

Gulf of Mexico Alliance Water Quality Priority Issue Team

Gulf of Mexico Alliance 2009 Implementation Workshop





Successes from the past year

● Pathogens

- Completed initial inter- and intra-laboratory studies to validate microbial source tracking methods and established communications with EPA regarding their Critical Path Science Plan to establish new methods for detection of pathogens and indicators.
 - Completed first step in moving research methods to standard tools and exchanged information with EPA ORD staff that resulted in the identification of existing gaps in EPA's current 2010 criteria development strategy – subtropical vs. temperate environment



Successes from the past year

● Harmful Algal Blooms

- Tested and provided the Alliance and GCOOS with the results of an in-situ optical early warning HABs system off the coast of Corpus Christi, Texas
 - Prevented potentially dramatic human illness and local economic losses (including tourism) by providing early warning of toxic algal bloom before major (+30,000 people) oyster festival in Rockport, allowing officials to find alternate sources for oysters.



Successes from the past year

- **Mercury**

- Hosted first Mercury Forum for researchers and state and federal agencies across the nation to collaborate and exchange information
 - Identified research data needs for making informed management decisions.



Successes from the past year

- **Monitoring**

- Conducted laboratory and field exercises to determine Gulf-wide comparability of data from state, federal, and local stakeholders
 - Identified need for revised methods



2009-2010 Annual Work Plan

● Pathogens:

- Communicate by a GOMA position paper the stakeholder concerns regarding development of the 2012 EPA Recreational Water Quality Criteria.
 - Water quality criteria for indicators other than enterococci;
 - Continued support for research will be necessary even after the 2012 criteria to ensure criteria that are suitable for the Gulf's sub-tropical environment, such as its warm, high-organics waters and high freshwater input.
- **Measure of success:** Formal acknowledgment from EPA that they will consider recommendations outlined in the position paper.



Potential for Annual Work Plans

- **Pathogens:**

- Conduct studies to evaluate persistence in Gulf habitats of pathogens, indicators, their genetic signatures and their relationship to viability.
 - \$200-500k. Suggest leveraging the EPA proposals already submitted.



2009-2010 Annual Work Plan

- **Harmful algal blooms:**

- Identify facilities and methods for algal and toxin sampling and analysis, standardizing methods where necessary, and making them available for use in GOMA studies and for all state regulatory agencies.

- **Measure of success:**

- Availability of standardized sampling and analysis protocols for use by each state's monitoring programs.



Potential for Annual Work Plans

- **Harmful algal blooms:**
 - Standardize across Gulf the HAB-related methodologies and monitoring protocols for the priority species and toxins identified in the Action Plan ensuring that information alerting public to HAB threats is accurate.
 - \$125,000 per species (7) = \$875,000
 - Training= \$50,000



2009-2010 Annual Work Plan

- **Mercury:**

- Compilation of existing mercury data from across the Gulf (e.g., concentrations in seafood, mercury sources, and related chemical, physical, and biological parameters).
- **Measure of success:** Existing data is available for stakeholders to assist with regulatory and management decisions with respect to mercury.



Potential for Annual Work Plans

- **Mercury**

- Develop Gulf-wide monitoring plan to address mercury impairments in each of the Gulf states
 - \$50-\$75K



2009-2010 Annual Work Plan

- **Monitoring:**

- Expand comparability study of Gulf-wide water quality data collection and analysis by conducting three laboratory and four field data quality assurance exercises.
- **Measure of success:** Agencies initiate efforts to develop consistent data collection and analysis protocols.



Potential for Annual Work Plans

- **Monitoring**

- Evaluate existing report cards and create GOMA Water Quality report card format (coordinate and leverage with EIA report card effort)
 - \$100-200K



Measures of Success over the next five years

- **Pathogens:**
 - Use of revised microbial contamination indicators to assess water quality of Gulf habitats has resulted in increased protection of public health.
- **Harmful algal blooms:**
 - Increased early warnings from a Gulf-wide, international, HAB monitoring network has reduced health and economic impacts.



Measures of Success over the next five years

- **Mercury**

- Have working mercury models that identify sources of mercury and identify human exposure risk that can be used to develop mercury TMDLs

- **Monitoring**

- Reduced variability in data reported by Gulf-state laboratories as measured by quality assurance exercises to enhance regional management decisions