

JUN 27 1973

COASTAL ZONE  
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FEDERAL INVOLVEMENT IN THE CALIFORNIA COASTAL ZONE:  
A Topical Index to Agency Responsibility

REVIEW DRAFT

Subject to Revisions

by  
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research supported by  
University of California - Sea Grant Program  
in conjunction with the project

A Framework for Identification and Control of Resource Degradation  
and Conflict in the Multiple Use of the Coastal Zone (R/CZ-1)

This work is a result of research sponsored by NOAA Office of Sea Grant,  
Department of Commerce, under Grant #USDC 2-35208 to the Institute of  
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Institute of Urban and Regional Development  
University of California, Berkeley

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1973

*University of Berkeley. Institut. for Urban & Regional Development.*

*SEA GRANT PROGRAM*

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## PREFACE

The primary purpose of this topical index is to facilitate the preparation and review of environmental impact statements on proposed coastal zone projects. The outline of federal agency responsibility to the coastal resources and their utilization should indicate: 1) which agencies should review a given impact because of their expertise or authority in the field; 2) the potential sources of data, information, and technical advise on specific impacts; 3) which impacts are not adequately covered by agency review; and 4) which impacts result in a duplication of effort among federal agencies. The compilation of this kind of directory is an ongoing process. Due to constant passage of new Federal legislation and the periodic reorganization of agencies, the index will have to be updated on a continuous basis.

The vast majority of the copy consists of direct quotes from printed material furnished by the concerned agencies. This practice was adopted in order to avoid any misconstruction of the nature or extent of agency responsibility. The use of direct quotes, however, results in a certain inconsistency in writing style and in some unevenness in degree of detail or emphasis due to the tremendous diversity among the different publications available. The further clarification and amplification of this material from agency response to this review draft should provide a more consistent and thorough coverage in subsequent editions.

The primary information sources consisted of agency public relations material, annual reports, research project reports, newsletters, and

interagency memorandums. In the course of this study, approximately two hundred documents were reviewed. Interviews, usually by telephone, were also used. In most cases the interviews were substantiated by mailings from which precise quotes could be taken.

General directory breakdowns of agency responsibility such as the U.S. Government Organization Manual or more focused directories such as The Federal Ocean Program, The Conservation Directory -- 1971, USC-Sea Grant Program's A Survey of Government Agencies, and The California Environmental Law Handbook were used principally as checklists.

Within each use or resource classification, agency involvement has been divided into four classifications:

- 'Administration and Advisory Services' -- These include the setting of standards, guidelines, etc., the issuance of permits and leases, the reviews of plans, permit grants, etc., the maintenance of data banks, and the providing of technical assistance.
- 'Implementation and Enforcement' -- This includes all prosecuting and monitoring duties.
- 'Functional Responsibilities' -- These encompass all physical activities such as construction or emergency ~~or emergency~~ response, the making of feasibility studies or major planning efforts, and the administration of federal funds for such projects.
- 'Research, Data Collection, and Mapping' -- This includes all exploratory investigations and the granting of federal financial assistance for such endeavors.

A topical index of California state agency involvement in the coastal zone, organized in the same format, is now in preparation and will be sent out for review March 1.

COASTAL CONDITIONS AND RESOURCES

WATER RESOURCES

## ADMINISTRATION AND ADVISORY SERVICES

Atomic Energy Commission

Sets radiological effluent and emission standards for nuclear power plants and other users of nuclear power.

Corps of Engineers

Issues permits for the discharge of industrial wastes into the navigable waters and their tributaries.

Environmental Protection Agency -- Office of Water Programs

Approves water quality standards for all coastal and interstate waters as established by the state.

Sets effluent guidelines for major types of industry.

Reviews and makes recommendations on all applications made to the Corps of Engineers for permits to discharge industrial waste into the navigable waters and their tributaries.

Sets performance standards for marine sanitation devices handling sewage from vessels.

Establishes recommended health standards for waters used for recreation and for shellfish growing, and for municipal drinking water supplies.

National Industrial Pollution Control Council

Develops and recommends program ideas to stimulate commerce and industrial interests to make pollution control commitments.

Office of Water Resources Research

Operates a water resources scientific information center on ongoing and completed research projects.

Atomic Energy CommissionEnvironmental Protection AgencyHealth, Education & Welfare

Work in conjunction to develop radiological standards for natural waters.

## IMPLEMENTATION AND ENFORCEMENT

Coast Guard

Protects the navigable waters from the dumping of refuse and the obstruction of navigation in the navigable waters and their tributaries.

Enforces standards for discharge of sewage from all vessels.

Coordinates all Federal efforts to identify and prosecute oil polluters in the high seas and coastal waters.

Corps of Engineers

Enforces laws pertaining to discharge of any kind of refuse matter (except municipal wastes) into navigable waters and their tributaries.

Environmental Protection Agency -- Office of Water Programs

Requires the state to prepare complete plans for the achievement and enforcement of desired levels of water quality.

May, in cases of violation, enforce water quality standards through procedures provided by the Water Quality Act or by initiating civil action under the Refuse Act, although enforcement is primarily the responsibility of the state.

Monitors industries according to the "letters of intent" for pollution abatement.

## FUNCTIONAL RESPONSIBILITY

Bureau of Sport Fisheries and Wildlife

reviews federal projects for deleterious effects on water quality as it relates to marine habitats.

Coast Guard

acts as the on-scene coordinator of federal efforts in reaction to oil spills on the high seas and coastal waters.

Corps of Engineers

performs feasibility studies of waste water management in urban areas.

Environmental Protection Agency-Office of Water Programs

acts as the on-scene coordinator of federal efforts in reaction to oil spills on the inland waterways.

administers federal funds to aid in the construction of new or improved municipal sewage treatment plants.

approves projects chosen by the State Water Resources Control Board for the Clean Water Grant Program.

## RESEARCH, DATA COLLECTION, AND MAPPING

Bureau of the Census

collects and tabulates data on expenditures for water quality made by federal, state, and selected local governments.

Bureau of Sport Fisheries and Wildlife

studies aspects of water quality as it effects marine habitats.

Coast Guard

conducts an expanded coastal water quality monitoring system.

Environmental Protection Agency-Office of Water Programs

supports research and demonstration projects for water pollution control with special reference to urban and industrial problems.

Geological Survey

determines the source quantity, quality, distribution, movement and availability of both surface and ground waters. This research includes the investigation of floods and shortage of water supply, their magnitude and frequency.

conducts basic research and areal investigations that define the causes and extent of contamination by undesirable waste products, including heat and natural constituents in surface and ground waters.

conducts research in the various aspects of the hydrologic cycle: drainage, runoff and watersheds; evaporation, meteorology and precipitation; ground water; soil water; lakes and reservoirs; as well as water quality.

makes special hydrologic studies of the inter-relationships between climate, topography, vegetation, soils and water supply.

maps offshore aquifers and studies the problem of sea water encroachment.

studies land subsidence caused by decrease of artesian head to better understand the physical and hydrologic properties of leaky compressible aquifer systems.

prepares and publishes maps and reports on water resources of federal lands.

has the responsibility for coordination of national network and special water-data acquisition activities and the maintenance of a central catalogue of water information for use by federal agencies and other interested parties.

Maritime Administration

develops treatment equipment and operational techniques to minimize waste discharges from commercial ships, and studies the feasibility of converting reserve ships for use as port waste treatment facilities.

National Science Foundation

reports on updated and summarized current knowledge concerning radioactivity in the world oceans.

National Ocean Survey

determines the flushing rates, tides, and other characteristics of estuaries and coastal areas which are significant in the control of water pollution.

studies the impact of deteriorating water quality on marine life and ocean monitoring instruments.

Navy

operates a water quality research program which includes major estuarine and coastal dynamics studies and modeling, determination of the changes in ocean background levels of major isotopes from nuclear power reactors ashore or past nuclear weapons tests, and determination of chemical pollutant effects at various concentration levels on marine algae.

researches or funds research on development of shipboard sanitary-waste treatment and disposal units.

maintains a data collection program to establish the extent of the Navy-related pollution problem and to generate a data-base that will permit assessment of measures which are to be taken to reduce the environmental impact.

Office of Water Resources Research

finances water resources research programs conducted by universities or private research firms.

Sea Grant Program (Environmental Data Service)

supports research on methods of pollution detection, the legal and economic aspects of pollution control and on means of waste disposal.

Soil Conservation Service

studies ways, through erosion control techniques, of reducing sediments in streams, lakes, rivers, etc.

Environmental Protection AgencyGeological Survey

cooperate in a joint data management system USGS/EPA STORET (storage and retrieval) for use in local management decisions.

OIL SPILLS

## ADMINISTRATION AND ADVISORY SERVICES

Environmental Protection Agency -- Office of Water Programs

provides technical advice relative to environmental control techniques, including the assessment of damages and environmental restoration.

approves the use of specific chemical dispersants and collectors.

Health, Education and Welfare

provides advice and assistance relative to those spills or potential spills which constitute or may constitute a threat to public health and safety.

Maritime Administration

provides information on the design, construction and operation of merchant ships, useful in determining the potential extent of a spill.

National Ocean Survey

provides maps and charts including tidal and current information for the areas in which a spill has occurred.

National Weather Service

provides information on meteorologic, hydrologic and oceanographic conditions in the area in which a spill has occurred.

National Oceanic and Atmospheric Association

provides general marine environmental data useful to oil spill clean up operations.

## IMPLEMENTATION AND ENFORCEMENT

Bureau of Customs

checks the oil records of commercial vessels to determine if oil pollution has occurred and reports discrepancies to the Coast Guard.

Coast Guard

enforces the laws concerned with spills, either through accident, deliberate actions (flushing bilges), or faulty (unsafe) construction.

determines the responsibility for a spill and what actions are necessary for its containment and clean up.

operates a monitoring system of sea lanes, etc.

Federal Maritime Commission

requires the owner, charterer or operator of every vessel over 300 gross tons to establish and maintain evidence of financial responsibility to meet the liabilities to the U.S. to which such vessel could be subjected for the cost of clean-up of oil it spills or discharges into the navigable waters of the U.S.

## FUNCTIONAL RESPONSIBILITIES

Coast Guard

heads the National Response Team in the event of a spill or potential spill in the navigable waters of the high seas and coast to assure effective and efficient implementation with optimum coordination among Federal agencies.

maintains 3 National Strike Forces (on the Pacific, Gulf, and Atlantic coasts) which are especially trained in pollution control and which can be mobilized in the event of an emergency.

assumes the cost of clean-up operations if no liability can be charged.

Environmental Protection Agency

heads the National Response Team assuring effective and efficient implementation with optimum coordination among Federal agencies in response to a spill or potential spill on the inland waterways.

Navy

provides disaster assistance in the event of collisions at sea or disabled ships and contributes to the oil clean-up operations.

Office of Emergency Preparedness

maintains a current awareness of oil spill incidents as they develop and, if the President declares the spill a major disaster, will provide coordination and direction of the Federal response in accordance with Office of Emergency Preparedness policies and procedures.

## RESEARCH, DATA COLLECTION AND MAPPING

Coast Guard

conducts research and develops methods and instruments for spill control in cases when such methods would constitute a prohibitive expense for private industry.

researches the feasibility of using remote-sensing techniques for detection of oil slicks.

Corps of Engineers

investigates techniques for combatting oil spills with absorbents, dredging equipment, and biological organisms.

Environmental Protection Agency

investigates equipment, techniques, and methods necessary to produce the best information for assessing damage to the marine environment.

develops improved techniques for restoration of sandy beaches, rocky shorelines, mural areas, and marshes, including optimum balance between extent of treatment and overall ecological impact.

develops and demonstrates new concepts for containment of oil slicks.

investigates means of extending the performance capabilities of several state-of-the-art oil/water separators and develops new separators.

applies existing and newly developed instrumental technology and related methodology to the characterization, identification, and quantification of petroleum oils and refined products in water, sediments, and biological tissues.

performs a state-of-the-art survey to determine current methods of leak detecting and limitations of these methods. EPA also studies and evaluates other potential techniques and methods, defines design limitations, and develops and demonstrates new techniques capable of detecting acute as well as chronic leaks.

studies methods to prevent spills of hazardous materials at production sites, transportation terminals, and storage facilities.

evaluates, under controlled field conditions and under actual spill conditions, methods to be developed and already developed to: control spills of hazardous materials on land, detect and monitor spills of hazardous materials, detoxify, destroy, recycle or immobilize recovered spilled hazardous materials, control spills of hazardous materials in water courses, accelerate restoration of watercourses contaminated with spilled hazardous materials.

develops acoustical methods to test the stability of earthen lagoons containing hazardous materials.

studies and defines the operating limitations of existing oil removal subsystems (pick up, pump and oil/water separation systems), establishes design goals for the subsystems, and demonstrates the capability of new and/or improved concepts to achieve design goals of oil skimming.

studies means of preventing offshore oil platform spills. To that end, it evaluates existing equipment in use, identifies and quantifies flow conditions and effluent characteristics, and increases reliability of platform operation equipment to decrease spill potential.

develops new techniques for the re-refining of waste oils into economically saleable products.

Navy

studies the problems of oil spills including research on oil/sea water interaction and interface phenomena, and a review of equipment, materials, and techniques currently available to naval ships.

Sea Grant Program (Environmental Data Service)

supports research programs on the impacts of oil spills on the marine environment, and on methods of spill detection and clean-up.

Coast Guard

Maritime Administration

Navy

cooperate in a program to develop reliable oil/water separators for use in public and commercial vessels.

FLOODING

## ADMINISTRATION AND ADVISORY SERVICES

Corps of Engineers

Establishes criteria to guide federal and local interests in flood plain usage and assists public agencies and local interests in flood-hazard reduction programs.

Federal Power Commission

Requires specific provisions for flood control at certain hydroelectric projects.

National Weather Service

Makes river forecasts including flow velocity forecasts, low flow and river stage forecasts plus flood warnings.

Soil Conservation Service

Provides technical and financial assistance in small watershed programs for watershed planning, resevoirs, dam construction and stream channel modification.

## RESEARCH, DATA COLLECTION, AND MAPPING

### Corps of Engineers

makes flood plain information studies and predicts flood occurrence of scale size floods (25, 50, 100 years).

### Geological Survey

studies three major categories of floods: measurement of stage and discharge, definition of the relation between the magnitude of floods and their frequency of occurrence, and delineation of the extent of inundation of flood plains by specific floods, or by floods having specific recurrence intervals.

### National Ocean Survey

does photogrammetric mapping, tidal surveys, and hydrological studies for coastal areas subject to tidal flooding or inundation. Processes, analyzes and compiles this information to produce coastal inundation maps that define the inshore limits of flooding, attendant reports describing the risk and frequency of flooding for U.S. tidal flood plains, and special purpose storm evacuation maps that depict critical elevations and evacuation routes away from the threatened coastal areas in times of natural disasters.

## FUNCTIONAL RESPONSIBILITIES

Bureau of Reclamation

constructs and operates a system of dams for the control of flood waters -- in conjunction with the State Department of Water Resources.

Coast Guard

participates in flood relief operations as part of its function of saving life and property in and around the navigable waters of the U.S.

Corps of Engineers

plans and constructs flood control projects to regulate flood flows. Projects include impoundments, reservoirs, levees, stream channelization, flood bypass systems and flood plain acquisition.

assists the State Department of Water Resources in emergency work consisting primarily of flood-fighting activities, repair of flood damaged structures, and stream snagging and cleaning operations.

National Weather Service

cooperates with the State Department of Water Resources in the operation of a Flood Forecasting and Operations Branch which predicts water flows and, with the assistance of the Army Corps of Engineers and the Bureau of Land Reclamation, controls the complex linkage of dams, reservoirs and overflow bypasses.

Soil Conservation Service

constructs flood control measures (impoundments and stream channelization) in small watersheds (no greater than 250,000 acres) in conjunction with the State Department of Water Resources.

OCEAN MOVEMENT DYNAMICS (TIDE, CURRENT & WAVE DYNAMICS)

## ADMINISTRATION AND ADVISORY SERVICES

National Ocean Survey

makes tide predictions and provides information used to generate storm surge and tsunami warnings for coastal communities.

provides tidal datum planes, tidal bench marks, hourly tidal height tabulations, monthly and yearly summaries of tidal heights, data on tidal current velocities and temperatures and salinity at coastal localities, tide predictions, and tidal current predictions and charts.

Navy

provides a wave forecast service.

RESEARCH, DATA COLLECTION, AND MAPPING

Bureau of Sport Fisheries and Wildlife

makes oceanographic studies in conjunction with its fisheries research.

Corps of Engineers

studies tidal action, flow of currents, mixing of salt and fresh waters and trends in sedimentary deposition in San Francisco Bay and the Sacramento -- San Joaquin Delta area.

cooperates with the State Department of Navigation and Oceanic Development on various coastal oceanographic studies.

Environmental Research Laboratories (Pacific Oceanographic Laboratory)

studies the propagation of internal waves generated by the interaction of surface tides and the Continental Shelf, their roles in ocean processes and their energy content and distribution.

studies ocean structure and motion, including the response of near surface ocean layers to wind and storm systems.

studies the dynamics of estuarine and nearshore circulation.

Geological Survey

conducts research on the various aspects of the hydrologic cycle including flow hydraulics and streams.

National Environmental Satellite Service

researches applications of remote sensing (from aircraft as well as satellite) including sea-state determinations, ocean circulation, upwelling, estuarine mixing, etc.

National Ocean Survey

operates a continuous control network of about 120 tide gages located along the coasts and within the major embayments of the U.S. to provide data for sea level monitoring and harmonic analysis used for engineering, legal, and geophysical processes and for tide prediction.

is developing an estuarine and coastal circulation program that extends traditional current surveys along with initiating estuarine flushing and nontidal current predictions; integrates estuarine and coastal circulation studies with remote sensing techniques; and coordinates estuarine studies with other interested agencies.

Navy

prepares sea and swell charts for major ocean areas of the world.

Sea Grant Program (Environmental Data Service)

supports oceanographical research on all aspects of ocean dynamics,  
including that of air-sea interface, internal waves, thermal  
convection, etc.

WEATHER

## ADMINISTRATION AND ADVISORY SERVICES

Coast Guard

provides meteorological data collected on ocean stations to the National Weather Service and to trans-oceanic ships and planes.

issues storm warnings and weather broadcasts.

National Weather Service

provides warnings of impending weather hazards including hurricanes, tornadoes and other severe local storms, floods, high winds, sea state and surface conditions and disseminates them through cooperation with commercial radio, T.V. and newspapers.

provides marine weather forecasts at six hour intervals.

provides broad aviation weather information over continuous broadcasts, including special recommendations for the recreational flyer.

makes river forecasts, including rainfall statistics and river stage and flood warnings.

Navy

makes daily weather bulletins as well as sea and ice forecasts.

provides wave, swell, and surf forecasts, warnings of significant atmospheric and oceanic conditions for ships at sea and in port.

FUNCTIONAL RESPONSIBILITY

Bureau of Reclamation

Conducts weather modification operations.

RESEARCH, DATA COLLECTION AND MAPPING

Air Force

Conducts weather modification research.

Bureau of Reclamation

Conducts weather modification research.

Environmental Data Services

Studies the effects of air pollution on the thermal state of the atmosphere and its relationship to climatic changes.

Operates a Reference Climatological Station Program which documents longterm global climatic trends.

National Environmental Satellite Service

Makes daily observations from satellites in cooperation with NASA. Observations include pictorial imagery of the coastal regions which provides information on weather and cloud cover.

Obtains nighttime cloud pictures and sea surface temperature charts from satellite and infrared observations.

National Weather Service

Collects weather data.

Researches improved methods for weather forecasting and monitoring.

AIR RESOURCES

## ADMINISTRATION AND ADVISORY SERVICES

Atomic Energy Commission

establishes radiological emission standards for nuclear power plants and other users of nuclear power.

Environmental Protection Agency -- Air Quality Control Office

establishes national ambient air quality standards specifying the maximum permissible levels of the principle and most widespread classes of pollutants.

establishes Federal emission standards for pollutants which, while not necessarily widespread, are exceptionally hazardous to human health.

establishes emission standards for new motor vehicles.

establishes emission standards for aircraft.

establishes emission standards for new or modified stationary sources of pollutants.

## IMPLEMENTATION AND ENFORCEMENT

Coast Guard

enforces vessel emission standards.

Environmental Protection Agency -- Air Quality Control Office

enforces federal standards for pollutants especially those hazardous to human health.

approves State implementation plans for the enforcement of the standards established by EPA.

enforces performance standards limiting emissions from new or modified stationary sources of pollutants.

may develop and/or carry out implementation plans if the State fails to do so.

enforces emission standards for new motor vehicles.

may regulate or prohibit the manufacture or sale of fuels or fuel additives that result in harmful emissions or interfere with motor vehicle pollution control devices.

Federal Aviation Administration

enforces aircraft emission standards.

National Industrial Pollution Control Council

develops and recommends program ideas to stimulate commercial and industrial interests in air pollution control.

## RESEARCH, DATA COLLECTION AND MAPPING

Bureau of the Census

researches and reports on expenditures for air quality by federal, state and select local governments.

Environmental Data Services

studies the effects of air pollution on the thermal state of the atmosphere and its relationship to climatic conditions.

Environmental Protection Agency -- Air Quality Control Office

conducts research and operates demonstration plants dealing with all aspects of air pollution.

makes financial grants to state, interstate and local agencies to aid their air pollution control programs.

makes financial grants for research and demonstration projects dealing with all aspects of air pollution.

Forest Service

studies the effects of air pollution on vegetation.

Health, Education and Welfare

studies the health aspects of air pollution.

Navy

maintains a data collection program to establish the extent of the Navy-related pollution problem and to generate a data-base that will permit assessment of measures which are to be taken to reduce the environmental impact.

SONIC QUALITY

ADMINISTRATION AND ADVISORY SERVICES

Environmental Protection Agency -- Office of Noise Abatement and Control

sets noise emission standards for interstate motor carriers (mostly buses and trucks) -- by 7/73 and for other noise makers that move in interstate commerce (e.g., everything from cars and motorcycles to construction equipment and household appliances) -- by early '74.

RESEARCH, DATA COLLECTION AND MAPPING

Health, Education and Welfare

studies the effects of noise pollution upon human health.

Housing and Urban Development

studies the effects of noise pollution on residential populations.

Navy

maintains a data gathering program to establish the extent of the Navy-related pollution problems and to generate a database that will permit assessment of measures which are to be taken to reduce the environmental impact.

RADIATION

## ADMINISTRATION AND ADVISORY SERVICES

Atomic Energy Commission

issues construction permits for the building of nuclear facilities such as power reactors, fuel processors, etc.

reviews all construction plans and may require major design changes to meet the standards before it issues the construction permit.

issues operating licences, revokable whenever such facilities fail to meet emission and effluent radiation standards.

sets radiological emission and effluent standards for nuclear power plants and other users of nuclear power.

may issue licences for ocean dumping of radioactive materials.

provides safety guides and general suggestions on how to meet the required standards.

Environmental Protection Agency -- Office of Radiation

sets generally applicable human radiation exposure from all sources.

Atomic Energy Commission  
Environmental Protection Agency  
Health, Education and Welfare

cooperate on reviewing existing radiation standards.

IMPLEMENTATION AND ENFORCEMENT

Atomic Energy Commission

enforces the radiation standards for radioactive materials and nuclear facilities as set by AEC and EPA.

Environmental Protection Agency -- Office of Radiation

reviews all proposals of the AEC which involve the siting, construction and operation of nuclear facilities.

## FUNCTIONAL RESPONSIBILITIES

Geological Survey

reviews the geologic and hydrologic aspects of licence applications to the U.S. Atomic Energy Commission for nuclear facilities such as power reactors, fuel processing plants and solid waste burial grounds.

## RESEARCH, DATA COLLECTION AND MAPPING

Atomic Energy Commission

researches new technologies and methods of using atomic energy;  
safety control, and the environmental impacts of radiation.

Environmental Protection Agency -- Office of Radiation

conducts research on the health impact of radiation from all sources  
and monitors radiation in the environment.

GEOLOGY & TOPOGRAPHY

FUNCTIONAL RESPONSIBILITIES

Geological Survey

Reviews the geologic feasibility of potential nuclear power plants.

## RESEARCH, DATA COLLECTION AND MAPPING

Bureau of Sport Fisheries and Wildlife

Makes topographic surveys, including property boundaries, subdivision lines, etc.

Corps of Engineers

Makes special studies of major geologic problems in connection with other corps projects -- e.g., a study of the landslide problem in the Pacific Palisades area.

Environmental Research Laboratories (Pacific Oceanographic Laboratory)

Studies the ocean basins with emphasis on delineation and description of the Pacific system of crustal plates.

Geological Survey

Maintains a major research effort directed toward a precise study of the distribution in space and time of earthquakes at selected localities.

Evaluates the geologic hazards adjacent to populated coastal zones and investigates the origin and geologic processes of the continental margin.

Makes topographic surveys of all coastal areas.

Maps the recent active faults along the coast.

Studies the geology of onshore marine terraces.

Studies the development of sedimentary structure within the surf zone.

Maps the nearshore consolidated sediments and mineral concentrations.

Studies the geophysical properties of offshore sediments and bedrock.

Maps offshore sand and gravel sites.

Studies areas of offshore petroleum reserves.

Administers an exploration program for the discovery of domestic mineral resources by private industry with Federal assistance.

Administers the Earth Resources Observation Systems (EROS) program in cooperation with the National Aeronautics and Space Administration to investigate the applications of remote sensing to earth resources inventory and management.

maps the Outer Continental Shelf and Slope in detail, including bathometric profiling.

maps offshore aquifers.

Marine Minerals Technology Center

detects different types of marine mineral deposits.

National Ocean Survey

maps depths, shorelines and other navigationally important features.

operates the CONSHELF program to study the geophysical characteristics of the U.S. continental shelf and slope in order to satisfy the federal government's responsibility to assist economic enhancement, contribute to preservation of the marine environment, aid in implementing plans for controlling and eliminating pollution, and define national policy for the effective overall management of coastal areas.

Coast Guard Auxiliary

National Oceanic and Atmospheric Administration  
Power Squadron

cooperate in a charting program to obtain volunteer citizen aid in maintaining up to date charts.

SOILS

ADMINISTRATION AND ADVISORY SERVICES

Soil Conservation Service

develops detailed information, standards, and specifications for erosion control projects for local conditions.

offers technical advice on erosion control measures, both mechanical (e.g., grading, terracing, etc.) and vegetative.

## FUNCTIONAL RESPONSIBILITIES

Agricultural Stabilization and Conservation Service

provides financial assistance on a cost-sharing basis for erosion control and conservation practices, including channel clearance, streambank or shore protection, erosion control dams, grading, etc.

Bureau of Land ManagementCorps of EngineersForest Service

cooperate with local fire agencies and the State Division of Forestry on emergency seeding to control soil erosions after forest fires.

## RESEARCH, DATA COLLECTION AND MAPPING

Geological Survey

investigates soils in relation to landslides, shrink-swell potential, etc. as part of its geologic hazards studies.

studies the geologic damage caused by poor logging practices -- erosion rates, sediment transport, etc.

makes special hydrologic studies of the interrelationship between climate, topography, vegetation, water supply and soils.

Office of Water Resources Research

funds water resources research with soil erosion control designated as a high priority study area.

Sea Grant Program (Environmental Data Service)

supports research on underwater soils.

Soil Conservation Service

makes soil surveys of the coastal areas. These include soils maps, descriptions and interpretations which point out the hazards and limitations of using the soils for different purposes.

makes studies of soil characteristics such as permeability and ability to absorb septic tank wastes.

SHORE EROSION

ADMINISTRATION AND ADVISORY SERVICES

Corps of Engineers

develops guidelines for land use regulations in coastal areas to avoid beach erosion problems.

makes preliminary cost estimates and recommends priorities for remedial actions among serious beach erosion problem areas.

FUNCTIONAL DUTIES

Corps of Engineers

constructs or finances shore protection and beach restoration projects.

RESEARCH, DATA COLLECTION AND MAPPING

Agricultural Stabilization and Conservation Service

does research on plant succession in connection with its dune stabilization activities.

Corps of Engineers

maintains a Coastal Engineering Research Center to study the causes of beach erosion, identify serious erosion problem areas, and describe generally suitable remedial actions.

studies the shore configuration and probable impact resulting in erosion or accretion of the shoreline within a distance of at least 10 miles on either side of proposed improvements to the mouth of any river or inlet.

Geological Survey

conducts research on erosion, sedimentation and sediments.

National Ocean Survey

does synoptic surveys which provide important and detailed information for studies on silting and beach erosion.

Sea Grant Program (Environmental Data Services)

supports research on coastline stability, sedimentation patterns, etc.

Corps of Engineers

Geological Survey

California Department of Navigation and Ocean Development

cooperate in shoreline and hydrographic surveys and research littoral sand movement and sand bypassing.

OIL AND GAS DEPOSITS

RESEARCH, DATA COLLECTION, AND MAPPING

Geological Survey

Studies areas of potential petroleum reserves and prepares detailed maps of such areas.

Administers an exploration program for the discovery of domestic mineral resources by private industry with federal assistance.

Marine Minerals Technology Center

Details different types of marine mineral deposits including oil and gas.

National Ocean Survey

Maintains a bathymetric mapping program which provides base for economic and scientific exploration and development of the Continental Shelf.

MINERALS

## RESEARCH, DATA COLLECTION, AND MAPPING

Bureau of the Census

Collects and reports statistical information on the sand and gravel industry.

Geological Survey

Investigates the origin, occurrence, distribution of mineral raw materials in nature.

Makes mineral surveys of areas under consideration for inclusion in the National Wilderness Preservation System.

Makes investigations pertaining to the evaluation of the known and potential mineral resources of the continental margins.

Maps offshore sand and gravel sites.

Marine Minerals Technology Center

Makes special studies on the effects of marine mining on the marine environment, e.g., a prediction of sedimentary disturbances.

Sea Grant Program (Environmental Data Service)

Supports research on new methods of sea floor mineral exploration and extraction.

FISH AND MARINE WILDLIFE

ADMINISTRATION AND ADVISORY SERVICES

Bureau of Outdoor Recreation

participates directly in the planning, coordination and establishment of uniform policies related to fish and wildlife benefits of Federal multi-purpose water projects.

Bureau of Sport Fisheries and Wildlife

offers technical assistance to other Federal agencies including the National Park Service, and cooperates with the State Department of Fish and Game.

Environmental Protection Agency -- Office of Water Programs

assesses the physical and biological damage and environmental restoration needed in the event of an oil spill.

National Weather Service

makes forecasts of fish abundance as part of its Marine Environmental Prediction (MAREP) Program in cooperation with other Federal agencies.

## IMPLEMENTATION AND ENFORCEMENT

Bureau of Sport Fisheries and Wildlife

enforces the various Federal statutes and regulations enacted for the protection and conservation of fish, marine mammals, and marine birds.

Coast GuardNational Marine Fisheries Service

cooperate on surveillance and enforcement patrols to ensure the effectiveness of negotiated international controls.

FUNCTIONAL RESPONSIBILITIES

Bureau of Sport Fisheries and Wildlife

operates a fish hatcheries program to supply fish for stocking waters primarily under federal control and to propagate species that are in danger of extinction, difficult to rear, or vital to interstate or international fishery programs.

reviews all Federal water use projects and those of public and private agencies with Federal permits to determine the effects of their developments on fish and wildlife resources and makes recommendations on measures for the prevention of losses and damages to those resources.

provides Federal funds to the state for its fishery and wildlife restoration projects.

## RESEARCH, DATA COLLECTION, AND MAPPING

Bureau of Sport Fisheries and Wildlife

conducts research on all aspects of marine wildlife including disease studies, nutritional research on hatchery-raised fish, and studies of stream stocking.

makes stream surveys to determine the condition of fish populations.

studies migrations, movements, food habits and sport harvest data of selected fish species.

National Marine Fisheries Service

studies the distribution, abundance and migration of marine animals with particular emphasis on the important resources of each region, e.g., Pacific salmon, anadromous fish, big game fish, fur seals, etc.

makes special studies of marine animal diseases, develops serological techniques to identify fish populations, investigates means to control shellfish predators and studies the effects of pesticides on the marine life of estuaries.

Sea Grant Program (Environmental Data Service)

supports research for marine ecosystems aquaculture and living resources other than aquaculture which all bear directly on fish and marine wildlife.

Bureau of Sport Fisheries and WildlifeNational Marine Fisheries Service

cooperate on studies of artificial reefs.

Bureau of Sport Fisheries and WildlifeCorps of EngineersNational Marine Fisheries Service

cooperate on studies for the development of efficient fish passage devices, spawning area replacements and fish behavior and mortality.

COASTLAND BIOTA

## ADMINISTRATION AND ADVISORY SERVICES

Bureau of Outdoor Recreation

participates directly in the planning, coordination and establishment of uniform policies relating to fish and wildlife benefits of federal multipurpose water resource projects.

reviews all transportation projects and programs for possible adverse effects on wildlife and waterfowl refuges.

Bureau of Sport Fisheries and Wildlife

investigates wildlife problems in the National Forests, the National Parks and other public lands used for public recreation.

assists the State Department of Fish and Game in studies of the suitability of introducing certain game birds and animals into areas that are deficient in game.

assists in wildlife extension programs.

IMPLEMENTATION AND ENFORCEMENT

Bureau of Sport Fisheries and Wildlife

enforces the various federal statutes and regulations, enacted for the protection and conservation of mammals, including bag limits.

## FUNCTIONAL RESPONSIBILITIES

Bureau of Sport Fisheries and Wildlife

establishes and maintains natural wildlife refuges to protect indigenous and endangered wildlife and to safeguard adequate segments of habitat needed to perpetuate them.

gives federal funds to the State to assist its fishery and wildlife restoration projects.

does animal control work to control the depredations and interference of predatory animals and injurious rodents.

reviews all federal water use projects and those of public and private agencies under federal permit to determine the effects of the developments on fish and wildlife resources and to recommend measures for the prevention of losses and damages to those resources.

RESEARCH, DATA COLLECTION AND MAPPING

Bureau of Sport Fisheries and Wildlife

conducts investigations on resident game animals, non-game birds,  
rodents, and other animals.

MIGRATORY WATERFOWL

ADMINISTRATION AND ADVISORY SERVICES

Bureau of Outdoor Recreation

Reviews all transportation programs and projects for possible adverse effects a wildlife refuges.

Bureau of Sport Fisheries and Wildlife

Makes recommendations to the Secretary of the Interior on the necessary amendments to the regulations for the hunting of migratory waterfowl, including length of seasons, bag and possession limits, and shooting hours.

Promotes the conservation of wetlands with specific emphasis on those vital to waterfowl production through the review of all programs of federal agencies and those of other agencies concerned with water and related land use.

Migratory Bird Conservation Commission

Considers and passes upon areas necessary for the conservation of migratory birds which have been recommended by the Secretary of the Interior for purchase or lease by the DOI; Also fixes the price at which those areas may be purchased.

Office of Coastal Zone Management

Makes grants to coastal states for up to 50% of the costs of acquisition, development and operation of estuarine sanctuaries for the purpose of creating natural field study laboratories to gather data and makes studies of the natural and human processes occurring within the estuaries of the coastal zone.

IMPLEMENTATION AND ENFORCEMENT

Bureau of Sport Fisheries and Wildlife

Enforces the various Federal statutes and regulations for the protection and conservation of wild birds, especially those migrating from Mexico and Canada.

FUNCTIONAL RESPONSIBILITIES

Agricultural Stabilization and Conservation Service

Administers the funds for the National Water Bank Programs for the preservation and improvement of freshwater wetlands important to the migratory bird flyways.

Bureau of Sport Fisheries and Wildlife

Establishes and maintains national wildlife refuges to protect migratory birds and safeguard adequate segments of habitat needed to perpetuate them, e.g., propagation of important emergent water-fowl foods.

Bureau of Sport Fisheries and Wildlife  
Migratory Bird Conservation Commission

Cooperate in activities related to land appraised, acquisition and management.

RESEARCH, DATA COLLECTION, AND MAPPING

Bureau of Sport Fisheries and Wildlife

Makes mid-winter inventories of migratory game birds and nesting ground surveys of waterfowl, band birds, and investigates damage to agricultural crops by injurious waterfowl.

Makes annual surveys of breeding populations and production to establish changes in the relative size of fall flights from each breeding ground in reference to the different flyways, including the Pacific Flyway.

WETLANDS

ADMINISTRATION AND ADVISORY SERVICES

Bureau of Sport Fisheries and Wildlife

Follows a concentrated program of wetland acquisition within the National Wildlife Refuge System.

Reviews and makes recommendations on the programs of Federal agencies concerned with water and related land use an effort to protect the wetlands.

Recommends to the Agricultural Stabilization and Conservation Service areas which it considers eligible for acquisition under the National Water Bank Program.

Migratory Bird Conservation Commission

Considers and passes upon areas necessary for the conservation of migratory birds as recommended by the Secretary of the Interior for purchase by the DOI; and fixes the price at which these areas may be purchased.

Office of Coastal Zone Management (NOAA)

Makes grants to coastal states for up to 50% of the costs of acquisition, development and operation of estuarine sanctuaries for the purpose of creating natural field study laboratories to gather data and make studies of the natural and human processes occurring within the estuaries of the coastal zone.

Bureau of Sport Fisheries and Wildlife

Migratory Bird Conservation Commission

Cooperate on activities related to kind appraisal acquisition and management.

FUNCTIONAL RESPONSIBILITIES

Agricultural Stabilization and Conservation Service

administers the funds for the National Water Bank Program for the preservation and improvement of fresh water wetlands important to the migratory bird flyways.

Bureau of Sport Fisheries and Wildlife

maintains a management program to reduce wetland degradation.

National Ocean Survey

plans to broaden its photogrammetric mapping program to include the coastal zone wetlands.

MARINE RESEARCH

## ADMINISTRATION AND ADVISORY SERVICES

Department of State -- Office of the Coordinator of Ocean Affairs

advises the Department of State on matters related to the formulation of U.S. policy in international ocean affairs, including U.S. participation in multilateral research programs.

National Oceanic and Atmospheric Administration

acts as Federal Coordinator of the MAREP (Marine Environmental Prediction) Program which groups all the federal observational and predictive efforts in marine research and which identifies the systems approach to present and projected services.

operates a broad Marine Advisory Service, focused in the Office of Sea Grant, to insure solid contacts at the state and local levels and the special abilities of NOAA's major elements, e.g. Environmental Data Services, National Ocean Survey, National Weather Service, etc.

National Oceanographic Data Center

provides oceanographic data, summaries, information, publications, archiving, and analysis services both nationally and internationally to federal, state, and scientific organizations, industry, and the public.

Sea Grant Program (Environmental Data Services)

emphasizes advisory services aspects of its programs, primarily in the form of industrial workshops, advisory bulletins and training of marine-oriented extension agents.

FUNCTIONAL RESPONSIBILITIES

National Science Foundation

maintains an Office for Oceanographic Facilities and Support (OFS)  
to provide support for large and expensive oceanographic facilities  
which are appropriate for shared usage in accordance with the  
demonstrated needs of the total academic oceanographic community.

## RESEARCH, DATA COLLECTION AND MAPPING

Coast Guard

assists with ships and personnel in other federal agencies' research projects.

Data Buoy Center (NOAA)

is developing a prototype system of buoys for the automatic collection of marine data.

Environmental Data Service

maintains a program of observation and research for baseline information needed to assess man-induced and natural modification of the marine environment.

National Aeronautics and Space Administration

provides spectroradiometer data from its airborne instruments which have been used to identify sewage, chlorophyll concentrations, red tides, and certain pollutants. Automated processing techniques have been developed for objective color mapping.

National Environmental Satellite Service

researches applications of remote sensing (from aircraft as well as satellites) in the coastal zone and major estuaries, including studies of sea surface temperature and ocean color, sea-state determination, fishery environment assessment, ocean circulation upwelling, estuarine mixing, etc.

provides contract and grant support for wide range of research activities by universities, industrial groups and other government agencies..

National Marine Fisheries Service

studies physical and chemical oceanography as well as the biological productivity of the waters and the distribution, abundance, and migration of aquatic animals.

National Ocean Survey

makes nautical charts and bathmetric mappings of coastal areas.

conducts hydrographic and coastal photogrammetric surveys, planimetric mappings and control surveys.

studies currents, salinity and temperature of offshore waters.

through cooperation with other federal agencies (including The National Marine Fisheries Service, The Environmental Data Service, and Environmental Protection Agency), state agencies and the academic community, develops a prototype marine data bank including, oceanographic station data, salinity-temperature-depth data, surface current information, biological data, and bottom sample information.

functions as a general depository for worldwide oceanographic data collected by U.S. ships.

operates a photogrammetric mapping program which has been broadened to include Synoptic Tidal Current Surveys, Coastal Inundation Mapping, Storm Evacuation Mapping and Coastal Zone Boundary Surveys. A Coastal Zone Wetlands Mapping program is also planned.

#### National Oceanic and Atmospheric Administration

maintains a Manned Undersea Science and Technology (MUST&T) Office to strengthen the national base for the pursuit of a nonmilitary manned undersea program. The Office maintains close liaison with the Navy to insure beneficial transfer of technology and hardware from military to civil applications.

operates the MARMAP (Marine Resources Monitoring, Assessment, and Prediction) program which seeks to define the living resources of the oceans and guide their effective management.

#### National Oceanographic Data Center

provides computer-related services such as mathematical analyses and programming for assistance in the establishment, maintenance and retrieval from the national marine data base and information systems.

develops and implements data and information systems from initial concept to operational status, formulates data base configurations, and develops data products to improve services.

has established a coastal zone data file due to national attention on pollution problems.

#### National Oceanographic Instrumentation Center

tests and evaluates new instruments for oceanographic research.

#### National Science Foundation

funds a wide diversity of research projects in marine and coastal areas.

#### Navy

experiments continually on equipment and means for extended deep ocean research and living.

does research in manned undersea observation and exploration and develops the instruments to facilitate this research.

researches the effects of deep ocean submergence on an everwidening body of substances and materials.

studies the various aspects and problems of seafloor foundation systems for seafloor installations. These include seafloor sediment stabilization and density, etc.

studies the relation between the acoustic and physical properties of marine sediments.

is developing a precision ocean floor mapping system for both topographic and geologic maps.

operates a contract research program, carried out primarily through academic institutions, to develop remote-sensing reconnaissance methods, two- and three-dimensional simulation of rivermouth processes, etc.

operates an automated oceanographic data acquisition system.

maintains research projects aimed at the development of deep ocean power sources and studies underwater acoustic energy transmission.

#### Office of Saline Water

researches possible effects of saline water conversion processes on land, air, water and mineral resources.

studies the engineering aspects of salt water intake systems, including investigations of sea water properties and oceanographic principles.

#### Sea Grant Program (Environmental Data Service)

provides federal financial assistance to institutions for research in the development, conservation and use of the marine environment and its resources.

#### Environmental Data Service Environmental Protection Agency

cooperate on a pilot project to combine EPA research information and monitoring data with EDS data inventories and bibliographic reference in a single "browse-oriented" information retrieval system.

#### National Science Foundation Navy

cooperate in the University-National Oceanographic Laboratory System (UNOLS) to improve federal-academic utilization of marine research ships and shore facilities.

COASTAL RESOURCE USES

WATER SUPPLY

## ADMINISTRATION and ADVISORY SERVICES

Environmental Protection Agency-Office of Water Programs

Establishes recommended health standards for municipal drinking water supplies.

Investigates and makes recommendations as to the need for and value of water supply storage in proposed federal resevoirs when requested by a federal construction agency.

Geological Survey

Delineates and preserves potential public-land resevoir and water-power sites.

National Water Commission

Advises an specific water resource matters referred to it by the Water Resources Council.

Considers ways of meeting the country's water needs in the future.

National Weather Service

Makes and issues river forecasts which include water supply forecasts.

Office of Water Resources Research

Operates a water resources scientific information center on ongoing and completed research projects.

Soil Conservation Service

Provides technical and financial assistances in building dams and reseviors in small watershed projects for flood control and water supply.

Makes snow surveys and water supply forecasts.

Water Resources Council

Coordinates and reviews all river basin and regional plans and programs prepared by federal or state interests.

Establishes principles, standards and procedures for federal participants in the preparations of plans and in the formulation and evaluation of federal water and related land projects.

Coordinates the water and related land resources planning policies and programs of 12 federal agencies.

Establishes and assists river basin commissions, interagency committees, and coordinating groups.

## FUNCTIONAL RESPONSIBILITIES

Bureau of Reclamation

Studies the feasibility of off shore pipe lines for water transport.

Corps of Engineers

Plans and constructs impoundments for water supply reservoirs.

Economic Development Administration

Provides federal grants for water resource development.

Provides federal grants for the construction of sewage treatment plants.

Hud-Community Resources Development Administration

Makes grants to finance specific projects for basic public water and sewer facilities.

Office of Saline Water

Works in conjunction with the State Department of Water Resources on feasibility studies of desalination as an alternative to intra-regional diversion of existing fresh water supplies.

Water Resources Council

Administers federal financial grants to the state for water and related resources planning.

## RESEARCH, DATA COLLECTION, MAPPING

Bureau of the Census

Makes special studies of population districts to analyze population growth in relation to water locations -- coasts, rivers, lakes, etc.

Corps of Engineers

Conducts research on regionwide urban waste water disposal and reclamation systems.

Office of Saline Water

Develops low cost means for producing water of a quality suitable for municipal, industrial, agricultural and other beneficial uses from sea water, brackish water, and other substandard waters.

Office of Water Resources Research

Funds water resource research programs.

Soil Conservation Service

Makes snow surveys for prediction of water supplies.

Water Resources Council

Studies and prepares a national water assessment of adequacy of supply to meet the water requirements in each water resource region.

DESALINIZATION

FUNCTIONAL RESPONSIBILITIES

Office of Saline Water

Works with the State Department of Water Resources on feasibility studies for desalinization plants as an alternative to intra-regional diversion.

## RESEARCH, DATA COLLECTION, MAPPING

Office of Saline Water

Conducts research and technical development work, with primary emphasis in the distillation, reverse osmosis and freezing process areas.

Makes engineering studies to ascertain the most economic means of operation and to determine the best plant designs and conditions of operation.

Researches the possible effects of saline water conversion processes on land, air, water and mineral resources, including the problems of brine disposal, mineral recovery, and the use of geothermal brines.

Maintains research and development test beds, including one in San Diego.

Studies the engineering aspects of salt water intake systems (lagoon, pipe and shore) which involve an investigation of sea water properties, oceanographic principles, fouling, boning control and trash removal

Develops new or improved conversion processes through research grants and contracts.

Office of Water Resources Research

Conducts special studies on desalination techniques at its California Water Resources Research Center.

HIGHWAYS AND BRIDGES

ADMINISTRATION AND ADVISORY SERVICES

Bureau of Outdoor Recreation

reviews all transportation projects and programs for possible adverse effects on wildlife and water fowl refuges, and recreational facilities.

Coast Guard

establishes criteria for the locating clearance and lighting of bridges above the navigable waters of the U.S.

Federal Highway Administration

sets National Highway standards for highway and bridge construction.

Geological Survey

provides geologic maps and information on request from federal agencies for highway construction.

Soil Conservation Service

prepares soil surveys used in road design and layout.

advises and provides guidelines for controlling erosion on highways, subdivisions and shopping centers.

provides technical assistance in selecting plant varieties, seeding methods, rates, and cultural-technical practices to establish trees or grass along highways.

IMPLEMENTATION AND ENFORCEMENT

Coast Guard

regulates the alteration of obstructing bridges above the navigable waters of the U.S.

approves the location of bridges over navigable waterways.

FUNCTIONAL RESPONSIBILITIES

Federal Highway Administration

provides federal assistance (up to 90%) to the State Highway Department for the construction of Interstate, State, and local highways and bridges.

provides federal grants for the construction of highways in the National Forests and other public lands.

RESEARCH, DATA COLLECTION AND MAPPING

Corps of Engineers

makes special studies of the advantages and disadvantages of bridge construction in specific situations, e.g., across SF Bay.

Federal Highway Administration

conducts research on bridge and highway design, and new techniques of bridge and highway construction.

NAVIGATION AND COMMUNICATION

## ADMINISTRATION AND ADVISORY SERVICES

Corps of Engineers

issues permits for structures or operations in navigable waters.

establishes danger zones, dumping grounds, restricted areas, and fishing areas.

Federal Communications Commission

issues permits to private companies for the location of communication facilities.

issues permits to utilities for maritime radio-telephone services.

National Ocean Survey

provides nautical charts and a series of U.S. Coast Pilots, books containing nautical information which cannot be graphically represented, including navigational regulations, pilotage and port facilities.

National Weather Service

makes water condition and river forecasts including wave conditions, flow velocity and low flow forecasts and flood hazard forecasts.

provides a marine weather forecast service.

Navy

makes daily weather bulletins and sea and ice forecasts used in commercial shipping.

NAVIGATION AND COMMUNICATION

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provides a marine weather forecast service.

Navy

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IMPLEMENTATION AND ENFORCEMENT

Coast Guard

is responsible for safety and law enforcement on the navigable waters, including the enforcement of the Rules of the Road, proper marking and federal law on the high seas.

regulates the marking and lighting of all fixed structures and artificial islands in navigable waters.

protects the navigable waters from the dumping of refuse and obstructions to navigation.

## FUNCTIONAL RESPONSIBILITIES

Coast Guard

establishes and maintains aids to navigation including lighthouses, a uniform state waterway marking system, and long- and short-range electronic aids (LORAN & RATAN) which provide navigational information to ships and aircraft.

marks wrecks and removes hazards to navigation.

Corps of Engineers

plans, constructs, and maintains channels and anchorages to accommodate both deep- and shallow-draft shipping, harbors of refuge for small craft, and breakwaters and jetties to provide protection against wave action.

removes sunken vessels, floating debris and other obstructions endangering navigation.

National Ocean Survey

investigates reported hazards to navigation.

National Weather Service

constructs its weather data collection centers.

Air Force, Army, Navy

construct their own communication stations.

RESEARCH, DATA COLLECTION, AND MAPPING

Coast Guard

conducts research on new navigational and communication aids.

Navy

studies underwater acoustic energy transmission.

SHIPPING

ADMINISTRATION AND ADVISORY SERVICES

Corps of Engineers

Establishes danger zones, dumping grounds, restricted areas, fishing areas.

Federal Maritime Administration

Requires evidence of financial responsibility of every vessel over 300 gross tons to meet the costs of clean up of oil spilled or discharged into or upon the navigable waters.

Merchant Marine Council

Advises the Commandant of the Coast Guard on the need for putting maritime and navigational statutes into effect.

National Ocean Survey

Provides nautical charts and a series of U.S. Coast Pilots books covering nautical information which cannot be graphically represented, including navigational regulations, pilotage and port facilities.

Acts as the liason between the maritime industry and international bodies.

Navy

Makes daily weather bulletins and sea and ice forecasts used in commercial shipping.

## IMPLEMENTATION AND ENFORCEMENT

### Atomic Energy Commission

Inspects all nuclear powered vessels for safety and compliance with established raquiation standards.

### Coast Guard

Regulates the discharge of all vessel wastes.

Is responsible for merchant marine safety which entails: inspection and regulation of vessels, approval of construction, investigation and review of marine casualties and acts of incompetancy or misconduct, and measurement and documentation of all vessels.

Supervises the loading and unloading of explosives and other dangerous cargoes.

Controls anchorage and movement of merchant vessels within the navigable waters of the country.

Regulates the marking and lighting of vessels in navigable waters.

Is responsible for safety and law enforcement on the navigable waters, including the enforcement of the rules of the road, proper marking federal law on the high seas.

Is authorized to take complete control of every action of a ship within the navigable water of certain ports -- including establishing its maximum speed limit, according to weather and marine conditions.

### Corps of Engineers

Administers the laws pertaining to the discharge of any kind of refuse matter into navigable waters or their tributaries.

Approves the plans and sites for dams and dikes.

### Federal Maritime Administration

Regulates domestic ocean commerce (rates, charges, classifications & practices) and surveys foreign commerce.

## FUNCTIONAL RESPONSIBILITIES

### Coast Guard

is responsible for coordinating and assisting in search and rescue operations at sea and along the coast.

inspects and registers all small boats in compliance with required safety measures.

### Corps of Engineers

plans, constructs and maintains channels and anchorage to accommodate both deep- and shallow-draft shipping, harbors to provide refuge for small craft, and breakwaters and jetties to provide protection against wave action.

### Maritime Administration

insures commercial loans and mortgages for the construction or reconstruction of vessels designed principally for research or for commercial use in the domestic or foreign trade of the United States.

provides operating-differential subsidies to operators to place United States vessels engaged in international trade on a parity with those of foreign competitors.

assists established shipping companies to modernize and convert their break-bulk fleets for containerized service.

### Navy

maintains a U.S. flag merchant fleet for Department of Defense sealift cargoes.

provides disaster assistance in the event of collisions at sea or disabled ships.

## RESEARCH, DATA COLLECTION, AND MAPPING

### Bureau of The Census

makes a monthly statistical tabulation of waterborne general imports and exports and of in-and outbound intransit shipments with a special tabulation of selected commodities.

### Coast Guard

works toward improved ship design and construction standards to prevent disastrous collisions, groundings and pollution from tanker spills. It is also developing all-weather harbor approach and harbor navigation systems.

### Corps of Engineers

collects and compiles annual statistics on commercial cargoes and passengers handled by coastal and inland ports.

makes special studies on major ports -- e.g., a study of the San Francisco Bay Area's contribution to the waterborne commerce of the region and the Pacific Coast.

### Maritime Administration

operates a research and development program to assist in rejuvenating the U.S. merchant marine through technological innovations in ships and ship operations.

develops treatment equipment and operational techniques to minimize waste discharges from commercial ships, and is studying the feasibility of converting reserve ships for use as port waste treatment facilities.

### Navy

does research on the feasibility of using satellite communications from shipboard terminals.

### Corps of Engineers

### Maritime Administration

cooperate on studies on port and harbor facilities for bulk cargoes and other cargo movements.

HARBOR & PORT DEVELOPMENT

## ADMINISTRATION AND ADVISORY SERVICES

Coast Guard

carries out an active port security program to safeguard vessels, harbors, ports and waterfront facilities.

operates shore and harbor controls to provide fire fighting facilities within harbors, supervise anchorage and movement of merchant ships, etc.

Corps of Engineers

issues permits for the construction of any structures which extend beyond the mean high water mark, including piers and bulkheads.

FUNCTIONAL RESPONSIBILITIES

Corps of Engineers

Dredges and maintains coastal harbors and navigational channels.

Constructs harbor improvements such as breakwaters, groins, reventments, jettys.

Economic Development Administration

Provides federal grants for the construction of port facilities and waterfront development.

## RESEARCH, DATA COLLECTION, AND MAPPING

Coast Guard

develops all-weather harbor approach and harbor navigation systems.

Corps of Engineers -- Institute for Water Resources

conducts national surveys on demand for deepwater ports. And research on economic, environmental and physical aspects of deepwater ports.

makes port demand analyses and port development planning on a region-wide scale. (S.F. Bay)

Maritime Administration

investigates the feasibility and environmental implications of offshore port facilities.

Navy

collects data in naval harbors and monitors sites where munitions have been previously dumped to assess possible environmental effects of these operations.

National Ocean Survey

prepares nautical charts of harbor areas.

Sea Grant Program (Environmental Data Service)

sponsors research in the development and management of ports, including the development of off-shore ports.

Corps of EngineersMaritime Administration

cooperate on a study of the deep water port needs of the country and recommends ways of meeting them.

DREDGING AND FILLING

ADMINISTRATION AND ADVISORY SERVICES

Bureau of Sport Fisheries and Wildlife

Investigates all water use projects and those of public and private agencies under federal permit to determine the effects of the developments on fish and wildlife resources and recommends measures for the prevention of losses and damages to those resources.

Corps of Engineers

Establishes offshore dumping grounds and restricted areas.

Environmental Protection Agency -- Office of Solid Waste

Establishes dredge spoil criteria, including recommended limits of organic content, trace elements, etc., and the methods of sampling.

Approves location of dumping grounds.

FUNCTIONAL RESPONSIBILITIES

Corps of Engineers

Is responsible for navigational improvements including the dredging of coastal harbors, channels and anchorages, and the dredging of inland waterways.

May counteract natural shore processes with artificial beach replenishment. (deposition of sand)

Dredges, straightens and clears waterways as part of flood control projects.

Geological Survey

Conducts feasibility studies on engineering projects such as construction on fill areas.

Dredges and cores the Outer Continental Shelf for geologic samples.

RESEARCH, DATA COLLECTION, AND MAPPING

Corps of Engineers

Analyzes dredge spoil content before dumping to assure absence of toxic elements and determines consistency state of settlement, etc.

COMMERCIAL FIN FISHING

## ADMINISTRATION AND ADVISORY SERVICES

Department of State

establishes treaties and other international agreements for the protection and harvesting of species in international waters.

Food and Drug Administration

establishes standards for sanitation, product quality and product labelling for fish processors involved in interstate sales.

National Marine Fisheries Service

carries on a regular oceanographic temperature reporting service which is distributed to fishermen to facilitate locating large schools of fish.

conducts a public educational program to disseminate information on the nutritional and health values of fishery products.

National Weather Service

makes forecasts of fish abundance as part of its Marine Environmental Prediction program in cooperation with other federal agencies.

Sea Grant Program (Environmental Data Service)

provides advisory services to fishermen and fish processors on new techniques and methods of harvest, processing and sale.

FUNCTIONAL RESPONSIBILITIES

Coast Guard

prevents foreign vessels from fishing within the U.S. Territorial waters.

Corps of Engineers

creates and maintains channels and anchorages for deep and shallow-draft navigation, including commercial fishing.

National Oceanic and Atmospheric Administration

provides funds for the alleviation of resource disasters caused by hurricanes, fish diseases, and other natural phenomena.

Food and Drug Administration

National Oceanic and Atmospheric Administration

cooperate in a program of contamination research and inspection to insure detection of fishery product contamination by mercury or other heavy metals and to track the flow of these materials from man-made and natural sources through the food chains of the sea.

## RESEARCH, DATA COLLECTION AND MAPPING

Bureau of the Census

compiles statistics on commercial fisheries every five years.

Bureau of Sport Fisheries and Wildlife

studies migrations, movements, flood habits and sport harvest data of selected fish species.

National Marine Fisheries Service

studies the important marine resources of each region. These include the life cycle, behavior and population dynamics of such fish as Pacific salmon, herring, king crabs, tuna, etc.

studies anadromous fish, e.g., the Pacific salmon and their survival in the face of heavy pelagic fishing and structural and thermal hazards along the once-wild spawning and migratory runs.

operates exploratory fishery and gear research bases to develop alternative resources, better ways of harvesting existing ones and methods of making the hazardous aspects of fishing safer.

conducts research on the marketing of new fishery products.

Sea Grant Program (Environmental Data Service)

supports biological research on species that have commercial significance. conducts research on mariculture. conducts research on improving or devising the techniques and methods used for harvesting and processing.

COMMERCIAL SHELLFISHING

ADMINISTRATION AND ADVISORY SERVICES

Environmental Protection Agency -- Office of Water Programs

Establishes recommended health standards for waters used for shellfish growing.

Food and Drug Administration

Establishes standards of sanitation and product quality for shellfish processors involved in interstate sales.

FUNCTIONAL RESPONSIBILITIES

National Oceanic and Atmospheric Administration

provides funds for the alleviation of resource disasters caused by hurricanes, fish diseases and other natural phenomena.

RESEARCH, DATA COLLECTION, AND MAPPING

Bureau of Sport Fisheries and Wildlife

does basic research on mariculture methods, including those pertaining to the shellfish industry.

Environmental Protection Agency

conducts bioassays on shrimp as part of its toxicological effects studies to determine the rates of absorption and effects of polychlorobiphenyls introduced in wastes, food, water, and sediments.

National Marine Fisheries

investigates means to control shellfish predators and studies the effects of pesticides on the marine life of estuaries.

provides federal assistance to the states for research of shellfish pathological problems and mortality.

Sea Grant Program (Environmental Data Service)

supports biological research on species that have commercial significance, on mariculture methods, and on improving or devising the techniques and methods used for harvesting and processing.

SPORT FISHING

FUNCTIONAL RESPONSIBILITIES

Bureau of Sport Fisheries and Wildlife

operates the National Fish Hatchery System to provide fish for stocking waters in areas under federal control.

IMPLEMENTATION AND ENFORCEMENT

National Oceanic and Atmospheric Administration

inspects and certifies fish processing plants to assure that they meet established sanitary and safety requirements. This is a voluntary inspection and grading program funded by industry.

Coast Guard

National Marine Fisheries Service

cooperate on conducting surveillance and enforcement patrols to ensure the effectiveness of negotiated controls.

RESEARCH, DATA COLLECTION, AND MAPPING

Bureau of the Census

conducts studies on sport fishing to provide NOAA with statistics useful in the design of federal programs for addressing allocation problems between commercial and sport fishing interests.

Bureau of Sport Fisheries and Wildlife

makes studies on all aspects of marine wildlife, including research on stream stocking.

National Marine Fisheries Service

makes studies of the important marine resources, including big game fish, to investigate such characteristics as life cycles, behaviors and population dynamics.

MARINE RECREATION (WATER BORNE AND WATER CONTACT)

ADMINISTRATION AND ADVISORY SERVICES

Coast Guard

issues regulations and standards to boatbuilders for the safety aspects of new boats and equipment, and requires that the manufacturer maintain a list of first purchasers to permit product recall or repair in the event that subsequent safety defects come to light.

issues storm warnings and weather broadcasts.

educates small boat operators on safety regulations and small boat handling.

administers the Coast Guard Auxilliary.

Environmental Protection Agency -- Office of Water Programs

establishes recommended quality standards for marine waters used for recreation.

sets performance standards for marine sanitation devices handling sewage from vessels, including pleasure craft.

National Ocean Survey

provides nautical charts of coastal areas and inland waterways in a special series for the recreation boater, which include a variety of marine data such as tide and current information, a tabulation of services and supplies available "rules of the road," weather information, and other useful data not normally provided by nautical charts.

National Weather Service

provides marine weather forecasts on a six hour interval for coastal waters out to 50 miles offshore, which include warnings of strong winds, squalls, wave conditions, and other types of bad weather hazardous to recreation boating.

provides river forecasts which include flood warnings, low flow forecasts, flow velocity forecasts, and forecasts of river stages.

## FUNCTIONAL RESPONSIBILITIES

### Coast Guard

Establishes and maintains coastal and inland waterway aids to navigation, primarily for pleasure craft.

Coordinates and participates in search and rescue operations and assists, through the Coast Guard Auxilliary, in the patrolling of marine regattas.

### Corps of Engineers

Constructs and maintains harbors of refuge for small craft, channels and anchorages for deep and shallow draft navigation, including recreational boating.

Is responsible for improvements to inland waterways (essentially widening and dredging) for use by recreational boats, among others.

Operates beach erosion control and beach restoration programs.

May participate and cooperate with state and local interests in developing the recreation potential of any federal water project.

### Economic Development Administration

Provides federal grants for the development of improvement of small boat harbors.

### National Park Service

Operates and maintains beach facilities where appropriate within the National Parks.

### Sea Grant Program (Environmental Data Service)

Supports research on the social and economic aspects of water borne recreation as well as its environmental impact.

IMPLEMENTATION AND ENFORCEMENT

Coast Guard

Inspects small boats for compliance with regulations and safety measures.

Approves vessel waste disposal devices in accordance with Environmental Protection Agency standards.

COASTLANDS RECREATION

## ADMINISTRATION AND ADVISORY SERVICES

Advisory Council on Historic Preservation

recommends historic and cultural sites of national significance for landmark status in the National Register.

Bureau of Land Management

leases certain public domain lands for outdoor recreation purposes to State and local governments and to non-profit associations and corporations.

Bureau of Outdoor Recreation

maintains a comprehensive nationwide recreation plan in which the coastline has been designated as a recreation resource of extremely high priority.

establishes recreation standards for federally assisted projects.

requires that the State develop and continually update a comprehensive outdoor recreation plan that meets BOR standards in order to qualify for Federal assistance.

participates directly in the planning, coordination, and establishment of uniform policies relating to recreation, fish and wildlife benefits, and costs of Federal multi-purpose water resource projects.

promotes coordination of the outdoor recreation programs of the different Federal departments and agencies through continual analyses of all stages of those programs -- including budget review and examination of planning, research and development activities.

acts as broker in the transfer of Federal real property deemed as surplus by the General Services Administration to State and local governments at little or no cost, for park and recreational development.

acts as a clearing house for technical information on outdoor recreation and environmental quality.

Federal Power Commission

requires the filing of a specific public recreation plan for each licensed hydroelectric project.

General Services Administration -- Property Management and Disposal Service

develops government policies and regulations for the maximum utilization of excess personal and real property by executive agencies.

Intradepartmental Committee on Outdoor Recreation

operates as an ad hoc committee within the Department of the Interior primarily in an advisory capacity, but it also coordinates Department matters relating to outdoor recreation and comments on and suggests coordinating recommendations.

National Park Foundation

accepts and administers gifts of any nature for the benefit of, or in connection with the National Park Service.

National Park Service

provides technical assistance to other Federal, State and local agencies in the development, management and operation of public park and recreation areas.

National Weather Service

provides a broad aviation weather service program to all pilots with special warning for small aircraft.

## FUNCTIONAL RESPONSIBILITIES

Bureau of Land Management

develops outdoor recreation facilities on the public lands under its jurisdiction which are of special value because of natural or scenic quality including wild or scenic rivers.

Bureau of Outdoor Recreation

administers the Land and Water Conservation Fund to give Federal assistance to State and local governments in the planning, acquisition and development of outdoor recreation facilities, especially those serving urban populations, on a 50-50 matching basis.

Bureau of Sport Fisheries and Wildlife

operates the National Wildlife Refuge System which provides opportunities for recreation.

Economic Development Administration

provides Federal grants for waterfront development which may offer recreational opportunities.

provides financial assistance in areas of high unemployment and/or low family income for the planning and construction of facilities, including recreational complexes and camping sites which will create job opportunities.

Federal Highway Administration

acts as principal road-building agency of the Federal government; as such cooperates with the Forest Service, the National Park Service, etc. in the building of roads in the National Forests and Parks.

General Services Administration -- Property Management and Disposal Services

directs and coordinates the disposal of surplus real property -- usually for recreation purposes.

Housing and Urban Development

administers an Open Space Land Program which funds State and local governments for the acquisition of open space with particular priority given to urban areas with little or no open space extant. There is no prerequisite for a specific recreation plan.

operates a program of grants for Historic Preservation of urban sites, structures or areas of historic or architectural significance.

National Forest Service

operates and maintains the National Forest System and the National Wilderness and Primitive Areas System which provide recreational opportunities.

National Park Service

plans, develops and maintains the National Park System including  
the National Seashores.

RESEARCH, DATA COLLECTION AND MAPPING

Bureau of Land Management

conducts outdoor recreation and wildlife habitat research by contract to State and Federal agencies.

Bureau of Outdoor Recreation

prepares and maintains a continuing inventory of the outdoor recreation needs and resources of the country and maintains a system of classification for those resources.

Sea Grant Program (Environmental Data Service)

conducts research on recreational use patterns and preferences, and methods of recreational evaluation and pricing.

TOURISM

ADMINISTRATION AND ADVISORY SERVICES

Travel Service -- (Dept. of Commerce)

Promotes the flow of foreign visitors to the U.S. for business, study, culture and recreation

Publishes and disseminates brochures on states, gateway cities, scenic highlights, etc., which include coastal drives and water-front attractions.

Bureau of Land Management

Bureau of Outdoor Recreation

Bureau of Sport Fisheries & Wildlife

Corps of Engineers

Forest Service

National Park Service

Conduct Visitor Information services on site for the general enhancement and appreciation of federal lands, including the explanation of natural, historical and man made features and of management practices.

RESEARCH, DATA COLLECTION, AND MAPPING

U.S. Travel Service

Collects, compiles and analyzes timely travel statistics and disseminates them to commerce and industry.

RESIDENTIAL DEVELOPMENT

## ADMINISTRATION AND ADVISORY SERVICES

Corps of Engineers

advises builders and developers on floodplain hazard and coastal erosion hazards, and provides technical information and alternative solutions.

Federal Housing Administration

issues commitments to insure mortgages of approved subdivision projects.

subsidizes the interests on housing mortgages for single and multi-family dwellings.

finances public housing projects, primarily in urban areas.

performs a feasibility analysis and environmental review of subdivision projects applying for mortgage insurance.

Geological Survey

advises builders and developers on geologic and hydrologic problems and provides technical information and suggests alternative solutions.

Soil Conservation Service

advises builders and developers on soil conservation problems, provide technical information, and suggest alternative solutions.

## FUNCTIONAL DUTIES

Federal Housing Administration

administers mortgage insurance programs for land development in new communities and homes in outlying areas.

administers mortgage insurance programs for the construction of condominiums, cooperatives and mobile home units.

Air Force, Army, Coast Guard, Navy

constructs off-base housing for military personnel and their dependents.

RESEARCH, DATA COLLECTION AND MAPPING

Bureau of the Census

makes a decennial census of housing which includes mobile homes, contract rent, values, vacancy status, etc.

makes a variety of surveys of detailed aspects of the construction industry, including sales, value, numbers of building permits, etc.

AGRICULTURE

## ADMINISTRATION AND ADVISORY SERVICES

Bureau of Sport Fisheries and Wildlife

operates a program to educate the public against the excessive use of pesticides.

Environmental Protection Agency -- Pesticides Office

registers all insecticides, fungicides, or similar economic poisons that will move in interstate commerce, after the manufacturer proves that the product is effective for the purpose intended and will not injure human beings, livestock, crops or wildlife when used as directed.

establishes a "safe tolerance" for each registered pesticide -- the amount of residue that may be safely permitted on raw food crops.

offers technical assistance to State agencies to strengthen their pesticide control programs.

Soil Conservation Service

provides technical advice on erosion control measures.

IMPLEMENTATION AND ENFORCEMENT

Environmental Protection Agency -- Pesticides Office

reviews all registered chemicals annually with the power to suspend or terminate the registration if the product proves harmful.

FUNCTIONAL RESPONSIBILITIES

Agricultural Stabilization and Conservation Service

provides financial assistance on a cost-sharing basis for erosion control and conservation practices.

Economic Development Administration

provides financial assistance in areas of high unemployment and/or low family income for the planning and construction of facilities, including food processing plants, which will create job opportunities.

## RESEARCH, DATA COLLECTION AND MAPPING

Bureau of Sport Fisheries and Wildlife

conducts experimental studies of wildlife, pesticide and pollution relationships in aquatic habitats.

Environmental Protection Agency -- Pesticides Office

conducts extensive research on the effects of pesticides on the environment, including studies of the effects particularly in fish and wildlife.

cooperates with State agencies in a special study of the sources of high pesticide concentrations in waste discharges in Southern California and their effects on marine biota.

National Marine Fisheries Service

studies the effects of pesticides on the living marine resources.

SOLID WASTE DISPOSAL

ADMINISTRATION AND ADVISORY SERVICES

Atomic Energy Commission

Issues permits for the dumping of radioactive wastes in ocean waters.

Corps of Engineers

Issues permits for the disposal of solid wastes in the U.S. territorial seas and navigable waters.

Establishes offshore dumping sites for solid wastes including dredge spoils.

Environmental Protection Agency -- Office of Water Programs

Approves dumping sites selected by the Corps of Engineers.

Environmental Protection Agency -- Solid Waste Management Office

Provides technical assistance to State and local agencies on solid waste problems.

Is developing a comprehensive plan for a national system of sites for storage and disposal of hazardous wastes.

IMPLEMENTATION AND ENFORCEMENT

Coast Guard

Protects the navigable waters from the dumping of refuse which constitutes an obstruction to navigation.

FUNCTIONAL RESPONSIBILITIES

Corps of Engineers

Removes floating debris and other obstructions from the navigable waters and their tributaries.

Environmental Protection Agency -- Solid Waste Management Office

Provides financial assistance to state and local governments and interstate agencies for the development of resource recovery and solid waste management planning.

## RESEARCH, DATA COLLECTION AND MAPPING

Bureau of The Census

collects and tabulates data on expenditures for solid waste management, by federal, state, and selected local governments.

Environmental Protection Agency -- Solid Waste Management Office

researches all aspects of solid waste management with special emphasis on the recovery of materials and energy.

makes financial grants for the construction and operation of plants or processes for demonstrating new technologies in the field of solid waste disposal.

Bureau of Sport Fisheries and Wildlife  
National Marine Fisheries

cooperate on studies of artificial reefs made of large solid waste products such as tires, cars, etc.

Navy

is developing a pollution-free shipboard incinerator for combustible solid wastes and a compactor and encapsulator for noncombustible wastes.

MARINE MINING

## ADMINISTRATION AND ADVISORY SERVICES

Bureau of Land Management

furnishes the historical and current leasing status of all federal tracts selected for offshore oil and gas lease sales and their locations within fairways anchorage areas and their proximity to pipelines.

issues leases for federal offshore oil and gas.

issues permits for the location and operation of offshore pipeline.

Coast Guard

establishes regulations concerning the marking and lighting of mineral extraction structures and artificial islands that are in navigable waters.

Corps of Engineers

issues permits for the construction of mineral extraction platforms and permanent structures in the navigable waters.

Environmental Research Laboratories (Marine Minerals Technology Center)

provides advice, information, and recommendations to government agencies and the private sector, concerning all aspects of marine mining.

reduces the current socio-political restraints on marine mining operations by developing a capability to predict probable environmental effects in advance of marine mining operations and applying this capability to develop operating criteria and procedures.

Geological Survey

is responsible for the detailed implementation of presale resource evaluation procedures and for providing the necessary information to the BLM review team in carrying out its tasks.

issues the permit to extract minerals on federal offshore lands.

assesses the potential dangers of extraction on the marine environment.

IMPLEMENTATION AND ENFORCEMENT

Coast Guard

enforces the regulations concerning the marking and lighting of fixed mineral extraction structures and artificial islands in the navigable waters.

Geological Survey

monitors drilling and production operations to assure maximum utilization and prevention of waste of the mineral resources and to limit damage to the total environment.

RESEARCH, DATA COLLECTION AND MAPPING

Environmental Research Laboratories (Marine Minerals Technology Center)

develops fundamental technology to facilitate the development by industry of marine mining systems especially in the deep ocean.

Geological Survey

makes investigations pertaining to the development and improvement of mineral exploration concepts and techniques for locating new deposits of minerals.

Navy -- Ocean Engineering Program

develops new methods, techniques and equipment for undersea mineral excavation.

Sea Grant Program (Environmental Data Service)

supports research on methods and technology of marine mineral extraction and on the effects of mineral recovery on marine wildlife.

OIL AND GAS EXTRACTION

## ADMINISTRATION AND ADVISORY SERVICES

Bureau of Land Management

Furnishes the historical and current leasing status of all Federal tracts selected for offshore oil and gas lease sales and their locations within fairways, anchorage areas, and their proximity to pipelines.

Issues leases for oil and gas on Federal offshore lands.

Is responsible for all legal title work involving oil and gas on Federal offshore lands.

Issues permits for the location and operation of offshore pipelines.

Coast Guard

Establishes regulations concerning the marking and lighting of oil extraction structures and artificial islands that are in the navigable waters.

Corps of Engineers

Issues permits for the construction of oil extraction platforms and permanent structures in the navigable waters.

Federal Power Commission

Issues certificates authorizing natural gas pipelines to construct, extend, acquire or operate transportation and storage facilities for the movement of natural gas in interstate commerce and for the sale of natural gas in interstate commerce for resale.

Authorizes abandonment of natural gas facilities or discontinuance of service subject to Commission jurisdiction.

Federal Railroad Administration

Establishes standards for interstate liquid pipelines with regard to design, construction, operation, maintenance, testing and safety.

Geological Survey

Is responsible for the detailed implementation of presale resource evaluation procedures and for providing the necessary information to the Bureau of Land Management review team in carrying out its tasks.

Issues the permit to drill for oil on offshore federal lands.

Issues permit for flow lines within the offshore tract.

Assesses the potential damage of drilling on the marine environment.

Office of Oil and Gas

Acts as the principal channel of communication between the Federal government, the petroleum industry, and the oil producing states.

Office of Pipeline Safety

Has exclusive safety authority over interstate natural gas pipeline systems (i.e., generally those under Federal Power Commission control) and has overall authority for intrastate networks.

Issues the permit to drill for oil on offshore federal lands.

Issues permit for flow lines within the offshore tract.

Assesses the potential damage of drilling on the marine environment.

Office of Oil and Gas

Acts as the principal channel of communication between the Federal government, the petroleum industry, and the oil producing states.

Office of Pipeline Safety

Has exclusive safety authority over interstate natural gas pipeline systems (i.e., generally those under Federal Power Commission control) and has overall authority for intrastate networks.

## IMPLEMENTATION AND ENFORCEMENT

Coast Guard

Enforces the regulations concerned with the marking and lighting of fixed oil extraction structures and artificial islands in the navigable waters.

Federal Power Commission

Assures non-discriminatory transportation and purchase of gas in the submerged lands of the Outer Continental Shelf.

Federal Railroad Administration

Enforces regulations for interstate liquid pipelines.

Geological Survey

Monitors drilling and production operations to assure maximum utilization and prevention of waste of the mineral resources and to limit damage to the total environment.

## RESEARCH, DATA COLLECTION AND MAPPING

Bureau of the Census

Compiles statistical data on the crude petroleum and natural gas industry and on oil and gas field services.

Bureau of Land Management

Keeps abreast of the general progress of the presale resource evaluation procedures, gathering pertinent data and developing procedures for use in postsale analysis and in conducting the sale.

Federal Power Commission

Gathers, maintains, and publishes information on natural gas pipelines subject to Commission jurisdiction.

Sea Grant Program (Environmental Data Service)

Supports research programs on the impacts of oil spills from extraction and transfer to shore.

POWER PRODUCTION

## ADMINISTRATION AND ADVISORY SERVICES

Atomic Energy Commission

establishes standards for the construction and operation of nuclear power plants.

issues licenses for the construction and operation of nuclear power plants.

Corps of Engineers

grants permits for the discharge of cooling and waste water into the navigable waters or their tributaries.

grants permits for the construction of any fixed structures in navigable waters or their tributaries.

Environmental Protection Agency

reviews the air and water effluents of proposed facilities to determine whether they are in compliance with Federal and State quality standards.

Federal Power Commission

issues permits and licenses for the planning, construction and operation of non-federal hydroelectric projects on waters or lands subject to federal jurisdiction.

prepares water resource appraisals for those river basins for which comprehensive plans of development are neither available nor scheduled for completion by other agencies in time to meet the Commission's needs for licensing, relicensing, or takeover of non-federal water power projects.

IMPLEMENTATION AND ENFORCEMENT

Atomic Energy Commission

denies issuance of construction or operation licenses or withdraws license to operate if utility fails to comply with AEC standards and criteria.

FUNCTIONAL RESPONSIBILITIES

Geological Survey

prepares feasibility studies on potential sites for nuclear power plants.

RESEARCH, DATA COLLECTION, MAPPING

Atomic Energy Commission

researches new technologies and methods of nuclear power generation and safety control as well as the environmental impacts of radiation and thermal discharge.

researches future power demand needs, particularly in regard to nuclear power.

Federal Power Commission

researches new methods of power production and energy transmission.

researches future power demand needs.

COASTAL LAND USE PLANNING

ADMINISTRATION AND ADVISORY SERVICES

Bureau of Outdoor Recreation

maintains a comprehensive nationwide recreation plan in which the coastline has been designated as a recreation resource of extremely high priority.

Coastal Zone Management Advisory Committee

consults with and makes recommendations to the Secretary of Commerce on matters of coastal zone management policy.

Department of Agriculture

provides guidelines and general assistance to rural counties in the formation of their comprehensive plans.

Housing and Urban Development

provides federal assistance through 701 Grants for development of general and master plans and sponsors redevelopment planning.

National Oceanic and Atmospheric Administration -- Office of Coastal Zone Management

develops guidelines for the administration of the Coastal Zone Management Act of 1972.

establishes guidelines for planning grants and the acquisition of national estuarine sanctuaries.

RESEARCH, DATA COLLECTION, AND MAPPING

National Council on Marine Resources and Engineering Development

funds studies of multiple use of coastal areas.

Sea Grant Program (Environmental Data Services)

sponsors research in methodologies for coastal zone planning and impact assessment.

National Ocean Survey

produces special baseline boundary maps and reports which are essential to government and the private sectors involved in the establishment of shore and sea boundaries and in the legalities, planning and management of developments in the coastal zone and Continental Shelf areas.

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