

HARMFUL ALGAL BLOOMS OBSERVING SYSTEM (HABSOS) PILOT PROJECT

Richard M. Greene*, Tracy A. Villareal, Richard P. Stumpf, Karen A. Steidinger, James Simons, Jonathan R. Pennock, Tim Orsi, Cynthia A. Moncreiff, Keri Hamilton, Sonia C. Gallegos, William S. Fisher, Quay Dortch

United States Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Gulf Ecology Division, Gulf Breeze, FL, USA The HABSOS Pilot Project is being developed through a partnership of federal, state and academic organizations as proof-of-concept for a coastal observing system in the Gulf of Mexico. The goal is to design a HAB data management system and develop the regional communication infrastructure to provide resource managers with early alerts of HAB events, timely forecasts of HAB movement, and predictions of when and where events are likely to occur. HABSOS is being initiated through a retrospective case study of red tides caused by *Karenia brevis*, with a focus on 1996, 1997 and 2000. These years exhibited either limited local episodes or extensive regional events. A Gulf-wide network of HAB experts, data providers, and data managers are organizing relevant data and information from across the Gulf into a regional format applicable to forecasting. This will require a process and network for linking and integrating multiple data types from multiple data sources and a web-based presentation system subject to user feedback. The presentation system will provide tools to visualize and simulate conditions prior to, during, and following blooms, and will demonstrate the benefits of timely data collection, integration, and information dissemination. The pilot project will evaluate obstacles and recommend technical and institutional solutions to achieve an operational HAB forecasting system. The system will serve as one component of a regional ocean observing system for the Gulf of Mexico.