

# Working Table of Contents – Draft Final Report

The Oceans Act of 2000 established the 16-member U.S. Commission on Ocean Policy to make recommendations for a coordinated and comprehensive national ocean policy for the United States. During its fact-finding phase, the Commission held 15 meetings and heard 440 presentations from individuals around the country.

In the fall 2003, the Commission will issue a final report to the President and Congress of its findings and recommendations. The Working Table of Contents is the initial framework for the Commission's report. As the title indicates, this is a living document which will continue to evolve based on ongoing analyses, discussions, deliberations, writing and editing. Because the Commission is in its report drafting phase, some sections of the outline reflect more detail than others. This should not be interpreted as an indication of the relative importance of the sections. As the report develops, the Table of Contents will be updated on an ongoing basis, with the date clearly indicated at the top of the document.

# Working Table of Contents UPDATED: JUNE 26, 2003

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LETTER TO PRESIDENT/CONGRESS

# CONTENTS

#### PREFACE

Why the Commission Was Formed Oceans Are of Vital Importance to the U.S. Congress Acknowledged by Passing the Oceans Act History of U.S. Ocean Policy Commission Process Organization of the Report

Acknowledgments

**EXECUTIVE SUMMARY** (*To include selected overarching findings and recommendations*)

# CHAPTER I: OUR OCEANS: A NATIONAL ASSET

A. Overview

# B. State of the Oceans

- 1. Ocean Assets/Value
- 2. Ocean Areas (include text describing jurisdictional areas with graphic)
- 3. Current Status
- 4. Trends and Forecasts
- C. Goals of a National Ocean Policy
- D. Guiding Principles
- E. Elements of a Desirable Future

## CHAPTER II: A COMPREHENSIVE AND COORDINATED APPROACH

A. Overview: The Need for Integrated and Ecosystem-based Ocean Planning and Management

- B. Executive Branch Leadership: National Ocean Policy Framework
  - 1. Assistant to the President
  - 2. Office of Ocean Policy in the Executive Office of the President
  - 3. National Ocean Council (Federal)
  - 4. Presidential Council of Advisors on Ocean Policy (non-Federal)
  - 5. Other Framework Components
- C. Legislative Branch Leadership: Legislative Implementation Act
- D. State/Regional/Local Leadership: New Governance Concepts
- E. Summary of Recommendations

#### CHAPTER III: LIVING ON THE EDGE

- A. Overview
- B. Overall Management Approach
  - 1. Federal Role
  - 2. State Role
  - 3. Local Role
  - 4. Watershed Management Approach
  - 5. Relationship to the National and Regional Ocean Councils
- C. Specific Management Challenges
  - 1. Planning and Management of Growth
  - 2. Protection of Coastal Waters (including point and nonpoint sources of pollution)
  - 3. Protection of Coastal Habitats
  - 4. Protection of People and Property from Natural Hazards
  - 5. Management of Shorelines and Sediment

- 6. Coastal Tourism and Recreation
- 7. A National Watershed Monitoring System
  - a. Existing Watershed Monitoring Programs
    - i. EPA Programs
    - ii. USGS Programs
    - iii. NOAA Programs
    - iv. Other Programs
  - b. Interagency Monitoring Initiatives
    - i. Intergovernmental Task Force
    - ii. National Water Quality Monitoring Council
    - iii. CENR Initiative
    - iv. EPA–USDA Action Plan
  - c. Framework for a National Monitoring Strategy
    - i. Ensuring Comprehensive, Coordinated Coverage
    - ii. Designating a Lead Coordinator
    - iii. Designating Lead Federal Agencies
    - iv. Creating Regional Flexibility
    - v. Developing Consistent, Comparable Technical Procedures
    - vi. Integrating Data across Time and Space
    - vii. Ensuring Representative Sampling
    - viii. Monitoring Best Management Practices
    - ix. Translating Data into Useful Information
    - x. Improving Access to Data
    - xi. Expanding the Existing Monitoring System
- D. Maritime Commerce and Transportation
  - 1. Maritime Commerce and its Importance
  - 2. The Maritime Transportation System
    - a. Ports
    - b. Vessels
    - c. Navigation Aids
    - d. Ship Building and Repair
    - e. Harbors, Channels and Waterways
  - 3. Projected Demand on the Nation's MTS
    - a. Domestic Maritime Commerce
  - 4. Positioning the Nation's MTS to Meet Future Demands
  - 5. Improved Data Acquisition and Long-range Forecasting
  - 6. Improved Port Planning and Permitting Processes
  - 7. Develop and Implement a National Freight Policy
  - 8. Comprehensive Port Management Planning
    - a. Port Development and Dredging
      - i. Port Development as Part of Coastal Management
      - ii. Streamlining the Planning and Approval Process
    - b. Support for the Comprehensive Port Planning Approach
      - i. Research and Monitoring
      - ii. Technical Expertise and Resource Allocation
    - c. Funding Issues and Alternatives
- E. Summary of Recommendations

## CHAPTER IV: ENHANCING OCEAN VALUE AND VITALITY

- A. Overview
- B. Living Marine Resources
  - 1. Background

- a. History of LMR Management
- b. Status of Living Marine Resources
- c. Restoration of Lost Economic Value
- 2. Ecosystem-based Management Approach
  - a. Sustainability
  - b. Precautionary Approach
  - c. Marine Biodiversity
  - d. Habitat Protection
  - e. Marine Protected Areas

## 3. Specific Management Challenges

- a. Fisheries Management
  - i. Fishery Management Authority and Jurisdiction
  - ii. Regional Fishery Management Councils
    - Broadening Council Membership
    - Training New Council Members
    - Building Sustainable Fisheries on Sound Science
    - Separating Assessment and Allocation Decisions
    - Ensuring Independent Peer Review
    - Using Default Measures
  - iii. Ending the Race for Fish
    - Limited-access Programs
    - Dedicated Access Privileges
    - Reducing Overcapitalization of Fishing Fleets
  - iv. Fisheries Research
    - RFMC Input to Research Programs
    - Cooperative Research
  - v. Linkage to Ecosystem-based Management
- b. Marine Mammal Protection Act
  - i. Unclear Permitting Standards
  - ii. Inadequate Scientific Data
  - iii. Inefficient Managerial Jurisdiction
- c. Coral Reefs
  - i. National Issues and Activities
    - Impacts of Global Climate Change
    - Research Priorities
    - Monitoring and Assessment
    - Public Outreach
    - Damage Recovery
  - ii. International Activities
    - International Coral Reef Initiative
    - Model Forest Conservation Program
    - Ornamental Marine Imports
- d. Aquaculture
  - i. Inconsistent Policy Framework
  - ii. Addressing Environmental Impacts
  - iii. Developing an Aquaculture Policy Framework
    - National Ocean Council
    - Joint Subcommittee on Aquaculture
    - Legislative Recommendations
  - iv. Implementing Aquaculture Policy
    - National Atmospheric and Atmospheric Administration
      - Regional Ocean Councils
      - Permitting Recommendations
- e. Living Marine Resource Enforcement
  - i. Strengthening Enforcement Partnerships

- ii. Enhancing Coordinated Training and Information Sharing
- iii. Enhancing Enforcement Through Technology
  - Expanding the Use and Benefits of VMS
  - Integrating VMS into a Data Collection and Dissemination System
  - Increasing VMS Reporting Capabilities
  - Expanding the Application of VMS
  - Charging VMS Users for Access to a Public Resource
  - Using Other Technologies to Enhance Enforcement
- iv. Focusing on Enforceable Regulatory Regimes
- v. Strengthening Case Processing and Penalties
- vi. Emphasizing Public Outreach and Education
- C. Marine Pollution
  - 1. Background
  - 2. Specific Management Challenges
    - a. Non-indigenous/Invasive Species
    - b. Marine Debris
    - c. Vessel Pollution
- D. Offshore Uses and Opportunities
  - 1. Background
  - 2. Overall Management Approach
    - (governance structure needs to accommodate multiple uses, known and unknown)
  - 3. Specific Management Challenges
    - a. Fossil Fuels
      - i. Oil & Gas
      - ii. Methane Hydrates
    - b. Other Marine Minerals
    - c. Renewable Energy
    - d. Restricted Areas
      - i. Military Restricted Areas
      - ii. Shipping Restricted Areas
      - iii. Submerged Cultural Resources
    - e. Diverse Other Uses
      - i. Bioprospecting
      - ii. Offshore Aquaculture
      - iii. Liquefied Natural Gas Terminals
- E. Ocean Commerce, Security, and Safety
  - 1. Background
  - 2. Coordination with other offshore uses
  - 3. Safety and Security
- F. Oceans and Human Health
  - 1. Background
  - 2. Specific Research and Management Challenges
    - a. Pollutants, Toxins, and Disease
    - b. Marine Bioproduct Discovery and Development
    - c. Implementing a National Program
- G. Summary of Recommendations

# CHAPTER V: ADVANCING OUR UNDERSTANDING OF THE OCEANS

- A. Overview
- B. Research, Exploration and Marine Operations: A National Strategy
  - 1. Federal Investment in Academic Capacity
    - a. Funding
    - b. Federal-Academic Interaction
  - 2. R&D Partnerships and Roles
  - 3. Exploration A New Thrust to Discover More About the Ocean's Role in the Earth's Systems
    - a. Attempts to Establish a National Ocean Exploration Program
    - b. NASA Model for Space Exploration Applied to the Ocean
    - c. National Ocean Exploration Program
  - 4. Marine Operations in Ocean and Coastal Sciences Improved Efforts in Ocean Monitoring and Assessment
    - a. Mapping and Charting
- C. Integrated Ocean Observing System
  - 1. The Disconnect Among Existing Observing Systems
  - 2. Origins and Status of a National IOOS
  - 3. Building on the National Weather Service Model
    - a. NWS Spatial Network
    - b. NWS Tools
    - c. NWS Research and Development
    - d. A Public-Private Partnership
  - 4. Developing the Environmental Components of a National IOOS
    - a. Identifying a Core Set of Environmental Variables
    - b. Developing Chemical and Biological Sensors
    - c. Integrating Measurements of Biological Variables
  - 5. Role of Satellites in the National IOOS
  - 6. Reaching Out to the User Community
  - 7. Expanding the Federation of Regional Observing Systems
    - a. Caribbean Sea
    - b. Arctic Ocean
  - 8. Developing Coastal Ocean Forecast Models
  - 9. Coordinating Information Management and Communication
  - 10. Bridging Research and Operations Capabilities
  - 11. Quantifying the Social and Economic Benefits of a National IOOS
  - 12. Governance of the National IOOS
  - 13. Role of the Ocean.US Office
  - 14. Funding for the National IOOS
    - a. Federal Agency Funding
    - b. System Cost Estimates
- D. Technology Development
  - 1. Maintaining U.S. Technological Leadership
  - 2. Meeting High Priority Marine Technology Requirements
    - a. Dedicated Marine Observing Systems
    - b. Satellite-based Systems
    - c. Integrated Multi-disciplinary Observation Networks
    - d. In Situ and Remote Biological and Chemical Sensors
    - e. Advanced Telecommunications Technology
  - 3. Building a National System of Virtual Marine Technology Centers
- E. Data and Information Management: The Currency of Ocean Understanding

- 1. Components of Data Management
- 2. Growing Pains for Data Management
- 3. The National Environmental Data Management System
  - a. Data Centers and Data Ingestion
  - b. Data Access
    - i. Access by End Users
    - ii. Access to Source Observational Data
  - c. Data Assimilation and Modeling
  - d. Dissemination of Information Products and Forecasts
- 4. A New Generation of Data Management
  - a. Modernized Data Management and Accessibility
  - b. Modernized Modeling and Assimilation Capabilities
  - c. A National Center for Improved Delivery of Ocean Information and Forecasts
  - d. Building Regional Management Information Programs
- F. Regional Management Information Programs
- G. Existing and Required Infrastructure: Modern Tools for Advancing Ocean Discovery and Understanding
  - 1. The Need for Routine Infrastructure Assessment
  - 2. The Success of Collaboration
  - 3. The Status of Ocean Infrastructure Management
  - 4. Critically-needed Assets
    - a. Modern Vessels on and in the Ocean
      - i. Surface Platforms
      - ii. Specialty Leased Platforms
      - iii. Deep Submergence Platforms
      - iv. Shipboard Instrumentation, Upgrades, and Regulatory Requirements
    - b. Airborne Ocean Science Laboratories
      - i. Platforms
    - c. Laboratories and Instrumentation
    - d. Computers and Data Systems
    - e. Satellites A Need for Long-term Dedicated Ocean and Coastal Remote Sensing
  - 5. A National Plan for Modernizing Ocean Infrastructure
- H. Summary of Recommendations

# CHAPTER VI: PROMOTING OCEAN AWARENESS AND A STEWARDSHIP ETHIC

- A. Overview
- B. K-12 Education
  - 1. Nurturing Tomorrow's Scientists
  - 2. Promoting the Oceans as Science Ambassadors
  - 3. Building Ocean Awareness
  - 4. Incorporating Ocean Sciences in Science Education Standards
  - 5. Teaching the Teachers
    - a. Prepping Teachers in Science and Math
    - b. Exploiting the Power of Ocean Sciences
  - 6. Bringing the Oceans to Students
    - a. Upgrading Ocean-based Curriculum Materials

- b. Using Scientific Data as a Teaching Tool
- c. Getting Students' Feet Wet
- d. Using Technology in Science Education
- e. Engaging Underrepresented Groups
- f. Researching and Evaluating Educational Programs
- 7. Bridging the Gap Between Research and Education
- 8. Pulling It Together
- C. Ocean Sciences: Higher Education and the Workforce
  - 1. Enhancing Graduate Opportunities
  - 2. Strength Through Human Diversity
  - 3. Engaging Undergraduates
- D. Informal Education: Increasing the Public's Ocean Awareness
  - 1. A "Second-Tier" Concern
  - 2. A Vast Domain
    - a. Aquariums and Zoos
    - b. Federal Informal Education Activities
  - 3. Achieving Public Ocean Awareness
    - a. Coordinated Strategy
    - b. Increased, Sustained Funding
    - c. Breaking Down Barriers
    - d. Reaching the Community
    - e. Evaluation and Assessment
- E. Summary of Recommendations

### CHAPTER VII: LEADING BY EXAMPLE: U.S. ROLE IN THE INTERNATIONAL COMMUNITY

- A. Overview
- **B. UNCLOS**
- C. Specific Management Challenges
- D. Summary of Recommendations

#### CHAPTER VIII: THE FUTURE: SUSTAINING A NATIONAL OCEAN POLICY

- A. Overview
- B. Investment: Funding Needs and Possible Sources
- C. Some Thoughts on Federal Agency Consolidation and Coordination
- D. Summary of Conclusions and Recommendations

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