



AERF

Aquatic Ecosystem Restoration Foundation

June 2025 Newsletter

Collaborating with the Tennessee Valley Authority to develop and conduct a Plant Camp Educational Event

TVA and AERF will host a 1.5-day Aquatic Plant Management (APM) workshop at Lake Guntersville State Park in Alabama August 4-6, 2025. The target audience is resource managers in state and federal agencies with APM responsibilities that geographically overlap with or are adjacent to TVA territory. The goal of this workshop is to 1) introduce new personnel to the broader APM field, 2) communicate APM information to a demographic (field biologist and technician level practitioners in government agencies) that doesn't normally attend national or regional APMS meetings, 3) provide CEU's to APM practitioners, and 4) strengthen the APM network in and neighboring the TVA region. Assuming this Plant Camp is successful, we hope to create similar training opportunities in other areas of the country.

As you can see, on page 4, there is a lot of information crammed into a couple of days. In accordance with our goals, we want to make as many of our projects to be self-supporting. We received a grant from TVA to get us started and are raising the balance of the estimated \$25,000 cost by donations. Our goal is to present the Plant Camp at no cost to the attendees. It will be held at Guntersville State Park near Guntersville, AL, August 4-6. Should you wish to contribute to the success of the first TVA/AERF Plant Camp, please send your donations to:

AERF
P.O. Box 369
Cadillac, MI 49601



Mark your checks clearly that your donation is intended to support the Plant Camp. You may also donate by credit card from our website. If you choose that method, please send an email to Clayne@Aquatics.org so your donation is properly credited.

AERF thanks Harry Knight for his coordination efforts and his continuing support of AERF. Stephen Turner with TVA has been the Plant Camp Champion inside TVA. Dr. Gray Turnage has been the driver of the Plant Camp effort since we confirmed it was going to happen. For more information, contact Carlton Layne or Dr. Gray Turnage.



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AERF & TVA Plant Management Workshop

Organizers: Carlton Layne (AERF); Gray Turnage (MSU/MSAPMS); Stephen Turner (TVA)

TENTATIVE AGENDA

NOTE: Presentations and work shop components are listed scheduled in 50 min time blocks (50 min, 100 min, 150 min, etc.) so that each provides 1 to 3 CEU's; as written, this agenda should provide 13 CEU's if accepted by licensing agencies.

Day 1 (Aug. 4): Travel, registration, and classroom presentations

12:00 – 1:00 PM: Registration

1:00 – 1:50 PM: AIS impacts to Aquatic Fauna and Human uses of water – Dr. Joe Bisesi/Univ. FL

1:50 – 2:00 PM: Break

2:00 – 2:50 PM: Ecology and Life History of AIS – Dr. John Madsen/JD Madsen Consulting

2:50 – 3:00 PM: Break

3:00 – 3:50 PM: Environmental fate and toxicity of herbicides used for aquatic plant control – Dr. Gray Turnage/Mississippi State University

3:50 – 4:00 PM: Break

4:00 – 4:50 PM: Digital and printed resources for APM practitioners – Dr. Lyn Gettys/Univ. FL

4:50 – 6:00 PM: Break

6:00 – 9:00 PM: Dinner/Evening Social

Day 2 (Aug. 5): Classroom, hands on plant ID, A-Z herbicide applications, and field site visits on Lake Guntersville

7:00 – 8:00 AM: Breakfast

8:00 – 8:50 AM: Floating and emergent plant control – Mr. Daniel Hill/Louisiana Department of Wildfire and Fisheries

8:50 – 9:00 AM: Break

9:00 – 9:50 AM: Submersed plant and algae control – Mr. Leif Willey/Aquatic Control, Inc.

9:50 – 10:00 AM: Break

10:00 – 10:50 AM: Regulatory perspectives on APM – Mrs. Kim Brown/Univ. TN

10:50 – 11:00 AM: Break

11:00 – 11:50 AM: Industry updates (Sponsors)

11:50 – 1:00 PM: Lunch

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AERF & TVA Plant Management Workshop

Day 2 (continued)

1:00 – 1:50 PM: Hands on Plant ID Dr. Gray Turnage/MSU

1:50 – 2:00 PM: Break

2:00 – 2:50 PM: A-Z herbicide applications Mr. Troy Goldsby/AquaServices

2:50 – 3:00 PM: Break

3:00 – 5:30 PM: Visit field sites on Lake Guntersville Mr. Stephen Turner/TVA

5:30 – 6:00 PM: Break

6:00 – 6:30 PM: Closing Remarks Mr. Carlton Layne/AERF

6:30 – 9:00 PM: Dinner/Evening Social

Day 3 (Aug. 6): Breakfast and departure

7:00 – 8:00 AM: Breakfast/Registration

8:00 AM: Depart





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Implementation of the Endangered Species Act and Evaluating the impact of Bulletins Live Two!

This is an ongoing effort with not much new to report currently. Stay tuned. Other federal activities have garnered most of AERF's attention. The fallout of DOGE's effect on government in general and EPA in particular; Administrator Zeldin's own efforts to streamline the regulatory process and cut expenses; employee buyouts, retirements and resignations; and the return of employees to the office from years of working at home. We're still waiting for the dust to settle a bit to see what effect all this will have on aquatics.

Pesticide (FIFRA) registration activities are largely self-supporting through PRIA and so will likely be minimally affected. Having said that, however, EPA's portion of the Trump proposed budget (not the Big Beautiful Bill) projects over a 20% reduction in the appropriation for the Office of Pesticides Programs and the elimination of the pesticide grant programs for the states which supports state pesticide certification, enforcement, and registration activities. There's little doubt the reduction of federal funds available for pesticide activities will have a major trickle-down effect for state pesticide lead agencies—if it happens.

EPA Administrator Lee Zeldin has announced a reorganization of EPA. Google says the following:

"EPA Administrator Lee Zeldin announced a comprehensive reorganization of the EPA, aiming to improve operational efficiency, integrate science into decision-making, and reduce taxpayer spending. The changes include creating new offices, realigning existing ones, and potentially eliminating some units like the Office of Research and Development. The reorganization is expected to save \$300 million annually and align the EPA's structure with its core mission."

We can only imagine how deep the Hunker-Down mode is within the EPA.

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Implementation of the Endangered Species Act and Evaluating the impact of Bulletins Live Two! (continued)

The Office of Water and other agencies like the Corps of Engineers research program, the Fish and Wildlife Service and the National Marine Fisheries Service are facing major challenges and/or reductions in personnel and budgets. There are those who predict that federal research and much of the regulatory responsibilities once held by federal agencies and programs will become the responsibility of the various states. This likelihood will require greater diligence and involvement by the aquatic plant management community in general and AERF in particular to ensure the uniform implementation of permitting and enforcement.

Just when you thought it was safe to go into the waters of the United States, both the EPA and the Corps of Engineers have announced they intend to rewrite the definition of Waters of the United States – again. A series of six so-called listening sessions were held in April and May and a new draft definition will likely be published for comment in the months to come. AERF will monitor the goings-on and keep you informed. We'll provide updates, as warranted.

Endangered Species Protection Bulletins are a part of the Endangered Species Protection Program. As pesticides go through the re-registration process, they will begin to include wording referencing Bulletins Live Two or the requirement to determine if there are additional Pesticide Use Limitation Areas (PULAs) which exist that further regulate the use of the specific pesticide in the geographic area where they are to be applied. The Bulletins Live Two website [Click HERE](#) will be a required prerequisite to pesticide applications. The bulletin will need to be filed in records for future reference in case questions arise on the application by regulatory agency, as they are as enforceable under FIFRA. Bulletins may be accessed up to six months before the application is to occur. Please keep an eye out for this language on the product labels as this requirement is already in place as soon as the wording appears on product labels.



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Demonstration Studies for Management of *Lyngbya wollei* in a South Carolina Reservoir and Farm Pond

AERF will be overseeing treatments to control *Lyngbya* (*Microseira wollei*) in a large lake in South Carolina (~20 square miles). We foresee testing products in demonstration mode in 10-acre plots. The nature of the *Lyngbya* leads us towards specific products for the testing.

The Problem

Lyngbya wollei (a.k.a. *Microseira wollei*) is a filamentous cyanobacterium that forms thick black mats in rivers and lakes, shading beneficial native aquatic plants and algae, degrading water quality, and emitting foul odors. It can also produce toxins such as dermal toxins and paralytic shellfish poison. Unlike other algae and cyanobacteria, *L. wollei* persists throughout the year, overwintering as thick benthic mats that can rise to the surface during the warmer months. Infestations are becoming more common throughout the southeast and other parts of the United States. *L. wollei* can fix nitrogen and “mine” phosphorus from sediments. It is an invasive nuisance in North and South Carolina reservoirs, the Everglades, Rainbow and Crystal Rivers in Florida, Gunterville Reservoir in Alabama, and the lower Rio Grande, Texas (and many other places). Control efforts for *Lyngbya wollei* may be hampered by a thick sheath of mucilage that often surrounds the cells, as well as production of both surface and benthic mats in the spring and summer.

The Opportunity

There are opportunities to manage *L. wollei* in southern US reservoirs and numerous farm ponds. The reservoirs are relatively large with extensive littoral zones, and they are often dendritic. There is an opportunity to initiate some demonstration projects in portions of some of these reservoirs. This would be an excellent chance to provide real world data that would be useful for management of this cyanobacterium. Dr. John Rodgers (Professor Emeritus, Clemson University) will be serving as an advisor for the initial project. The opportunity to participate in this demonstration project is by invitation for major members of the Aquatic Ecosystem Restoration Foundation (AERF).

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Demonstration Studies for Management of *Lyngbya wollei* in a South Carolina Reservoir and Farm Pond (continued)

The Question(s)

Products and methods approved by the US EPA will be used in this project. This is an opportunity to produce efficacy data regarding performance of products in a “real world” situation. A goal in this project is to ensure that each product tested has an opportunity to be as efficacious as possible. Applications will be made according to product labels by a certified applicator (e.g. Aqua Services and AquaDoc). The primary questions in this study are centered on the performance of products for controlling *L.wollei* in the reservoir. The rate of control, extent of control of *L.wollei* and the need for repeat treatments will be crucial metrics in this study.

The Approach (Methods)

Each product in the study will be allocated a separate ~10-acre plot. This plot size is sufficient to accurately observe algaecide effects without undue influence of edge effects. Currently, six applications of products are anticipated each year and applications will be triggered by growth or regrowth of *L.wollei*. Performance will be monitored by using the rake method for evaluation of *L.wollei* growth and regrowth post-treatment. For copper-based products, treatment concentrations will be verified by sampling and analysis. Sediment residuals will also be monitored. Where appropriate, field results will be supported by laboratory studies to define exposures required to produce desired results.

The Results (Outcomes and Presentations)

This is a unique opportunity for participants to develop scientific information to support claims regarding the efficacy of products for control of one of the most targeted cyanobacteria in the world. And these efforts will be supported by presentations through AERF as well as peer reviewed publication. The results will be presented at regional and national meetings of scientific organizations and lake associations.

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Demonstration Studies for Management of *Lyngbya wollei* in a South Carolina Reservoir and Farm Pond (continued)

What we need from you is financial sponsorship to help cover our projected expenses. In return for a \$2,000 donation your company will be listed as a supporter of the study on our website, on links to the study on our website and recognition within any presentations made at meetings. Donors of lesser amounts, of course, will be credited appropriately but will not be listed as a "supporter."

Time is of the essence as pond applications have already begun. Please contact Carlton Layne (Clayne@Aquatics.org) with your intent to support the project so that your company can be listed as quickly as possible. Please send your donation to:

AERF
P.O. Box 369
Cadillac, MI 49601



Mark your checks clearly that your donation is intended to support the SC Project. You may also donate by credit card from our website. If you choose that method, please send an email to Clayne@Aquatics.org so your donation is properly credited.



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Still In Development...

Developing and conducting a workshop on HAB Management for water managers

While this continues to be an AERF priority, circumstances have hindered progress on this item. Mote Marine, our purported partner, was devastated by the hurricanes in the fall of 2024 and they have essentially been “offline” since then. We’re still committed to the idea, but it’s a work in progress. For more information, contact Carlton Layne or Dr. John Rodgers.

Developing a manuscript on the relationship between wildfires and HABs: “Wildfire, Nutrients, and Algal Blooms”

This document is about 80% complete and has been expanded to include the Saharan dust cloud currently detected in Florida. Interesting stuff for sure. For more information, contact Carlton Layne or Dr. John Rodgers.

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Collaboration with Wallace State to develop a curriculum for Aquatic Plant Control Technicians

This Applied Technology Division program provides students an Associate degree in Applied Science. This program lines up well with the skills, education, and experience needed to prepare students for a career as an Aquatic Technician or entry sales position.

- Program overview and objectives:
- Pesticide training including product use, specimen labels, SDS and PPE
- Equipment maintenance with tear down and rebuild of small engines
- Aquaponics - water chemistry, nutrients, D.O.
- Equipment operation including trailer towing and backing
- Spray equipment use and calibration
- Plumbing of equipment and irrigation systems
- Plant propagation and Introduction to Horticulture
- Plant identification and culture
- Soils & Fertilizers – Understanding of phosphorus impacts
- Principles of biology
- Horticultural business management
- English composition, college algebra, and ethics

AERF is proud to partner with Wallace State Community College on this pilot program. Sponsors of AERF will have access to post jobs and internships directly to their agribusiness students who are actively looking to enter the workforce out of this program. We hope to connect these students to those inside our industry. If successful, Wallace State Community College is willing to make some minor adjustments to the program to focus a bit more on some aspects of the Aquatics industry. AERF looks at this as a pilot program to work on developing similar programs with other colleges around the United States.

Your Industry Needs You

Given the likelihood of more and more state involvement in aquatic-related research and regulation, AERF is looking for someone or some people to assist AERF in the monitoring of state activities, state liaison efforts, and reporting. Of necessity, this would be a part-time 1099-type position, but it could expand. more. AERF is looking to spread the responsibilities beyond a single person and involve more people in what has become a very diversified nonprofit foundation. For more information, contact Carlton Layne.

Outside of the projects, we still need your financial support for the day-to-day activities of AERF, which include supporting students' and regulators' attendance at chapter meetings, EPA Regulatory Aquatic Tours, seminars and symposia and other training opportunities. Our efforts are all on your behalf. Please send your donations to support our work to the Cadillac, MI, address above or use the "pay now" button on our website.

I've attached a packet of AERF-related information to this newsletter for your reading pleasure. We've also included a form to complete your donation so you can be credited appropriately in presentations and on our website. Some have indicated they would prefer to receive an invoice annually. We plan to initiate that process with the 2026 solicitation. In the interim, we have attached a blank invoice for your convenience to start the process. Just choose your donation level, attach a check, and send it to Cadillac. From now on you'll receive an invoice annually.

AERF is an IRS designated not for profit foundation and donations are tax-deductible. AERF's tax I.D. No. is 38-3304154.



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- Acknowledgement on AERF website with text listing acknowledgement
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- SUPPORTING HIGH QUALITY RESEARCH
- ATTRACTING GRADUATE STUDENTS
- EXPANDING AN ALREADY DIVERSE MEMBERSHIP
- BEING A SOURCE FOR MEMBERS AND RESOURCE MANAGEMENT AGENCIES

TO DONATE, JOIN, OR RENEW YOUR SPONSORSHIP IN THE AERF PLEASE SEND THE COMPLETED FORM AND PAYMENT TO AERF, P.O. BOX 369, CADILLAC, MI 49601. COMPLETE THIS SECTION TO RECEIVE A BEST MANAGEMENT PRACTICES MANUAL.

DATE: _____ NAME/COMPANY: _____

ADDRESS: _____

PHONE: _____ FAX: _____

WEB ADDRESS: _____ EMAIL: _____

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AERF - INVOICE FOR MEMBERSHIP

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Name/Company:

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Please use the following as a guide in the selection of the desired level of membership: Gold is recommended for manufacturers and registrants; Silver and above is recommended for formulators; Bronze and above is recommended for distributors; Affiliate and above is recommended for consultant and application companies, equipment manufacturers/resellers and biological producers/resellers;

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☐ **Bronze (\$2,500)**

Submitted By:

Title:

Please send the completed application and payment to Treasurer, AERF, 1860 Bagwell Street, Flint, MI 48503-4406. AERF's Federal I.D. Number is 38-3304154. For more information contact Carlton R. Layne, Executive Director, AERF, 3272 Sherman Ridge Drive, Marietta, Georgia 30064, Telephone 678-773-1364, E-Mail clayne@aquatics.org.

The AERF is a not-for-profit 501(c)(3) Foundation. Our activities are funded through the support of our sponsors and Endowment Funds focused on Environmental Protection and Sustainability.

Pay Online —————→ [Donate - Aquatics.org](https://aquatics.org)