



INNOVATIVE TECHNOLOGIES

Edward C. Smith

Director, Office of Water Policy and Ecosystems Restoration
Florida Department of Environmental Protection

Blue-Green Algae Task Force Meeting | Jan. 24, 2024



INNOVATIVE TECHNOLOGIES

EFFORTS TO COMBAT HARMFUL ALGAL BLOOMS

- In total, \$55 million has been appropriated towards this grant program.
- To date, DEP has allocated these funds towards more than 50 innovative technology projects.
- Some of these projects also include match, which provides more than \$6 million towards these efforts.



INNOVATIVE TECHNOLOGIES

INNOVATIVE TECHNOLOGY GRANTS OVERVIEW

WHO CAN APPLY?

- Available to local governmental entities.

WHAT TYPE OF PROJECTS ARE CONSIDERED?

- Projects that can prevent, mitigate or clean up harmful algal blooms.
- Projects that can prevent blooms through nutrient reductions are key.

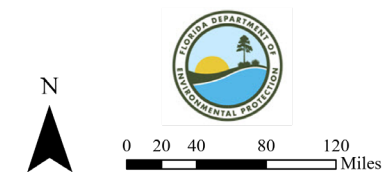
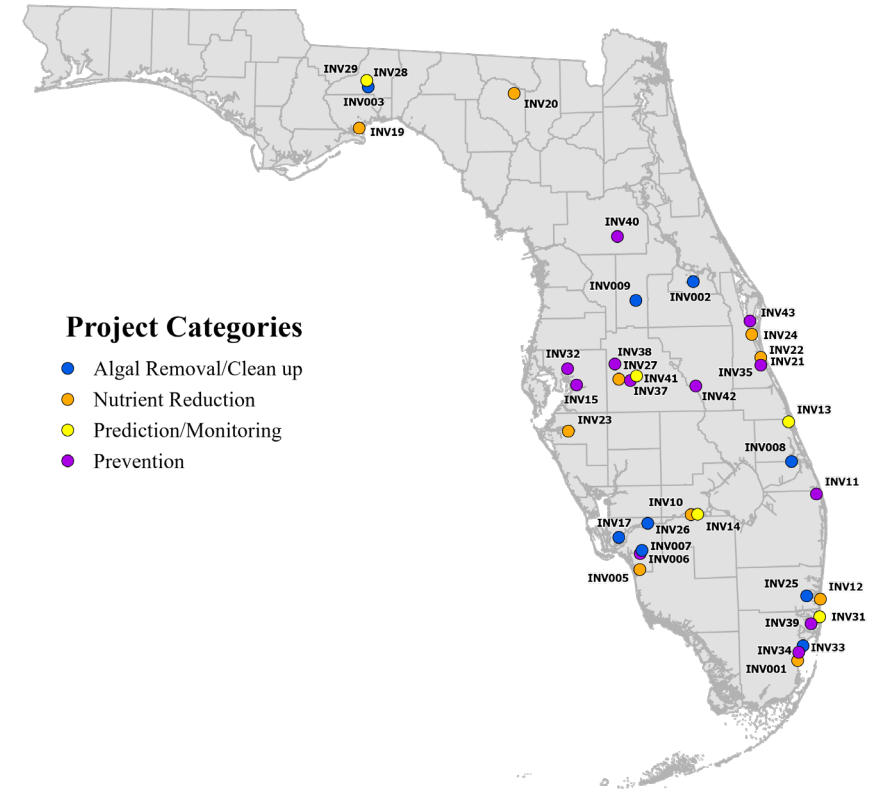
WHAT ARE SOME OF THE KEY FUNDING CONSIDERATIONS?

- New technology or new application of known technology.
- Technology has been shown to achieve the proposed benefits without environmental harm.
- Technology is scalable.
- Technology has water quality benefits.
- Technology is ready to construct.
- Technology is to be applied in an area with a water quality restoration plan (e.g., BMAP or RAP).



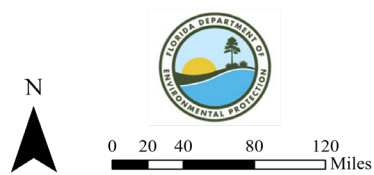
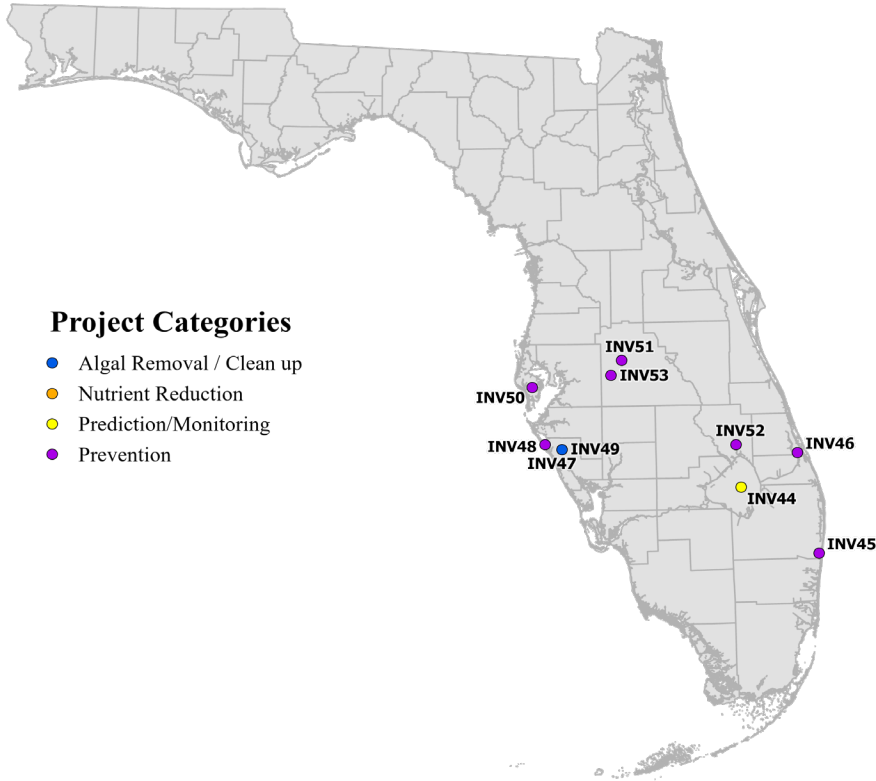
INNOVATIVE TECHNOLOGIES LOCATIONS INV001-43

- These technologies are being deployed in locations throughout the state.
- Areas of historic occurrence.
- Heightened concern.
- Areas with BMAPs.
- Greatest benefit.





INNOVATIVE TECHNOLOGIES NEW GRANT LOCATIONS



Project Number	Grantee	Project Name	Project Type
INV44	Florida Atlantic University	Autonomous, High-Frequency Monitoring of Lake Okeechobee Legacy Sediment Nutrient Flux Loading	Prediction/Monitoring
INV45	Florida Atlantic University	Aqueous-Phase Phosphorus Removal using Algae-Derived Absorbent Materials: A Field Demonstration on Florida Atlantic University's Boca Raton Campus	Prevention
INV46	Martin County	Nanobubble Ozone Technology (NBOT) Nutrient Remediation in Martin County	Prevention
INV47	Mote Marine Laboratory, Inc	Non-Toxic Biodegradable Formulation for Eliminating Cyanobacteria and their Toxins in Freshwater Systems	Algal removal / clean up
INV48	Mote Marine Laboratory, Inc.	Lake Guard Dew Efficacy towards Nutrient and Harmful Algal Bloom Reduction	Prevention
INV49	Mote Marine Laboratory, Inc	The Aquastream Algae Collecting Skimmer Bot: Demonstration of Cyanobacteria Collection and Removal in Partnership with Mote Marine Laboratory Inc	Prevention
INV50	Pinellas County Public Works	Urban Stream Restoration Utilizing Phosphorus Mitigation and Realtime Variable Rate Injection and Monitoring Systems	Prevention
INV51	Polk County	Fighting Algae with Algae: Advanced Algae Cultivation Technology (AACT) for Nutrient Removal from Florida Surface Waters	Prevention
INV52	South Florida Water Management District	Phosphorus and Nitrogen Removal Enhancement in Talyor Creek STA Discharging into Lake Okeechobee using Innovative Technology	Prevention
INV53	The University of South Florida	Typha Harvest for Nutrient Removal and Potting Media Production	Prevention



INNOVATIVE TECHNOLOGIES

STATE-TERM CONTRACTS

WHAT ARE THE STATE-TERM CONTRACTS?

- ES013: AECOM Technical Services, Inc.
- ES014: Bluegreen US Water Technologies Inc.
- ES015: Waterfront Property Services, LLC., dba. Gator Dredging
- ES016: Green Water Solutions, LLC.
- ES017: Solitude Lake Management LLC.

WHY DEVELOP STATE-TERM CONTRACTS?

- Emergency HAB management to include containment, removal, cleanup, transport and disposal of HABS and by-products.

HOW ARE STATE-TERM CONTRACTS USED?

- Services offered to FDEP or other eligible governmental users in Florida.

PROTECTING TOGETHER



For inquiries please email: InnTech_HAB@Floridadep.gov



THANK YOU

Edward C. Smith

Director, Office of Water Policy and Ecosystems
Restoration

Florida Department of Environmental Protection

Contact Information:

850-245-3169

Edward.C.Smith@FloridaDEP.gov