-kind emergency notification and information smartphone app that provides critical information during times of emergency. Life-saving information includes open shelter locations, water and ice distribution centers, evacuation routes, public service announcements and much more.

FERTILIZER BEST PRACTICES for Green Grass and Clean Water

Phosphorus-Free Is the Way to Be!
There are more than 1,300 exotic, non-native plant species found in Florida. These plants are often brought to Florida from other regions of the United States and other countries. At least 130 of these exotic plants are invasive and quickly spreading throughout our lands and lakes. Invasive exotic plants can cause environmental or economic harm.

When exotic plants arrive in Florida, there are no natural enemies to keep their growth under control. They can easily outgrow and replace native plants. When invasive exotic plants replace native ones, the natural diversity can decrease as native plants become permanently eliminated.

Orange County and Florida Fish & Wildlife Conservation Commission work to control the spread of aquatic exotic species like hydrilla, water hyacinth, Cuban bulrush and hygrophila. Many of these plants were brought here as aquarium plants or ornamental species. Along with aquatic exotics, there are many species of terrestrial exotic invasive plants as well. Air potato, Brazilian pepper, climbing fern and Caesar’s weed are just a few that are highly aggressive and spread fast.

**You can help control the spread of exotic and invasive species by:**
- Checking your boat and trailer and removing any “hitchhikers” from underneath.
- Never empty an aquarium into any body of water, including canals and ditches.
- Make an effort to use only Florida-native plants in your yard and garden.
- Learn to identify plants that are exotic and problematic in your area.
- Never transport plants from Florida to other states or from other states into Florida.
- Periodically inspect your yard and garden for invasive plants. If any are found, do not compost them, but throw them in the household trash to prevent them from spreading.

For more information, check out these links:
- Orange County Water Atlas Flip (Mobile Field Guide) www.orange.wateratlas.usf.edu/FlipUF
- IFAS Center for Aquatic and Invasive Plants http://plants.ifas.ufl.edu
- Central Florida Invasive Species Working Group www.floridainvasives.org/Central

**Hydrilla Control**

Hydrilla is an invasive exotic species introduced from Asia as a common aquarium plant. It can spread by cut pieces (fragmentation), seeds and tubers, and can grow one inch per day. It grows in very low light, thus will thrive in deep water greater than 25 ft. Hydrilla can be transported from lake to lake by “hitchhiking” on boats/trailers. To stop its spread, it is important to inspect and clean your boat/trailer before launching into any waterbody.

Hydrilla is managed in Lake Jessamine using chemical and biological methods. The lake is surveyed quarterly and treated with aquatic herbicides. The Florida Fish & Wildlife Conservation Commission (FWC) acts as a funding partner for the control of Hydrilla because Lake Jessamine is a public access lake. This has resulted in allowing the MSTU to allocate more of its funds to water-quality projects. In addition to chemical control, the lake is stocked with triploid grass carp that provide biological control of Hydrilla. Since 2008, the lake has been stocked with 400 fish.
Lake Jessamine is vital to wildlife travelling between nearby water bodies. Lake Jessamine is connected to Lakes Mary Jess, Tyner, Bumby, Gatlin and Little Lake Conway by canals. Wildlife also travels from nearby Lakes Holden, Jennie Jewel and Conway by land and air.

Each of these lakes has areas that provide food and shelter for wildlife. Undisturbed habitats are not very prevalent in these mostly developed lakes, making these areas critical to protect and leave undisturbed so wildlife have a safe haven to survive in.

A wide variety of birds move back and forth between the lakes including bald eagles, herons, pelicans and ducks. Otters are frequently seen in the canals between the various lakes. Foxes are also seen travelling between the lakes. Other wildlife sightings include raccoons, opossums and armadillos.

Native shoreline vegetation and trees are critical to sustaining a diverse variety of wildlife. Healthy water quality with a good supply of food for wildlife is also required. Places where wildlife can escape human pressure are also needed for many species.

Having a backyard shoreline with native vegetation, and creating wildlife habitats on your property with native plants and trees are two of the best ways to encourage wildlife to remain in the area and thrive. Respecting wildlife in quiet undeveloped areas on the lakes is also very important for wildlife to prosper.

For additional information on shoreline vegetation, native plants and trees and wildlife habitats, please join us at our monthly LJWAB meeting or contact the Orange County Environmental Protection Division and the UF/IFAS Orange County Extension.

**FAST FACTS about the Lake Jessamine Municipal Service Taxing Unit!**

- 914 parcels
- 308 waterfront parcels
- 512-acre drainage area
- 19 separate sub-basins
- 3 lakes contribute to its watershed: Lake Mary Jess, Lake Bumby and Lake Tyner
- Located within the Boggy Creek Drainage Basin
- Lake Jessamine has a surface area of 290 acres, an average depth of 11 feet and a maximum depth of 30 feet
- The Normal High Water Elevation (NHWE) is 91.36 feet North American Vertical Datum (NAVD)
- There are 2 public boat ramps on Bywater Drive and Woodsmere Avenue
- 1973 – A Resolution created the Lake Jessamine Special Purpose Taxing District for general improvement and enhancement of the lake
- 1980 – The Resolution was amended to establish a five-member Advisory Board to provide suggestions to the Orange County Board of County Commissioners on MSTU expenditures
- 2009 – The Resolution was amended to include navigational improvements and gate-keeping services at the 2 boat ramps
You are getting this newsletter because you live within the boundary of the Lake Jessamine Municipal Service Taxing Unit (MSTU) or live within the contributing drainage area.

For more information contact Orange County Environmental Protection Division at 407-836-1400 or visit www.ocfl.net/epd

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