

The Monitoring of Harmful Algal Blooms through Ocean Observing: The Development of the California Harmful Algal Bloom Monitoring and Alert Program

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INTRODUCTION AND BACKGROUND

Within California there are several programs for studying and monitoring harmful algal blooms (HABs); however, these programs have been largely uncoordinated with respect to each other. To address this issue, the California Harmful Algal Bloom Monitoring and Alert Program (CalHABMAP) was established in 2008, the outcome of a community-led meeting and organizational effort. CalHABMAP created an integrated, statewide, harmful algal bloom monitoring and alert network by coordinating organizations and researchers currently collecting HAB data and developing a centralized portal for the dissemination of this information. HAB information is made accessible in a form useful to water managers, human and animal health agencies and centers, and to the public. The main goal of HABMAP is to ultimately implement a statewide HAB network and forecasting system for California, and potentially the U.S. West Coast. Specific goals include (1) to design a HAB network that will meet the needs of, and be accessible to, all HAB stakeholders; (2) to create a web portal within the California Ocean Observing System programs, and to act as a mechanism to bring these two programs together. The portal will be a centralized location where HAB data and predictive information can be used by many groups throughout the state; (3) to conduct an economic analysis of the potential impacts of HABs along the California coast; (4) to conduct a comparison of analytical methods for toxin analysis and harmful algae identification and enumeration, and review and disseminate the results through a workshop; (5) to collaborate with the Water Quality Monitoring Council to ensure that HAB information and data are included in, and accessible from, water quality websites. While many of these goals are an ongoing effort, CalHABMAP has succeeded in highlighting the need for a coordinated network and serves as partner for regional and national efforts led by the NOAA National Ocean Service, the Integrated Ocean Observing System, and the NASA Applied Sciences Program.

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