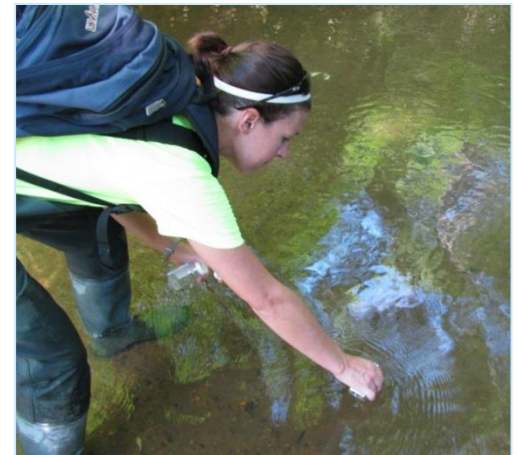


# Monitoring Committee

Big Tent Meeting  
February 16, 2021  
Greenville, SC

# Committee Mission

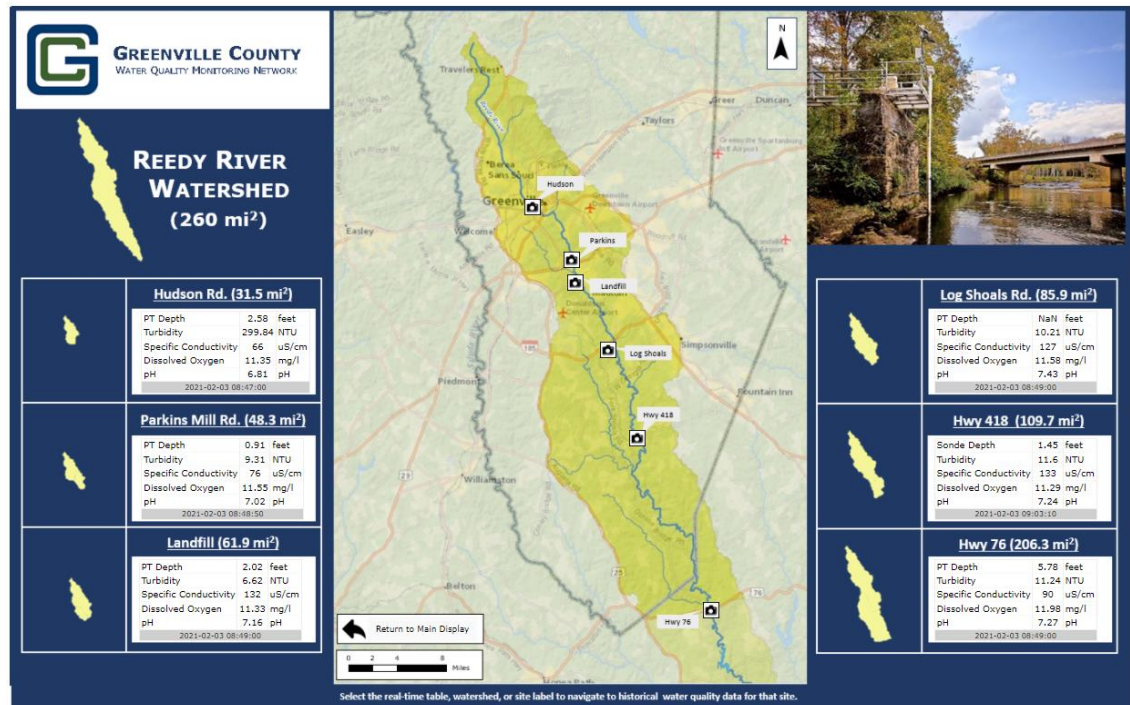
- \* To identify and obtain appropriate sampling/monitoring data needed to produce a more reliable, calibrated watershed model and to evaluate future improvements in water quality after the implementation of the watershed plan and associated BMPs



# 2020 Activities

## On-Going Monitoring Efforts

- \* Greenville Co – 10 monitoring stations including buoys in Reedy watershed
- \* City - issued RFP to restart its monitoring program
- \* ReWa – on-going sampling of effluent
- \* Partners - Lake Greenwood monitoring in headwaters
- \* Greenwood Co – lake-wide sampling
- \* SCDHEC – grab sampling



# 2020 Activities

Boyds Millpond – Algal Event – August 24





# 2020 Activities

## Boyds Millpond – Algal Event



# 2020 Activities

## Boyds Millpond – Algal Event

- \* Located in Florida
- \* Coordinated sample package and delivery with Rogers and Callcott
- \* SCDHEC has also previously used
- \* PTOX results promised within 24 hours



aquatic analysis ... research ... consultation

### Description of Services:

#### Phycological Services

##### ***Potentially Toxigenic (PTOX) Cyanobacteria Screen:***

Microscopic observation is used to determine if cyanobacteria are present. If potentially toxigenic (PTOX) cyanobacteria are present, dominant cyanobacteria are identified and recommendations are made for toxin analysis.

##### ***Qualitative Algal Identification:***

All algae, including cyanobacteria, are identified but not quantified. A species list is composed in order of relative abundance based on the empirical judgment of the phycologist.

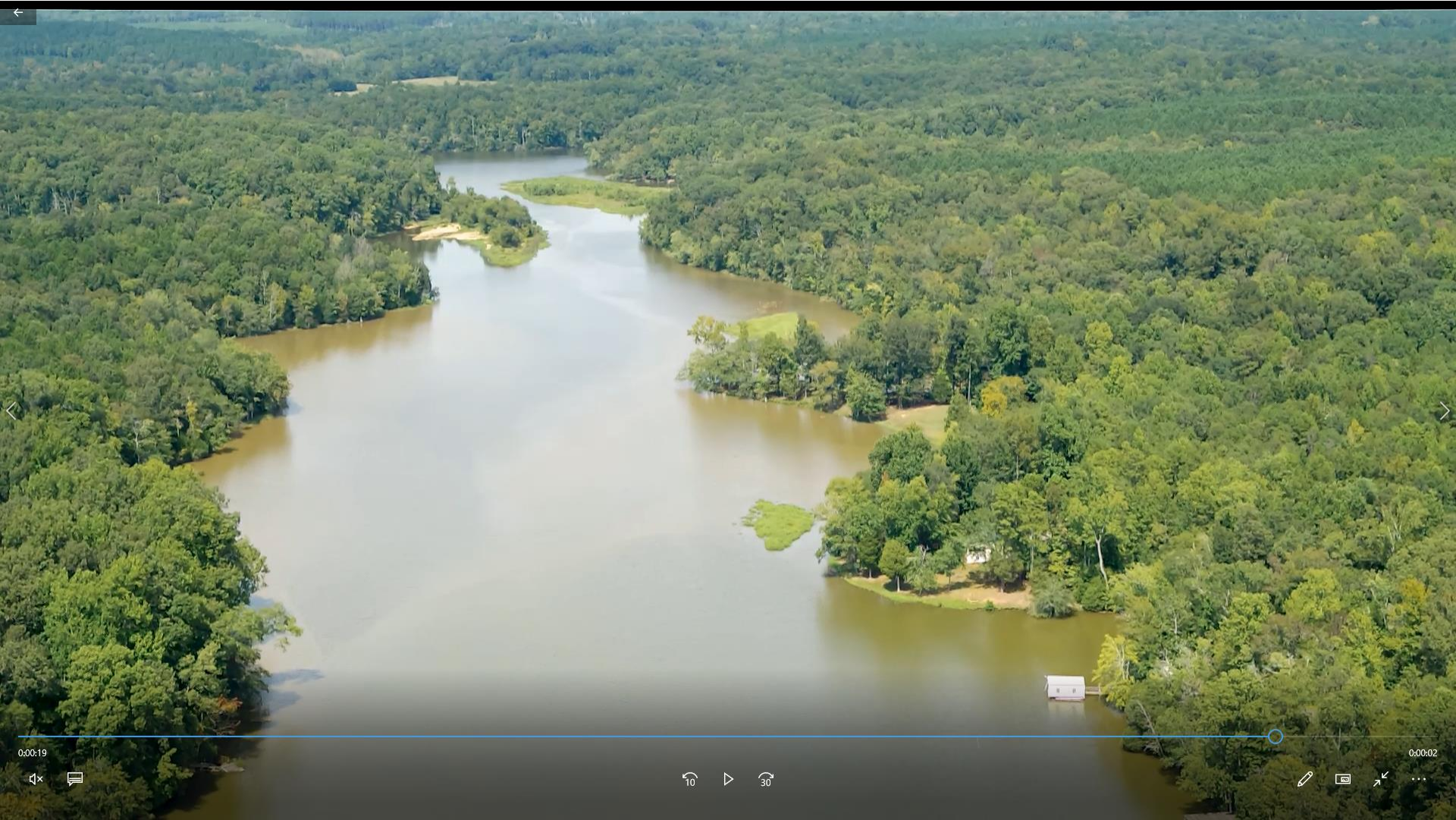
# 2020 Activities

## Boyds Millpond – Algal Event

- \* Resident concern posted on RRWQG Facebook page – worked on messaging with PO committee
- \* Continuous monitoring data did not demonstrate consistent elevated conditions
- \* Coordination with Northbrook Energy regarding observations, dam operations, and drone access







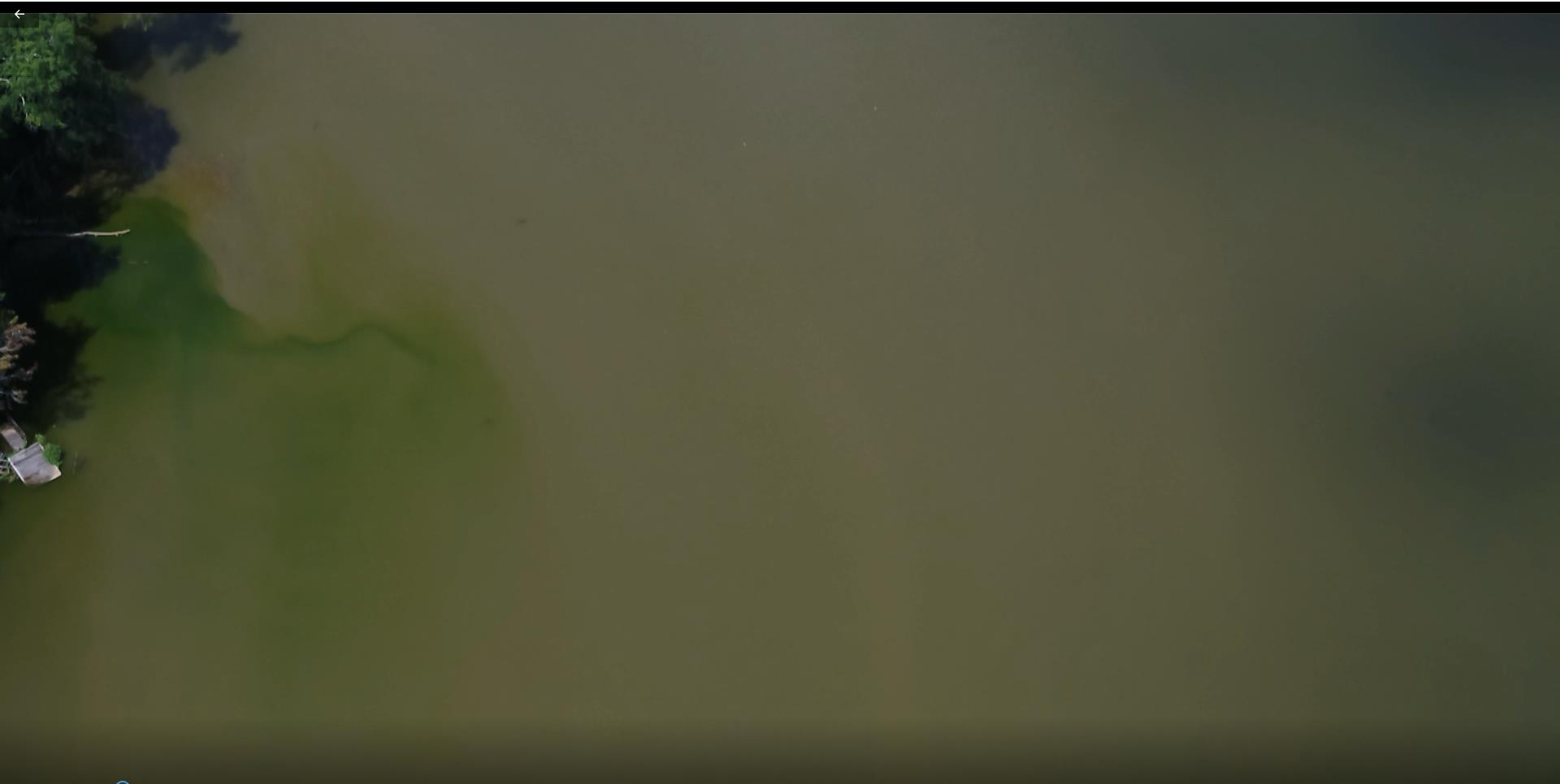
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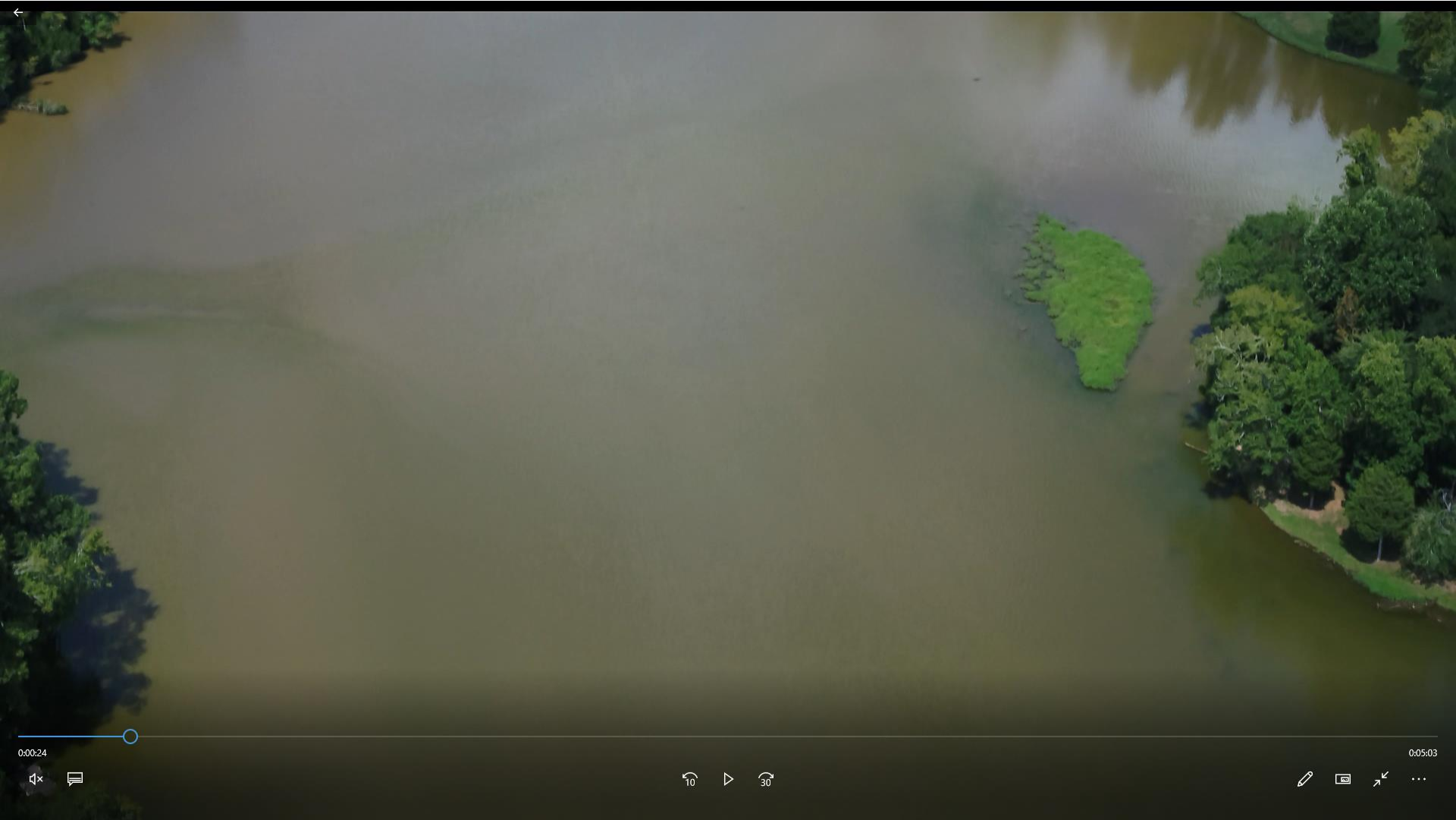




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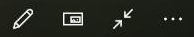
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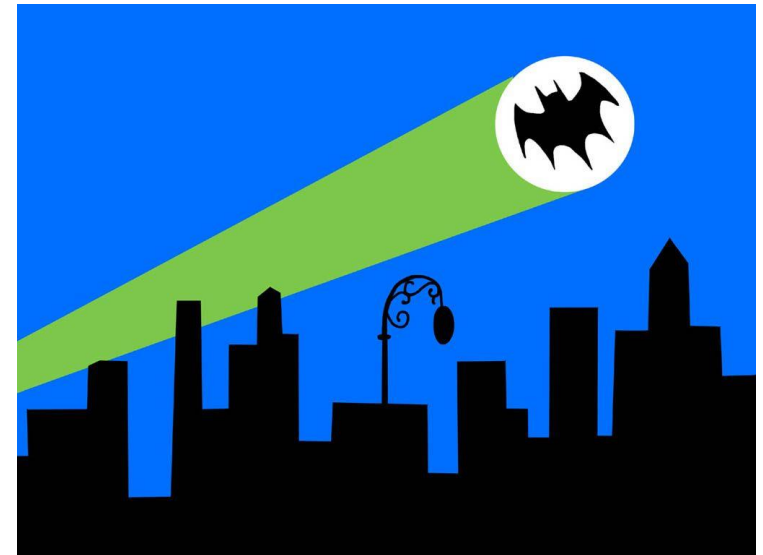
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# 2020 Activities

## Boyds Millpond – Algal Event

- \* Leveraged relationships through RRWQG to notify key stakeholders
- \* Conducted team conference call with DHEC personnel for guidance and context
- \* Labor Day holiday weekend was looming
- \* Results indicated prevalence of green algae-non-toxic conditions, sporadic locations





# RESULTS



aquatic analysis ... research ... consultation

#### BMP Rd. Dr.

The PTOX cyanobacteria *Limnothrix* sp. (> 10 filaments per mL) and *Pseudanabaena* sp. (≥ 3 filaments per mL) were observed.

#### BMP Rd.

The PTOX cyanobacterium *Pseudanabaena* sp. (> 5 filaments per mL) was observed.

#### Lower Mid Lake

The PTOX cyanobacterium *Limnothrix* sp. (> 10 filaments per mL) was observed.

#### Camper Cross Cove

The PTOX cyanobacteria *Pseudanabaena* sp. (> 15 filaments per mL) and *Limnothrix* sp. (≥ 3 filaments per mL) were observed.

#### Camper Mid

The PTOX cyanobacteria *Pseudanabaena* sp. (≥ 15 filaments per mL) and *Limnothrix* sp. (≥ 5 filaments per mL) were observed.

Microcystins	Saxitoxins	Anatoxin-a	Cylindrospermopsin
<i>Limnothrix</i>			
<i>Pseudanabaena</i>			

#### Recommendations:

Based on the limited PTOX cyanobacterial presence, toxin analyses are not currently recommended.

#### Notes:

The samples were dominated by a green alga at varying levels, with **Drive 2 Bank** containing the highest density. This alga is responsible for the green coloration of the samples and is not a PTOX cyanobacterium. Micrographs of this alga are included below for reference.



205 Zeagler Drive Suite 302 • Palatka, FL 32177  
info@greenwaterlab.com • greenwaterlab.com

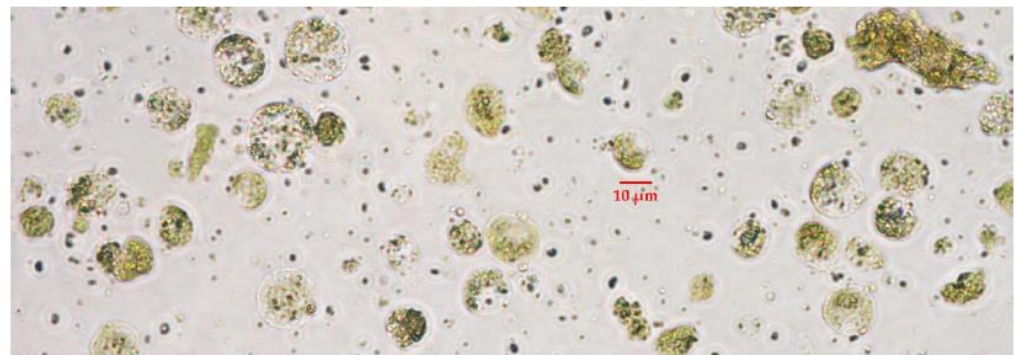
P: (386) 328-0882 • F: (386) 328-9646  
cyanolab.com

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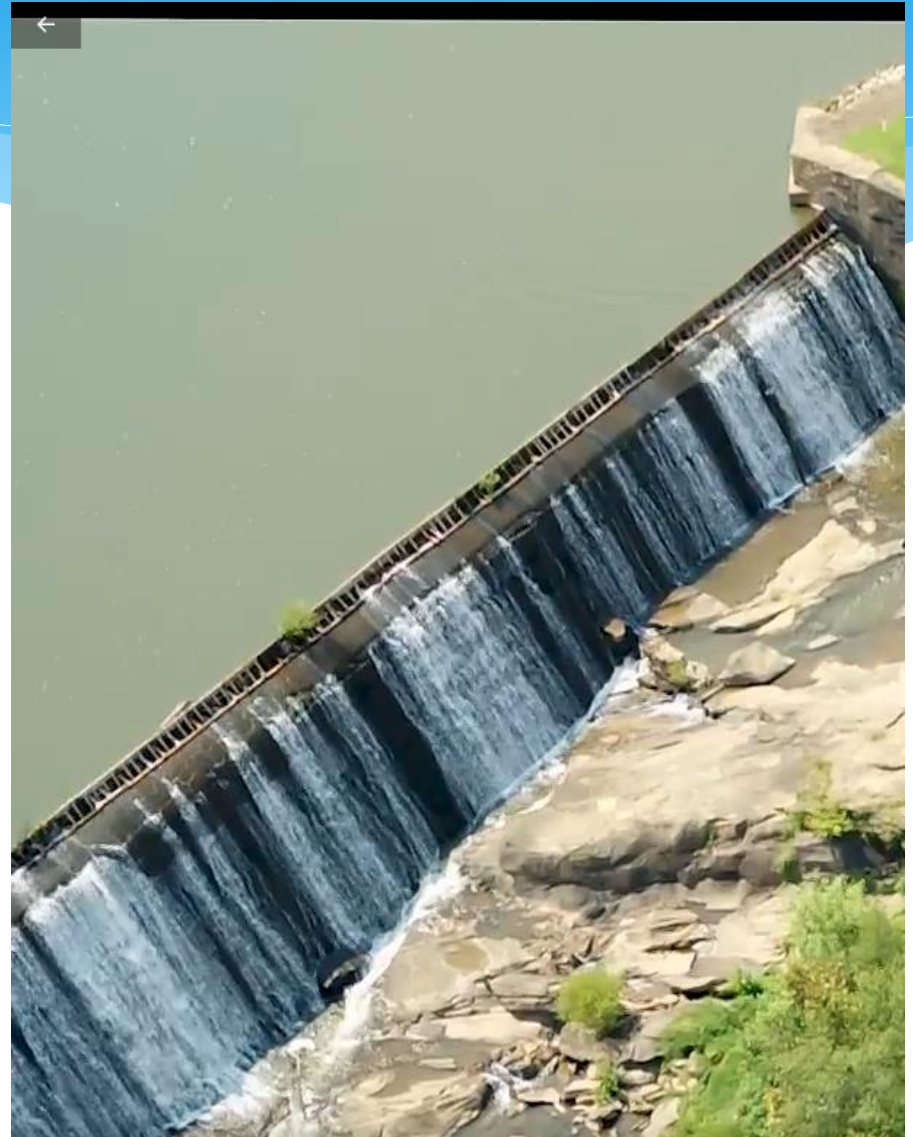


green algal colonies at 400X (**Drive 2 Bank**)

# 2020 Activities

## Boyds Millpond – Algal Event

- \* Flashboard Maintenance
  - \* Turbine Replacement/Repairs
  - \* Late Summer Temperatures
  - \* High Concentrations of Nitrogen
  - \* Limited Recent Rainfall
- 
- \* Hwy 252 – rain/discharge data
  - \* Extended Residence Time



# Current Committee Members

Boyd Mill Pond HOA	Martha Abrams
City of Greenville	Paul Dow – Co-Chair
Friends of the Reedy	Melanie Rulhman
Greenville County	Ben Hammond
	James Riddle – Co-Chair
Greenwood County	Julie Davis
	Rob Russian
Home Builders Association of Greenville	Mike Freeman
Preserving Lake Greenwood	Walker Moore
ReWa	Danny Holiday
	Greg Wright
	Ray Overstreet
	Sharon Appell
Upstate Forever	Katie Hottel
Waterloo Water Wizards	Joanne Hochheimer
	Thomas Hochheimer



# Questions and Comments?

