

Working Draft for Public Comment

U.S. COMMISSION ON
OCEAN POLICY



**Toward a
National Ocean Policy**

*Ocean Policy Topics
and Related Issues*

July 16, 2002

U.S. COMMISSION ON OCEAN POLICY



The U.S. Commission on Ocean Policy, authorized by Congress and appointed by the President, is charged with reviewing the effects of federal ocean-related laws and programs. The 16-member Commission will assess numerous challenging issues ranging from the stewardship of fisheries and marine life to the responsible development of offshore nonliving resources as well as the relationship among federal, state, and local governments and the private sector in carrying out ocean and coastal activities. The last congressionally authorized commission to review and make recommendations for a national ocean policy was established under the *Marine Resources and Engineering Development Act of 1966* and is commonly referred to as the Stratton Commission. The current U.S. Commission on Ocean Policy was created by the *Oceans Act of 2000*. The Commission is required to establish findings and make recommendations for reducing duplication, improving efficiency, enhancing cooperation and modifying the structure of Federal agencies involved in the world's oceans.

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For more information about the Commission, go to: www.oceancommission.gov.

U.S. COMMISSION ON
OCEAN POLICY



Toward a National Ocean Policy
Ocean Policy Topics and Related Issues

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1 **Toward a National Ocean Policy**
2 *Ocean Policy Topics and Related Issues*
3

4 **U.S. Commission on Ocean Policy**
5 **Working Draft for Public Comment**
6 **July 16, 2002**
7

8 **Purpose**

9 To define a working strategy at the half-way point in the Ocean Commission's work that will
10 enable the Commission to determine both scope and content of an integrated national ocean
11 policy and to consider policy options to address key issue areas as required by the Oceans Act
12 of 2000.
13

14 **Background**

15 The Commission's approach has been determined by the following actions taken since its first
16 public meeting on September 17, 2001:

- 17 • Establishing four Commission working groups to segment consideration of relevant
18 issues among the Commissioners (details available on the Web site).
- 19 • Drafting of issues papers for each working group to define issue responsibility
20 (available on the Web site).
- 21 • Drafting of a document outlining elements of a national ocean policy, which sets broad
22 objectives against which we will test our final product for its efficacy (available on the
23 Web site).
24

25 **Working Strategy for Final Report Production**

- 26 • Based on the aggregation of testimony received after one national and six regional
27 public meetings, the Commissioners identified a wide variety of issues (raised in part
28 during testimony by 295 public witnesses) that may be considered as the Commission
29 enters its deliberation stage this Fall. We recognize that these issues do not yet include
30 those that may be raised by witnesses during the remaining planned public meetings.
31 Additionally, the Commission may or may not address all of these issues as we close on
32 the final product. Priorities will probably have to be set and some issues may not pass
33 the threshold criteria for inclusion.
- 34 • With the posting of this document on the Web site we invite broad public review and
35 comment on whether the questions listed in this document are the right ones, and
36 whether they adequately capture the critical issues that should be addressed by the
37 Commission. All public comments on this document must be submitted in writing. To
38 submit a comment via e-mail, write to: mail@oceancommission.gov. To submit a
39 comment via fax, send to: (202) 418-3475. Mail written comments to: Public Comment
40 for the Record, c/o U.S. Commission on Ocean Policy, 1120 20th Street, NW (Suite
41 200 North), Washington, D.C. 20036.
- 42 • The Commission working groups and their assigned staff will now commence drafting
43 working papers for future submission to the Commission as a whole for its
44 consideration. This will be done in accordance with the Commission's milestone
45 timetable (available on the Web site).
46
47

1 **TOPIC 1: LIVING MARINE RESOURCES**

2
3 **Issues**

- 4 1. What should be the overall policy objective for living marine resource management?
5 Should fisheries, marine mammal and endangered species conservation and management
6 be linked? If so, to what extent are they currently linked and what constraints exist (laws
7 or policies) that restrict such linkage?
8 a. Are biodiversity, the precautionary principle, and ecosystem management
9 sufficiently defined to serve as clear management principles?
10 b. If so, what are their definitions? Would they be applied as part of an overarching
11 principle for management, or can they be useful in a day-to-day operational
12 sense?
13 c. If biodiversity were to be used as a management principle, are there important
14 subsets to consider (e.g., apex predators, primary producers, etc)? How would
15 these subsets be determined? How should a biodiversity management structure
16 address them?
17 d. In general, are stewardship policy objectives and definitions clear enough to be
18 understood by the public?
19
- 20 2. What is/should be the measure of success or failure for management of living marine
21 resources?
22 a. Does it differ by type of species (e.g., exploited stocks/marine mammals/protected
23 species/bycatch/highly migratory species)? If it does differ, should it?
24 b. How do we ensure adequate data and knowledge are available to guide
25 management of living marine resources? Is there a baseline from which to
26 measure change?
27 c. What is the proper balance between science and other factors (politics, socio-
28 economics, emotion, morality) in judging the effectiveness of management of
29 living marine resources? How should all these factors be included into objective
30 assessments and decision-making processes?
31
- 32 3. How does our nation design and implement adequate ongoing, long term monitoring of
33 the coastal and marine environments and the upland ecosystems to allow sustainable
34 management of living marine resources?
35 a. What types of monitoring are needed for sustaining ecosystem health?
36 b. Who should be responsible for monitoring the coast, ocean, and atmosphere?
37 c. Do we have an adequate baseline from which to measure whether change is
38 occurring and the direction and magnitude of any such change? If not, how do we
39 determine a baseline? Do we have adequate processes to determine the likely
40 cause of such changes?
41 d. Is information on these subjects available to managers and do they use it?
42 e. What feedback mechanisms are there to ensure that the results of monitoring are
43 reported and considered?
44 f. Should action “triggers” be established that would require Federal, state, or other
45 entities to take action upon discovery of certain conditions or their continuation
46 over time?
47

- 1
2 4. What is the status of marine species (fisheries, marine mammals, forage and other prey
3 species) managed by Federal or state governments, or via interstate fishery commissions
4 for which adequate information is available?
5 a. Stock assessment and status: Are there any patterns for stock assessment and
6 status: regional, spatial, temporal, by gear type or boat size, by type of
7 management regime (state/interstate/Federal/international), by single species vs.
8 multiple-species management approaches?
9 b. What is the status of stocks (fish and marine mammals) on which native
10 populations depend?
11 c. How do we address other living marine resources (e.g. algae, bacteria, and
12 invertebrates) that are not presently “actively” managed?
13 d. Is there an adequate process in place to track these patterns? Are there any
14 proposed changes to improve this process?
15 e. Could fisheries management and conservation be improved by focusing on a
16 habitat rather than a species or even multi-species approach?
17 f. What, if any, relationships exist between the population status of fishery target
18 species and non-target (e.g., bycatch, forage) species?
19 g. Why are so many of the principal stocks over-fished or depleted? Why is
20 recovery so slow? Is it because of insufficient management actions?
21 h. Why is there little progress on recovery of population size for marine mammals,
22 sea turtles, and other endangered species?
23 i. Should there be a backstop or default strategy to ensure conservation of resources
24 if management plans are delayed or insufficient to meet the overall conservation
25 standard?
26 j. How do we answer these questions to help manage highly migratory species and
27 resources contained within international waters?
28
29 5. For how many stocks/populations do we have insufficient information on which to judge
30 their status?
31 a. Are there any regional patterns to the lack of sufficient information? Any other
32 discernible patterns? If so, why? Is there a lack of Federal investment in some
33 regions compared to other regions? Or is there inadequate Federal investment
34 overall?
35 b. Should we try to expend greater effort in collecting information on stocks for
36 which the status is unknown or should we focus efforts on improving the
37 precision of knowledge on the major components of a fishery or an ecosystem?
38 c. What are the implications for management of any such information deficits?
39 d. Are there currently unmanaged living resources that require attention (e.g.,
40 aquarium fish and invertebrate trade)?
41
42 6. What types of management structures, including examples from other countries, currently
43 exist for management of domestic and international living marine resources?
44 a. Are some more effective at maintaining the managed stocks in a sustained,
45 abundant state? What is the pattern of success or failure over time and
46 geography?
47

- 1 b. Are some management structures better at different aspects (e.g., stock status,
2 citizen involvement, reaction time, participant involvement, bycatch/habitat) of
3 fisheries management? Which factor(s) should be the priority?
4 c. What impacts on fisheries are caused by lack of funding for research, education,
5 and monitoring?
6
- 7 7. Does the current living marine resource management structure suffer from conflicting
8 mandates? If so, what are they, and what adverse consequences result from the conflicts?
9 a. What are the institutional, regulatory, and statutory causes of these overlaps and
10 conflicts?
11 b. With regard to regulatory regimes, what are the appropriate incentives, deterrents,
12 or combination of management tools necessary to enhance sustainable use of
13 resources? Is the regulatory regime set up based on best available knowledge,
14 even if the “precautionary principles” apply? Is the regime enforceable?
15 c. Is “ecosystem management” of living marine resources a clearly defined term? If
16 so, does it provide an effective management approach? Is ecosystem management
17 currently being used to manage living marine resources? If so, what information
18 and management capabilities are necessary to make it work? What would be the
19 cost of moving from single species management to ecosystem management?
20 d. What structural (i.e., agency) changes are needed to reduce or eliminate
21 conflicting mandates?
22
- 23 8. What regulatory and/or statutory policy changes are needed to improve U.S. fisheries
24 management?
25 a. Why is it that the same Federal law appears to produce effective fishery
26 management results in some areas and not in others?
27 b. Are state/Federal jurisdictional boundaries causing ineffective fishery
28 management? If so, how should this problem be addressed?
29 c. Is the current management structure, which separates the functions of the fisheries
30 councils and science and monitoring, appropriate and effective for management?
31 Does it follow a stewardship ethic?
32 d. In general, should conservation standards be set separate and apart from
33 discussions of allocation among competing uses? Is there a benefit to separating
34 organizationally fisheries assessment and allowable catch decision-making from
35 fishery allocation and other management decision-making? If so, what are some
36 preferred options for accomplishing this?
37 e. What are the best practices used by the various fisheries councils and
38 commissions that might be standardized for all? What practices should be
39 eliminated for all?
40 f. Are there models in other countries that may be used to improve U.S.
41 management of living marine resources?
42
- 43 9. Should assigning living marine resource harvest privileges to individuals, groups of
44 individuals, communities, or state and local governments be a part of U.S. fisheries
45 management?
46
47

- 1 a. Under what circumstances are harvest right programs a useful tool for fishery
2 management?
- 3 b. Do such programs require increased or decreased levels of enforcement at the
4 local, state, regional, or Federal level?
- 5 c. Should there be a set of national, regional, or local criteria under which all future
6 harvest privileges programs be implemented? What should be included in such
7 criteria?
- 8 d. In current Individual Fishing Quotas-based fisheries, how has the Federal
9 government ensured that IFQs are not viewed as private property, but only harvest
10 privileges to a public resource? What other safeguards may be required?
- 11 e. On what basis should harvest privileges be assigned? Who should decide the
12 allocation of initial harvest shares in any future IFQ program?
- 13
- 14 10. Is there sufficient credible science to support management decisions and is this science
15 being used appropriately?
- 16 a. What is the current process for incorporating the “Best Available Science” into
17 the ocean management decision-making process? Do we know where we stand
18 today in relation to the amount and quality of science in the support of
19 management? Is there a plan that lays out where we need to be and by when?
- 20 b. To what extent are current laws and regulations based on the “Best Available
21 Science” that is backed up with credible data? To what extent is the “Best
22 Available Science” ignored in development or implementation of U.S. laws and
23 regulations?
- 24 c. How should we manage ocean resources in situations where sufficient scientific
25 information is not known?
- 26 d. What is the current process for gathering additional scientific information or
27 baseline surveys when current information is inadequate to support management
28 decisions?
- 29 e. How is new information incorporated into existing management regimes?
- 30
- 31 11. Does the U.S. have effective enforcement of stewardship regulations?
- 32 a. How is enforcement of fishery and other marine environmental statutes and
33 regulations currently conducted?
- 34 b. How effective is this enforcement, and how do we know and measure how
35 effective it is? Do fishers believe enforcement is fair, consistent, and substantial?
- 36 c. How can the Federal government, states, and local jurisdictions work together to
37 enforce stewardship rules within the nation’s coastal and marine environments?
- 38 d. Will the increased emphasis on security concerns following the terrorist attacks
39 on September 11, 2002, result in a long-term decrease in fishery and marine
40 environmental enforcement by the U. S. Coast Guard? If so, what changes will be
41 necessary to offset decreased Coast Guard enforcement?
- 42 e. Does the proposed transfer of the U.S. Coast Guard to a new Department of
43 Homeland Security provide new opportunities to restructure enforcement in
44 support of managing living resources? Which capabilities can be replaced by
45 other agencies or by state enforcement personnel? Which capabilities can only be
46 carried out by the Coast Guard? Is there statutory authority for other entities
47

1 besides the Coast Guard to carry out its current regime of enforcement
2 responsibilities?

- 3 f. Does the collaboration of Coast Guard and other agency law enforcement work
4 well within the Federal government? Are the prosecutorial arrangements
5 adequate? Are the penalties for violators adequate deterrents? What statutory
6 changes, if any, are needed?
- 7 g. Are laws simple and understandable enough such that enforcement can be
8 effective and more affordable? Can we afford more enforcement? If not, how do
9 we set priorities on the most critical issues? Does the public understand the laws
10 enough such that unintentional violations are reduced and enforcement personnel
11 can concentrate on intentional violators?

12
13 12. Should the U.S. upgrade and better implement a marine aquaculture program?

- 14 a. What is the appropriate role for the Federal government in open-water marine
15 aquaculture? Research? Promotion and incentives? Setting and enforcing
16 environmental standards? Developing a straightforward and predictable
17 regulatory regime?
- 18 b. What are the pros and cons of aquaculture? How does the U.S. balance issues of
19 population genetics, invasive species, pollution, nutritional value, and economic
20 impact on other fisheries with benefits generated by aquaculture?
- 21 c. Should there be a lead Federal agency for aquaculture? If so, which agency?
- 22 d. Should the Federal government be involved in the promotion of marine
23 aquaculture?
- 24 e. How can local opposition to siting be addressed?
- 25 f. Are offshore aquaculture parks or zones effective techniques to foster an
26 expanded, sustainable role for aquaculture? Are they a prerequisite?
- 27 g. How should the U.S. manage fresh water vis-à-vis marine aquaculture?
- 28 h. Are the present guidelines for a stewardship ethic, contained in the provisions of
29 the Code of Conduct for Responsible Fisheries of the Food and Agriculture
30 Organization of the United Nations (FAO), adequate and can we influence the
31 international aquaculture industry to adhere to these guidelines?

32
33 13. How should our nation address stocks that exist in transit through international waters?
34 How should we seek U.S. involvement in managing living resources in international or
35 foreign waters (e.g., longlining, drift netting, purse-seining, whaling, indiscriminate reef
36 fishing for aquarium trade)

37
38 14. How should we address overcapitalization?

- 39 a. Should the U.S. compensate existing fishing interests to dispose of excess
40 obsolete fishing equipment? How should such compensation be funded?
- 41 b. Is the problem of reinvestment of government compensation into new and more
42 effective technologies a real or perceived problem?

43
44 15. What is the role of traditional fishing practices?

- 45 a. When should fisheries management be based on traditional fishing practices?
- 46
47

- 1 b. Should fishing rights be limited to families/concerns that can demonstrate
2 historical or traditional dependence on a fishery?
3
- 4 16. What is an effective definition of Essential Fish Habitat (EFH)?
5 a. Should a hierarchy of EFH levels be developed with each higher level requiring
6 greater protection?
7 b. Should we consider establishment of a consultation process such as exists for
8 endangered species for evaluating impacts or potential impacts upon the more
9 critical EFHs?
10 c. Is EFH, as currently defined, a workable approach? Are there better alternatives
11 that will result in protection for truly “essential” habitat?
12
- 13 17. How should the U.S. address the problem of marine invasive species?
14
- 15 18. How should the U.S. manage its coral reef resources?
16 a. Do we understand the factors leading to the dramatic decline in the health of coral
17 reefs in U.S. waters? Are these the same factors leading to declines around the
18 globe?
19 b. Do we understand the impacts of shifts in the ecology of these marine systems?
20 c. Are other sensitive marine communities experiencing similar dramatic changes?
21
- 22 19. What is the impact of changes in global climate on living marine resources?
23 a. Can the U.S. define strategies to better integrate results from global climate research
24 efforts with local and regional living marine resource management?
25
- 26 20. Does the U.S. currently have a coordinated approach to design, implementation, and day-
27 to-day management of Marine Protected Areas (MPAs)?
28 a. Is such an approach needed, and if so, why?
29 b. What regulatory, enforcement, educational structures need to be in place to ensure
30 the initial and continued success and protection of an MPA?
31 c. What problems are caused by the current approach of having various entities with
32 authority to protect marine areas for different reasons?
33 d. What statutory authorities exist to allow implementation of MPAs in Federal and
34 state waters? How can MPAs be incorporated into existing management schemes,
35 such as fisheries, fossil fuel and mineral production, and coastal zone
36 management plans?
37 e. What are the concerns associated with MPAs in relation to freedom of the seas in
38 U.S., international, and foreign waters?
39 f. Does UNCLOS/customary international law allow for MPAs on the high seas?
40 g. Should MPAs be defined narrowly or broadly?
41 h. Are there any other “ocean zoning concepts” that are authorized under Federal
42 law? Should there be others?
43
- 44 21. What is the current distribution of MPAs?
45 a. Under what authorities were these MPAs created?
46
47

- b. What agencies have responsibility over these MPAs? Should a single agency be responsible for all MPAs? Why?
- c. By what processes were the MPAs created? How was the public involved? Is there a preferred alternative for the process for creating MPAs?

22. For what purposes have MPAs been shown to be effective?

- a. For what purposes can MPAs be used?
- b. For what purposes should MPAs NOT be used?
- c. What type and level of enforcement is required for MPAs to be effective?
- d. Is the state of scientific knowledge adequate to properly design an MPA once a specific purpose has been identified?
- e. How should ecosystem management be incorporated into the design of a single MPA? A system of MPAs?

23. What should be the role of the Federal government in the marine biotechnology sector?

- a. Are there unique issues with regard to biotechnology in the marine environment vs. terrestrial biotechnology that warrant special attention by the Commission?
- b. What are the potential benefits and problems if the Federal government enhances investment in biotechnology?
- c. Is the current regulatory and statutory regime related to biotechnology adequate to properly oversee safe and economically feasible development in this sector?

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1 **TOPIC 2: POLLUTION/WATER QUALITY**

2
3 **Issues**

- 4 1. What are the principal sources of coastal and marine pollution in the U.S. (point source,
5 nonpoint source, nutrients, and atmospheric deposition), and what is the estimated
6 contribution of each to marine water pollution?
7 a. What are the major temporal and spatial trends of improvement or continued
8 degradation by region and source?
9 b. Are there regional and local patterns of marine water quality degradation with
10 unknown sources?
11 c. With regard to the marine environment, which pollutants, or types of pollutants,
12 should be of greatest concern to the nation? Why? What specific impacts are
13 pollutants having in the marine environment and what are the economic and
14 human costs associated with these impacts?
15 d. Are there particular ocean or estuarine areas where such pollution is a particular
16 problem? Where are they and what is the nature of the problem?
17 e. What is the level of contribution made by atmospheric pollution to marine waters
18 and what are the constituents of greatest concern (e.g., mercury and nutrients)?
19 f. What are the impacts of pollution by foreign countries on natural resources in
20 local and international waters? Can these sources affect our nation's living
21 marine resources or human health, now or in the future?
22 g. What is the proper balance between reducing point and nonpoint source pollution
23 via a technological approach (expensive, requires extensive engineering) vs.
24 implementing strict laws and regulations on ocean users (cheaper, but more
25 bureaucratic)?
26
27 2. Do we have clear national standards for abatement of marine pollution, especially from
28 chronic point and nonpoint sources? If not, what default strategy is needed?
29 a. Why is the timeline for pollution abatement so long? Is it primarily a financial
30 issue or a technical problem or is it primarily political?
31 b. Do the laws and mandates interact well for different sources of pollution to
32 provide comprehensive management? Are there conflicting mandates or
33 interactions among agencies that lead to undesired pollution outcomes?
34 c. Are there adequate enforcement mechanisms for pollution control requirements?
35
36 3. What percentage of sewer and water treatment plants are operating at the primary,
37 secondary, and tertiary levels?
38 a. How much pollution of the marine environment would be reduced if primary
39 plants implemented secondary or tertiary treatment? What would be the cost?
40 b. Are EPA waivers and variances for secondary and tertiary treatment offered too
41 frequently or easily?
42 c. What is the current limit of technology in reducing/eliminating nutrient and
43 contaminant content in sewer and water treatment facilities releases?
44
45 4. Can we improve recreational boater, passenger ferry, cruise, and shipping infrastructure
46 to minimize point and non-point sources of pollution?
47

- 1
2 5. Which Federal agencies currently have programs addressing nonpoint source pollution
3 affecting the marine environment?
4 a. To what extent have they produced measurable reduction of nonpoint pollution?
5 b. Are agencies consistent in their approaches?
6 c. How are these Federal agencies coordinating their various programs?
7 d. Does the Clean Water Act address the issue of nonpoint source (NPS) pollution
8 adequately, and if not, what improvements are necessary?
9 e. What incentives might be considered to help upland and agricultural interests
10 better contribute to protection and restoration of the coastal ocean environment?
11
12 6. How can we develop and implement a strategy to adequately study and monitor ocean
13 and coastal waters to understand pollution trends and impacts on the health of the marine
14 ecosystem at local and global scales?
15 a. Do existing programs measure the right parameters; address the causal
16 interrelationships; or monitor, analyze, and predict environmental changes
17 resulting from pollution before they become severely problematic or irreversible?
18 Do they provide a sound scientific basis for the development and implementation
19 of relevant laws and regulations?
20 b. What should we do to ensure that the nation has a clear picture of the overall
21 quality of its coastal and marine environments, where and what the problems are,
22 and what to do about them?
23 c. What additional tools, if any, do federal agencies need for wetlands monitoring
24 and enforcement?
25
26 7. The U.S. Army Corps of Engineers is principally a public works agency, probably the
27 primary one having impacts on waterways, harbors, and the coastal marine environment.
28 a. Is it appropriate that the Corps also be the principal Federal agency responsible
29 for permitting environmental perturbations and monitoring and enforcement of
30 permit conditions? Should the permitting responsibilities be moved to an
31 environmental agency (e.g., EPA) and the Corps' responsibility limited to
32 engineering and construction?
33 b. Should responsibility for delineation of wetlands be moved to an environmental
34 agency or agencies?
35 c. Can we enhance the Corps' stewardship role?
36
37 8. Should the Coast Guard or EPA be the principal Federal agency responsible for ballast
38 water discharges? Should ballast water discharges be handled as point source discharges
39 under the Clean Water Act? How will coordination between the Coast Guard and EPA
40 be impacted if the Coast Guard is transferred to the proposed Department of Homeland
41 Security?
42
43 9. What are the impacts of trans-boundary movements of pollutants on coastal waters and
44 the marine environment? Should there be additional investigation of trans-boundary
45 pollution and its effects? Is there a need for long term planning to significantly reduce
46 both water borne and air borne pollutants? If so, should these investigatory and long term
47

1 planning functions be assigned to an existing agency or should some other entity or
2 process be created to deal with these issues?

- 3
4 10. What are the causes of harmful algal blooms (HABs)?
5 a. Is the apparent rise in frequency merely correlated to better monitoring in the
6 ocean, or is the rise in frequency a real phenomenon?
7 b. What changes are necessary to reduce the frequency of HABs?
8 c. What can we do to manage, monitor, or predict HABs? Can we develop an
9 effective warning system?
10
11 11. What are broad and fine scale connections between human health and the oceans in
12 areas such as nutrition, pollution/contaminants, natural toxicants (e.g. HABs, shellfish
13 poisoning), natural product-derived pharmaceuticals, disease—of both human and
14 natural origin—(e.g., hepatitis, *vibrio vulnificus*), or injury (e.g., bites, stings, cuts)?
15 11. What do we need to know about these connections to manage, prevent, or exploit them?
16
17 12. What are the sources, types, and quantities of marine debris currently being deposited
18 into the U.S. marine environment? How much marine debris is derived from “orphaned
19 facilities”? What are the impacts of marine debris on the environment? What regimes
20 are currently in place to deal with marine debris? Is there a need to develop better
21 monitoring and management of marine debris? If so, what alternatives should be
22 considered?
23
24 13. What are the causes and effects of changing salinity levels in coastal and estuarine
25 environments? Are existing monitoring and management regimes adequately dealing
26 with the issues created by changes in salinity levels? If not, what new initiatives can
27 most effectively address salinity levels and related issues?
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1 **TOPIC 3: GOVERNANCE**

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3 **Issues**

- 4 1. What would a comprehensive national ocean policy, as directed by Congress in the
5 Oceans Act of 2000, look like? What does “comprehensive policy” really mean? Why
6 is it important? How does it differ from what we have now?
7 a. What are the existing laws that govern land and water use in coastal and marine
8 areas and how do they overlap?
9 b. How are they inconsistent? How are they complimentary? How are they
10 mutually reinforcing?
- 11
- 12 2. What should be the guiding principle(s) for ocean governance?
- 13
- 14 3. What are the appropriate roles for Federal, state, local, and tribal governments in ocean
15 governance? Do we need to consider a national approach, which may vary by region
16 based on key criterion (geography, volume of activities, etc.), or a regional approach to
17 ocean governance?
- 18
- 19 4. Can our current legal, regulatory, and management mechanisms be modified to improve
20 governance of ocean resources and activities? Do we need an organic statute to provide
21 guidance to Federal agencies on their roles and responsibilities?
22 a. How should the Federal government organize itself to more effectively respond to
23 issues related to:
24 i. management of fisheries resources
25 ii. design, implementation, and management of marine protected areas?
26 iii. reducing the negative impact of pollution in the marine environment?
27 iv. use and management of nonliving marine resources?
28 v. development and support of ocean and coastal science programs?
29 vi. development and support of marine technology?
30 vii. marine related commerce and transportation?
- 31
- 32 5. Do we need a more coordinated approach to the management of our ocean resources?
33 Why? What would be the roles for the Federal, state, tribal, and local governments?
- 34
- 35 6. Is there a need to incorporate tools/approaches/strategies of regimes (current or
36 proposed) that govern single issues into an approach that can address more than one set
37 of issues?
- 38
- 39 7. Are there useful models, either existing or proposed, for improving our existing
40 approach to resource use, protection, and management?
- 41
- 42 8. Do we need to improve U.S. leadership and cooperation with other nations and
43 organizations to further international ocean policy? If so, how would this be
44 accomplished?
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1 **TOPIC 4: COASTAL ZONE MANAGEMENT**

2
3 **Issues**

- 4 1. Has the Coastal Zone Management Act (CZMA) been successful in meeting its stated
5 objectives? Is it an appropriate model for effective coastal zone management? If not,
6 are there other models that are more effective?
7
- 8 2. What should be the guiding principle(s) for coastal zone management?
9
- 10 3. What are the appropriate roles for Federal, state, local, and tribal governments in
11 managing the coastal zone? What are the proper jurisdictional boundaries or areas of
12 influence for each?
13
- 14 4. Should the Federal government identify emerging coastal issues that are in the national
15 interest and, if so, what should be its response if state coastal zone management plans
16 do not adequately address those issues?
17
- 18 5. With regard to coastal zone management, are there federal or federal-state policy
19 conflicts that should be reconciled? For example, are the Coastal Zone Management
20 Act and the Outer Continental Shelf Lands Act (OCSLA) compatible? If not, how
21 should they be made compatible? What other coastal zone policies should be made
22 compatible and how?
23
- 24 6. Should the CZMA framework be extended seaward? How far offshore should state
25 interests extend? Should the relative roles for Federal/state/tribal/local governments
26 vary with distances seaward?
27
- 28 7. What should the Federal government's role be in addressing pressures caused by
29 increasing populations and development activities in the coastal zone?
30 a. Is the CZMA the appropriate tool for managing these issues? If so, how should
31 it be used? If not, do we need a new Federal program to guide land and water
32 use policies and practices in the coastal zone to address these issues?
33 b. Are there unprotected coastal areas that are of unique environmental,
34 ecological, or cultural importance or of particular beauty that are in danger of
35 being forever damaged by development? If so, where are they and how should
36 they be protected?
37 c. Are land based designated use areas such as wildlife refuges and sanctuaries,
38 state and national parks and forests, recreational and wilderness areas useful
39 models for managing coastal/marine areas?
40 d. What should Federal policy be regarding support and subsidies for coastal zone
41 development, such as flood insurance and beach renourishment?
42 e. What awards, incentives, or disincentives tied to federal funds for roads, sewer
43 lines, and other infrastructure could be used to help manage coastal growth and
44 its impact on ocean resources?
45 f. What is the best method for ensuring that the public's right to access to the coast
46 be preserved? Is this an issue for the Federal government?
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8. How should point and nonpoint pollution in the coastal zone be addressed? Are there conflicts among various Federal programs that have been created to address coastal nonpoint source pollution, such as CZMA section 6217, CWA section 319, and USDA's Environmental Quality Initiatives Program? If so, how should they be resolved?
9. How should habitat protection and restoration in the coastal zone be addressed?
10. What should be the national and/or regional policy regarding programs such as Federal flood insurance, building codes, and disaster response, relief, and mitigation, all of which address the impact of natural hazards on life and property in the coastal zone?
11. Is there a need for a national and/or regional policy that addresses coastal/marine tourism and recreation? Is a federal marine recreation and tourism organization needed? If so, why? What would be its objectives?
12. How can government stimulate the involvement of people directly affected by deteriorating watersheds that affect ocean resources and water quality in order to commit them to necessary change?
13. What science and technology information is needed by coastal resource managers? Do they have access to the information they need? Do they use the information they have? How can information needs be identified?
14. Can the economic contribution of coastal and ocean resources be accurately assessed? If so, how should this information be used?

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TOPIC 5: NONLIVING MARINE RESOURCES

Issues

1. Which existing nonliving marine resource activities should be regulated by the Federal government? Which should not? Which Federal agency should be responsible for regulation of which activity?
2. Should the Federal government have a new regime for promoting and investing in ocean uses and activities?
3. Which new or emerging ocean uses and activities should be regulated and how? Which should not? How should Federal revenues derived from current and future development of offshore nonliving marine resources be assessed, distributed, and used?
4. What are the principal environmental concerns or risks associated with current and future nonliving marine resource activities (e.g., energy production, marine minerals mining, fiber optic cable or operational gear placement, desalinization)?
5. Who should be responsible for performing environmental risk assessments associated with extraction activities and what role should this information play in the site selection and approval process?
6. What international issues need to be addressed when developing domestic policy regarding new and existing nonliving marine resource use and activities? What should be the role of the U.S. in the development of policy regarding these uses and activities in the international arena?

1 **TOPIC 6: RESEARCH, EXPLORATION, AND MONITORING**

2
3 **Overarching Issues**

- 4 1. What should be the national strategy for ocean and coastal science programs that provide
5 information necessary for understanding our sea floor, managing our marine resources,
6 and protecting human life and property from natural and anthropogenic hazards?
7 a. What actions should the U.S. take to ensure its world leadership status in ocean
8 science?
9 b. How can Federal science efforts be better integrated and more effective?
10 c. Has Federal funding for marine science maintained parity with funding for other
11 Federal science programs? Has it kept pace with inflation? Are there economies
12 of scales that could be attained via reorganization or new coordination
13 mechanisms?
14 d. What should be the role of the National Academies of Science (NAS), and how
15 can we ensure the relevant NAS boards are effective in defining strategies to
16 address to ocean concerns? How should the NAS be involved?
17
18 2. Is the governmental and institutional framework for funding and managing the nation's
19 ocean science programs adequate, efficient, and sufficiently cost-effective to meet
20 whatever the needs of the next 25 to 30 years may be? If not, what would be an optimum
21 framework?
22
23 3. What policies does the U.S. need to develop for distribution of data and information
24 generated under sponsorship of the Federal government?
25
26 4. Is there an adequate and ongoing process to examine information that may be transitioned
27 from military to civilian programs?
28

29 **Research Issues**

- 30 1. What is the appropriate research role for the Federal government with regard to that of
31 the states, academia, and the private sector?
32
33 2. What process should the Federal government have for identifying and prioritizing
34 research programs necessary to support and carry out a viable national ocean policy?
35
36 3. What science and level of Federal investment in marine research is needed to address
37 existing information needs for managing, understanding, and protecting coastal and ocean
38 resources and for protecting human health and property?
39
40 4. What research is needed to be able to model and predict environmental conditions,
41 especially changes and perturbations resulting from natural and anthropogenic
42 influences? To understand and model ocean-atmosphere coupling?
43
44 5. Should the U.S. expand its research efforts into the role of the oceans in climate change?
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- 1 a. Does the U.S. have effective programs and national leadership to determine the
2 roles of the open ocean, continental margins, coastal zones, and estuarine areas in
3 global and climate change? If not, what needs to be done?
- 4 b. What can the U.S. do to strengthen international coordination and cooperation on
5 global climate change research? Is the World Meteorological Organization
6 (WMO) a good model to follow?
- 7 c. What agency/agencies should lead an enhanced climate change research program
8 and why?
- 9
- 10 6. What should be the national research strategy for addressing large scale new or proposed
11 research and development efforts?
- 12
- 13 7. How can we better understand the inputs, fate, and effects of contaminants/pollutants in
14 the marine environment?
 - 15 a. What should be the areas for highest research priority?
 - 16 b. What level of fiscal support would be required to support such research?
- 17
- 18 8. Should civilian Federal agencies be encouraged to foster long term (3-5 years) ocean and
19 coastal research programs as the Department of Defense does?
- 20
- 21 9. Do we understand cumulative effects of natural and human-induced changes on coastal
22 and ocean resources and ecosystems? If not, what research efforts are required to build
23 this knowledge base?
- 24

25 ***Exploration Issues***

- 26 1. What should be the long term U.S. effort in ocean exploration?
 - 27 a. Why, what would be the benefits for the nation?
 - 28 b. What should be our strategy for implementing an exploration program?
 - 29 c. What level of resources should be committed to ocean exploration over what time
30 period?
 - 31 d. Should there be a single lead agency for U.S. ocean exploration?
 - 32 e. What should be the priority areas for ocean exploration and how should priorities be
33 set? For example,
 - 34 i. Arctic Ocean?
 - 35 ii. Southern Hemisphere?
 - 36 iii. Exploration and mapping of the EEZ with emphasis on the least known
37 areas, in particular the western Pacific around the Territorial Trust Areas?
 - 38 iv. Regions just seaward of the EEZ, especially areas where discoveries could
39 lead to extension of the EEZ into deeper waters?
 - 40 v. Regions containing evidence of human history and occupations?
 - 41 vi. The EEZ first and then what other areas?
 - 42 vii. The deep ocean?
- 43
- 44 2. How should the U.S. seek international partners in its ocean exploration effort?
- 45
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- 1 3. What is the role of ocean exploration versus that of ocean research? Is there an
2 appropriate approach where the two will benefit each other?
3
- 4 4. What are the educational and public relations opportunities and how can they best be
5 used to excite the public and policy makers?
6

7 ***Monitoring Issues***

- 8 1. Are current environmental monitoring efforts adequate to meet national, regional, state,
9 and local needs? Is there consensus on what parameters should be monitored? Are there
10 uniform standards and protocols for monitoring across Federal agencies? For state and
11 local governments?
12
- 13 2. Are Federal environmental monitoring programs adequate—in terms of parameters
14 measured and spatial and temporal coverage—to allow scientifically credible and timely
15 assessments of environmental health? Are they integrated across agencies? Are they
16 integrated with state and local government monitoring programs?
17
- 18 3. Is there, or should there be, a common database into which all Federal environmental
19 monitoring data are entered? Should such a database include state and local government
20 data as well?
21
- 22 4. Should the Federal government, working in concert with the states and academia,
23 periodically produce a standard, but comprehensive, report card on the status of the
24 Nation’s marine, coastal and estuarine environments and resources?
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1 **TOPIC 7: EDUCATION**

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3 **Issues**

- 4 1. What is the current status of ocean science education in the U.S.?
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6 2. What are the personnel requirements for governmental agencies, disciplines, or the
7 industrial sector that the U.S. needs to address over the next 10-30 years?
8
9 3. Given that education is still primarily a state and local responsibility in the U.S., what is
10 the proper role of the Federal government in ocean science education? What is the role
11 of state/local governments and nongovernmental entities?
12
13 4. What types of partnerships among the levels of governments currently exist or are
14 needed?
15 a. Is there a need to improve the quality and/or quantity of ocean science education?
16 If so, how? Is a specific plan/framework needed to assess this?
17 b. Are the current formal and informal education programs increasing ocean
18 sciences content knowledge or cognitive achievement? What is the best way to
19 assess this?
20 c. Is there a common focus in ocean science education? Should there be? If so,
21 what?
22 d. Are the various individual ocean education programs effective on their own or
23 should they be coordinated in an effort to increase impact? How should they be
24 coordinated? Should there be coordination between the rapidly growing plethora
25 of informal education offices within the various agencies of the Federal
26 government?
27 e. Are there programs that are more effective than others and should they be used as
28 models? Which ones and why are they more effective?
29 f. Should greater emphasis and funding be given to pre-college marine educational
30 programs, including those that give students actual field experience and put them
31 in contact with researchers and research institutions?
32 g. Is the U.S. pursuing opportunities to provide international leadership in ocean-
33 related areas through education and training? If not, should we? What is the best
34 way to do this?
35 h. Is the U.S. pursuing effective opportunities to increase minority participation in
36 marine sciences?
37
38 5. Is there a need for a nationally coordinated effort or agenda to enhance and promote
39 ocean science education? If so:
40 a. What needs to be done to establish such an effort? What are the impediments?
41 b. What would the effort consist of?
42 c. How would it be implemented, supported, and maintained?
43 d. Upon which existing or planned models (e.g., COSEE) could we build?
44 e. What can be done to provide leadership and visibility for ocean science
45 education?
46
47

- 1 f. What investment plan is needed to maintain a viable ocean-related science
2 education infrastructure?
3 g. What government structure (Federal, state, and local) needs to be put in place to
4 provide for coordinated and adequate support of ocean science education?
5
- 6 6. To what extent should ocean science be reflected in the national science education
7 standards and what assistance do educators need to meet these standards?
8 a. What, if anything, needs to be done to attain this level of representation in the
9 national standards?
10 b. What process should be used to establish ocean science standards of knowledge?
11 c. How should ocean science knowledge be incorporated into K-12 curricula?
12 d. What impediments do educators encounter when teaching ocean science?
13 e. Are existing teacher professional development programs for in-service teachers
14 and teacher training programs for pre-service teachers adequate? If not, what
15 needs to be done to enhance the programs?
16 f. What is the best mechanism for “educating the educators” on ocean science?
17 g. How can we develop more ocean-related resources and materials that align with
18 national science standards and that are more widely available to and useful for
19 educators?
20 h. What can be done to bridge the gap between researchers and educators?
21 i. What can the ocean community learn from the success of the space community in
22 reaching students and educators?
23
- 24 7. What level of ocean literacy should the general public have?
25 a. What constitutes “ocean literacy” and what criteria should be used to determine
26 this?
27 b. How can the U.S. strengthen the stewardship ethic of the general public, industry,
28 and government?
29 c. Are existing public education efforts adequate to meet public education needs? If
30 not, what should be done?
31 d. Beyond simply providing information, what can be done to engage the public in
32 ocean issues and keep them engaged?
33 e. How can we develop a public that actively contributes to the management and
34 resolution of ocean-related problems and issues?
35 f. How can we incorporate the idea of leadership development for the future and a
36 serious commitment to the development and funding of a multidisciplinary public
37 information program?
38
- 39 8. What needs to be done to ensure that ocean science and policy work force needs are
40 being met now, and will be met in the future?
41 a. How should the present institutional framework be adjusted so it is adequate to
42 meet the work force needs, i.e., to educate and retain the necessary pool of
43 technicians and scientists needed to conduct and sustain a high quality national
44 program of ocean science and technology?
45 b. What social science information and manpower will be needed in the future?
46 c. What specialties are emerging to handle “ecosystem” and “sustaining” themes?
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- d. Is there a need for oceanographers and marine affairs specialists or rather for physicists, geologists, lawyers, economists, etc. who can apply their expertise to the ocean environment? What should be done to address this need?
- e. Is there adequate infrastructure to address our nation's needs in non-traditional careers such as maritime law, marine affairs, seafood technology, recreation, naval architecture, etc.?
- f. What can be done to attract a diversity of quality students, especially minorities and women, to undergraduate and graduate ocean and coastal programs?
- g. How can we improve ocean-related career education information (including the distribution thereof)?
- h. What mechanisms can be employed to highlight ocean scientists as career role models?

- 9. What is the current status of professional education/development and mid-career skill enhancement for ocean science professionals?
 - a. Do adequate programs exist? If not, what needs to be done to ensure that professionals have and maintain the skills and information needed throughout their careers?
 - b. What skill sets and level of training will ocean and coastal managers need in the future? What opportunities exist for development of sabbatical-type opportunities in Federal and state ocean agencies to provide opportunities for practicing scientists and technicians to get into the classroom e.g. a "scientist in residence" type program?

1 **TOPIC 8: TECHNOLOGY AND MARINE OPERATIONS**

2
3 ***Technology Issues***

- 4 1. Is the U.S. still the world leader in ocean technology development? If not, why? What
5 policies and actions need to be put in place to regain that lead?
6
- 7 2. What should be the relative roles of the Federal government, states, academia, and the
8 private sector in the development of new ocean technologies?
9
- 10 3. What new technologies/tools are needed to significantly enhance our ability to better
11 understand and monitor coastal and ocean dynamics, ocean oscillation events, ocean-
12 atmosphere interactions, global climate change, coastal hazards and effects of human
13 activities—especially cumulative effects on the marine environment?
14 a. Are sufficient funds being invested in new technology development?
15 b. Where should efforts be focused for technology development?
16 c. What specific or new technologies are needed to accelerate research and
17 exploration?
18 d. What biological sensors—at scales ranging from micro to macro—need to be
19 developed and what should be the priorities for development of such sensors?
20 e. What new technologies and tools need to be developed to minimize loss and
21 abandonment of fishing gear and to enable the location and removal of such gear?
22
- 23 4. What actions need to be taken to ensure development, implementation, and long term
24 maintenance of a coordinated and integrated national ocean observing and prediction
25 system?
26 a. How can existing and planned local and regional systems be integrated?
27 b. Where should responsibility for a national ocean and coastal observing and
28 prediction system reside? A single agency? The National Oceanographic
29 Partnership Program (NOPP)?
30 c. What are the respective roles of the Federal, state and local governments, private
31 industry, academia, and the public in the design, operation, and use of a national
32 ocean observing and prediction system?
33 d. Is there an existing model upon which we can build?
34 e. Is there an optimum model for international cooperation?
35
- 36 5. What computer capability and other infrastructure is required to collect, assimilate,
37 analyze, and model the increasing stream of real-time data from the myriad of coastal and
38 ocean sensing systems and to create timely, customized data products for a wide range of
39 users?
40 a. What are the obstacles to data sharing for the common good?
41 b. What needs to be done to integrate Federal agencies' data management
42 capabilities?
43 c. What is the best way to address data standardization and protocol issues?
44
- 45 6. What steps should be taken to facilitate and foster technology transfer among the various
46 sectors of the ocean community?
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- 2 7. What satellite sensor systems are required for future ocean observation to enable the U.S.
- 3 to better monitor the oceans and coastal zone? What investments are necessary? What
- 4 programs exist for researchers to access and use satellite data? Is there, or should there
- 5 be, a single lead agency for environmental satellite systems?
- 6
- 7 8. Are the short and long term strategies for development of space-based observation and
- 8 communication systems adequate?
- 9 a. Is U.S. investment in the satellite sensor systems required for future ocean observation
- 10 requirements?
- 11 b. How can we integrate the capabilities of the various agencies involved in space-based
- 12 technologies? What satellite sensor systems are needed to enable the U.S. to better
- 13 monitor the oceans and coastal zone?
- 14 c. What level of funding will be required?
- 15 d. Is there, or should there be, a single lead agency for environmental satellite systems?
- 16
- 17 9. How can telecommunication technology be used to increase efficiency of ocean research
- 18 and exploration?
- 19

20 ***Marine Operations Issues***

- 21 1. How can the Federal government best integrate marine operations across the various
- 22 ocean agencies? With state agencies, academia, and private institutions?
- 23 a. Are there economies and efficiencies that could be realized?
- 24
- 25 2. What is the current state of U.S. ocean science facilities?
- 26 a. Are the existing and planned facilities adequate to meet the objectives of a
- 27 coordinated and comprehensive national ocean policy?
- 28 b. Is there sufficient and effective communication/coordination/cooperation among
- 29 the broad range of U.S. marine laboratories or is this an area where substantial
- 30 enhancement is needed?
- 31
- 32 3. Would a Federal marine operations oversight board enhance coordination among
- 33 agencies and among projects/programs? Is the Federal Oceanographic Fleet Committee a
- 34 good model upon which to build?
- 35
- 36 4. What lessons can the operational oceanographic community learn from the nation's
- 37 (public and private) operational weather forecasting experience?
- 38
- 39 5. What type of standards should be developed to ensure sensors, data, and products are
- 40 interoperable and useable by all Federal, state, regional, and local agencies, as well as
- 41 private industry?
- 42
- 43 6. What mechanism(s) are available to the government to ensure ocean and coastal data are
- 44 accessible to all interested users?
- 45
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- 1 7. What structure should the Federal government adopt to ensure there is an “end-to-end”
2 process accounting for operational requirements, applied R&D, ocean data collection and
3 assimilation, prediction, and application to end-users’ needs? If this is not a Federal
4 issue, what organization(s) should do this?
5
- 6 8. What prioritization process (if any) should take place to determine the allocation of R&D,
7 procurement, and operational monies in support of operational oceanography?
8
- 9 9. As the science advances, how should the oceanographic community “grow” the users of
10 their products and increase “user pull” for their services? How should users be trained in
11 the capabilities and limitations of operational oceanographic products?
12
- 13 10. What is the role(s) of the Federal government in marine mapping and charting?
14 a. What spatial resolutions are needed for different requirements?
15 b. Is the technology available and/or installed to adequately address mapping and
16 charting requirements?
17 c. What is the role of industry and academia in meeting Federal requirements?
18 d. How are requirements prioritized?
19 e. How can we assure that the data collected by different agencies are compatible?
20 f. How can we ensure that data are as accessible as possible and presented in a
21 way that is meaningful for a variety of users?
22
- 23 11. What steps should the Federal government take to better work and life at sea?
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26 *Marine Related Commerce and Transportation Issues*

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- 28 1. What financial resources are needed to support marine-related commerce and
29 transportation in the United States?
30
- 31 2. What is the economic value and impact of marine commerce and transportation to the
32 nation, regions, states, and local governments?
33
- 34 3. Should the U.S. develop an integrated national maritime transportation strategy that
35 considers sea, land, and air routes in the modernization of its marine commerce and
36 transportation infrastructure, selects key ports for expansion, and protects coastal and
37 marine resources? What should such a policy include?
38 a. What are the lessons learned to date? What models work?
39 b. Should there be national or regional planning entities to assess national needs for
40 ports? What should they be? What is the Federal interest? How is it currently
41 funded and managed?
42 c. Is an objective body with national oversight over port development needed? How
43 should the U.S. address the basic question of what numbers and kinds of ports the
44 nation needs?
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- 1 4. What type of taxes or fees are currently imposed on port users and how are the
2 proceeds used?
3
- 4 5. What is the best way to ensure that future port development has minimal and mitigatable
5 impacts on the environment, both natural and human?
 - 6 a. What are the environmental impacts and concerns of marine operations by
7 sector—commercial, recreational, freight/pax, fishing industry, etc?
 - 8 b. How can the impacts of port development, management, expansion,
9 rehabilitation, and ancillary activities on the surrounding coastal communities and
10 marine environments best be managed?
 - 11 c. What activities should the Federal government be prepared to take to implement
12 mandatory ballast water management? Should such activities be managed within
13 a regional or national context?
 - 14 d. What incentives should be made available to encourage ship builders, owners, and
15 operators to research, develop, and implement technologies that will meet national
16 and international standards to minimize the impact of biological and chemical
17 contamination occasioned by ballast water discharge?
 - 18 e. What best practices and management strategies exist today that can enable the
19 minimization of habitat loss due to onshore infrastructure development, dredging
20 of harbors and channels, and vessel and human activities?
 - 21 f. What protocols exist or can be put in place for beneficial uses of dredge spoil?
22 What financial incentives might be implemented?
 - 23 g. What steps are required to improve both vessel waste disposal and air quality
24 practices?
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- 26 6. What automated navigational and information systems will be needed for the future?
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1 **TOPIC 9: INVESTMENT AND FEDERAL GOVERNMENTAL ORGANIZATION**

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3 **Issues**

- 4 1. What options for Federal government structure may be required to carry out the
5 integrated recommendations of the Commission?
6 a. Is the current Congressional structure and Federal ocean agency structure suited
7 to current and projected needs of the nation?
8 b. Are agency missions articulated clearly to minimize duplication of effort and
9 optimize Federal effort, and are they being addressed adequately and in the way
10 envisioned by establishing authorities?
11 c. What governmental structure will enable meaningful cross-agency policy and
12 budgetary integration to take place?
13 i. What specific functions require high-level integration?
14 ii. What models can be considered to enable high-level, multi-agency policy
15 and budgetary integration?
16 iii. What authorities are necessary to ensure integration on a sustained basis?
17 iv. What approaches to regional coordination should be considered and how
18 are they implemented?
19
20 2. How can the Federal budget process, with respect to ocean and coastal programs,
21 integrate across multiple Federal agencies?
22 a. How may the U.S. government investment in ocean and coastal programs be
23 consistently and transparently expressed in a manner that best enables cross-
24 agency and multi-agency management and cooperation and best informs related
25 constituencies and the general public?
26 b. How should stakeholders be involved in the Federal budget planning process?
27 c. How should Federal agency budget requirements and priorities be set?
28 d. How can the budget process accommodate multi-year investment requirements?
29 e. What mechanisms will promote multi-agency funding of large projects?
30
31 3. What cost impacts are associated with implementing the Commission's
32 recommendations?
33 a. How will the proposed new expenditures be funded?
34 b. Are sources of funding other than general appropriations available?
35
36 4. How will a comprehensive oceans policy receive periodic review and adjustment in the
37 future?
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U.S. COMMISSION ON
OCEAN POLICY



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