

| Stage 1 |
Scaled-Down Demonstration

Phase I

- Final work plan development for pilot demonstration sites
 - Two (2) Airy-Gators
 - Three (3) Collector Systems
 - Procurement of Equipment
 - Estimated Phase I Cost: \$500,000
- Baseline Characterization of Water

Phase II

- Installation of infrastructure and equipment to support Airy-Gator and Collector test sites.
 - Transect development and monitoring
- Systemization and Operational Demonstration
 - Data Collection

Phase III

- Continued operation and optimization of equipment placement
 - Data Collection and Monitoring

| Stage 2 |
Data Analysis, Report Drafting & Recommendation

- Compile data and analysis
- Develop design criteria and engineering modifications for large-scale implementation
 - Report findings and conclusions
- Present recommendation to stakeholders and regulators
- Secure funding through Ohio EPA, EPA and Ohio DNR

| Stage 3 |
Federal & State Sponsored
System's Engineered Approach

- Integrate with other complimentary restorative activities (implement selective dredging to improve fisheries' substrate, erosion controls, BMPs, riparian enhancements/wetlands)
- Select A&E to support lake-wide, tech insertion engineering plan
 - Secure permits
- Develop final program execution plan (based on stage I demonstration and Stage II recommendations) to install (to include NEPA requirements)
 - Implement Program Execution Plan
 - On-going monitoring



| STAY UPDATED |
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Grand Lake ST. MARYS

*Working together to help restore our
local natural resource.*

| Airy-Gator |

This system provides a way to dramatically increase the dissolved oxygen and circulation. Dissolved oxygen in the water is the key to maintain a healthy, vibrant aquatic environment. Moving water helps to keep solids suspended in the water and distributes dissolved oxygen, de-stratifying the dissolved oxygen profile in the water column.

OBJECTIVES

- Install Airy Gators (1 each) in Site 1 & 2.
- Quasi-isolate the test site's with floating curtains with equivalent area.
- De-stratify the dissolved oxygen (DO) profile in the embayment water column.
 - Enhance bottom oxygen saturation.
 - Establish a sediment aerobic cap.
- Increase flow within the Lake's target test site embayment
- Marked improvement in the water quality and aquatic ecology.



| Collector |

Streamside Systems patented collectors allow the energy of the stream to move bed-load sediment up the collector's ramp and into a hopper. Once the hopper is full, the sediment is pumped to a dewatering or disposal site. The collectors are passive and non-invasive; they will not increase instream turbidity, nor will they cause headcutting.

OBJECTIVES

- Install three (3) Bedload Collectors on three unique watershed tributaries. Site 3, 4, & 5.
- Install floc dosing equipment upstream
 - Test bedload removal efficiency
 - Test floc nutrient reduction efficiency

| SITE PLACEMENT |

