Greetings!
You are getting this newsletter because you live within the boundary of the Windermere Water & Navigation Control District. The District was created in 1963 by the Florida Legislators for the protection of the lakes associated with the Butler Chain of Lakes watershed. The District is:
- 29 square miles in size
- comprised of 25 lakes, 32 canals, and 6,000 acres of water
- includes the Butler Chain of Lakes which is an Outstanding Florida Waters (OFW) and is designated as being worthy of special protection because of its natural attributes

Lake Down Nutrient Reduction Facility (NRF) TO BEGIN IN 2014
Based on the 2007 Butler Chain of Lakes study done by ERD, Inc. and the phosphorous loadings found at Lake Down, a project was designed to capture the phosphorous coming from upstream areas near Lake Down. The project is a stormwater pond that will take in runoff from the upstream basin (approximately 377 acres in size) and apply a chemical to it called aluminum sulfate, or alum, for short. Alum binds up the nutrients and allows cleaner water to end up in Lake Down. The Lake Down NRF will also be used as an educational facility, and displays will be constructed to educate the public about lake pollution and treatment.
1) **Fertilize appropriately.** Don’t over fertilize! Excessive use of fertilizers can be unhealthy for your yard and the environment. Use zero phosphorous, 50% slow-release nitrogen fertilizers and leave a no-fertilize buffer near your lake. [http://www.orangecountyfl.net/Environment/FertilizeResponsibly.aspx](http://www.orangecountyfl.net/Environment/FertilizeResponsibly.aspx)

2) **Use native plants on your shoreline.** Vegetation in your shoreline and yard provide food, water and shelter for wildlife and help keep the natural balance of the lake’s ecosystem. [http://edis.ifas.ufl.edu/fa007](http://edis.ifas.ufl.edu/fa007)

3) **Control weeds & pests responsibly.** Don’t overuse pesticides as they can harm people, pets, beneficial organisms and the environment, as well as upset the lake’s food chain. Never use these products near the water’s edge.

4) **Control grass clippings and yard waste.** Orange County Code prohibits any person to cause water pollution. Don’t blow your grass clippings in to the street, instead mulch them in your landscaping.

5) **Maintain your septic tank system.** Keep the drain-field clear of tree roots; inspect and clean the septic system regularly; and don’t put chemicals into your septic tank.

6) **Reduce water runoff.** You can build a berm and swale to trap pollutants before they enter the lake. On page 4 is what a berm and swale looks like!

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**Butler Chain of Lakes Advisory Board**

- Cheryl Lynn Miller, Chair
- Ijaz Ahmed
- Robert Binkley
- Ann V. Connolly
- James “Jason” Fulmer

The District has a 5 member advisory board known as the Butler Chain of Lakes Advisory Board (BCLAB). The role of the BCLAB is to advise Orange County on expenditures of funds relating to the mission of the District, such as:

- Regulation and control of all waterways within the District
- Regulates any proposed alterations
- Preserves the natural beauty and attractiveness of the waterways within the District
- Provides for the control and regulate speed and operation of boats, boating activity and navigation
- Funds collected go to aquatic weed control, canal/lake maintenance, water quality enhancements, wetland habitat restorations, Butler Marine Patrol activities

The BCLAB meets at 6pm the third Monday of every month at the Town of Windermere Library.

For more information, call Sergio Duarte, Orange County Environmental Protection Division (EPD) at 407-836-1505.

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**Useful Links**

- Orange County Environmental Protection Division [ocepd.org](http://ocepd.org)
- Orange County Water Atlas [orange.wateratlas.org](http://orange.wateratlas.org)
- Butler Chain of Lakes Conservation Association [butlerchainconservation.org](http://butlerchainconservation.org)
- Town of Windermere [town.windermere.fl.us](http://town.windermere.fl.us)
- University of Florida Center for Aquatic & Invasive Plants [plants.ifas.ufl.edu](http://plants.ifas.ufl.edu)
- FWC Invasive Plant Management Section [myfwc.com/wildlifehabitats/invasive-plants](http://myfwc.com/wildlifehabitats/invasive-plants)

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**Web Resources**

- Orange County Environmental Protection Division [ocepd.org](http://ocepd.org)
- Orange County Water Atlas [orange.wateratlas.org](http://orange.wateratlas.org)
- Butler Chain of Lakes Conservation Association [butlerchainconservation.org](http://butlerchainconservation.org)
- Town of Windermere [town.windermere.fl.us](http://town.windermere.fl.us)
- University of Florida Center for Aquatic & Invasive Plants [plants.ifas.ufl.edu](http://plants.ifas.ufl.edu)
- FWC Invasive Plant Management Section [myfwc.com/wildlifehabitats/invasive-plants](http://myfwc.com/wildlifehabitats/invasive-plants)
Geofilter Tube Technology
USED TO RESTORE THE LAKE DOWN CANAL

The Lake Down Canal Restoration Project was completed in January 2012.

This project included:
(1) Hydraulic dredging to restore the water depth at the canal;
(2) On-site recycling of canal sediments with geofilter tubes to reduce canal bank erosion;
(3) Construction of a berm and swale to reduce stormwater pollution.

Hydraulic dredging/recycling of sediments into geofilter tubes resulted in a capital savings of $275k, as compared to the cost of dredging the canal with an excavator. The material dredged from the canal was recycled by filling the geofilter tubes. The tubes stabilize the banks and prevent erosion as well as filter rainwater/irrigation runoff.

25 Years Serving the Community
BUTLER MARINE PATROL

Since 1988, the Butler Marine Patrol has been providing boating law enforcement on the Butler Chain of Lakes. The Butler Marine Patrol are Florida Fish and Wildlife Conservation (FWC) Officers and off-duty deputies from the Orange County Sheriff’s Office.

The Butler Marine Patrol is funded by the District, and its primary mission is to provide boating safety, fish and wildlife law enforcement and assistance to EPD on environmental enforcement issues. The Butler Marine Patrol does about 1,600 hours of patrol time on an annual basis.

FUN FACTS!

- Egret Island (aka Bird Island) is owned by both the Audubon Society and a private citizen
- Commissioner S. Scott Boyd is your District 1 Commissioner
- The WWNCD was established in 1965
- The Butler Chain of Lakes outfalls to Reedy Creek
Shoreline vegetation helps to filter pollutants and remove nutrients from stormwater runoff, stabilizes soils against erosion from wave action and provides habitat for native wildlife.

Berm & Swale System allows percolation of yard chemicals into the ground, protecting the lakes from the introduction of turf fertilizers, herbicides and pesticides.

Orange County code requires lakefront homeowners to obtain a permit if they would like to work on their shoreline. Contact EPD at (407) 836-1400 or www.ocepd.org. Florida Fish and Wildlife Conservation Commission (FWC) may also require permits. Contact FWC prior to starting any work at 407-858-6170 or www.myfwc.com.

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 EPD at (407) 836-1400.

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

**Lake Access Corridor is 20% or 30 ft. total linear shoreline**

**DON'T ADD FILL TO THE SHORELINE**

Fertilizers, herbicides, pesticides are trapped here in the swale.
Hydrilla Control

The FWC has been a great funding partner for the control of Hydrilla on the Butler Chain of Lakes. This has resulted in allowing the District to allocate more of its resources to water quality projects. This year, several large treatments have been conducted at Lakes: Down, Wauseon Bay, Butler, Louise, Isleworth, Tibet, Blanche, Chase and Sheen with great success, thanks to early detection, pre & post surveys (approximately 1,200 hours per year), good planning and timely treatment decisions.

Hydrilla Fact:
Exotic species, introduced from Asia as a common aquarium plant. Can spread by cut pieces (fragmentation), seeds and tubers, and can grow one inch per day. Grows in very low light, thus will thrive in deep water greater than 25ft. Can be transported from lake to lake by “hitchhiking” on boats/trailers.

Because of the special designation held by the Butler Chain of Lakes, Florida Administrative Code (FAC) Section 62-4.242 states, in part, that “permits shall not be issued for any activity or discharge within an Outstanding Florida Water, which significantly degrades, either alone or in combination any Outstanding Florida Waters.”

ORANGE COUNTY WATER ATLAS
orange.wateratlas.usf.edu

FACTS
~Orange County site created in 2005
~Site is hosted and maintained by the University of South Florida
~Data supplied by multiple local, state, & federal agencies
~EPD data uploaded quarterly throughout the year
~Public works supplies NHWE, rainfall and level data

FEATURES
~Provides geographically based information
~Pollution: reporting illicit discharge credit for NPDES permit
~Curriculum: all grades, subject areas of science, math, social studies, language arts
~FLIP: Florida Invasive Plant guide application for smartphones
~Watershed Excursion: share experiences and locations
~Current Events
~Photo/Story Submission: anyone can upload
~Volunteer Opportunities
~Climate Change: provides resources & Florida data
~Stormwater Education
~TMDL Status: each lake page has status
Accomplished Projects Since 2005 ON BUTLER CHAIN OF LAKES

Canal Dredging, Bank Restoration, Construction of Berms & Swales Systems
- Fish/Pocket & Lake Down Canal Restoration Projects

Engineering Design:
- Stormwater Project for the Tilden/W. Lake Butler Road
- Engineering Design Fish-Pocket Canal
- Engineering Design Lake Down Canal
- Lake Down Sub-basin 15 Stormwater/Alum (100% plans completed in June 2013)

Pollutant Inflow & Watershed Studies:
- Butler Chain of Lakes Study
- Lake Sawyer/Robinson Watershed & Pollutant Load Study
- Fish Population Evaluation in partnership with the FWC
- Lake Butler Groundwater-Surface Water Interaction -FDEP
- Pollutant Load Study for Lake Tibet Sub-basin 1 & 2
- Lake Down Sub-basin 15 Pollutant Inflow Study
- Lake Down Sub-basin 9 Pollutant Inflow Study (started in June 2013)

Stormwater & Baseflow Retrofits:
- Installation of Stormwater Curb & Grate Inlet Filters at Lake Tibet Sub-basins 1 & 2
- Lake Valerian Outfall Improvements -Orange County Public Works
- Installation of Stormwater Curb & Grate Inlet Filters at Bentley Lane (Lake Tibet)
- Construction of the Lake Down Stormwater/Alum -NRF (pending const. in 2014)
BE COURTEOUS to lakefront property owners and to those who share the lake with you.

DON’T LITTER. Trash is unsightly and can cause environmental hazards and threats to wildlife.

AVOID MAKING LARGE WAKES. Excessive wakes can cause erosion of the shoreline and potentially degrade water quality.

FOLLOW AT SAFE DISTANCES.

IT IS PROHIBITED TO OPERATE A vessel, water ski or wakeboard with a blood alcohol content of 0.08% or higher or while under the influence of drugs. More information go to www.myfwc.com/boating/regulations

A Few Boating Regulations:

• Persons born on or after January 1, 1988 are required to complete a National Association of State Boating Law Administrators (NASBLA) approved boater education course prior to operating a vessel powered by a motor of 10 horsepower or more. Those affected by this law must carry a boater safety ID card and a photo ID with date of birth while operating a vessel. More information at: myfwc.com/boating/safety-education

• No one under the age of 14 may operate a personal watercraft on Florida waters at any time.

• All powered vessels, including electrical, operated in the state of Florida must be registered. The registration must be on board at all times while the vessel is being operated.

• The vessel registration numbers must be displayed on both sides of the forward hull in bold block letters at least three inches tall.

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

Help Protect the Butler Chain of Lakes

• Utilize zero phosphorous fertilizers in your yard
• Clean and maintain your septic system
• Maintain a vegetated shoreline
• Install a berm & swale to protect the lake
• Avoid shallow water boating/sediment re-suspension

For future newsletters ONLINE: ocpd.org
town.windermere.fl.us
butlerchainconservation.org

Report UNSAFE BOATING at 407-836-HELP and ENVIRONMENTAL VIOLATIONS at 311.
For more information contact Sergio Duarte of the Orange County Environmental Protection Division at 407-836-1505 or www.ocfl.net