

**CHAPTER 44—OCEANS AND HUMAN HEALTH**

Sec.	
3101.	Interagency oceans and human health research program.
3102.	National Oceanic and Atmospheric Administration Oceans and Human Health Initiative.
3103.	Public information and outreach.
3104.	Authorization of appropriations.

**§ 3101. Interagency oceans and human health research program****(a) Coordination**

The President, through the National Science and Technology Council, shall coordinate and support a national research program to improve understanding of the role of the oceans in human health.

**(b) Implementation plan**

Within 1 year after December 8, 2004, the National Science and Technology Council, through the Director of the Office of Science and Technology Policy shall develop and submit to the Congress a plan for coordinated Federal activities under the program. Nothing in this subsection is intended to duplicate or supersede the activities of the Inter-Agency Task Force on Harmful Algal Blooms and Hypoxia established under section 4001<sup>1</sup> of this title. In developing the plan, the Committee will consult with the Inter-Agency Task Force on Harmful Algal Blooms and Hypoxia. Such plan will build on and complement the ongoing activities of the National Oceanic and Atmospheric Administration, the National Science Foundation, and other departments and agencies and shall—

(1) establish, for the 10-year period beginning in the year it is submitted, the goals and priorities for Federal research which most effectively advance scientific understanding of the connections between the oceans and human health, provide usable information for the prediction of marine-related public health problems and use the biological potential of the oceans for development of new treatments of human diseases and a greater understanding of human biology;

(2) describe specific activities required to achieve such goals and priorities, including the funding of competitive research grants, ocean and coastal observations, training and support for scientists, and participation in international research efforts;

(3) identify and address, as appropriate, relevant programs and activities of the Federal agencies and departments that would contribute to the program;

(4) identify alternatives for preventive unnecessary duplication of effort among Federal agencies and departments with respect to the program;

(5) consider and use, as appropriate, reports and studies conducted by Federal agencies and departments, the National Research Council, the Ocean Research Advisory Panel, the Commission on Ocean Policy and other expert scientific bodies;

(6) make recommendations for the coordination of program activities with ocean and

human health-related activities of other national and international organizations; and  
(7) estimate Federal funding for research activities to be conducted under the program.

**(c) Program scope**

The program may include the following activities related to the role of oceans in human health:

(1) Interdisciplinary research among the ocean and medical sciences, and coordinated research and activities to improve understanding of processes within the ocean that may affect human health and to explore the potential contribution of marine organisms to medicine and research, including—

(A) vector- and water-borne diseases of humans and marine organisms, including marine mammals and fish;

(B) harmful algal blooms and hypoxia (through the Inter-Agency Task Force on Harmful Algal Blooms and Hypoxia);

(C) marine-derived pharmaceuticals;

(D) marine organisms as models for biomedical research and as indicators of marine environmental health;

(E) marine environmental microbiology;

(F) bioaccumulative and endocrine-disrupting chemical contaminants; and

(G) predictive models based on indicators of marine environmental health or public health threats.

(2) Coordination with the National Ocean Research Leadership Council (10 U.S.C. 7902(a)) to ensure that any integrated ocean and coastal observing system provides information necessary to monitor and reduce marine public health problems including health-related data on biological populations and detection of contaminants in marine waters and seafood.

(3) Development through partnerships among Federal agencies, States, academic institutions, or non-profit research organizations of new technologies and approaches for detecting and reducing hazards to human health from ocean sources and to strengthen understanding of the value of marine biodiversity to biomedicine, including—

(A) genomics and proteomics to develop genetic and immunological detection approaches and predictive tools and to discover new biomedical resources;

(B) biomaterials and bioengineering;

(C) in situ and remote sensors used to detect, quantify, and predict the presence and spread of contaminants in marine waters and organisms and to identify new genetic resources for biomedical purposes;

(D) techniques for supplying marine resources, including chemical synthesis, culturing and aquaculturing marine organisms, new fermentation methods and recombinant techniques; and

(E) adaptation of equipment and technologies from human health fields.

(4) Support for scholars, trainees and education opportunities that encourage an interdisciplinary and international approach to exploring the diversity of life in the oceans.

**(d) Annual report**

Beginning with the first year occurring more than 24 months after December 8, 2004, the Na-

<sup>1</sup> See References in Text note below.