**Collaborative Meeting at 2024 Aquatic Plant Management Society Annual Meeting in St. Petersburg, Florida**

**"Enhancing Harmful Algal Bloom Management: Integrating Satellite Remote Sensing and In-Situ Data for Effective Mitigation"**

**When: Wednesday, 17 July 2024**
**Time: 12:10 pm to 1:30 pm**
**Where: Williams Demens Meeting Room**
**Lunch: Brown bag**

**Aquatic Ecosystem Restoration Foundation (AERF)**
**and**
**U.S. Army - Engineer Research and Development Center (ERDC)**

**Background:** The Aquatic Nuisance Species Research Program (ANSRP) through the Water Resources Development Act (WRDA) authorized the U.S. Army Corps of Engineers (USACE) to implement a technology demonstration program focused on scalable technologies for harmful algal bloom (HAB) detection, prevention and management intended to decrease harmful algal bloom frequency and impacts on our Nation's water resources (https://ansrp.el.erdc.dren.mil/HAB.html)

The project titled ***"Improving HAB Mitigation with Satellite Remote Sensing and In Situ Data"*** was funded through ANSRP in 2023.

**Project Purpose:** Due to the stochastic nature of many HABs (i.e., wind and wave driven), it can be challenging to plan, implement, and evaluate mitigation efficacy at scale due to spatial and temporal changes in HABs in terms of bloom density and location. With recent advancements in cost-effective HAB detection and quantification approaches using satellite-borne remote sensing technologies there is a unique opportunity to adapt these technologies to better inform mitigation for successful outcomes. Much of the research to date associated with remote sensing has focused on monitoring with little emphasis on mitigation. Therefore, the overall objective of this research effort is to strategically engage within the broader HAB mitigation community of practice (private, academic, federal, state, or other NGOs) to:

1) identify data needs and challenges for informing HAB mitigation and identify strategies of integrating satellite-based imagery data and GIS-based tools as additional lines of evidence to plan, initiate, and monitor mitigation, and
2) curate in situ treatment efficacy data in the contingent US and correlate satellite-based imagery data to demonstrate the approach in practice.

**APMS Meeting Objective:** To gain insight from HAB mitigation or remote sensing practitioners to explore applications of remote sensing for HAB management (planning, execution, and post-treatment monitoring for effectiveness), pertinent case studies and datasets evaluating remotely sensed data. **Proposed Deliverable: Proceedings paper of meeting outcomes published within the APMS journal or by AERF.**