

## Inform Decisions and Improve Understanding

### Objective

Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate the public through formal and informal programs about the ocean, our coasts, and the Great Lakes.

### Why Do This?

Scientific research, monitoring, and assessment, coupled with forecasts, models, and other decision-support tools, will build knowledge of ocean, coastal, and Great Lakes ecosystems and processes and ensure that management, policies, and planning are based on sound science. Formal and informal education programs will create opportunities for enhanced appreciation of coastal and ocean issues, and better prepare the diverse, ocean-literate workforce of the future. Success in building our knowledge and applying it to improve management also relies on an engaged and informed public.

### Potential Actions and Expected Outcomes

- **Prioritize research activities based on “Science for an Ocean Nation: An Update of the Ocean Research Priorities Plan”** – This new plan provides a valuable framework to advance knowledge, improve understanding, and inform decision based on the best available science.
- **Provide science to support emerging sustainable uses of resources** – Fundamental and applied scientific information and technology will ensure that emerging and future uses of ocean, coastal, and Great Lakes resources are economically and ecologically sustainable.
- **Provide science support for managers and policy-makers** – Robust decision-support tools and processes - based on sound research, data and information - will support effective and rapid management of growing uses of ocean, coastal, and Great Lakes resources.
- **Develop human capacity and the workforce** – U.S. competitiveness depends on a well-educated workforce. Scholarships and other opportunities for students pursuing degrees in ocean science, management, and related fields, particularly from underrepresented groups, will contribute to the development of this workforce.
- **Increase ocean literacy** – Expanding the accessibility to and use of ocean information for education programs will increase awareness and stewardship of ocean, coastal, and Great Lakes resources.
- **Engage in ocean exploration** – Exploration and discovery will expand knowledge of little-known Great Lakes and oceanic biodiversity, biogeochemical processes, ecosystem services, and climate interactions. These discoveries have the potential to lead to new energy sources, new products, and inspire the next generation of ocean scientists.
- **Integrate social and natural scientific information** – Integrating information from social and natural sciences, especially for ecosystem-based management and restoration, will inform research, policy development, and decision-making, and support and enhance sustainable economies.