

**Grant Summary**  
**Baseline Water Quality Monitoring:**

- Sondes/ Loggers – HOB0 or Aquatroll

Sediment:

- Bocephus fleet – training county and municipal staff to maintain and service
- Turbidity:TSS curves (especially for planned restorations in Magnolia River, etc.)

Pathogens:

- Canine program
- Idexx Colilert

Quantity and Velocity:

- Flow gauges
- LT1s
- Hydrological modelling

Ground Water Quality/Quantity: Leverage GSA

- Groundwater well monitoring
- Testing for saltwater intrusion
- Checking for nutrient/ pathogen contamination
- Recharge rates

Expanding WQ Monitoring: AWW

- Support purchase of aww kits
- Aww position on the coast
- Training trainers – capacity builders

Outreach:

- Underserved communities in Mobile and Baldwin County
- Hispanic Community outreach
- Template for a baseline water quality plan – municipalities can use and update to fit their needs

Mobile County sites – collate with USGS

Partners: Baldwin County/EAC, Mobile County, City of Foley, Town of Magnolia Springs, Alabama Water Watch, Geological Survey of Alabama, Alabama Dept. of Environmental Management, Weeks Bay Watershed Watch, Dog River Clearwater Revival

The **Purpose** of this water quality monitoring program is *to promote the wise stewardship of the water quality and living resources of Alabama's estuaries and coast*. This project will improve the health and resilience of local watersheds through comprehensive data collection, community engagement, and innovative methods for detecting water pollution. By establishing a baseline for water quality, tracking key pollutants, and increasing capacity of local monitoring efforts this program will support informed decision-making.

The goals of this program are to:

- **Establish comprehensive baseline data** through the collection of water quality data at strategic locations in Mobile and Baldwin counties.
- **Improve the detection of waterborne pollution** through regular monitoring of turbidity, sediment, pathogens, and other constituents to identify sources and trends.
- **Improve and enhance the management of stormwater and groundwater** through the monitoring of flow volumes and velocities and groundwater conditions to assess the impact of urbanization and land use on watershed health.
- **Expand community capacity and involvement** through the training of county and municipal staff and expansion of AWW to foster watershed stewardship.
- **Implement novel pathogen monitoring methods** using a specialized canine team to improve the identification and remediation of pathogen pollution.

The objectives of this program include:

1. Conduct routine (monthly?) baseline water quality monitoring to assess temperature, pH, dissolved oxygen, salinity, turbidity, nutrients and other critical parameters.
2. Establish a routine monitoring program for turbidity, sedimentation rates, and pathogen levels (e.g. E. coli, Enterococcus).
3. Deploy monitoring equipment at key locations to measure water volumes and velocities to assess changes in hydrological conditions, enable hydrologic modeling, and inform management decisions.
4. Monitor groundwater levels and quality at key locations to gain a better understanding of groundwater conditions, contamination, and recharge rates.
5. Develop and deliver X training workshops for municipal and county staff and volunteer monitors focused on water quality monitoring techniques to support expansion of monitoring in coastal Alabama, including adoption of digital reporting tools.
6. Implement one pilot program using trained canine teams to detect illicit wastewater discharges.