

A Moment with Management

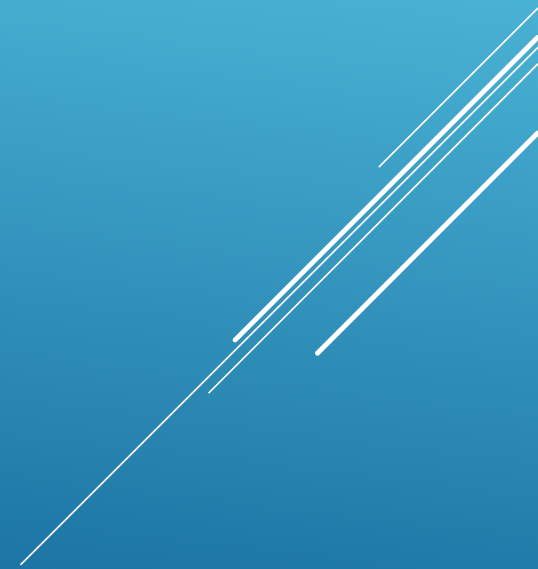
DECEMBER 16, 2021

TODAYS TOPIC:

SOA Lakes: They
are not just fish
ponds

A decorative graphic consisting of several parallel white lines of varying thicknesses, slanted diagonally from the bottom left towards the top right, set against a blue gradient background.

A DISCUSSION INTO HOW OUR LAKE
SYSTEMS WORK, THEIR PURPOSE, AND
OUR MAINTENANCE PROGRAMS



Did you know?

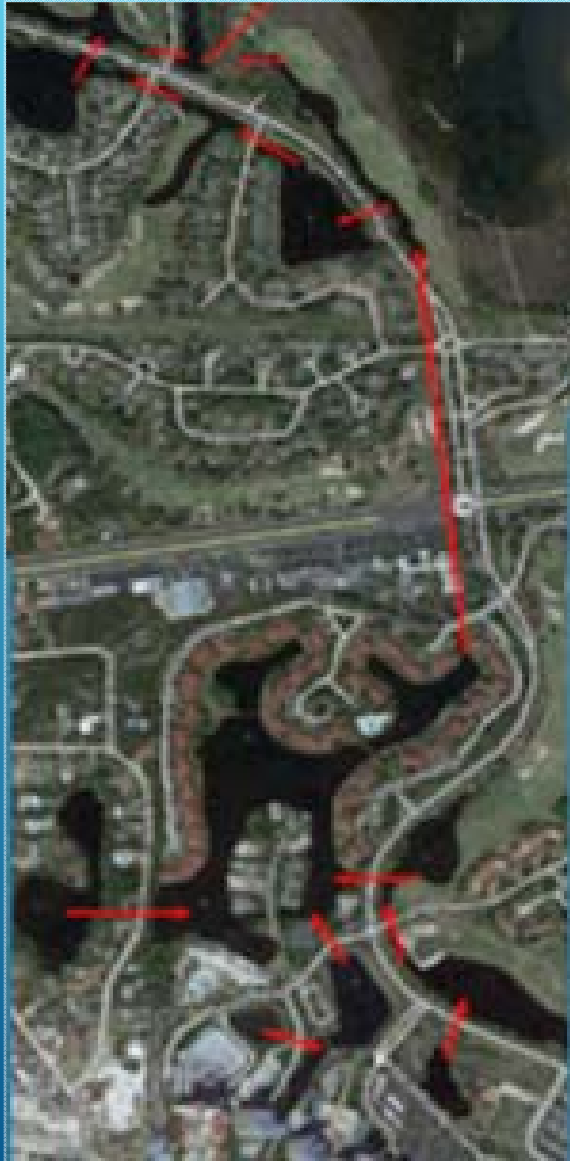
- *There are 85 ponds in Sandestin consisting of over 200 surface acres of water (9.5% of the property)
- *All Sandestin ponds are part of the master stormwater system that eventually drains to the Choctawhatchee Bay
- *By approved design, Sandestin receives stormwater from Tops'I, Silver Sands, Grand Boulevard, and Highway 98

What Purpose do the ponds serve?

1. Stormwater Treatment
2. Irrigation Source
3. Aesthetics

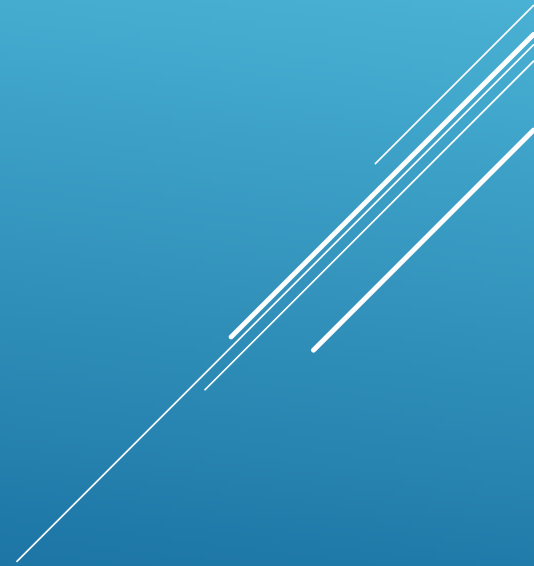
THE PRIMARY PURPOSE OF ALL THE
SANDESTIN LAKE SYSTEM IS
STORMWATER MANAGEMENT

The background is a solid blue gradient. On the right side, there are several white, parallel diagonal lines that appear to be part of a larger graphic element or logo, extending from the top right towards the bottom right.



FLOW MAP OF SANDESTIN PONDS

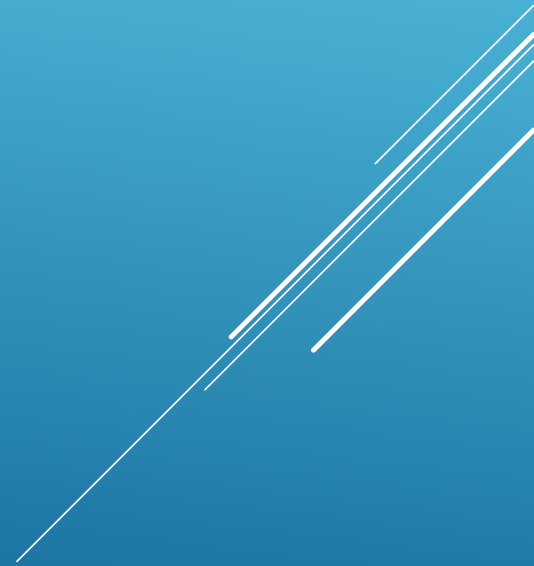
South Stormwater Network





FLOW MAP OF SANDESTIN PONDS

West Stormwater Network





FLOW MAP OF SANDESTIN PONDS

East Stormwater Network

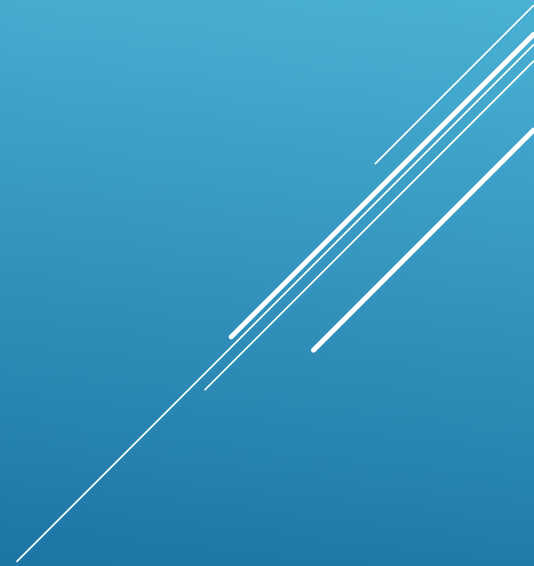
► *Q: What are stormwater ponds and why do we need them?*

A: A stormwater pond is designed to collect and manage runoff from rainwater. When rainwater lands on rooftops, parking lots, streets, driveways and other hard surfaces, the rainfall that doesn't soak into the ground (stormwater runoff) flows into your neighborhood stormwater pond through grates, pipes, shallow swales or ditches. Stormwater ponds are required for most new development (since the 1980s) and are specifically designed to help prevent flooding and remove pollutants from the water. Without these ponds, stormwater would carry pollutants like litter, motor oil, gasoline, fertilizers, pesticides, pet wastes, sediments and anything else that can float, into nearby bays, streams, rivers, lakes, wetlands, estuaries or the Gulf of Mexico.

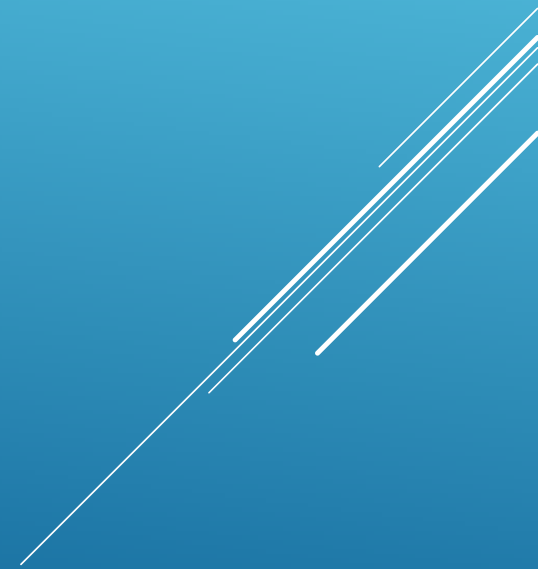
GIS Map of Drain Connections to Ponds

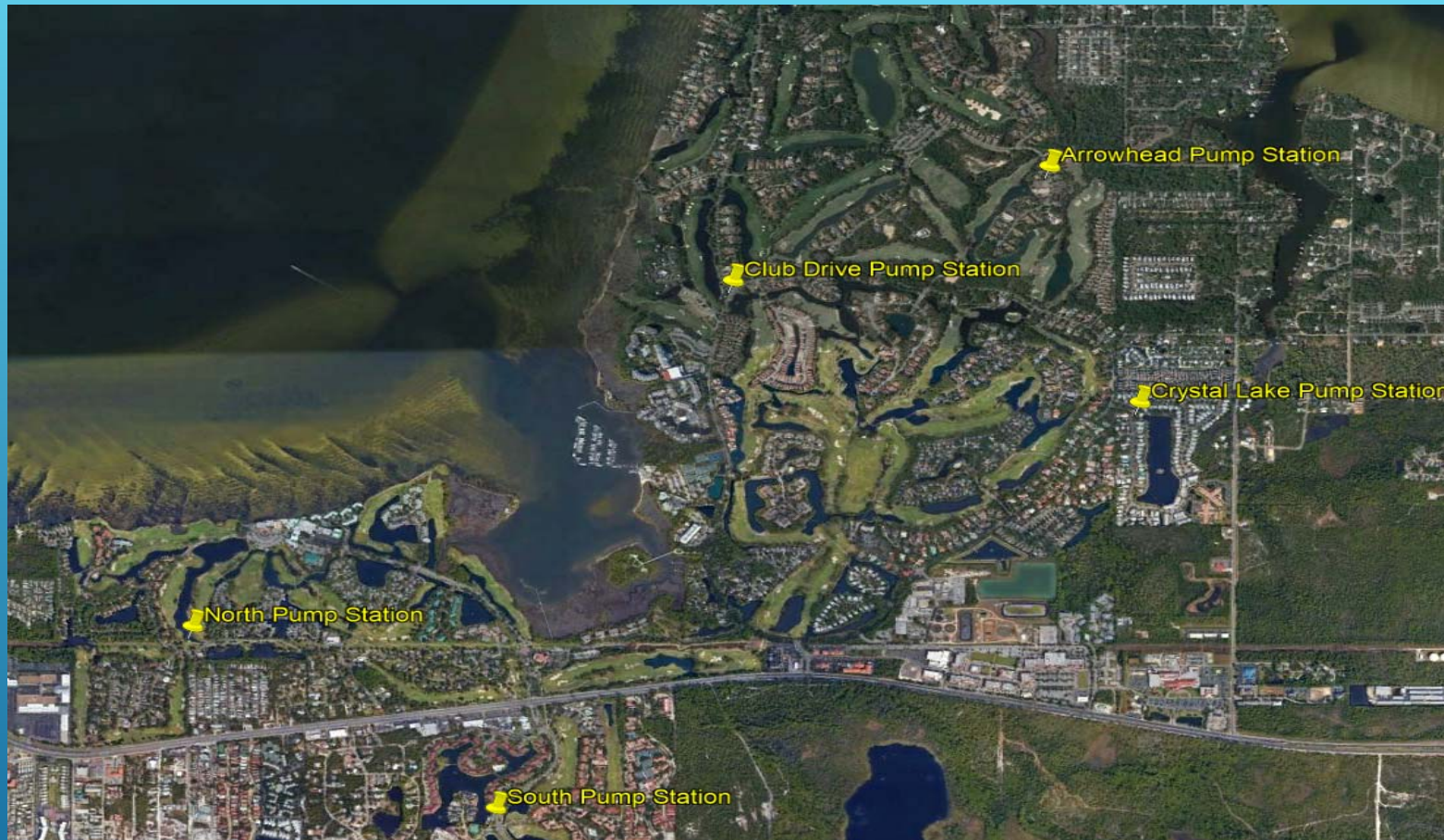


THE IRRIGATION ELEMENT



AS A RESULT OF THE DEVELOPMENT OF
THE LAKES, WE ARE ABLE TO TAKE
ADVANTAGE OF SOME OF THEM FOR
OUR IRRIGATIONS PURPOSES





5 PRIMARY PUMP STATION LOCATIONS



ARROWHEAD PUMP STATION



CLUB DRIVE PUMP STATION



CRYSTAL LAKE PUMP STATION

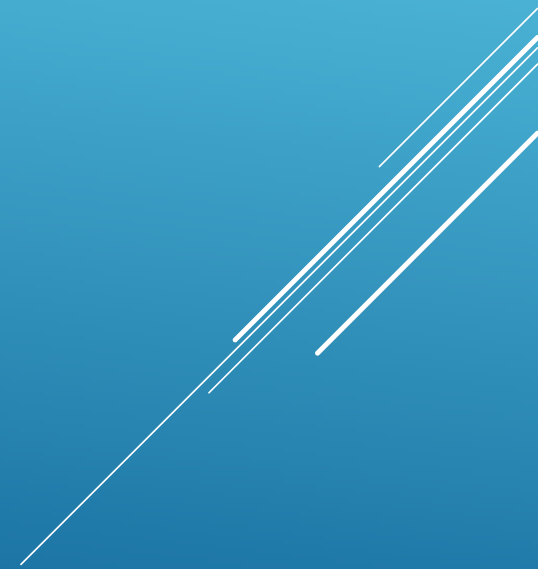


NORTH PUMP STATION

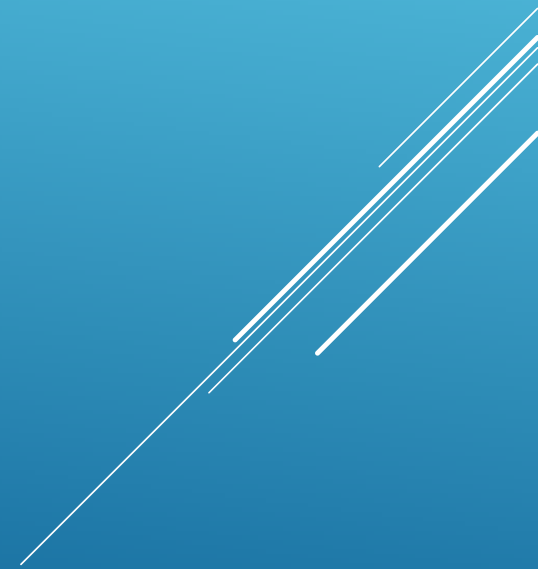


SOUTH PUMP STATION

THE SOA MAINTAINS NUMEROUS
OTHER RECHARGE WELLS AND
TRANSFER PUMPS TO ENSURE WATER IS
AVAILABLE AT THE LAKES THAT ARE
USED FOR IRRIGATION.



THE RECHARGE PUMPS ARE CRITICAL
DURING THE DROUGHT WHEN RAIN IS
LOW AND IRRIGATION DEMAND IS
HIGH



PROTECTING THE LAKE SYSTEM





**When You're Fertilizing the Lawn,
Remember, You're Not Just
Fertilizing the Lawn.**



You fertilize the lawn. Then it rains. The rain washes the fertilizer along the curb, into the storm drain, and directly into our waterways. The nutrients encourage algae to grow, using up oxygen that fish need to survive, resulting in fish kills. So, if you fertilize, please follow directions, and use sparingly.



This non-point source pollution information is brought to you by the Bayou Texar Foundation and the West Florida Regional Planning Council.



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► Effects of Grass in Lakes Alachua County Florida



Only Rain

Down the Drain

Green waste like grass clippings, leaves, and branches clog up storm drains and cause serious water quality issues and potential flooding

Keep all storm drains clear of obstruction so water can flow freely



Putting Greens

3 baskets of clippings


8.0 lbs of wet clippings = 0.8 lbs dry clippings

4% nitrogen in the clippings


= 0.032 lbs of nitrogen

Equal to throwing 0.32 lbs of 10-10-10 in a pile on the ground.

BACTERIA ALGAE AGENTS TO COMBAT WEED GROWTH

- ▶ Too expensive for wide scale use
 - ▶ Sandestin Lakes are interconnected, eliminating chances of building large colonies of beneficial bacteria
 - ▶ Aeration recommended for most brands
 - ▶ Bacteria can be killed by lawn pesticide runoff
- 
- A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against the dark blue background.

AN OUNCE OF PREVENTION.....

- ▶ Create berms and swales around lakes to minimize runoff.
 - ▶ Use only slow-release, low phosphorus fertilizer.
 - ▶ Keep grass clippings out of lakes.
 - ▶ Create buffer strips of natural vegetation between the lawn or landscaped area and the lake to prevent nutrients and contaminants from reaching lake.
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KIAWAH NATURAL SHORELINES



Aquatic Plant Control Permit
 FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
 Division of Habitat and Species Conservation
 Invasive Plant Management Section
 3800 Commonwealth Boulevard, Mail Station 705
 Tallahassee, Florida 32399

Permittee Name: Sandestin Owners Association Permit Number: IPM-14-00492B
 Permittee Address: PO Box 6868 Effective Date: 03/18/2020
 MIRAMAR BEACH, FLORIDA Expiration Date: 03/18/2023
 32550 UNITED STATES

IS AUTHORIZED TO:

- Pursuant to the Agency's authority under Chapter 369.20 Florida Statutes and Chapter 68F-20 Florida Administrative Code, the Permittee is authorized to control aquatic plants under the conditions listed below and in accordance with any site map that may be attached to this permit. A copy of this permit must be present on site and available for review during any aquatic plant control activities.

AUTHORIZED LOCATION(S): Area of operation:Lakes at Sandestin (WALTON Co.)
 Site Address: 185 Grand Boulevard , MIRAMAR BEACH 32550
 POS: Latitude 30° 23' 21.31" N Longitude 86° 19' 4.05" W

Permittee Signature: _____ Date: _____

Not valid unless signed. By signature, confirms that all information provided to issue the permit is accurate and complete, and indicates acceptance and understanding of the provisions and conditions listed below. **Any false statements or misrepresentations when applying for this permit may result in felony charges and will result in revocation of this permit.**

Authorized By: Derek Fussell Authorized for: Eric Sutton, Executive Director

Authorizing Signature:  Date: 03/18/2020
 Invasive Plant Management Section

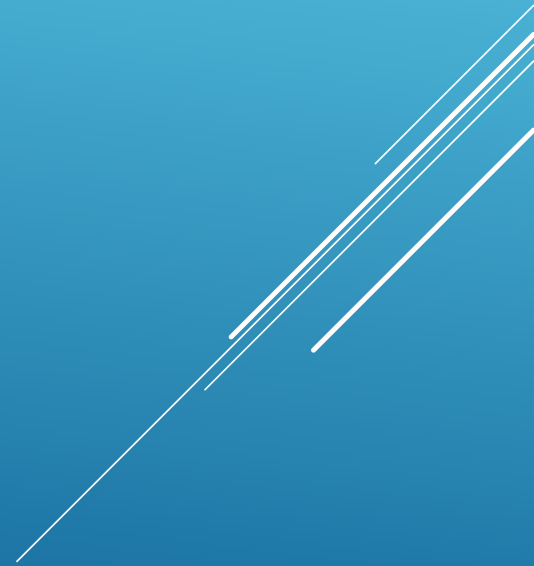
Is Authorized To (Continued):

PLANT	ACRES	METHOD
Alligatorweed (Alternanthera philoxeroides)	10.00	Glyphosate, Mechanical Harvester
Duckweed (Lemna/Spirodela spp)	40.00	Fluridone (liquid), Fluridone (pellets), Diquat
Torpedo grass (Panicum repens)	20.00	Glyphosate, Mechanical Harvester
Algae (Filamentous algae)	40.00	Copper Chelate (granular), Copper Chelate (liquid), Hydrothol 191, Hydrothol (granular), Diquat, Aquatic Dye (for shading), Peroxide (liquid), Peroxide (granular)
Cabomba, Fanwort (Cabomba caroliniana)	40.00	2,4-D (liquid), Aquathol Super K, Aquatic Dye (for shading), Flumioxazin, Mechanical Harvester
Lyngbya (Lyngbya spp)	20.00	Hydrothol 191, Diquat, Peroxide (liquid), Peroxide (granular), Flumioxazin

PERMIT CONDITIONS AND PROVISIONS:

- The use of Aquatic Dye (for shading) will not be allowed in the last to ponds above discharge points into Horseshoe Bay to minimize dye release into the bay. These ponds will be noted on the site plan.
- Permittee must manage the above listed aquatic plants in accordance with the attached site plan which is made part of this permit.
- The intent of this permit is to allow for the removal of all submerged plants from the lakes within the Sandestin Owners Association property.
- This permit is issued to the Sandestin Owners Association and applies to all lakes and lakefront property owners. Acreage of the above listed aquatic plants represents that which can be removed from the lakes and shoreline of all lakes within the ownership of the association.
- Do not apply copper-based herbicides if there is any anticipated discharge of treated waters to the Choctawhatchee Bay within 48 hours of treatment.
- All aquatic herbicides must have an aquatic-use label and must be applied in strict compliance with the directions stated on the product label. It is a violation of state and federal law to use herbicides in a manner that is inconsistent with its label. The label is the law. Before using any herbicide, the applicator should read the label to determine any water use restrictions, herbicide toxicity, location & sites where herbicide can be used and what personal protective clothing & equipment is required.
- Plant control conducted using Hydrothol 191 shall be conducted as a marginal or sectional treatment to avoid fish kills. No treatment greater than 1/10 of the lake acreage shall occur in any one application with Hydrothol 191. Shoreline treatments shall be conducted from the shore to open water to minimize impact to fish.
- Permittee shall make a reasonable effort to notify potential users of the treated waters listing the types and lengths of any restrictions imposed by the label. Notifications shall be accomplished by posting signs and/or notices, distributing notices to residents, making contact with citizen coordinators, public notices in newspaper, putting out a signal or marking system or holding public meetings.
- All aquatic vegetation removed pursuant to this permit shall be deposited on a self-contained upland site which shall be located so as to prevent the reintroduction of the removed vegetation into waters of the State.
- Permittee shall not disturb or destabilize the shoreline substrate while using any mechanical equipment. If substrate will/may be disturbed or removed while using a tractor/mower, bush-hog or other mechanical equipment, then a dredge & fill permit may be required by the Department of Environmental Protection, 470 Harrison Avenue, Panama City, FL 32401, Phone: 850-872-4375
- Permittee may remove entire plant (including roots) from the site, as long as no offsite turbidity occurs or sediment is removed. If substrate is removed while conducting the above permitted activities then a dredge & fill permit may be required by the Department of Environmental Protection, 470 Harrison Avenue, Panama City, FL 32401, Phone: 850-872-4375
- The permit or a copy of the permit must be present and available for review on site during the time of any aquatic plant control activities.
- The issuance of this permit does not relieve the permittee of the responsibility to comply with all applicable federal, state, county and municipal laws, ordinances, or rules; nor is the permittee relieved of the responsibility to obtain any other licenses or permits.
- This permit is valid for only the activities printed on the front of this document.
- The Permittee agrees to hold and save the State of Florida, the Fish and Wildlife Conservation Commission, its inspectors and employees, harmless from any damage, no matter how occasioned and no matter what the amount, to persons or property, which might result from the aquatic plant management activities pursuant to the permit. [If the Permittee is a Florida "state agency or subdivision" as defined in 768.28, F.S., this provision does not constitute a waiver of the Permittee's sovereign immunity or extend the Permittee's liability beyond the limits established in Section 768.28, F.S.]
- The Permittee is responsible for complying with the restrictions/requirements of any recorded conservation easement along the shoreline. If the activities authorized by this permit are inconsistent or contrary with the

MAINTENANCE ACTIVITIES



AERATION



BARLEY STRAW AT ST. ANDREWS LAKE



HAND RAKING



SONIC ALGAE CONTROL



WEEDOO ELECTRIC HARVESTER



DREDGING



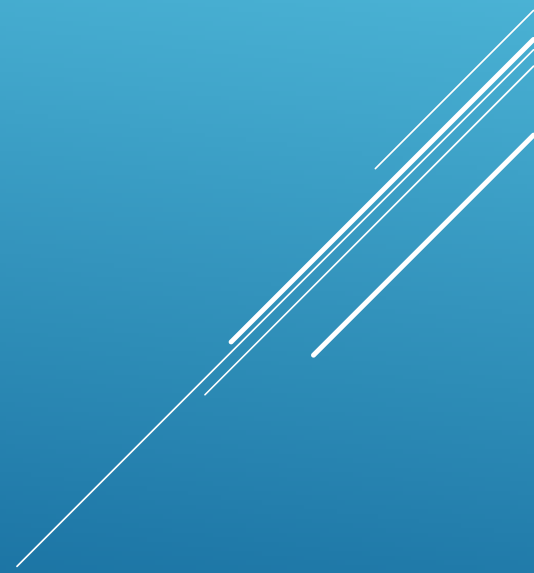
HERBICIDE AND ALGAECIDE APPLICATION




WEED HARVESTER




YOUR SOA LAKES TEAM WORK
TIRELESSLY AGAINST THE ODDS TO
MAINTAIN THE AESTHETICS AND
HEALTH OF THE LAKE SYSTEM



WHAT IS THE SOA DOING TO HELP?

- Working with golf operations to reduce the amount of detrimental chemicals that are used on the golf course
 - Trying to establish and create natural shorelines whenever possible
 - Reducing our dependency on the lakes for irrigation purposes by installing reclaimed water pumping systems
- 

WHAT CAN YOU DO?

- Use environmentally friendly chemicals
 - Don't blow grass clippings into the lakes or storm drains
 - Promote environmentally friendly landscape activities with your neighborhood and your landscaper
 - Preserve water, attach rain sensors to your irrigation system, if its raining, you don't need your irrigation on
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IF WE ALL WORK TOGETHER, WE CAN HELP TO MAINTAIN A HEALTHY FISHERY TOO!



QUESTIONS?

NEXT MANAGERS MOMENT

MARCH TBD, 2022

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