

U.S. Ocean Action Plan Ocean Research Priorities Plan - Great Lakes



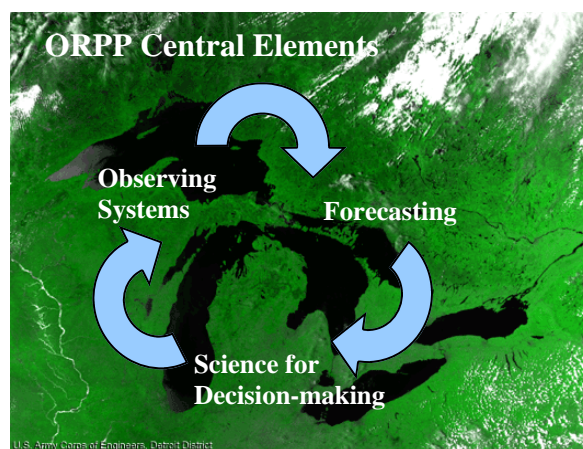
Research Project: Improving Great Lakes Coastal Recreational Water-Quality Monitoring and Forecasting

The U.S. Ocean Action Plan (OAP) was developed to address the recommendations of the U.S. Commission on Ocean Policy (established by Congress in 2000). One of the immediate short-term actions of the OAP was to develop an Ocean Research Priorities Plan (ORPP) and Implementation Strategy. The ORPP defines research priorities that focus on understanding critical ocean processes and interactions and applying that understanding toward stewardship and responsible use of the oceans and the Great Lakes. This project addresses the ORPP near-term priority of “Forecasting the Response of Coastal Ecosystems to Persistent Forcing and Extreme Events” and is to be implemented over the next 5 years.

Project Description

The goal of this study is to advance the science of monitoring and assessing recreational water quality to provide beach managers with reliable, science-based information to make well-informed beach closure decisions to protect public health. The project will focus on:

- Identifying and evaluating new or rapid methods to improve monitoring of bacteria at beaches.
- Identifying physical and biological processes that influence the occurrence and abundance of key bacteria and pathogens that pose risks to recreational users of beaches and nearshore waters.
- Enhancing models and expanding model scope and application to improve forecasts of water quality and support more timely and effective public health warnings, advisories, and beach closures.
- Improving communication of monitoring and scientific information and developing tools to enhance response of beach managers to changing beach and water quality.



This project will link with NOAA's Great Lakes Observing System (GLOS), the National Water Quality Monitoring Network, and the Great Lakes Regional Collaboration. Partners include federal, state, local and non-governmental entities. Satellite photo by U.S. Army Corps of Engineers.

Project Partnership and Collaboration



Beach health partners at the Great Lakes Beach Association Annual Meeting, Traverse City, Michigan, 2007. Photo by Shannon Briggs, Michigan DEQ.

The beach health research needs being addressed for this project were identified by partners at the 2005 Great Lakes Beach Health Research Needs Workshop sponsored by USGS, NOAA, EPA and the Great Lakes Beach Association. To continue this partnership, a project steering committee consisting of key partners will:

- Provide input and guidance on research direction for this project.
- Facilitate transition of research to user applications.
- Communicate Great Lakes coastal research needs and move a science strategy forward to address beach recreational water quality issues in the Great Lakes region.
- Increase awareness of coastal water-quality issues to build support for monitoring, research and collaborative development of decision-support tools.

Funding

This project is funded by the USGS Coastal and Marine Geology Program in support of the interagency implementation of the ORPP near-term priorities.

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Lake Michigan water sampling. Photo by USGS.



Lake Huron beach. Photo by USGS.



Indiana Dunes. Photo by EPA.