Comparative Assessment of State Laws Protecting the Marine Environment of the Gulf of Maine

for the

Gulf of Maine Council on the Marine Environment

prepared by the

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April 26, 1991

This report was prepared by the Marine Law Institute under a contract with the Maine State Planning Office (Contract No. 07B GT SS910461), funded through NOAA's Office of Ocean and Coastal Resource Management under a Coastal Zone Management Act interstate grant to Maine, New Hampshire and Massachusetts. The contract was supervised by John Catena, Senior Planner, State Planning Office and Alison Rieser, Director and Barbara Vestal, Associate Director of the Marine Law Institute, University of Maine School of Law.

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EXECUTIVE SUMMARY

This Report to the Gulf of Maine Council on the Marine Environment provides an overview and background on existing state and federal laws and programs affecting the coastal and marine environment of the Gulf of Maine. It is intended to assist the Council in evaluating the existing legal framework relating to the Gulf's natural resources to identify areas of similarity and differences among jurisdictions bordering the Gulf. The Report briefly discusses the federal regulatory framework and how it affects state laws; it compares state laws and programs; it contrasts different and unique state approaches; and it suggests options for uniform and cooperative approaches to regulating and protecting the coastal and marine resources of the Gulf of Maine. For many of these options additional research is called for, similar to that prepared for the Council on "Habitat Mitigation Efforts in the Gulf of Maine." (Kurland, 1991)

Federal laws and programs affect uses within state and federal waters, and the manner in which states may regulate Gulf of Maine resources. The Coastal Zone Management Act, for example, provides funds for the creation of state coastal management programs, and the National Environmental Policy Act requires that major federal actions within the coastal zone and elsewhere receive proper environmental review. The Ocean Dumping Act constrains the kinds of waste disposal activities that may occur within both state and federal waters, and the Clean Water Act has a major influence on coastal and ocean water quality, point and nonpoint sources of pollution, and the regulation of wetlands. The new Oil Spill Pollution Act of 1990 will provide uniform policies on oil spill contingency planning, liability and financial responsibility requirements. Federal marine sanctuary and estuarine reserve provisions provide for the creation of protected areas within the Gulf. And finally, significant protections for wildlife are established under the Endangered Species Act and the Marine Mammal Protection Act.

The Report contains a comparative assessment of the laws and programs of the States of Maine, Massachusetts and New Hampshire and highlights a number of similarities and differences among state approaches. Different state approaches, as depicted in Figure 1 (page 45), are summarized below.

With respect to land use controls, Maine is the only Gulf state that requires local governments to prepare comprehensive plans and shoreland zoning ordinances that meet state standards. Maine and Massachusetts have also created state and regional commissions with regulatory and land use planning authority within limited areas of the coast. Maine and New Hampshire have established state regulatory authority over large-scale development, while Massachusetts has a special environmental impact

reporting requirement. All three states have adopted coastal management programs under the Coastal Zone Management Act.

Each state has also adopted clean water laws that classify marine and estuarine waters and establish state licensing standards for sewage treatment plants and point source discharges. They also have enacted comprehensive oil spill and hazardous waste laws, and nonpoint source management plans. However, only Massachusetts has created ocean sanctuaries within which activities such as offshore mining, offshore oil and gas exploration and development, and ocean incineration, are prohibited.

Maine, Massachusetts and New Hampshire have each adopted wetlands laws, but there are substantial variations among state wetland regulations. Although New Hampshire and Massachusetts provide for state regulation of freshwater wetlands under 10 acres, Maine does not. Wetland buffers vary among the states, as do the application of "no net loss" provisions. Development on coastal dunes and bluffs, and the construction of sea walls, are generally restricted, although Maine has adopted the most rigorous controls against such development.

It is noteworthy that in New Hampshire the public owns tidelands up to the high water line, while in Massachusetts and Maine public ownership extends only to the low water mark. Nevertheless, Massachusetts requires extensive public benefits for issuing tidelands and submerged lands leases, even on filled tidelands. Massachusetts also provides for substantial protection of water dependent uses and requires that any change in use on public tidelands be relicensed.

With respect to other uses on publicly-owned tidelands and submerged lands, Massachusetts has also established a special state commission for regulating the exploration and salvage of underwater archeological artifacts. Maine and New Hampshire have adopted extensive environmental controls for leasing such areas for finfish aquaculture.

Each Gulf state designates critical areas within its coastal zone, and establishes strategies to manage, protect, and acquire such areas. However, the Massachusetts program imposes additional performance standards for development proposed within critical areas. Each state has also enacted its own endangered species law, although there are variations among the species designated and habitat protection provisions. Finally, it is noted that although each state has a program to acquire coastal areas for recreation, open space and habitat preservation, funding has been or is nearly exhausted.

Based upon these findings, the following approaches are recommended to eliminate gaps and inconsistencies that leave unprotected vital Gulf resources:

1. Regulatory, land use planning and zoning controls that reflect state-wide coastal policies;

2. Special site review for large-scale development;

3. Uniform ocean dumping and mining standards;

4. Uniform marine monitoring programs;

5. Reduction of pollution from vessels;

6. Uniform septic standards;

7. Enforceable nonpoint source pollution strategies;

8. "No net loss" wetlands policies and other wetland preservation strategies;

9. Cooperative measures for regulating and cleaning up oil spills;

10. Restricting the construction of sea walls and development within and adjacent to sand dunes and coastal bluffs and taking measures to anticipate the effects of sea level rise;

11. Providing public benefits and protecting water dependent uses on state tidelands and submerged lands;

12. Ocean sanctuaries and other mechanisms to protect sensitive ocean and coastal areas and resources;

13. Protecting underwater archeological resources;

14. Cooperative and uniform approaches to managing and protecting endangered species and their habitats; and

15. Cooperative approaches for coastal acquisition programs.

These recommendations are described in greater detail in Section V (Pages 55-61).

I. INTRODUCTION

This Report inventories and assesses the major laws regulating and protecting the coastal and marine resources of the Gulf of Maine. It is intended as a background document for the Gulf of Maine Council on the Marine Environment to facilitate implementation of the Gulf of Maine Initiative and Action Plan. The evaluation of existing state and federal laws, and the identification of similarities and differences in regional approaches, is a necessary preliminary step to developing a comprehensive, coordinated, transboundary approach for the sustained use and protection of marine and coastal resources.

The Report summarizes the major federal laws and state regulatory programs of Massachusetts, Maine and New Hampshire that affect the marine and coastal environment of the Gulf of Maine. For purposes of this analysis, state laws and programs are categorized into "regulated activities" and "protected areas."

Laws affecting **regulated activities** include:

- development controls (planning, zoning and subdivision laws; state coastal management programs; coastal site review procedures; and environmental impact review requirements);
- water quality controls (ocean dumping; vessel discharge laws; point source and nonpoint source pollution programs);
- hazardous waste laws;
- oil spill prevention laws; and
- offshore oil and mineral development laws.

Laws affecting **protected areas** include:

- coastal wetland and sand dune protection;
- tidelands and submerged lands management;
- marine sanctuaries;
- critical areas;
- coastal wildlife protection; and
- coastal acquisition and recreation.

The Report compares the laws affecting these issues and identifies contrasting approaches utilized within each state. Each state law relevant to the marine resources of the Gulf of Maine is listed, summarized and abstracted in the Appendix for reference and additional background. The Report also discusses a number of important federal laws and the federal context in which the state programs operate. The Report then identifies areas in which consistent approaches would prove beneficial and makes recommendations to assist the Gulf of Maine Council in considering cooperative approaches to regulating and protecting the coastal and marine resources of the Gulf of Maine.

The information for this Report was gathered from reviewing state and federal statutes and regulations and interviewing government officials through January 1991. A number of these laws are undergoing revision. The Council should verify that the most current versions of these laws are reviewed before making final recommendations. The Report is one-half of a comparative study of U.S. and Canadian laws to consider possible cooperative approaches to managing the common and interdependent coastal and marine resources of the Gulf of Maine. When research on the Canadian system is completed, additional federal analyses and recommendations will be made.

II. THE FEDERAL FRAMEWORK

This Report focuses on state laws and programs. However, the federal framework under which state laws operate is also significant not only within federal waters (generally 3-200 miles offshore), but also within state waters (0-3 miles offshore) and the coastal zone.[1] Federal laws affect state programs in a number of ways: they may preempt state regulation; they may mandate state action; they may provide incentives for state action; or they may provide minimum standards. Section III of this Report, the Comparative Assessment of State Laws, makes reference to some of these federal laws as they relate to specific state programs. The following discussion briefly reviews the federal legal context in which the states regulate and protect Gulf resources (a complete list of these federal laws is contained in Appendix B).

Coastal Development and Land Uses

There are two significant federal laws that affect coastal development and land uses. The Coastal Zone Management Act[2] (CZMA) provides substantial incentives for states to adopt federally-approved coastal management programs. State coastal programs must identify permissible land uses, establish priorities of uses, designate areas of particular concern, protect and provide access to public beaches and other important coastal areas, and control coastal erosion. Recent amendments to the CZMA also require states to prepare Coastal Nonpoint Source Pollution Programs that meet minimum federal standards. (The requirements for these programs are discussed further below.)

States with federally-approved coastal management programs are eligible for federal implementation grants and other federal moneys, and are also entitled to review federal, federally-funded, and federally-permitted activities that affect their coastal zone for consistency with state program policies. This "federal consistency authority" provides states with a signifi-

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[1] The Submerged Lands Act grants to states ownership of submerged lands and waters out to 3 miles offshore. 33 USC 1301-1315. Although the U.S. territorial sea is currently 12 miles, the area beyond 3 miles to the limits of the Exclusive Economic Zone (200 miles) is subject to federal jurisdiction and is therefore referred to as "federal waters." Presidential Proclamation No. 5928, 45 Fed. Reg. 777 (1989).

[2] 16 USC 1451-1464.

cant mechanism to influence federal projects that may affect the Gulf of Maine.[3]

The National Environmental Policy Act[4] (NEPA) requires that federal agencies prepare detailed environmental impact statements (EISs) for federal and federally-permitted activities that have a significant effect on the environment. EISs must outline the environmental impacts of a proposed action, its adverse environmental impacts, and alternatives. EISs may be prepared for a number of federal actions affecting Gulf of Maine resources including, offshore oil and gas leasing and development, ocean dumping activities, federal highway projects, and federally-approved dredge and fill projects, among others.

Ocean Dumping

Under the Ocean Dumping Act,[5] the U.S. Environmental Protection Agency (EPA) issues permits and designates sites for the dumping of all material into all ocean waters, within and outside the U.S. territorial sea. Permits for the dumping of dredged material at specified sites are issued by the Army Corps of Engineers.[6]

The Act requires that ocean dumping, "not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment." It authorizes the EPA to consider the following criteria when evaluating ocean dumping permits: the need for the proposed dumping; the effect on human health and welfare including economic, esthetic and recreational values; the effect on fisheries resources, wildlife, shorelines and beaches; the effect on the marine ecosystem; the persistent effects and concentrations of dumping; land-based alternatives including recycling; the effect on alternative uses of the ocean such as scientific study, fishing and other resource exploitation; and appropriate locations beyond the Continental Shelf. The Act prohibits the ocean dumping of radioactive wastes and establishes a schedule for phasing out the dumping of industrial wastes and sewage sludge by 1992.[7]

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[3] 16 USC 1456.

[4] 42 USC 4321-4370.

[5] The Marine Protection, Research and Sanctuaries Act of 1972, 33 USC 1401-1445.

[6] 33 USC 1413 (Ocean Dumping Act) and 33 USC 1344 (Section 404 of the Clean Water Act).

[7] 33 USC 1412 and 1414(b).

Point Source Pollution

Wastewater discharges from industrial and municipal facilities are regulated by the EPA under section 402 the Clean Water Act (CWA).[8] The EPA issues National Pollutant Discharge Elimination System (NPDES) permits for point source discharges and delegates the NPDES program to states that meet minimum federal discharge standards. States must also certify that proposed NPDES permits and other federal permits meet state water quality standards.[9] EPA also prepares specific ocean discharge criteria for point source discharges into ocean waters.[10]

The EPA assists in the construction and licensing of publicly-owned sewage treatment plants (POTWs), and has established pretreatment standards for sources discharging into POTWs.[11] Waivers for secondary treatment for POTWs with ocean outfalls are permitted under certain circumstances.[12] Although permits are not currently required for stormwater discharges, after October 1992, all separate municipal storm sewer systems must also have discharge permits.[13]

The EPA has also established an anti-degradation policy to maintain the quality of the nation's water pursuant to which states must implement water quality classification systems and standards.[14] The anti-degradation policy requires that existing uses of all waters and the level of water quality necessary to protect existing uses be maintained; that water quality exceeding that necessary to support fish, wildlife and recreation be maintained unless lower water quality is necessary to accommodate important economic or social development; and that high quality waters constituting an outstanding national resource be maintained and protected. The Gulf states of Maine, Massachusetts

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[8] 33 USC 1342.

[9] 33 USC 1341.

[10] Section 403 of the Clean Water Act, 33 USC 1343, creates special requirements for discharges into the territorial sea, contiguous zone, or ocean water lying seaward of the baseline from which the territorial sea is measured. 33 USC 1402(b).

[11] 33 USC 1317.

[12] 33 USC 1311(h).

[13] 33 USC 1342(p)(2).

[14] 40 CFR 131.12.

and New Hampshire have each adopted water classification systems that incorporate the EPA's anti-degradation policy.

Nonpoint Source Pollution

Pollution from nonpoint sources generally falls under state and local government regulation. However, section 319 of the Clean Water Act[15] requires states to prepare Non-Point Source (NPS) Assessment Reports and Management Programs to identify sources of NPS pollution, water bodies that are unable to meet applicable water quality standards without NPS pollution controls, and best management practices to control NPS pollution. Maine, New Hampshire and Massachusetts each have approved NPS Management Plans.

As noted earlier, the CZMA now also requires that state coastal management programs contain Coastal Nonpoint Source Pollution Programs that coordinate state and local water quality plans developed pursuant to the Clean Water Act. Coastal NPS programs must identify land uses that contribute to coastal water pollution, identify critical coastal areas that will be subject to management measures, implement management measures necessary to maintain applicable water quality standards, provide technical assistance to local governments, allow for public participation, improve coordination among state and local agencies, and, if necessary, modify coastal boundaries to implement recommendations.[16]

Ports and Navigation

The Port and Tanker Safety Act[17] gives regulatory authority to the U.S. Coast Guard over navigation and safety. The Coast Guard is authorized to protect navigable waters and resources by establishing procedures for handling oil and hazardous substances, prescribing minimum safety equipment, establishing waterfront safety zones in navigable waters, controlling vessel traffic, and establishing vessel traffic routing schemes. The Act allows states to apply more stringent safety standards with respect to the safety of structures such as wharfs, pipelines and oil platforms.

The U.S. has also enacted laws implementing Annexes I, II, and V of the MARPOL Protocol of 1978, the International Conven-

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[15] 33 USC 1329.

[16] Section 6217 of the 1990 Amendments to the Coastal Zone Management Act, 16 USC 1458(a)-(h).

[17] 33 USC 1221-1236.

tion for the Prevention of Pollution from Ships.[18] The laws require waste management plans for all manned oceangoing ships 40 feet or longer and all manned fixed or floating platforms, and create civil and criminal penalties for dumping plastics and non-plastic garbage from vessels within the 200-mile exclusive economic zone of the U.S. All U.S. ports and terminals, including private commercial fishing facilities and recreational boating facilities, are required to provide adequate garbage reception facilities for vessels using that port.

Oil and Hazardous Wastes

Section 311 of the Clean Water Act prohibits the discharge of oil or hazardous substances into navigable waters and adjoining waters.[19] In addition, Congress recently passed the Oil Pollution Act (OPA) of 1990[20] which establishes new federal financial responsibility requirements for tankers carrying oil, establishes liability standards for oil spills, creates a federal oil spill and liability fund to pay for removal costs and uncompensated damages, and federalizes spills through a new National Planing and Response System.[21]

The OPA creates a uniform federal system of strict liability and compensation for all removal costs and damages, including harm to natural resources, caused by oil spills from vessels or facilities. It requires that nearly all newly-built tank vessels have double hulls when operating in U.S. waters. Although the new federal law provides some limits to liability, it does not preempt state unlimited liability laws or other state oil spill provisions. In addition, the Federal Oil Spill Liability Trust

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[18] 33 USC 1901-1912.

[19] 33 USC 1321.

[20] P.L. 101-380, 104 Stat. 484 (1990).

[21] Section 311 of the Clean Water Act created a National Contingency Plan and National Response Team to respond to and plan for oil spills. 33 USC 1321. However, this process was deemed inadequate by Congress after the EXXON VALDEZ spill and was substantially strengthened through enactment of the OPA. The new National Planning and Response System coordinates private and public responses to a spill by providing for a National Response Unit, Coast Guard District Response Groups in each of the ten Coast Guard Districts, Area Committees to prepare Area Contingency Plans to assure the removal of worst case spills, and Tank Vessel and Facility Response Plans reviewed by the federal government. All vessels and facilities must have approved Response Plans within two and a half years.

Fund is available to pay for specified oil-spill related costs if the limits of federal liability are met or if spiller can not be identified.[22]

The U.S. and Canada have prepared a Joint Marine Contingency Plan, updated in 1989, to provide a framework for cooperation in responding to pollution incidents that pose a significant threat to the coastal areas of both countries in the Gulf of Maine. The Plan is implemented by the U.S. and Canadian Coast Guard and drills simulating a collision off the George's Bank were conducted in 1990.[23]

In addition, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),[24] any person in charge of a vessel or offshore facility must report the discharge of any hazardous substance to the National Response Center established under the Clean Water Act. The Act authorizes the President to remove hazardous substances or pollutants, or take other remedial actions to protect the environment, consistent with the National Contingency Plan. State governments must be consulted and must assist in any remedial actions taken by the President. CERCLA also creates a Hazardous Substance Superfund to finance cleanup and remedial action by government where responsible parties can not be found.

Offshore Oil and Gas Development

The leasing, exploration and development of federal waters (beyond 3 miles) for offshore oil and gas, is conducted by the U.S. Department of the Interior under the Outer Continental Shelf Lands Act (OCSLA).[25] The timing and location of federal lease sales must, to the maximum extent practicable, "obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impacts on the coastal zone." The Act provides for state consultation with respect to federal lease sales and plans of development. State recommendations must be accepted if the Secretary of the Interior determines that they provide a "reason-

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[22] 26 USC 9509. The Fund is capitalized primarily through a 5-cent per barrel of oil federal tax and penalties assessed for violations of the OPA, and has a cap of $1 billion.

[23] "Report of the Commission to Study Maine's Oil Spill Cleanup Preparedness," Office of Policy and Legal Analysis, November 1990.

[24] 42 USC 9601-9675.

[25] 43 USC 1331-1356, 1801-1866.

able balance between the national interest and the well-being of the citizens of the affected state." Offshore oil and gas leasing and development must also be consistent with the enforceable policies of state coastal management programs under the CZMA.[26]

Wetlands and Sand Dune Protection

Federal regulation of activities affecting wetlands is carried out by the Army Corps of Engineers under section 404 of the Clean Water Act.[27] A Corps permit is required for the discharge of dredge and fill material into tidal waters and coastal and freshwater wetlands. The EPA retains veto authority over the issuance of Corps' discharge permits and also prepares wetland permitting guidelines.[28] The Corps is also required to consult with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to protect and conserve wildlife resources.[29]

The standards for issuing dredge and fill permits are quite broad and call for a "public interest review" that balances the "benefits which reasonably may be expected to accrue from the proposal . . . against its reasonably foreseeable detriments."[30]

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[26] 16 USC 1456(c).

[27] 33 USC 1344. The Rivers and Harbors Act of 1899 also delegates regulatory authority to the Corps over navigable waters to prevent obstructions to navigation and license structures in or over navigable waters. 33 USC 401-403.

[28] 40 CFR Part 230. The Corps and EPA also entered into a Memorandum of Agreement in 1990 that sets forth mitigation measures to avoid, minimize and compensate wetland losses. It notes that while mitigation measures in individual permit decisions may not always achieve the goal of "no net loss" of wetlands functions and values, an overall goal of "no net loss" of wetlands should be maintained.

[29] Fish and Wildlife Coordination Act, 16 USC 661-666(c).

[30] 33 CFR 320.4(a). The regulations state that all relevant factors should be considered including cumulative effects, conservation, economics, aesthetics, general environmental concerns, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. A comprehensive analysis of state and federal wetland laws, comparing provisions to preserve

(continued...)

The Corps' jurisdiction over wetlands does not preempt more stringent state and local wetland laws and section 404 Corps permits are also subject to state water quality certification under section 401 of the Clean Water Act. Section 404(g) of the Act allows states to assume the Corps' permit authority for dredge and fill activities but thus far only the State of Michigan has assumed the program.[31]

To protect undeveloped coastal barrier beaches, Congress passed the Coastal Barrier Resources Act in 1982.[32] The Act creates a federal coastal barrier resources system of mapped barrier beaches, wetlands and estuaries, within which federal expenditures and financial assistance, including federal flood insurance, is limited to discourage development.

Marine Sanctuaries and Estuarine Reserves

Congress has created three federal programs to protect unusually sensitive and significant ocean and coastal areas. The Marine Sanctuaries Act[33] authorizes the Secretary of Commerce, with state and local consultation, to designate and protect discrete areas of the marine environment as national marine sanctuaries. These areas must be of national significance and must require additional controls to ensure comprehensive conservation and management, including resource protection, scientific research, and public education. The designation of an area as a national marine sanctuary requires a comprehensive assessment of its marine resources and commercial and recreational uses, and makes the area eligible for special management planning by the National Oceanic and Atmospheric Administration. Currently there are no national marine sanctuaries in the Gulf of Maine, although Stellwagen Bank has been nominated and is undergoing federal review.

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[30](...continued)
sensitive habitats has been prepared for the Gulf of Maine Council by Jonathan M. Kurland entitled, "Habitat Mitigation Efforts in the Gulf of Maine: Stemming the Tide of Environmental Degradation," January 1991. The Report notes that federal wetland mitigation efforts have been "hampered by inconsistency and lack of information." (at 42)

[31] Davis, "Making No Assumptions," 13 National Wetlands Newsletter 6 (1991).

[32] 16 USC 3501-3510.

[33] The Marine Protection, Research and Sanctuaries Act of 1971, 16 USC 1431-1439.

The EPA may establish national estuaries nominated by the Governor of a state under section 320 of the Clean Water Act.[34] A National Estuary designation entitles that estuary to federal research money and assistance in the preparation of a comprehensive management plan. Massachusetts and Cape Cod Bay, and Casco Bay in the Gulf of Maine have been designated as National Estuaries and are currently preparing 5-year research programs for funding.

In addition, the Coastal Zone Management Act provides for a National Estuarine Reserve Research System[35] to establish and manage, through federal-state cooperation, a national system of estuarine reserves representative of the various regions and estuarine types in the United States. The System is administered by the Department of Commerce and federal funds are available for site selection, management plan preparation, acquisition and development, and the implementation of research, educational, and administrative programs. The long-term operation of the Reserve is the responsibility of the state. Reserves have been established in Maine, Massachusetts and New Hampshire, including the Wells and Great Bay reserves in the Gulf of Maine.

Wildlife Protection

The wildlife resources of the Gulf of Maine are protected by two major federal statutes. The Endangered Species Act[36] prohibits the "taking" or harassment of endangered or threatened species. Federal agencies are prohibited from taking any action to jeopardize the continued existence of such species or adversely affecting critical habitats. The federal government is authorized to provide funds and enter into management and cooperative agreements with states to administer areas and establish programs to conserve endangered and threatened species. State endangered species laws may be more restrictive but not less restrictive than the federal provisions.

The Marine Mammal Protection Act[37] imposes a moratorium on the taking and importation of marine mammals, and establishes a federal permitting and regulatory scheme to allow takings incidental to commercial fishing and for scientific purposes. State law is preempted unless authority has been transferred to the state for the conservation and management of particular species.

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[34] 33 USC 1330.

[35] 16 USC 1451.

[36] 16 USC 1531-1544.

[37] 16 USC 1361-1407.

Marine Research

The federal government also has a number of programs that provide funds for marine research in addition to those noted above. The more significant of these programs include: the National Sea Grant College Program; the National Science Foundation; the Outer Continental Shelf Environmental Studies Program; the Land and Water Conservation Fund; the National Coastal Resources Research and Development Institute; the Fish and Wildlife Conservation Fund; and the recently enacted Regional Marine Research Program, which establishes a grant program and Regional Marine Research Board for the Gulf of Maine responsible for developing a comprehensive marine research plan.

III. COMPARATIVE ASSESSMENT OF STATE LAWS

To facilitate the comparison of state laws affecting the Gulf of Maine marine resources, the following assessment is separated into laws that "regulate activities" and laws that establish "protected areas."

A. Regulated Activities

1. Development Controls

Planning and Zoning Controls

Of the three Gulf of Maine states, only Maine has adopted state-wide comprehensive planning, zoning and subdivision controls to protect coastal and marine resources from the impacts of development.

Maine's Mandatory Shoreland Zoning Act[38] requires municipalities to prepare Shoreland Zoning Ordinances that meet minimum state standards to control development and protect resources within "shoreland areas." Such ordinances apply within 250 feet of saltwater bodies, rivers and coastal wetlands; within 250 feet of great ponds and freshwater wetlands that exceed 10 acres; and within 75 feet of streams. The State is authorized to impose shoreline zoning ordinances upon municipalities that fail to adopt adequate ordinances.

Local governments must establish resource protection, limited residential, and stream protection zoning districts within shoreland areas. State standards require that local governments implement specific measures within these zones to protect coastal resources and water quality, including:

- construction setbacks (75-100 feet) and height limits (35 feet);
- minimum lot sizes (30,000-40,000 square feet);
- minimum shoreline frontages (150-200 feet);
- maximum lot coverages (20%); and
- soil erosion and sedimentation plans to revegetate disturbed soil, temporary runoff controls, and permanent soil stabilization measures.

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[38] 38 MRSA 435-447 (DEP Ch. 1000).

Maine also provides financial incentives for each municipality to prepare comprehensive plans and zoning ordinances throughout their jurisdiction that meet 10 state growth management goals under the Comprehensive Planning and Land Use Regulation Act.[39] These goals encourage orderly growth and development; protect the State's rural character; prevent sprawl; protect water quality and critical natural resources such as wetlands, wildlife, fisheries habitat, sand dunes, shorelands, scenic vistas and unique natural areas; protect marine industries, ports, and harbors; protect public access to the shore; and protect agriculture, forest resources and outdoor recreation.

Each comprehensive plan must inventory natural and recreational resources, and adopt policies and zoning ordinances that promote state goals. Plans must contain an inventory and analysis of projected growth, natural and marine resources, recreation and open space, and significant points of access. They must also contain policies to promote the State's coastal policies. Each Plan must establish growth areas and rural areas; rural areas must protect water quality, agricultural and forest resources, open space, scenic vistas and access to coastal waters. All municipalities in Maine are scheduled to complete their comprehensive plans by 1996.

Under Maine's Subdivision Law,[40] local governments must review small-scale subdivisions (divisions of land into three or more lots) to ensure that subdivisions have no undue adverse effects on:

- scenic or natural beauty;
- wildlife or natural areas;
- public rights for physical or visual access to the shoreline;
- water quality;
- soil erosion and flood zones; and
- the disposal of sewage and solid wastes.

Subdivisions exceeding 20 acres of 5 or more lots are reviewed by the State under the Site Location of Development Act.[41]

In addition to these local zoning and planning requirements, Maine's Land Use Regulation Commission (LURC) establishes state planning and regulatory authority throughout unincorporated

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[39] 30-A MRSA 4311-4344 (DECD Chs. 200-202).

[40] 30-A MRSA 4401-4406.

[41] 38 MRSA 481-490 (DEP Chs. 372-376)

areas.[42] These areas are mostly inland but also include about 5% of the land within the State's coastal zone and over 200 of its islands. LURC has prepared a comprehensive land use plan creating protection and management zones and Wetland Protection Subdistricts. Land use standards establish minimum shoreline frontages, minimum lot sizes, and maximum lot coverage requirements, depending on sewage and slopes; LURC also requires 75-125 foot shoreline setbacks from all water bodies.

Massachusetts and New Hampshire do not utilize similar state-wide comprehensive planning and zoning requirements to address coastal issues.[43] However, Massachusetts has established two regional planning and regulatory agencies, the Cape Cod Commission[44] and the Martha's Vineyard Commission.[45]

Both the Cape Cod and Martha's Vineyard Commissions are authorized to review local government zoning and development regulations and land use controls. They may prohibit development and override local zoning controls within sensitive areas called Districts of Critical Planning Concern (within 500-1000 feet of the high water line, 100 feet of wetlands and streams, or unique natural areas). The Martha's Vineyard Commission prohibits septic systems, residential uses and dredge and fill activities within 100 feet of the shore, and limits permitted uses to protect water quality and prevent beach erosion. Both Commissions have direct regulatory authority over large-scale development (called Developments of Regional Impact).[46] The Cape Cod Commission also has the authority to prepare a Regional Policy Plan for the entire Cape Cod area to identify critical resources, provide open space, and establish policies to control growth, waste disposal, and protect coastal resources. The Cape Cod Commission reviews local comprehensive plans for consistency with the Regional Plan.

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[42] 12 MRSA 681-689 (LURC Ch. 10).

[43] New Hampshire does review subdivisions for septage and water quality impacts under its Water Pollution and Waste Disposal Law, RSA 485-A:29-44.

[44] Stat. 1989, c. 716.

[45] Stat. 1974, c. 637, as amended by Stat. 1977, c. 831.

[46] These include historic developments, bridges, roads or driveways to the coast; developments exceeding 30 units (or 10 units in Martha's Vineyard); commercial development exceeding 10,000 square feet (or 1,000 square feet in Martha's Vineyard); subdivisions of 15 or more acres; and in Martha's Vineyard, development within 100 feet of the shoreline or wetland vegetation.

State Coastal Management Programs

Massachusetts, Maine and New Hampshire each have federally approved coastal management programs under the Coastal Zone Management Act (CZMA).[47] This entitles each state to receive federal funding for implementing their coastal management programs,[48] and gives the states the authority to review federal and federally permitted activities that affect their coastal zones. Each state program is "networked" to coordinate existing state programs and laws with coastal management policies that call for the protection of marine resources, critical habitats, shoreline processes, water quality, water dependent uses, and public access. Gulf states have not adopted a centralized approach to coastal management (i.e. direct state-wide planning and regulation within the coastal zone through a "Coastal Commission").

The Maine and New Hampshire coastal management programs are administered by their state planning offices. The Massachusetts' coastal program is located in the Executive Office of Environmental Affairs and therefore is on equal footing with other executive department agencies. The Massachusetts program implements state coastal policies by assisting agencies in the promulgation of regulations, which must be consistent with state coastal policies. Although it is a networked program, like Maine and New Hampshire, the Massachusetts coastal program enjoys a more central role in assuring effective and coordinated implementation of state coastal management policies.[49] Although Maine has enacted legislation requiring all state, federal and local agencies to conduct their activities consistent with state coastal policies,[50] no mechanism has been established to specify how state and local government bodies must comply with and implement these policies.

Each state program reviews federal, federally-funded, and federally-permitted activities that affect their state's coastal

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[47] 16 USC 1451-1464.

[48] In 1990, New Hampshire received $.5 million, Maine $1.2 million, and Massachusetts $1.5 million in federal CZMA funds.

[49] For example, the Massachusetts coastal program comments on environmental impact reports, and prepares coastal management regulations implemented by other Executive agencies, such as the tidelands and wetlands rules of the Division of Wetlands and Waterways. The coastal management programs of the other states lack this authority and therefore do not play as central a role.

[50] 38 MRSA 1801-1803.

zone to assure consistency with enforceable state coastal policies. In Massachusetts, consistency reviews are conducted by the coastal program office, while Maine and New Hampshire consistency reviews are conducted by other executive department agencies and coordinated through the coastal program office.

Coastal Facility Site Review

Maine requires that large-scale development be reviewed by the State under the Maine Site Location of Development Act (buildings with footprints in excess of 60,000 square feet, the development of 10 units or more of housing, and subdivisions exceeding 20 acres).[51] Large-scale projects must meet the following state standards:

- development must fit harmoniously into the environment and not adversely affect existing uses, scenic character, open space, air and water quality, or other natural resources. Secondary and cumulative impacts must be considered;

- development must not cause unreasonable soil erosion, nor inhibit the natural transfer of soil or movement of sand within sand dune systems. Sediment must be removed from runoff waters, sediment and erosion control plans must be prepared and implemented, and stormwater management systems must be properly designed;

- buffer zones must be established to protect adjacent waterbodies; and

- adequate water supplies, sewerage and soil waste disposal must be provided.

In New Hampshire, subdivisions and developments that alter more than 100,000 square feet of terrain (or that undertake construction "in or on the border" of surface waters) require a state permit, site plan, and water quality and runoff protection measures.[52] Massachusetts has no comparable state-wide law (with the exception of the Massachusetts Environmental Policy Act, see below).

Massachusetts and New Hampshire have established state boards for licensing energy facilities and assuring that such

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[51] 38 MRSA 481-490 (DEP Chs. 372-376).

[52] RSA 485-A: 29-44 and 485-A:17 (Ws 415).

facilities do not have adverse impacts on coastal waters.[53] In Maine, energy facilities are licensed by the Board of Environmental Protection under the Site Location of Development Act and BEP air quality rules.

Environmental Impact Assessment

Massachusetts is the only Gulf of Maine state that requires environmental impact reports (EIRs) for certain state activities, permits and assistance programs. The Massachusetts Environmental Policy Act (MEPA) requires the Secretary of Environmental Affairs to determine whether projects cause a significant impact upon the environment; if so an EIR must be prepared and the Secretary must certify that "all feasible measures have been taken to avoid or minimize" the environmental impacts of the project.[54] EIRs are required for all dredging projects that exceed 10,000 cubic yards of material, wetland alterations exceeding one acre, non-water dependent projects on tidelands or submerged lands, and marina projects exceeding 250 slips.[55]

MEPA requires that EIRs analyze reasonable alternatives and contain all feasible measures to minimize environmental impacts. The Preparation of EIRs are not required where an EIS is prepared under National Environmental Policy Act or where the Secretary finds that an EIR would cause "undue hardship."

2. Water Quality Controls

Ocean Dumping

Maine, Massachusetts and New Hampshire regulate ocean dumping through state clean water laws and statutes regulating the disposal of dredged material. Each state has adopted a water classification system for inland and marine waters based upon

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[53] The Massachusetts Energy Facilities Siting Law, MGLA 164:69G-S (980 CMR 1.00-11.00) and the New Hampshire Energy Facility Evaluation, Siting, Construction and Operation Law, RSA 162-H:1-16 (NHAR Ener. 100-400).

[54] MGLA 30:61-62H (301 CMR 11.00).

[55] Environmental Notification Forms (ENFs) must be filed with the Secretary for a number of smaller coastal related projects (such as dune alterations, dredge and fill operations, armoring coastal banks, small marinas, sewage discharges and mineral extractions). These projects may require EIRs if the Secretary finds that they will have a significant impact on the environment.

water quality standards in which discharges are generally prohibited in the highest rated waters (A or SA waters). Discharges are permitted in waters classified B or C so long as they do not lower the classification.

Massachusetts requires that the disposal of dredged material or wastes, and the filling of state waters, be licensed and supervised by the Division of Water Pollution Control.[56] Unreasonable degradation or endangerment of the marine environment is prohibited. Massachusetts prohibits dumping (except specially authorized municipal wastes) in the State's five designated ocean sanctuaries, and open ocean dumping in other offshore areas is permitted only in low-energy, sandy sites and only if there are no significant biological impacts or adverse impacts on fisheries. Ocean dumping of dredged spoils must occur only within designated sites.

Maine regulates ocean dumping through its Natural Resources Protection Act, but requires only that the dredged spoils be tested, that transportation routes minimize adverse impacts on the fishing industry, and that disposal sites be geologically stable.[57] The disposal of dredged spoils into sites approved by the Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act is exempt from state discharge requirements.

New Hampshire regulates ocean dumping under the Water Pollution and Waste Disposal Law and the Filling in Public Waters Law.[58] Ocean dumping and dredge and fill activities are licensed by the Division of Water Supply and Pollution Control and the Wetlands Board, but specific ocean dumping standards are not provided.

Discharges from Vessels

Section 312 of the federal Clean Water Act prohibits the discharge of untreated sewage from marine sanitation devices into

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[56] Dredged Material Disposal and Filling in Waters, MGLA 21:27(12), 21:42, 91:52-56 (310 CMR 9.26, 9.40, 314 CMR 9.00). Dredging is prohibited between March and June to protect fisheries and must otherwise be conducted in a manner that protects fisheries and shellfish beds.

[57] 38 MRSA 480-D(9) and E.

[58] Water Pollution Law, RSA 485-A:1-22; Filling in Public Waters, RSA 482-A:16-25.

coastal waters.[59] States may adopt more stringent controls, and prohibit all discharges from holding tanks (even if chlorinated) into marine waters, only if they have an approved program that requires and provides vessel pump out facilities. Massachusetts and Maine require marinas to provide pump out facilities for cleaning out holding tanks and disposing of sewage and sanitary wastes, but New Hampshire does not.[60]

Discharges into both fresh and salt waterbodies from holding tanks are prohibited in Massachusetts, but Maine and New Hampshire prohibit such discharges only into fresh waters.[61] Maine and Massachusetts prohibit the use of Tributyltin as an antifouling agent.[62]

Point Source Pollution

Massachusetts, Maine and New Hampshire have each adopted comprehensive clean water discharge laws that generally have the following components:[63]

- they prohibit unlicensed discharges of pollutants from pipes, outfalls and other discrete conveyances;

- license, regulate and fund the construction, operation and maintenance of sewage treatment facilities and water pollution abatement projects;

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[59] 33 USC 1322.

[60] Massachusetts requires that marinas provide one sewage pumpout facility for every 50 berths and boatyards must provide adequate oil, grease and sediment traps. MGLA 91:59B, 310 CMR 9.39. Maine requires pumpout facilities only for marinas with at least 18 slips or moorings for vessels that exceed 24 feet in coastal waters. 38 MRSA 423.

[61] Maine Protection and Improvement of Waters, 38 MRSA 423. New Hampshire also prohibits greywater discharges into fresh waters. Marine Toilets and Disposal of Sewage from Boats, RSA 487:1-14.

[62] 38 MRSA 419-A.

[63] The Maine Protection and Improvement of Waters Act, 38 MRSA 361-434, 464-470 (DEP Chs. 514-596); The Massachusetts Clean Water Act, MGLA 21:27-48 (310 CMR 41.00, 314 CMR 3.00-4.00, 10.00-14.00); and the New Hampshire Water Pollution and Waste Disposal Law, RSA 485:27-30, 485-A:1-54, 486:1-18 (NHAR Ws and Env-Ws 403, 415-438, 600-1000).

- establish a water classification system for all inland and marine water with minimum water quality standards.[64]

- establish a waste discharge license system with effluent limitations for discharges into surface waters; and

- monitor water quality and conduct scientific research.

Regional Water Quality Planning. Massachusetts has established a program for reducing, controlling, and eliminating discharges into state waters through the preparation of comprehensive river basin and regional plans.[65] Maine authorizes the formation of Lake and Coastal Watershed Districts to acquire property, conduct research, establish assessment districts, and adopt programs to manage and protect water quality and aquatic resources on a watershed basis.[66] Maine also requires water quality planning in local comprehensive plans. New Hampshire has a Water Protection Assistance Program to encourage municipalities to prepare water resource management and protection plans to plan water supply projects, identify potential threats to local water quality and supplies, and design management strategies.[67]

Septic Waste Disposal. Massachusetts has adopted minimum state standards for individual sewage disposal systems licensed by local boards of health.[68] The Massachusetts Wetlands Protection Act generally prohibits subsurface sewage disposal systems within and adjacent to (within 100 feet of) coastal and freshwa-

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[64] Each classification has standards for dissolved oxygen, coliform bacteria, shellfish harvesting, and direct discharges. Generally, direct discharges are prohibited into highest rated (A) waters; lowest rated (C) waters must be suitable for fishing and secondary contact recreation.

[65] MGLA 21:27(10).

[66] 38 MRSA 2001-2022. Maine currently has no coastal watershed districts and only one lake watershed district (the Cobbossee Watershed District). Watershed districts in Massachusetts are established on an ad hoc basis.

[67] RSA 4-C:19-23 (NHAR PLN 100-600).

[68] MGLA 21A:13, 111:17 (310 CMR 11.00, 15.00). Individual systems may not discharge directly into watercourses and may not be installed, altered or repaired if there is an accessible common sanitary sewer system. Septic tanks must accommodate 150% of estimated flow and have a minimum capacity of 1,000 gallons.

ter wetlands. The State's environmental code requires 100 foot setbacks from surface water supplies and 50 foot setbacks from other water bodies.

In Maine, individual septic systems are licensed by local plumbing inspectors licensed by the Department of Human Services pursuant to the State Plumbing Code.[69] Single family lots with septic systems must be at least 20,000 square feet, be set back at least 100 feet from water bodies, and have a minimum 100 foot shoreline frontage.[70] Maine also prohibits new overboard discharges of residential sewage (discharges of domestic pollutants not treated in municipal sewage plants or subsurface septic systems) and has established a program to fund the elimination of existing residential and commercial overboard discharges.[71]

New Hampshire licenses subdivisions and individual septic systems to prevent pollution of public and private water supplies (small residential systems designed and installed by the owner are exempt).[72] Septic systems must be set back at least 75 feet from wetlands. However, the regulations allow 25 feet of wetlands to be filled to comply with the 75 foot setback requirements.[73] New Hampshire requires that sellers of waterfront property provide septic system assessments to prospective buyers to determine if the site meets current standards.

Land Application of Sludge. Massachusetts permits the land application of sludge and septage only for "beneficial purposes" (providing nutrients or improving the quality of soil to grow vegetation).[74] Land application must also be adequately stabilized and set back to prevent seepage into surface waters.

Maine requires each municipality to dispose of its own sludge and septic wastes subject to state standards and provides for stabilization and setback requirements for land spreading to

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[69] State of Maine Subsurface Wastewater Disposal Rules, Department of Human Services, Chapter 241.

[70] 12 MRSA 4807-A.

[71] 38 MRSA 414-A. Existing overboard discharges may be relicensed if state funds are unavailable, if there are no alternatives, and if discharges are not into redeemable shellfish beds. DEP Ch. 596.

[72] Ws 1004. Subdivisions are required to provide 30,000-70,000 square foot minimum lot sizes.

[73] Ws 1007.04 and Wt 303.08.

[74] MGLA 21:43 (310 CMR 32.00).

prevent seepage into surface waters and groundwater aquifers.[75] Property owners may discharge residential septage onto their property twice a year provided it is at least 300 feet from property boundaries or surface waters.

Interstate Pollution Control. Maine, Massachusetts and New Hampshire all belong to the New England Interstate Water Pollution Control Compact.[76] The Compact creates the New England Interstate Water Pollution Control Commission to abate existing and future pollution of interstate inland and tidal waters. The Commission coordinates interstate water pollution control efforts of the member states through interstate forums on water related environmental issues; reviews state water classification systems; maintains a water quality sampling and testing network; contracts with states to perform specific regulatory and planning functions; and establishes standards and programs for training, educating and certifying operators of waste water treatment plants.[77]

Nonpoint Source Pollution

Massachusetts, Maine and New Hampshire have all adopted Nonpoint Source (NPS) Management Plans pursuant to Section 319 of the federal Clean Water Act. These Plans coordinate existing state laws and regulations, and generally contain the following components:

- they describe existing NPS pollution control strategies;
- list priority waters impaired or threatened by NPS water pollution;
- identify the most important categories of NPS pollution within the state;

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[75] Waste Management, 38 MRSA 1301-1310B (Chs. 420, 567).

[76] Maine (38 MRSA 491-537); Massachusetts (MGLA 21, App. 1-5); and New Hampshire (RSA 484:17-26). Other member states include Connecticut, New York, Rhode Island, and Vermont.

[77] Massachusetts and New Hampshire also participate in the Northeastern Water and Related Land Resources Compact, which was formed to conduct research, resolve interstate conflicts and coordinate polices on water and related land resources. The Northeastern Water and Related Land Resources Compact, MGLA 91 App:4-1, 4-2; RSA 484:13-16. Maine is not a participant. It is uncertain whether the Compact is still active.

- define best management practices (BMPs) for each NPS category; and

- establish a schedule to implement NPS pollution control strategies.

Massachusetts, Maine and New Hampshire have adopted groundwater protection strategies that include groundwater classification and discharge licensing systems. New Hampshire has also recently adopted a wellhead protection program to protect groundwater resources that supply public drinking water.[78]

Each state has a program to monitor existing and license new underground storage tanks to prevent leakage of toxic and hazardous wastes into surface and groundwater systems.[79] Massachusetts also requires service stations and marinas to accept waste oil and have waste oil retention facilities to prevent discharges into sewers and waters.

Erosion control mechanisms and BMPs are key elements in addressing the impacts from NPS pollution. New Hampshire requires state alteration of terrain permits for excavations that exceed 100,000 square feet and border on surface waters, and requires the preparation of erosion and sedimentation control plans. However, smaller projects are reviewed by local governments without state requirements to assure the implementation of erosion control BMPs. Maine provides comprehensive erosion controls through a number of existing laws.[80] Massachusetts,

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[78] The wellhead protection program increases inspection and enforcement and prohibits new landfills, junkyards, septage lagoons and other activities within designated groundwater areas. Personal Communication, Ann Poole, New Hampshire Nonpoint Source Program, February 1, 1991.

[79] Maine Underground Oil Storage and Ground Water Protection Law, 38 MRSA 561-570; Massachusetts Rules, 527 CMR 9.00. The New Hampshire program, however, only regulates tanks over 1,100 gallons. Local governments are encouraged to develop BMPs and inventories for smaller tanks (for home heating oil, for example). RSA 146-C. New EPA regulations will apply federal standards to tanks over 250 gallons.

[80] Large scale projects exceeding 60,000 square feet and subdivisions exceeding 20 acres require sedimentation plans and permanent erosion control measures under the Site Location Law; in smaller subdivisions undue soil erosion is prohibited under the Subdivision Law. Municipalities must designate resource protection zones under the Mandatory Shoreland Zoning Act in which development and clearing vegetation within 250 feet of high

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however, has no comprehensive state-wide erosion and sedimentation control requirements.

Maine, Massachusetts and New Hampshire have established voluntary soil and water conservation districts to conserve soil, water, wildlife and related natural resources, and to prevent soil erosion, flooding and sediment damage.[81] Conservation Districts may conduct surveys, research, and demonstration projects, acquire property, prepare comprehensive plans, and implement watershed-wide preventive and control measures.

New Hampshire is the only state that has established a program to control acid rain by reducing sulfur dioxide emissions by 50% by the year 1995.[82]

3. Hazardous Wastes

Maine, Massachusetts and New Hampshire each have hazardous waste management programs that:

- license hazardous waste operators and the transportation of hazardous wastes within the state;
- license the siting of facilities to dispose of hazardous wastes and require setbacks from water bodies;
- identify and clean up hazardous waste sites; and
- administer a hazardous waste cleanup fund.[83]

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[80](...continued)
value wetlands, on slopes exceeding 20 degrees, and in areas subject to severe erosion is prohibited. And "unreasonable" erosion is prohibited within and adjacent to all wetlands, rivers, lakes and tidal waterbodies under the Natural Resources Protection Act.

[81] Maine, 12 MRSA 1-200; New Hampshire, RSA 430-B1-10. The Massachusetts program is non-statutory.

[82] The Acid Rain Control Act, RSA 125-D:1-13.

[83] The Massachusetts Hazardous Waste Management Act, MGLA 21C:1-14 (310 CMR 30.00, 314 CMR 8.00); the Maine Hazardous Matter Control Law, 38 MRSA 1317-1319, 1361-1371, 1401-1404 (DEP Chs. 800-860); and the New Hampshire Hazardous Waste Management Program, RSA 147(A-D) (NHAR He-P 1905).

In addition, Massachusetts requires voter approval for the construction of nuclear power plants and siting facilities for the disposal or storage of low-level radioactive wastes.[84] The State Legislature must also certify that there exist adequate means for the disposal of radioactive wastes.

Maine has specifically rejected the location of high-level radioactive wastes within the State,[85] and requires special legislative and voter approval of facilities for the disposal and storage of low-level radioactive wastes.[86] Maine has also developed a program requiring facilities that use hazardous or toxic wastes to reduce such wastes by 30% by the year 1997.[87]

New Hampshire has no special legislation that limits the location of nuclear power plants or the disposal of radioactive wastes within its boundaries.

4. Oil Spill Prevention

Maine, New Hampshire, and Massachusetts each have comprehensive oil pollution prevention laws.[88] These laws provide for licensing oil terminal facilities and vessels used to transport oil and:

- prohibit the discharge of oil into state waters;
- assign principal responsibility to the state for cleaning up spills;
- administer an oil spill clean up fund for clean-up costs, uncompensated damages, and third party damages (except for Massachusetts);

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[84] Nuclear Power and Waste Disposal Voter Approval and Legislative Certification Act. MGLA 164 App. 3(1-9).

[85] 38 MRSA 1461A-1466.

[86] 38 MRSA 1479 and 1493.

[87] The Toxic Use Reduction Law, 38 MRSA 2301-2312.

[88] Maine Oil Discharge Prevention and Pollution Control Law, 38 MRSA 541-560 (DEP Chs 600-680); Massachusetts Oil Terminals, Pollution Prevention Law, MGLA 21:27(14), 50-50B, 91:59-59A (314 CMR 15.00); and New Hampshire Oil Spillage in Public Waters Law, RSA 146-A:1-15, 146-D:1-9 (NHAR Ws 402, 404, 410-411).

- provide unlimited liability for damages incurred by third parties, clean up costs and natural resources;

- require strict liability for petroleum facilities and handlers for costs and damages incurred from spills, and stiff civil and criminal penalties; and

- limit responder liability, under good Samaritan provisions, for persons who undertake cleanup operations without charge or at the state's request, unless willfully or grossly negligent.

Only Maine requires the preparation and approval of oil spill contingency plans for all licensed terminals. Terminal contingency plans must include a comprehensive plan to cleanup spills, a list of abatement equipment available for cleanup activities, a procedure to notify the state and affected persons, and methods for disposing of recovered wastes.[89] The Maine Department of Environmental Protection is authorized to conduct unannounced drills to determine the adequacy of response plans. Maine also subjects terminals to liability for spills from vessels within 12 miles of shore.[90]

Although Maine does not have a State Oil Spill Response Plan the Governor has the authority to declare a state of emergency under the Maine Civil Emergency Preparedness Act should an oil spill occur.[91] An appendix to the State's overall emergency response plan dealing specifically with oil spills is being drafted. It is uncertain how the plan will coordinate the actions of the Maine Emergency Management Agency and the Maine Department of Environmental Protection.[92]

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[89] The new federal Oil Pollution Act establishes a National Planning and Response System that requires, among other things, Area Contingency Plans to assure the removal of worst case spills, and Tank Vessel and Facility Response Plans reviewed by the federal government for all vessels and facilities.

[90] 38 MRSA 552(2).

[91] 37-B MRSA 701-806.

[92] *See* "Report of the Commission to Study Maine's Oil Spill Cleanup Preparedness," Office of Policy and Legal Analysis, November 1990, at 18 and 41. The Commission's Report addresses Maine's capacity to respond to a worst-case spill, oil spill prevention strategies, Maine's oil spill laws, and the adequacy of its cleanup fund.

Massachusetts has a State Contingency Plan for oil and hazardous materials that establishes notification and cleanup procedures.[93] Although the State does not require licensed terminals to have oil spill contingency plans, it does have the authority to require terminals to have suitable equipment available for a spill.[94] Maine and Massachusetts require that boom devices be deployed around all vessels transferring petroleum products and require state approval for the use of dispersants.

Massachusetts and New Hampshire have limited bonding requirements for facilities and vessels entering state ports which may be applied to costs for removing and containing spills; Maine has no financial responsibility requirements. However, the new federal Oil Pollution Act of 1990 establishes uniform requirements that financial responsibility by vessel owners and onshore facilities be demonstrated through a number of measures, including evidence of insurance, surety bonds, and letters of credit.

5. Offshore Oil/Gas/Mineral Development

Massachusetts and Maine require state exploration and extraction permits for the exploration and development of offshore oil, gas, and minerals.[95] Maine, however, excludes mining for sand and gravel deposits from its mining provisions.[96] Massachusetts prohibits offshore drilling and mining within its five established ocean sanctuaries and in other offshore areas such activities must not "unreasonably interfere with navigation, fishing or conservation of natural resources."[97]

Maine law contains similar provisions with regard to activities on submerged lands leased under its Submerged Lands Leasing Law,[98] but does not address the conservation of marine resources

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[93] 310 CMR 40.00.

[94] MGLA 21:50.

[95] Massachusetts Mineral Resources, MGLA 21:54-56; Maine Mining on State Lands, 12 MRSA 541-550.

[96] 12 MRSA 549-A(6). However, offshore sand and gravel mining must comply with Maine's Submerged Lands Leasing Law. 12 MRSA 558-573.

[97] 310 CMR 29.00.

[98] Leases of submerged lands in Maine must not unreasonably interfere with public access or public trust rights to intertidal

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nor specifically address the impacts from proposed sand and gravel mining operations.[99] New Hampshire's permit requirements for the removal of sand and gravel from beneath navigable waters only provides for the protection of public and private rights. In Massachusetts, sand and gravel mining is prohibited in shellfish and finfish spawning and feeding areas, areas that serve as a source of sediment for beaches, and where it would adversely affect waves and currents.

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[98](...continued)
lands, navigation, fishing or other existing marine uses, diminish the availability of commercial fishing services and facilities, or the ingress and egress of riparian owners. Maine Submerged Lands Leasing Law, 12 MRSA 558-A(2).

[99] *See* 12 MRSA 558(A)-559.

B. Protected Areas

1. Coastal Wetlands and Sand Dune Protection

Maine regulates uses within coastal and freshwater wetlands, sand dune systems, rivers, streams and significant wildlife habitats under one statute, the Natural Resources Protection Act (NRPA).[100] State permits are required for construction activities within "protected natural areas" (sand dune systems and significant wildlife habitats), and within or "adjacent to" all coastal wetlands, freshwater wetlands and great ponds exceeding 10 acres, and rivers and streams with watersheds exceeding 25 miles. Maine's Mandatory Shoreland Zoning Act requires local governments to establish "resource protection" zones within 250 feet of moderate or high value wetlands, within which residential and commercial development is prohibited. Activities affecting freshwater wetlands and ponds under 10 acres are regulated by local governments.[101]

In Massachusetts, development affecting coastal and inland wetlands is regulated by local governments pursuant to standards established under the Wetlands Protection Act.[102] The State implements the Protection of Coastal Wetlands Law (now called the Wetlands Conservancy Program)[103] and the Inland Wetlands Restriction Act[104] which authorizes the adoption of regulatory orders imposing restrictions upon selected coastal and inland wetlands. Subsequent development must comply with state orders as well as local government permit reviews.

The Massachusetts Wetland Protection Act requires local governments or conservation commissions to regulate alterations within freshwater wetlands exceeding 5,000 square feet, all coastal wetlands, beaches, dunes, rivers, lakes, lands under said waters, or lands subject to tidal action or coastal flooding. Activities within 100 foot buffers of such areas may be regulated. Activities outside the 100 foot buffer zones may also be regulated but only after they "actually alter" such areas. Local

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[100] 38 MRSA 480 A-S (DEP Chs. 310, 343-345, 355).

[101] Projects within these wetlands are also regulated by the Army Corps of Engineers pursuant to Section 404 of the Clean Water Act, 33 USC 1344.

[102] MGLA 131:40-45 (310 CMR 10.00).

[103] MGLA 130:105 (302 CMR 4.00).

[104] MGLA 131:40A (302 CMR 6.00).

government actions may be appealed to the Massachusetts Department of Environmental Protection.

In New Hampshire, the State Wetlands Board regulates dredging, filling and construction activities within and adjacent to (within 100 feet of the highest observable tide line) coastal wetlands, sand dunes, and state waters.[105] In addition, the Board regulates activities within freshwater wetlands of any size but does not have fixed buffer zones. Local governments are authorized to designate "prime wetlands," within and adjacent to which no "significant" net loss of wetland values may occur. "Adjacent" is defined on a case-by-case basis depending on the impacts of the activity.

Wetland Standards.[106] Massachusetts has adopted stringent standards protecting inland wetlands by generally prohibiting the destruction of vegetated wetlands and wetlands habitat. The destruction of up to 5,000 square feet of bordering vegetated wetlands is permitted, but only if replaced on a 1:1 basis.[107]

Maine and Massachusetts prohibit unreasonable adverse impacts on coastal wetlands. Massachusetts prohibits projects within or adjacent to (within 100 feet) salt marshes from destroying "any portion" of the wetland or adversely affecting productivity, and applies a "no net loss" wetlands policy as part of its federal consistency review process. Maine's new regulations prohibit activities that would cause a loss in "wetland area, functions and values" if there are less damaging "practical alternatives." Maine has also established mitigation banking and wetland compensation programs.[108]

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[105] Fill and Dredge in Wetlands Law, RSA 482-A:1-27 (NHAR Wt 100-800).

[106] For a more detailed analysis of state and federal wetland laws and habitat protection provisions see Jonathan M. Kurland's Report to the Gulf of Maine Council on the Marine Environment entitled, "Habitat Mitigation Efforts in the Gulf of Maine: Stemming the Tide of Environmental Degradation," January 1991.

[107] 310 CMR 10.55.

[108] Mitigation is required if wetland functions are lost at a minimum 1:1 ratio for restoration, enhancement or creation of Class II or III wetlands; at a minimum 2:1 ratio for Class I wetlands; and at a minimum 8:1 ratio for preservation of existing wetlands. A mitigation banking program may also be established to compensate for up to 25 acres of wetland alterations. DEP Ch. 310. Class I wetlands include all tidal and subtidal lands and

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New Hampshire's no net loss of wetlands policy is applicable only to projects that significantly affect "prime" freshwater wetlands mapped by local governments.[109] Dredging in coastal wetlands is only permitted between November 15 - March 15. Fill in freshwater wetlands not exceeding 3,000 square feet or 5% of the affected wetland, and excavation of ponds less than 1 acre, are considered minimum impact projects.

Dune Construction and Sea Walls. Maine prohibits unreasonable soil erosion and sedimentation and the inhibition of the natural transfer of soil from the terrestrial to the marine environment. Sea walls and all other structures within frontal dunes or v-zones are prohibited, but sea walls along banks are permitted so long as they do not unreasonably affect beach sediment or shoreline processes.

Massachusetts requires that construction within or adjacent to (within 100 feet) coastal dunes must not adversely affect dune forms, vegetation or stability, or impede the lateral and seaward migration of sand. Sea walls on coastal dunes are generally prohibited. Sea walls on coastal banks are permitted to prevent storm damage to buildings in existence prior to 1978, but only if no other protective measures are feasible. Construction within 100 feet of coastal banks must not adversely affect the movement of sediment and must preclude the future use of sea walls or bulkheads.

New Hampshire prohibits construction on sand dunes and the alteration of sand dunes or dune vegetation, but has no specific policies prohibiting the construction of sea walls.

Wildlife Habitat. Maine's Natural Resources Protection Act prohibits unreasonable harm to fisheries and significant wildlife habitat, including plant or aquatic habitat. Massachusetts wetlands laws also prohibit adverse effects on marine fisheries and wildlife habitat from projects within or adjacent to fresh or coastal wetlands, and the interference with bird nesting habitat on sand dunes.

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[108](...continued)
areas containing threatened or endangered species or habitats of such species. Class II wetlands are areas within 250 feet of coastal wetlands with at least 20,000 square feet of marsh vegetation or open water, or floodplain wetlands. All other wetlands are Class III wetlands.

[109] RSA 482-A:11. "Prime" wetlands are defined in the Board's wetland regulations (Wt 701). Generally, they must contain important wetland values and be of "substantial significance . . . because of their size, unspoiled character, fragile condition, or other relevant factors." RSA 482-A:15.

New Hampshire is authorized to consider the impacts of development in or near wetlands on wildlife habitat, but specific guidance and standards are not provided.[110]

Recreation. Maine prohibits the unreasonable interference with scenic, aesthetic, recreational or navigational uses, including established public rights of access. These provisions apply to fresh and saltwater wetlands, great ponds, rivers, streams, and significant wildlife habitats.[111] Massachusetts has extensive recreational requirements for projects within tidelands in its Chapter 91 licensing provisions.[112] The New Hampshire Wetlands Board is authorized to consider impacts upon navigation, aesthetics, abutting owners, water quality, flooding, recreation and other public benefits, but no definitive standards are established. New Hampshire wetlands law also requires that filling below the high tide line must protect public rights.

Barrier Beach Systems. Maine has established a Coastal Barrier Resources System which prohibits the expenditure of state funds for development within barrier beaches designated under the U.S. Coastal Barrier Resources Act.[113] Massachusetts Executive Order 181 prohibits state investment on barrier beaches, except for the maintenance of navigational channels. New Hampshire has no barrier beach law but few, if any, undeveloped barrier beaches remain within the state.

2. Tidelands/Submerged Lands Management

Maine and Massachusetts own all submerged lands seaward of the low-water mark or 1,650 feet seaward from the high tide line, whichever is further landward. Intertidal lands, between the low and high tide line, are privately owned by the riparian property owner subject to a public easement for fishing, fowling and navigation.[114] New Hampshire owns submerged lands seaward of the high tide line.

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[110] For a complete discussion of the wildlife habitat provisions of state and federal wetland laws, including the laws of Canada and the Provinces of Nova Scotia and New Brunswick, see Kurland, "Habitat Mitigation Efforts in the Gulf of Maine."

[111] 38 MRSA 480-D.

[112] *See* Massachusetts Public Waterfront Act under Tidelands/Submerged Lands Management.

[113] Coastal Barrier Resource System Law, 38 MRSA 1901-1905.

[114] *Bell v. Wells*, 557 A.2d 169 (1989).

Maine manages state-owned submerged and intertidal lands under the Submerged Lands Leasing Law[115] and has relinquished title to and public trust rights in all submerged and intertidal lands filled before October 1975.[116] The Submerged Lands law prohibits filling state intertidal or submerged lands unless there are no "practical alternatives," no reasonable opportunities to relocate, and public trust rights are not impaired. Privately owned intertidal lands are protected by comparable standards under the Natural Resources Protection Act.

The Massachusetts Public Waterfront Act[117] requires state tidelands licenses for uses on filled as well as flowed tidelands and applies public trust rights of fishing, fowling and navigation to filled tidelands, so long as such lands are not landlocked (i.e. landward of the first public road or no more than 250 feet from the high tide line, whichever is further landward).

New Hampshire manages its submerged lands under the Conveyance of Property Under Water Law.[118] No specific requirements for protecting public rights or water dependent uses have been established.

Public Benefits. The Director of the Maine Bureau of Public Lands is authorized to require public benefits from submerged lands leases, such as public access and recreational facilities, but rules have not yet been promulgated that specify how such benefits should be provided.[119]

Massachusetts, on the other hand, has adopted extensive regulations providing public benefits for leasing public tidelands and submerged lands. Tidelands permits (known as Chapter 91 licenses) are required for any filling, altering, or new construction, as well as any change in use, continuation of use not previously authorized, or expired use. All uses must be for a "proper public purpose" and must protect public rights by:

- not significantly interfering with navigation and rights to swim over public and private tidelands;

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[115] 12 MRSA 558-573.

[116] 12 MRSA 559.

[117] MGLA 91:1-63 (310 CMR 9.00).

[118] RSA 4:40(a-e).

[119] The Director of the Bureau may refuse to lease submerged lands where it would interfere with customary or traditional public access ways to, or public trust rights in, on or over intertidal or submerged lands.

- providing continuous lateral public access rights on private and filled tidelands for fishing, fowling, and navigation;

- allowing public swimming, strolling and other recreational activities on "public" tidelands and submerged lands; and

- allowing public access to private marinas, and requiring that public slips, moorings and facilities be provided.

Water Dependent Uses. Maine encourages the use of its submerged lands for commercial fishing and other water dependent uses by leasing submerged lands for such uses at 1%-2% of fair market value (compared to 10% for upland or non-water dependent uses).[120] It also requires that leases do not unreasonably interfere with navigation, fishing and other existing marine uses, and do not diminish the availability of services and facilities for commercial marine activities. Maine also limits the conversion of existing water dependent uses to non-water dependent uses on submerged lands or state-owned tidelands.[121]

In Massachusetts, water dependent uses on tidelands are preferred and are provided extensive protections. Non-water dependent uses must not disrupt or diminish the capacity of land to accommodate water dependent uses, must devote reasonable portions for water dependent uses including public pedestrian access, must promote public uses, must be primarily for public purposes, and must provide 1:1 open space. Private non-water dependent uses are prohibited on flowed tidelands or on the ground level of structures within 100 feet of the shoreline.

Underwater Archeological Resources. Massachusetts is the only Gulf of Maine state with legislation regulating the exploration, removal and salvage of underwater archeological resources.[122]

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[120] The fair market value of submerged lands is based upon the assessed value of the adjacent upland parcel multiplied by the reduction factor based upon the use of the leased submerged land. 12 MRSA 558-A(2)(A).

[121] Conversion to non-water dependent uses is permitted only if there are no unmet demands for water dependent uses, there are no alternative sites, and public trust rights are not impaired.

[122] The Massachusetts Underwater Archeological Resources Act, MGLA 6:179-180 (312 CMR 2.00). The federal government has delegated the authority to preserve shipwreck sites to the states under the Abandoned Shipwreck Act, 43 USC 2101-2106.

Aquaculture. Maine, Massachusetts, and New Hampshire have adopted laws for leasing submerged lands for aquaculture. The Maine Aquaculture Leasing Act[123] establishes a procedure for leasing state-owned intertidal and submerged lands for finfish and shellfish aquaculture and resolving use conflicts. Aquaculture must not unreasonably interfere with the ingress and egress of riparian owners, navigation, fishing and other uses of the area, or public use and enjoyment within 1000 feet of public beaches, parks and docks. Leases must be located at least 2000 feet from other aquaculture sites or fish weirs.

Maine also provides for extensive environmental controls of aquaculture sites. Prior to issuing leases, the bottom must be surveyed, sampled and a video must be made. Aquaculture operations are prohibited in SA waters and viscera must be disposed only in authorized locations. Finfish aquaculture sites should provide for 10 foot clearance from the bottom, .1 knot minimum currents, and biannual infauna benthic surveys. The State must certify, prior to transporting marine organisms into state waters (such as salmon smolts), that indigenous marine life and its environment will not be endangered by bacteria, fungus, virus or other infectious diseases or parasites. In addition, all imported eggs must be disinfected and certified "disease free."

New Hampshire also requires that persons wishing to conduct finfish or shellfish aquaculture operations on tidelands or submerged lands obtain a license.[124] Aquaculture operations must not cause the deterioration of natural or established runs of anadromous fish, and prior to release into state waters, all fish must be examined by a qualified pathologist to certify that they are disease free. However, there are no provisions for assessing water quality impacts or resolving use conflicts from aquaculture operations.

Massachusetts has no state-level finfish aquaculture leasing law.[125] Municipalities are authorized to issue shellfish licenses for aquaculture operations on or above submerged lands, and must be compatible with public uses and navigation.[126]

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[123] 12 MRSA 6071-6074 (DMR Ch. 2).

[124] Aquiculture, RSA 211:62-e.

[125] The Director of the Division of Marine Fisheries is authorized to issue permits for raising and harvesting finfish in connection with aquacultural enterprises. MRSA 130:17B.

[126] MRSA 130:68A.

3. Marine Sanctuaries

Massachusetts is the only Gulf of Maine state that has established offshore ocean sanctuaries. Maine and New Hampshire have not established a comparable mechanism for identifying or protecting areas of ecological significance in the marine environment.

The Massachusetts Ocean Sanctuaries Act[127] creates five ocean sanctuaries covering all state offshore waters, with the exception of the area between Lynn and Marshfield. Within these sanctuaries, Massachusetts prohibits exploiting, developing, significantly altering, or endangering the ecology or appearance of the ocean, seabed or subsoil. The Act prohibits:

- the location of structures on the seabed or subsoil;
- offshore electric generating stations;
- the drilling for or removal of oil, gas or minerals. Sand and gravel may only be removed for shore protection or restoration projects; and
- the incineration and dumping of wastes (except for municipal wastes if there are no feasible alternatives, no harm to marine resources, the wastes are pretreated, and a plan is implemented to control combined sewer overflows). Discharges from existing facilities are permitted.

4. Critical Areas

Massachusetts, Maine and New Hampshire have each adopted programs for designating critical areas.[128] In Massachusetts, Areas of Critical Environmental Concern (ACEC) may include coastal areas, fishery habitats, estuarine wetlands, natural areas and sensitive inland areas. Special permits are not required for developments in ACECs, but stringent performance

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[127] MGLA 132A:12A-18, 302 CMR 5.00, 310 CMR 9.27.

[128] Massachusetts Areas of Critical Environmental Concern, MGLA 21A:2(7) (301 CMR 12.00); The Maine Critical Areas and Endangered Plants Program, 5 MRSA 3310-3316; and the New Hampshire Areas of Particular Concern Program, a non-statutory program within the State's coastal program.

standards are imposed under existing laws.[129] Scientific information is gathered within ACECs and all state or state regulated or funded projects must be reviewed under the Massachusetts Environmental Policy Act.

Maine has adopted a non-regulatory Critical Area and Endangered Plants Program that establishes a Register of Critical Areas and Heritage Coastal Areas.[130] The Maine Register of Critical Areas contains an inventory of sites containing plant and animal life or geological features worthy of preservation, and other areas of significant natural, scenic, historical or scientific value. Such areas are recommended for protection through voluntary conservation agreements and state acquisition, although the program contains no funds for acquisition. Prior to designation, the property owners' consent must be secured and they must also approve any protective measures taken.

Heritage Coastal Areas are established in areas that contain geological, botanical, zoological, historical, or scenic features of exceptional state or national significance. The Heritage Coastal Area Program, like the Critical Areas Program, is voluntary and relies on acquisition, conservation agreements with owners, and special considerations from government agencies for protection. Although no funds for acquisition are provided, Critical Areas and Heritage Coastal Areas receive priority consideration under the Land for Maine's Future Program.

The New Hampshire Coastal Program has established a non-statutory program to designate Areas of Particular Concern (APCs) including, coastal and estuarine waters, tidal and freshwater wetlands, floodplains, beach and sand dunes, rocky shores, unique natural areas, the Port of Portsmouth, and the shoreline of Great and Little Bay. APCs may require preservation by acquisition or additional regulation if designated as "Areas for Restoration Preservation." Three salt marsh areas totalling over 600 acres have been so designated by the Great Bay Research Reserve Program.

New Hampshire has enacted a Native Plant Protection Act and Natural Heritage Inventory,[131] prohibiting the unauthorized taking of native plants found to be endangered, threatened, or of

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[129] For example, activities within ACECs that require Chapter 91 licenses or wetlands permits must have "no adverse impacts," and improvement dredging and the disposal of dredged material is prohibited. In addition, ACEC waters are designated "SA" with strict antidegradation and discharge standards.

[130] 5 MRSA 3310-3316.

[131] RSA 217-A:1-12 (NHAR RES-N 100-300).

special concern. These species may be placed on a Natural Heritage Inventory. The destruction of species on the Inventory located on public lands or the lands of another are subject to civil and criminal penalties, although landowners are not prohibited from removing listed plants from their property. Massachusetts protects endangered and threatened plant species under its Endangered Species Act.[132] Maine is authorized to list endangered and threatened plant species for informational purposes under its Critical Area and Endangered Plants Program.[133]

5. Coastal Wildlife Protection

Massachusetts, Maine and New Hampshire each have adopted endangered species laws to supplement the federal Endangered Species Act. Massachusetts authorizes the Division of Fisheries and Wildlife to prepare a list of endangered and threatened species, or species of special concern.[134] The list may include fish, birds, mammals, reptiles, amphibians, or plants and currently includes some marine species (2 species of sturgeon and 6 species of whale).[135] Massachusetts recently substantially strengthened its Endangered Species Law by providing for the designation of "significant habitats" for the conservation of threatened and endangered species. The Director must certify that any proposed alterations will not reduce the viability of such habitats to support endangered or threatened populations. Massachusetts has identified portions of Stellwagen Bank and Cape Cod Bay as a special habitat for the endangered northern right whale.

Maine protects significant wildlife habitats, including waterfowl, seabird, shorebird and salmon spawning habitats, under the Natural Resource Protection Act,[136] and has also adopted an

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[132] MGLA 131:26A (321 CMR 8.00-9.00).

[133] 5 MRSA 3310-3316.

[134] Protection of Endangered Species of Wild Animals, MGLA 131:26A (321 CMR 8.00-9.00), as amended by Stat. 1990, c. 408. The Division may also notify the Department of Environmental Protection to take special steps to protect inland fishery resources by preventing the discharge of wastes. MGLA 131:41-42.

[135] Massachusetts also authorizes the acquisition and designation of property owned by the Commonwealth as wildlife sanctuaries, in which hunting, fishing, firearms, garbage dumping, and fires are prohibited. MGLA 131:7-10 (321 CMR 7.00).

[136] 38 MRSA 480 A-S (DEP Chs. 310, 343-345, 355).

endangered species law to designate threatened and endangered species and protect essential habitats.[137] The Commissioner of the Maine Department of Inland Fisheries and Wildlife must approve projects within essential habitats that require state or local government action to ensure that habitats are not altered and that protections for designated species are not violated.

Maine has no non-federally designated marine species on its endangered species list, except two shore bird species (the least tern and the piping plover). The roseate tern and 2 non-federally designated turtle species are listed as threatened. Maine lists the golden eagle as well as the federally-designated bald eagle as endangered. Maine currently has the only substantial population of bald eagles in the northeastern United States, and has mapped and protects eagle nesting sites from "significant alterations and unreasonable harm."[138]

New Hampshire has adopted an Endangered Species Conservation Act to protect endangered and threatened wildlife species, including marine mammals, but excluding other marine species.[139] The Act authorizes the State to initiate conservation programs to protect endangered and threatened species including acquisition, limitations on takings, restrictions upon boat traffic, and agreements with other state, local and federal agencies.

6. Coastal Acquisition and Recreation

Massachusetts, Maine and New Hampshire have a number of programs that provide for the preservation and public use of coastal property through acquisition and local government assistance programs. In addition, Massachusetts and Maine have adopted laws that encourage the recreational use of private property by limiting landowner liability for the public use of private land.

The Massachusetts Coastal Facilities Improvement Program provides assistance to towns to undertake harbor and waterfront improvements or prepare harbor improvement plans.[140] Grants may be issued by the State Coastal Zone Management Office to fund 50%

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[137] 12 MRSA 7751-58 (DIF&W Ch. 8).

[138] "Conservation of Inland Fisheries and Wildlife Habitat," Maine Department of Inland fisheries and Wildlife, October 16, 1990, at 8.

[139] RSA 212-A:1-15 (NHAR Fis 1001).

[140] MGLA 21F:1-7 (301 CMR 22.00).

of local costs up to $2 million (funds were exhausted in 1987). Improvements must be used for public facilities for fishing, shellfishing, marine commerce, marine recreation or public access, but may not be used for dredging.

The Massachusetts Self-Help Program provides assistance to local conservation commissions for 80% of the costs for acquiring land to protect natural resources and provide outdoor recreation.[141] In 1987, the State approved a $55 million bond to fund the program. However, applications submitted by cities and towns for the remaining $16 million in the Program are being returned because of the State's current fiscal crisis.[142]

Maine has no specific program for acquiring coastal property but has established a $35 million bond program to acquire land throughout the state for recreational and conservation purposes under the Land for Maine's Future Law.[143] The law establishes priorities for properties with high recreational and scenic values, undeveloped shorelands, wetlands, habitats for endangered or threatened plant and animal species, and lands that provide public access to recreational opportunities. The $35 million bond program is nearly exhausted and in 1990 the voters rejected a bond measure for an additional $18 million.[144]

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[141] MGLA 132A:11 (301 CMR 5.00, 7.00).

[142] "Funding cut curtails open-land program," Boston Globe, January 27, 1991 at 25. The article estimates that since 1962, the Program has spent $52 million to fund 1,124 projects in 231 communities, preserving more than 37,000 acres of land and water. Id. at 27. In addition to the Self-Help Program, the Massachusetts Division of Conservation Services designates conservation districts to establish educational programs and voluntary controls to preserve renewable resources, including fisheries and wildlife, erosion and flood controls, and water conservation. MGLA 21:18-25. The Division of Marine Fisheries and the Division of Fisheries and Wildlife are also authorized to acquire land to protect marine fisheries and wildlife. MGLA 130:17(8).

[143] 5 MRSA 6200.

[144] Other state programs for acquiring lands for public recreation are administered by the Bureau of Public Lands (for public recreation, wildlife and timber); the Bureau of Parks and Recreation (for state parks); the Department of Economic and Community Development (for community parks and recreation programs); and the Department of Inland Fisheries and Wildlife (for habitat restoration, particularly wetlands, and boat access). DIF&W currently manages over 16,000 acres of wetlands and has programs in place to purchase additional areas.

Most of New Hampshire's shoreline is publicly-owned.[145] The State has established a Land Conservation Investment Program to acquire lands and interests in lands of statewide, regional, and local conservation and recreation importance for preservation, protection and public access purposes.[146] These lands may include aquifer recharge areas, watersheds, recreational lands, areas of special scenic beauty, plant and wildlife habitats, undeveloped shorelines, wetlands, flood storage areas and other important open space and natural resource areas. The Program establishes a trust fund for land acquisition. The Program is scheduled to terminate in June 1993 unless renewed by the Legislature.

The Massachusetts Public Access Board is an interagency board that designates areas to be acquired for public access to great ponds and other waters as well as trails and paths for snowmobiling, hiking, skiing or other uses.[147] Acquisition and operation of such public access areas are chargeable to a Public Access Fund. New Hampshire also has an interagency Right-of-Way Board to implement the State's Right-of-Way to Recreational Waters Law.[148] The Law requires the Board to review all transactions by state agencies to acquire or dispose of any land to assure that rights-of-way to state waters for boating, bathing, fishing, or other recreational uses are retained and provided.

Massachusetts and Maine have also enacted laws that limit the liability for landowners who allow the public use of their land for recreational purposes. In Massachusetts, owners are not liable for injuries to persons or property while on their land except for willful, wanton, or reckless misconduct, and owners owe no duty to either licensees or invitees.[149]

Under Maine law, landowners, lessees or occupants owe no duty of care to protect persons entering their land for recreational or harvesting activities from injury due to the condition of the premises; no duty to keep their property in a safe condition for the benefit of the public; and no duty to warn the

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[145] The New Hampshire Coastal Program notes that 78% of the State's Atlantic shoreline is under public ownership and 60% of the land within 1,000 feet of the shoreline is publicly owned or managed.

[146] RSA 221-A:1-13.

[147] MGLA 21:17A.

[148] RSA 230:72-73.

[149] MGLA 21:17C.

public about potential dangers on the property.[150] The law encourages hunting, fishing, hiking, boating, swimming, clamming or simply going to the beach for recreational purposes. Liability protection is not afforded to owners who receive compensation or engage in willful or malicious conduct. Protected landowners who are sued and found not liable under these provisions are entitled to compensation from the plaintiff for their legal costs, including attorneys' fees.

Persons who grant public access rights pursuant to New Hampshire's Land Conservation Investment Program are not liable for injuries suffered on those lands except for willful or wanton misconduct.

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[150] 14 MRSA 159-A.

IV. IDENTIFICATION OF CONTRASTING APPROACHES

A. Common Approaches

The States of Maine, Massachusetts and New Hampshire share a number of common approaches to regulating uses and activities that affect the coastal and marine resources of the Gulf of Maine.

- each state has a comprehensive clean water law that classifies coastal and inland waters, regulates discharges, and provides standards for the treatment of sewage. Standards are coordinated through joint participation in the New England Interstate Water Pollution Control Commission;

- each state has a comprehensive oil spill clean up and hazardous waste law that provides for strict and unlimited liability;

- each state has a Nonpoint Source Management Plan under the federal Clean Water Act;

- each state has comprehensive laws protecting coastal and freshwater wetlands, and sand dunes;

- each state has adopted a coastal management program under the federal Coastal Zone Management Act;

- each state has a program for protecting critical areas and endangered species; and

- each state has programs to acquire open space and encourage the use of private lands for recreational purposes.

B. Divergent Approaches

Notwithstanding the common approaches noted above, standards vary substantially within state programs. In addition, individual states have undertaken unique regulatory programs to protect and preserve coastal and marine resources. In some cases, these special programs may provide models to facilitate the achievement of common goals and eliminate inconsistent standards. Figure 1 identifies different approaches utilized by the States of Maine, New Hampshire and Massachusetts to regulate and protect the coastal and marine resources of the Gulf of Maine.

Figure 1
Contrasting Approaches to Regulating Gulf of Maine Resources

State Approaches	ME	NH	MA
Shoreland Zoning	X		
Comprehensive Planning	X		
Subdivision Review	X	X	
State Site Review	X	X	
Regional and State Commissions	X		X
Statutory Coastal Policies	X		
EIR Requirements			X
Marina Pump Out Requirements	X		X
100 Foot Septic System Setbacks	X		X
Waste Oil Recycling			X
Erosion and Sedimentation Controls	X	X	
Toxic Use Reduction Law	X		
Acid Rain Control Law		X	
Oil Terminal Contingency Plans	X		
Oil Spill Drills	X		X
Vessel Boom Containment Requirements	X		X
Offshore Mining Law	X		X
Small-Scale Freshwater Wetlands Law		X	X
100 Foot Wetland Buffers			X
Sea Wall Prohibitions	X		X
Public Benefits for Tidelands Dev.	X		X
Underwater Archeology Protection			X
Finfish Aquaculture Law	X	X	
Critical Area Performance Standards			X
Ocean Sanctuary Law			X
Endangered Species Habitat Protection	X		X

Statewide Planning and Zoning Controls. Only Maine has adopted state-wide comprehensive planning, zoning and subdivision laws that address coastal issues. These laws require municipalities to: adopt zoning controls within 250 feet of shoreland areas to protect coastal resources; prepare comprehensive plans and zoning ordinances throughout their jurisdiction that reflect coastal policies to manage growth and development, protect water quality, and preserve critical natural resources; and review subdivisions to protect wildlife and natural areas, public access, water quality, and prevent soil erosion. Subdivisions exceeding 20 acres are reviewed directly by the State.

Maine's approach establishes a reasonable mechanism to apply state-wide coastal policies at the local government level. It does not divest local governments of planning or zoning authority

but provides minimum standards for protecting important resources, which are implemented through local controls. This provides a useful approach for addressing the cumulative impacts of development. It requires state oversight to assure that state standards are being properly implemented by local zoning boards, planning commissions and town councils. However, recent budgetary problems may jeopardize the ability of the State to provide the necessary level of supervision.

Regional and State Commissions. Massachusetts has established regional planning and regulatory commissions for Cape Cod and Martha's Vineyard to protect sensitive coastal resources, water quality, and to control growth. Maine has created a state commission (LURC) to plan for and regulate development within unincorporated areas, which include about 200 islands and 5% of the State's coastal zone. New Hampshire has not adopted the state commission approach. Establishing direct regulatory and land use controls over development within specially designated areas is a useful and effective mechanism for implementing statewide policies to protect the marine and coastal environment.[151]

Coastal Policy Implementation. Maine has enacted legislation establishing nine coastal policies which must be considered in all state and local government regulatory and planning decisions. These policies promote public access, water dependent uses and the consideration of cumulative impacts; protect critical resources; maintain and restore water quality; protect marine resources; and discourage development in hazardous areas. New Hampshire has non-statutory coastal policies while Massachusetts has both regulatory and non-regulatory coastal policies.

Maine's approach has considerable advantages. If properly implemented, the State's nine coastal policies must be considered by all local government bodies when issuing building permits, developing land use plans, enacting zoning ordinances, and approving subdivisions. State agencies must also consider these coastal policies when planning for and constructing highways, public utilities, sewage treatment facilities, harbor improvements, submerged lands and timber leases, and other state projects. Non-statutory policies are generally less likely to be effectively enforced and rely to a greater extent on the persuasive skills of state coastal management program offices.

However, statutory policies by themselves are also not enough to ensure implementation of coastal policies. Maine lacks

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[151] It should be noted that the Cape and Vineyard Commissions work with local governments while LURC was created because unincorporated areas in Maine lack local governments.

an effective mechanism to assure proper enforcement at the state and local level. Guidelines and regulations describing how such policies should be incorporated into state and local government decision-making are also necessary. Massachusetts has demonstrated how non-statutory coastal policies can be effectively implemented by incorporating these policies into the State's wetlands and tidelands leasing regulations.

State Site Review. Maine and New Hampshire provide for state review of large-scale development and subdivisions. Maine's Site Law authorizes the State to review a broad range of effects on natural resources, while New Hampshire's review is generally limited to water quality impacts. Massachusetts does not provide for state review of large scale development, except under its Environmental Policy Act.

While grading, runoff, and sedimentation are likely to cause some of the most serious impacts from large development, there are a number of other impacts that should be and are considered under Maine law; primary among these are impacts on open space, natural resources, wildlife habitats, sewage, and the consideration of the cumulative effects of development. State review of large-scale development ensures that developments with the largest potential impacts are properly evaluated.

Environmental Impact Assessment. Massachusetts has an environmental impact assessment requirement to assure that reasonable alternatives, cumulative effects and feasible mitigation measures are properly considered in reviewing development that may have adverse impacts. It closely resembles the National Environmental Policy Act, except that it applies to state and state approved projects. To some extent, the Massachusetts Environmental Policy Act serves as a state site review mechanism because the State must certify that all feasible mitigation measures have been taken to minimize the environmental impacts of projects that require state approval.

Since Maine and New Hampshire have no EIR requirement, it is essential that critical environmental information, mitigation measures, and alternatives normally generated by an EIR are elicited through other state and local reviews. For example, Maine provides a similar analysis through its Natural Resources Protection Act, the Site Location of Development Act, the Land Use Regulation Act, and the Comprehensive Planning and Land Use Regulation Law. Nevertheless, an environmental impact assessment law is a sound mechanism for assuring the consideration of vital environmental issues in state and local government decision-making, and ensuring effective interagency review and public comment.

Nonpoint Source Pollution. Each state Nonpoint Source Management Plan, adopted pursuant to Section 319 of the federal Clean Water Act, indicates that measures need to be implemented to address comprehensively the impacts from nonpoint source pollution. Some of the most significant of these include erosion and sedimentation development controls (which have been implemented on a state-wide basis by Maine and New Hampshire); underground storage tank regulation; road salt and sand controls; stormwater management; construction and septic setbacks from water bodies; waste oil recycling; agriculture and silviculture controls; and adequate enforcement of domestic subsurface disposal requirements. Because state NPS programs are evolving, evaluating the extent to which each state adequately controls NPS pollution is beyond the scope of this Report. This, however, is an important area for future study with regard to cooperative approaches among Gulf states, particularly in view of new coastal NPS pollution control requirements in the CZMA.

Oil Spill Containment. While each state has enacted oil spill legislation, only Maine requires oil terminal facilities to prepare oil spill contingency plans and respond to unannounced state oil spill drills. Massachusetts has a state contingency plan for oil and hazardous material. Maine and New Hampshire currently require that booms be deployed around vessels carrying oil when berthed at state ports.

The new federal Oil Pollution Act will assure that states have consistent response measures including vessel and facility response plans, and local and regional contingency plans. Nevertheless, the Council may consider other measures such as improving vessel safety (using tugboats or pilots in certain ports); establishing minimum, worst case oil spill scenarios; setting uniform policies on the use of booms, skimmers, bioremediation and dispersants; mapping sensitive area and setting priorities for protection; and wildlife rehabilitation. The Council should consider the findings and recommendations of the Commission to Study Maine's Oil Spill Preparedness (November 1990).

Offshore Mining. Massachusetts and Maine have enacted laws that regulate offshore mining and establish procedures and standards for the extraction and development of offshore oil, gas, and minerals. Maine, however, does not apply these procedures to offshore sand and gravel mining. Massachusetts prohibits offshore mining and drilling for oil within designated ocean sanctuaries. In other areas, mining activities are prohibited from unreasonably impacting navigation, fishing and natural resources. Massachusetts has special provisions for controlling the adverse impacts of sand and gravel mining on shellfish and beach erosion.

The Massachusetts approach provides a useful model for controlling the adverse impacts of ocean mining within especially sensitive Gulf areas.

Wetlands Regulation. All states protect coastal wetlands by regulating alterations and development. However, only Massachusetts and New Hampshire regulate activities affecting small-scale freshwater wetlands. Maine regulates only those freshwater wetlands that exceed 10 acres; smaller wetlands are regulated by local governments with some state oversight under Maine's new Comprehensive Planning and Land Use Regulation Act. Small-scale wetlands are also regulated under Section 404 of the federal Clean Water Act by the U.S. Army Corps of Engineers.

Buffer areas and "no net loss" standards vary substantially from state to state. Massachusetts prohibits development within 100 feet of all wetlands (except freshwater wetlands of less than 5,000 square feet) and authorizes the protection of wetlands if activities outside 100 feet alter wetlands. New Hampshire does not prohibit development within buffer zones but does assert jurisdiction over construction on steep slopes adjacent to wetlands, including small-scale wetlands. Maine regulates soil disturbance "adjacent to" wetlands on a case-by-case basis and requires adequate buffer zones to protect wildlife habitat and shoreland nesting and breeding. The size of the buffer zones are not specified and they are applicable only to wetlands exceeding 10 acres. Maine requires local shoreland zoning controls that prohibit development within 75 feet of coastal wetlands and freshwater wetlands exceeding 10 acres.

New Hampshire's no "significant" net loss standards apply only to "prime wetlands" mapped by local governments. Maine's no loss provisions apply to all coastal wetlands but only those freshwater wetlands that exceed 10 acres. Massachusetts essentially prohibits the destruction of all vegetated wetlands and wetlands habitat (except for freshwater wetlands less than 5,000 square feet).

According to recent estimates, Maine, New Hampshire and Massachusetts together have lost over 1.6 million acres of valuable wetlands since colonial times.[152] They can ill afford

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[152] Dahl, T.E. 1990. "Wetlands Losses in the United States, 1780's To 1980's," U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Dahl estimates that Maine has lost 20% of its original 6.5 million acres of wetlands; Massachusetts has lost 28% of its 800,000 acres of wetlands; and New Hampshire has lost 9% of its 220,000 acres of wetlands. The U.S has lost over 30% of its wetlands since the 1780's; over 50% if Alaska and Hawaii are not included.

to lose more. It may therefore be appropriate to consider uniform approaches to preserving wetlands and wetland habitats in the Gulf of Maine ecosystem by establishing "no net loss" policies, minimum development setbacks, uniform freshwater wetland size standards, wetland habitat policies, and wetland mitigation policies.[153]

Coastal Erosion. Little planning for the effects of sea level rise has been undertaken in the Gulf of Maine. In Massachusetts, low lying areas vulnerable to rising sea levels have been mapped. Maine and Massachusetts have essentially prohibited the construction of sea walls. Massachusetts has also adopted stringent controls along coastal banks where construction can inhibit the natural movement of sediment to the shore and starve beaches of sand supplies. Both states strictly control erosion through development prohibitions on frontal dunes.

These standards provide necessary controls to address the cumulative impacts of development that cut-off or impede the natural flow of sediment into the coastal environment. The effects of unregulated sea wall construction and sand dune development can result in the significant loss of beaches throughout the Gulf of Maine.

Tidelands and Submerged Lands Leasing. Massachusetts Chapter 91 regulations provide significant public benefits for tidelands and submerged lands leases, even for projects located on filled tidelands or changes in uses. Maine is in the process of revising its leasing regulations which currently call for public benefits but do not specify how those benefits should be measured or provided.

Recreational uses throughout the Gulf of Maine can be significantly enhanced through strong policies requiring public benefits in exchange for the reasonable use of public tidelands and submerged lands, consistent with appropriate environmental standards. The Massachusetts approach provides an outstanding model for strictly controlling non-water dependent uses within and adjacent to tidelands and submerged lands, protecting public recreational rights, and providing a significant degree of public access to coastal areas.

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[153] For more detailed recommendations and analysis, *see* Kurland, "Habitat Mitigation Efforts in the Gulf of Maine: Stemming the Tide of Environmental Degradation," A Report to the Gulf of Maine Council on the Marine Environment, January 1991.

Ocean Sanctuaries. Massachusetts has created five state ocean sanctuaries within state waters within which the drilling for oil and gas, seabed mining, and the incineration of wastes is prohibited. Although Maine and New Hampshire control some of these activities through ocean dumping, clean water and submerged lands leasing laws, the designation of sanctuaries within state waters is an appropriate approach to protecting special offshore areas within the Gulf of Maine and would have significant symbolic and public educational benefits. Ocean sanctuaries beyond three miles from shore would require federal approval.

Endangered Species and Habitat Protection. Although Maine, Massachusetts and New Hampshire have each adopted endangered species laws, there appears to be some variation among the species protected and habitat protection provisions. Ideally there should be consistency among common endangered and threatened species listed by each state. In addition, the Maine and Massachusetts laws require substantial state oversight with respect to development affecting endangered species habitat. A cooperative and consistent approach should be utilized within the Gulf of Maine ecosystem to protect endangered and threatened species, and their habitats.

C. New Approaches

This report identifies many common and divergent approaches taken to regulate and manage the marine and coastal environment within the U.S. jurisdictions bordering the Gulf of Maine. However, there are other, new approaches that address marine resource issues that have not been utilized in the Gulf of Maine which bear further consideration by the Council and the Gulf states.

Centralized Coastal Zone Management. It has been noted that Maine, Massachusetts and New Hampshire have "networked" coastal management programs; that is each state relies on a program of networked laws and regulations for implementing their coastal management policies on a state-wide basis. These laws are implemented by a number of different state and local government agencies and are "coordinated" through a non-regulatory coastal management program office in the Executive department (the State Planning Office in Maine and New Hampshire, and the Executive Office of Environmental Affairs in Massachusetts).

In contrast to the "networked" coastal management approach, some states have development centralized coastal management programs (North Carolina are California are two outstanding examples). These programs have established state-wide "coastal

commissions," with special regulatory and land use planning functions throughout a specifically-defined coastal zone. These coastal commissions are similar to the Cape Cod and Martha's Vineyard Commissions in Massachusetts and the Land Use Regulation Commission in Maine, except that "coastal commissions" have state-wide coastal authority.

Coastal commissions provide a distinct advantage over the networked coastal management program approach by establishing an effective mechanism to implement state-wide coastal policies, rather than scattering such policies among several different agencies and levels of government. Coastal commissions, with members usually appointed by the Governor and State Legislature, can implement state-wide planning and zoning controls within the coastal zone, conduct site reviews, issue coastal development permits, and implement state-wide coastal policies in a coordinated fashion. Centralized coastal programs provide a mechanism for assuring that local government permit and land use decisions in the coastal zone reflect broader state-wide interests. Finally, centralized coastal programs concentrate state marine and coastal resource expertise and resources within one agency, providing administrative efficiencies and creating a special constituency within state government for the coastal and marine environment.

Ocean Resource Plans. Congress recently noted that, "coastal states have substantial and significant interests in the protection, management and development of the resources of the exclusive economic zone."[154] For this reason, Congress authorized funds to encourage the development of state ocean resource plans as part of federally approved coastal management programs. This gives federal recognition to state planning efforts beyond the 3-mile state boundaries established under the Submerged Lands Act.

A number of states are adopting or already have adopted ocean resource plans to address various ocean resource management issues affecting state coastal waters.[155] Although these plans

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[154] 1990 Amendments to the CZMA, section 6203. 16 USC 1451(m).

[155] Ocean resource plans have been prepared in Hawaii (the Hawaii Ocean Resources Management Plan, Act 235, SLH 1988); Oregon (the Oregon Ocean Resources Management Act, ORS 196.405-196.515); North Carolina (the North Carolina Marine Science Council, "North Carolina and the Sea: An Ocean Policy Analysis," 1985 and NCGS 143B-389); Florida ("Florida's Ocean Future: Toward a State Ocean Policy," 1989); Washington (the Ocean Resources Management Act of

(continued...)

are as unique as their ocean features and resources, they have some common features. The plans generally summarize and describe the policies and laws applicable to their ocean coastal waters; describe state management responsibilities with respect to federal resource management agencies; describe key ocean uses, activities and resources that affect state environmental, recreational, and economic interests; and list objectives and recommendations for state action to preserve and develop vital marine resources.

While states may have addressed many of these issues within their 3-mile coastal jurisdiction, until recently most states have not considered in a comprehensive fashion strategies and policies to protect their interests within federal waters and the exclusive economic zone. Among the most important of these interests, depending on the ocean areas considered, include offshore mineral mining and oil and gas development; oil spills; kelp harvesting; new ocean energy technologies; marine transportation; ocean waste disposal; commercial and recreational fisheries; ocean recreation; marine research; interjurisdictional cooperation. Ocean management planning presents substantial benefits for establishing an ecosystem approach to managing ocean resources and in many respects parallels the Gulf of Maine Action Plan being developed by the Gulf of Maine Council on the Marine Environment.

Outstanding Resource Waters. Maine, Massachusetts, and New Hampshire have adopted classification systems for marine waters based upon water quality standards and the uses to which those waters may be put pursuant to EPA's anti-degradation policy. However, they have not taken the supplemental step of designating high quality coastal waters for additional and enhanced protections. In North Carolina, these waters are called, "outstanding resource waters." (ORW)[156]

Outstanding resource waters may be utilized to classify waters of excellent water quality and exceptional recreational or ecological value such as waters with outstanding fish habitats or fisheries, high recreational uses or potential, special designations (such as wildlife refuges or national parks), or special

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[155](...continued)
1989, RCW 43.143 and 90.58.195); and California (the California Ocean Resources Management Act of 1990, AB 2000). *See* Coastal Management, Volume 18, No. 3 (1990), which contains articles about the experience of each of these states in developing policies and institutions to manage ocean resources.

[156] 15 NCAC 2B.0201.

ecological or scientific significance. ORWs may be given special protection through statutory or regulatory standards, management plans and expanded permitting requirements. In North Carolina, new development adjacent to ORWs must comply with special storm-water controls, dredge and fill and discharge permits, and restrictions on marina construction through site specific regulatory mechanisms.[157] These mechanisms can also be utilized to provide additional protection for waters within the Gulf of Maine which are determined to possess exceptional values.

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[157] *See also*, Carter, "Outstanding Resource Waters Classification Provides Protection for N.C. Coastal Waters," 4 Legal Tides No. 3, at 2-4 (1990). North Carolina recently designated the Roosevelt Natural Area on Bogue Banks in Carteret County as an outstanding coastal resource water.

V. RECOMMENDATIONS

The following initial recommendations propose regulatory and management options for protecting the natural resources of the Gulf of Maine. They evaluate the similarities and differences of U.S. state and federal laws that affect the marine environment of the Gulf and identify state-of-the-art management practices. The recommendations are "preliminary" in the sense that they have not been coordinated with corresponding Canadian federal and provincial laws. Additional options and recommendations to the Council will be made upon completion of a similar analysis of Canadian laws and a comparison of U.S. and Canadian regulatory systems.

These recommendations are listed in the order in which they were discussed in the report and are not prioritized. It is recommended that the Council establish an agenda for action based upon priorities consistent with the Gulf of Maine Action Plan and the urgency with which the Council views the affected resources. Thus, the Council may want to take immediate steps to implement recommendations involving point source reductions, endangered species and habitats, and wetlands protection, before undertaking measures that require institutional changes or new governmental structures. In many cases, additional studies and investigations should be commissioned by the Council (such as the one prepared on "Habitat Mitigation") to implement recommendations where key scientific issues must be resolved, including best management practices for pollutant controls, optimal wetland protection strategies, the designation of outstanding resource areas in the Gulf, and others.

1. Regulatory, planning and zoning controls should be established within the coastal zone and should reflect state-wide coastal management policies through effective implementation strategies.

Although each of the Gulf states have coastal management policies, it has been noted that these policies are not always effectively implemented at the state and local level. These policies contain laudable goals (such as protecting marine water quality, increasing public access, protecting water dependent uses, assessing environmental impacts, and considering the cumulative impacts of coastal development), but often lack adequate statutory and regulatory status, and require additional implementing measures. Such measures may include creating regional commissions or state-wide coastal commissions to directly administer state-wide coastal policies. Implementation of state-wide coastal policies may also be secured at the local

level through state review of local comprehensive plans and zoning requirements.[158]

2. Large-scale coastal development should undergo special state site review for impacts on water quality, stormwater runoff, erosion, and impacts on natural resources.

Large development projects pose special environmental problems; they also present unique opportunities to implement innovative mitigation measures. A process for subjecting large-scale development to special state site review and permitting requirements, beyond those normally implemented at the local level, can effectively implement state-wide water quality and natural resource policies.[159]

3. Ocean dumping and mining provisions should be coordinated to address and mitigate regional and transboundary impacts of potentially harmful activities on the Gulf of Maine resources.

State ocean dumping and mining provisions vary significantly.[160] While ocean mining and dumping activities are prohibited throughout Massachusetts' ocean sanctuaries, they may be permitted in areas offshore Maine and New Hampshire. Offshore sand and gravel mining and offshore oil and gas development permitted in some areas may affect adjacent jurisdictions. A more detailed evaluation of these dumping and mining provisions is necessary to determine how to address and mitigate transboundary impacts on marine resources.

4. A uniform marine monitoring program in the Gulf should be implemented to identify transboundary impacts of ocean and coastal activities on marine resources and water quality.

There has been a lack of adequate and reliable information and data on marine water quality within the Gulf of Maine. A

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[158] *See* pages 15-16, 45-47 and 51-52.

[159] *See* pages 17-18.

[160] *See* pages 18-19, 28-29, and 48-49.

uniform marine monioring program, coordinated through an interjurisdictional body like the New England Interstate Pollution Control Commission or the Council, could develop the necessary data to discern and address the impacts of point and nonpoint source discharges and other activities on the Gulf's water quality and marine resources.[161]

5. Cooperative measures to reduce pollution from vessels should be implemented.

The Clean Water Act prohibits the discharge of untreated sewage from marine sanitation devices and MARPOL prohibits the discharge of marine debris from vessels.[162] However, there are substantial enforcement problems and even chlorinated discharges from vessel holding tanks may have adverse impacts. These problems can only be addressed by effective enforcement and state laws requiring the availability of pump out facilities at marinas.

6. Marine resource impacts from septic systems should be addressed by uniform minimum septic setback standards and the prohibition of direct domestic wastewater discharges into the Gulf.

Pollution from septic systems throughout the Gulf is evident. States have adopted different approaches with respect to minimum standards for setbacks from water bodies, minimum lot sizes and shoreline frontages, and municipal sewer hook-up requirements. Policies are inconsistent with respect to existing systems that discharge directly into water bodies.[163] Uniform policies should be considered that provide minimum acceptable standards for dealing with pollution from septic systems in the Gulf of Maine.

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[161] *See* page 23. This recommendation is consistent with objective 2.0 of the Gulf of Maine Action Plan to establish a Gulf Marine Environmental Qulaity Monitoring Program and objective 1.1 to assist in the reduction of point sources of polution.

[162] *See* pages 6 and 19-20.

[163] *See* pages 21-22.

7. Specific state nonpoint source pollution management strategies should be implemented through statutory and regulatory controls.

Each state has adopted a NPS Management Plan under the Clean Water Act to protect and improve water quality.[164] However, many of the strategies in these plans are not mandatory. Gulf waters are substantially affected by NPS pollution and steps must be taken to assure that NPS strategies and best management practices are effectively implemented. Studies should be undertaken to assess the implementation of mandatory NPS pollution controls and the adoption of specific measures such as: statewide erosion and sedimentation controls; enforcement of septic system regulations; restrictions on fertilizer use; waste oil recycling; road salt and sand controls; stormwater management programs; construction setbacks from water bodies; and agriculture and silviculture controls.

8. A coordinated, interstate approach to oil spill prevention and response in conjunction with existing state and federal laws should be implemented through interstate cooperation.

The transboundary effects from oil pollution are readily apparent. To minimize risks from accidents and to facilitate clean-up operations, consistent policies should be endorsed regarding state oil spill response plans; vessel and facility oil spill contingency plans; unannounced oil spill drills and inspections; the use of dispersants; financial responsibility requirements; vessel safety procedures (such as the use of tugboats, pilots, and booms within port areas); sensitive habitat mapping and planning; bioremediation; and the rehabilitation of wildlife.[165]

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[164] *See* pages 23-25 and 48.

[165] *See* pages 26-28, and 48. *See also* objective 1.6 of the Gulf of Maine Action Plan, calling for the review of individual oil spill contingency plans to identify areas of similarity and difference and devise methods for improved cooperation. In this regard, the Council should consult the findings and recommendations of the November 1990 Report of the Commission to Study Maine's Oil Spill Cleanup Preparedness. Among its recommendations is the execution of an interstate, interprovince compact to improve oil spill prevention and response throughout the Gulf of Maine. *See supra* note 92.

9. Consistent wetland standards and "no net loss" wetland policies should be implemented throughout the Gulf of Maine.

The protection of wetlands is essential in preserving the Gulf's ecosystem. Each state has its own set of wetlands laws with different wetland standards. Substantial benefits would accrue from a uniform approach to preserving wetlands and wetlands habitats such as establishing minimum construction setbacks, preserving small-scale freshwater wetlands, establishing wetland habitat protection policies, and assuring that wetland mitigation programs are not utilized to justify the destruction of existing wetlands and wetland habitats.[166]

10. Regulatory and planning strategies for dealing with sea level rise should be examined; development within sand dunes and along coastal bluffs and the construction of sea walls should be prohibited (except for public safety).

Gulf states should jointly plan for and take steps to anticipate the effects of sea level rise. Sea wall construction and development on sand dunes deprives the marine environment of sediment and can lead to the significant loss of beaches and create hazardous conditions throughout the Gulf of Maine exacerbating the effects of rising sea levels. Gulf states should restrict the construction of sea walls and the armoring of coastal bluffs to alleviate the individual and cumulative effects of such development on Gulf sand supplies.[167]

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[166] *See* pages 30-33 and 49-50. For more specific recommendations *see* Kurland, "Habitat Mitigation Efforts in the Gulf of Maine," *supra* notes 30 and 106, at 49-55. The Report notes that there is a special need for interjurisdictional coordination and cooperation regarding wetland habitat and management efforts within the Gulf of Maine (at 46). It recommends that specific definitions be adopted for mitigation and habitat value assessment, and that guidelines for local implementation be prepared (at 49-52).

[167] *See* pages 32 and 50.

11. Public benefits should be provided and water dependent uses should be protected on state tidelands and submerged lands, including filled tidelands.

The private use of public tidelands and submerged lands are permitted to varying degrees under submerged lands leasing laws.[168] A commitment to require public benefits for the use of public resources would assure that the Gulf of Maine remains accessible to the public. These public benefits should include public access to Gulf waters for fishing, fowling, navigation and recreational purposes; public access to marinas; and protecting public uses on filled as well as flowed tidelands. Such laws should also be used to protect commercial fishing and marine facilities from being displaced by non-water dependent uses.

12. Underwater archeological resources should be protected.

Only one state in the Gulf of Maine currently has legislation regulating the exploration, removal and salvage of underwater archeological resources. Massachusetts has created a state commission and staff to issue excavation and reconnaissance permits, oversee exploration and salvage operations, maintain an inventory of reported and recovered items, and protect the public interest.[169] Similar programs should be adopted to assure that the Gulf's historical and archeological resources are adequately protected.

13. Ocean sanctuaries and outstanding resource designations should be established to protect sensitive areas of the Gulf.

Although the federal government has designated national estuaries and estuarine reserves within the Gulf of Maine,[170] and Massachusetts has established state ocean sanctuaries,[171] none of

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[168] *See* pages 33-35 and 50-51.

[169] *See* page 35.

[170] *See* pages 10-11.

[171] *See* page 37.

none of the states have established special regulatory and management controls for outstanding resource waters. Critical coastal areas or areas with significant habitats should be identified and protected through performance standards, regulatory controls, and management plans to provide special protection to especially sensitive areas within the marine and coastal environment.[172] The Council should identify where such areas are located within the Gulf.

14. The identification and protection of common endangered and threatened marine and plant species, and their habitats, should be coordinated to assure that standards for protecting such species and habitats are consistently applied within the Gulf of Maine.

There appear to be some variations among the endangered species laws of the Gulf states, particularly with respect to habitat protection.[173] These variations may undermine species and habitat protection efforts in adjacent jurisdictions. Further study and action is necessary to assure that a consistent approach to species and habitat protection is implemented.

15. Cooperative mechanisms for state coastal land acquisition programs should be explored to protect significant Gulf habitats, species, and recreational resources.

The states of the Gulf of Maine have a number of land acquisition and assistance programs to provide open space and recreational opportunities within coastal areas bordering the Gulf of Maine.[174] However, fiscal restraints and development pressures require additional measures. The Council should consider joint programs and innovative approaches for securing funds, increasing public awareness, and designating areas of the Gulf that are appropriate for open space programs.

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[172] *See* pages 50 and 53-54.

[173] *See* pages 39-40 and 51.

[174] *See* pages 40-43.

APPENDICES

APPENDIX A: PERSONAL COMMUNICATIONS

Massachusetts

Eben Chesborough, Division of Water Pollution Control, Massachusetts Department of Environmental Protection.

John Felix, Division of Wetlands and Waterways, Massachusetts Department of Environmental Protection.

Patricia Hughes, Massachusetts Coastal Zone Management Office.

Mary Kingsley, Massachusetts Coastal Zone Management Office.

Phillip Mallard, Massachusetts Department of Environmental Protection.

New Hampshire

Rick Barry, Water Supply and Pollution Control Division, New Hampshire Department of Environmental Services.

Don Chesborough, Water Supply and Pollution Control Division, New Hampshire Department of Environmental Services.

David Hartman, New Hampshire Office of State Planning.

Peter Helm, New Hampshire Office of State Planning.

E. Ann Poole, Water Supply and Pollution Control Division, New Hampshire Department of Environmental Services.

Mary Ann Tilton, Wetlands Bureau, New Hampshire Department of Environmental Services.

Maine

Richard Baker, Shoreland Zoning, Maine Department of Environmental Protection.

Matthew Bley, Bureau of Public Lands, Maine Department of Conservation.

John Catena, Maine State Planning Office.

Laurice Churchill, Maine Department of Marine Resources.

Donald Hague, Maine Department of Environmental Protection.

David Keeley, Maine State Planning Office.

John Sowles, Water Quality Control, Maine Department of Environmental Protection.

Melissa Waterman, Maine State Planning Office.

APPENDIX B: LIST OF FEDERAL LAWS

I. Regulated Activities

A. Development

1. Planning and Zoning Controls

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2. Coastal Management

- Coastal Zone Management Act (16 USC 1451-1464)

3. Coastal Facilities Site Review

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4. Environmental Impact Assessment

- National Environmental Policy Act (42 USC 4321-4347)

B. Water Quality Control

1. Ocean Dumping

- Ocean Dumping Act (33 USC 1401-1445)

2. Discharge From Vessels

- Act to Prevent Pollution from Ships (MARPOL) (33 USC 1901-1912)
- The Clean Water Act, Marine Sanitation Devices (33 USC 1322)
- Shore Protection Act (33 USC 2601-2623)

3. Point Source Pollution

- Section 403 of the Clean Water Act (33 USC 1251-1387) (NPDES)

4. Non-Point Source Pollution

- Section 319 of the Clean Water Act (33 USC 1329)
- 1990 Amendments to the Coastal Zone Management Act (16 USC 1458(a)-(h))

C. **Hazardous Wastes**

- The Comprehensive Environmental Response, Compensation, and Liability Act (Superfund) (42 USC 9601-9675)
- Port and Waterways Safety Act (33 USC 1221-1236)

D. **Oil Spill Prevention**

- The Oil Pollution Act [Pub. L No. 101-380, 104 Stat. 484 (1990)]

E. **Offshore Oil/Gas/Mineral Development**

- Outer Continental Shelf Lands Act (43 USC 1331-1356, 1801-1866)
- Deep Seabed Hard Minerals Resources Act (30 USC 1401-1473)

II. **Protected Areas**

A. **Coastal Wetlands and Sand Dune Protection**

- Section 404 of the Clean Water Act (33 USC 1344)
- Coastal Barrier Resources Act (16 USC 3501-3510)
- North American Wetlands Conservation Act (16 USC 4401)

B. **Tidelands/Submerged Lands Management**

- Rivers and Harbors Appropriation Act (33 USC 401-687)
- Submerged Lands Act (43 USC 1301-1315)
- Abandon Shipwrecks Act (43 USC 2101-2106)

C. **Marine Estuaries and Sanctuaries**

- Marine Sanctuaries Act (16 USC 1431-1439)
- National Estuary Program (33 USC 1330)
- National Estuarine Reserve Research System (16 USC 1451)

D. Critical Coastal Areas

E. Coastal Wildlife Protection

- Endangered Species Act (16 USC 1531-1543)
- Marine Mammal Protection Act (16 USC 1361-1407)
- Fish and Wildlife Coordination Act (16 USC 661-667)

F. Coastal Acquisition Programs

- Land and Water Conservation Fund (16 USC 460 (1-11))

APPENDIX C: LIST OF MASSACHUSETTS LAWS

I. Regulated Activities

A. Development

1. Zoning

- The Cape Cod Commission (Stat. 1989, c. 716) and the Martha's Vineyard Commission (Stat. 1974, c. 637, as amended by Stat. 1977, c. 831)

  [No coastal policies in the Municipal Planning and Subdivision Control Law (MGLA 41:81) and the Massachusetts Zoning Act (MGLA 40A:1-15)]

2. Coastal Facilities Site Review

- Energy Facilities Siting Law (MGLA 164:69G-S, 980 CMR 1.00-11.00)

- Massachusetts Coastal Management Policies (MGLA 21A:4A, 301 CMR 20.00-22.00)

- Northeastern Water and Related Land Resources Compact (MGLA 91 App:4-1, 4-2)

3. Environmental Impact Assessment

- Massachusetts Environmental Policy Act (MGLA 30:61-62H, 301 CMR 11.00)

B. Pollution Control

1. Ocean Dumping

- Dredged Material Disposal and Filling in Waters [MGLA 21:27(12), 21:42, 21A:14, 91:52-56, 314 CMR 9.00, 310 CMR 9.25-26, 9.40]

2. Discharge From Vessels

- Licensing of Marinas (MGLA 91:59B, 310 CMR 9.39)

3. Point Source Pollution

- Massachusetts Clean Water Act (MGLA 21:27-48, 310 CMR 41.00, 314 CMR 3.00-4.00, 10.00-14.00)

- Subsurface Disposal of Sanitary Sewage (MGLA 21A:13, 111:17, 310 CMR 11.00, 15.00)

- Land Application of Sludge and Septage (MGLA 21:43, 310 CMR 32.00)

- New England Interstate Water Pollution Control Compact (MGLA 21 Appendix:1-5)

4. Non-Point Source Pollution

- Massachusetts Nonpoint Source Management Plan (1989)

C. Hazardous Wastes

- Massachusetts Oil and Hazardous Material Release Prevention and Response Act (MGLA 21E:1-18, 310 CMR 40.00)

- Massachusetts Hazardous Waste Management Act (MGLA 21C:1-14, 310 CMR 30.00, 314 CMR 8.00)

- Nuclear Power and Waste Disposal Voter Approval and Legislative Certification Act (MGLA 164 App. 3(1-9))

[No coastal policies in the Massachusetts Hazardous Waste Facility Siting Act (MGLA 21D:1-17) and the Massachusetts Toxic Use Reduction Act (MGLA 21I:1-23)]

D. Oil Spill Prevention

- Oil Terminals, Pollution Prevention [MGLA 21:27(14), 50-50B, 91:59-59A, 314 CMR 15.00]

E. Oil/Gas/Mineral Development

- Mineral Resources (MGLA 21:54-56, 310 CMR 29.00)

II. Protected Areas

A. Coastal Wetlands and Sand Dune Protection

- Massachusetts Wetlands Protection Act (MGLA 131:40-45, 310 CMR 10.00)

- Protection of Coastal Wetlands (MGLA 130:105, 302 CMR 4.00)

- Inland Wetlands Restriction Act (MGLA 131:40A, 302 CMR 6.00)

- Executive Order 181 Prohibiting State Investment on Barrier Beaches

B. **Tidelands/Submerged Lands Management**

- The Massachusetts Public Waterfront Act (MGLA 91:1-63, 310 CMR 9.00)
- Underwater Archeological Resources Act (MGLA 6:179-180, 312 CMR 2.00)
- Aquaculture Licenses (MGLA 130:17B and 68A, 322 CMR 7.01)

C. **Marine Estuaries and Sanctuaries**

- Massachusetts Ocean Sanctuaries Act (MGLA 132A:12A-18, 302 CMR 5.00, 310 CMR 9.27)

D. **Critical Coastal Areas**

- Massachusetts Areas of Critical Environmental Concern (MGLA 21A:2(7), 301 CMR 12.00)
- Scenic and Recreational Rivers (MGLA 21:17B, 30A:2-3, 302 CMR 3)

E. **Coastal Wildlife Protection**

- Wildlife Sanctuaries (MGLA 131:7-10, 321 CMR 7.00)
- Protection of Fish from Discharges (MGLA 131:41-42)
- Protection of Endangered Species of Wild Animals (MGLA 131:26A, 321 CMR 8.00-9.00, as amended by Stat. 1990, c. 408)

  [See Wetlands Protection Act at MGLA 131:40 for protection of wildlife habitat]

F. **Coastal Acquisition and Assistance Programs**

- Coastal Facilities Improvement Program (MGLA 21F:1-7, 301 CMR 22.00)
- Public Access Board and Fund (MGLA 21:17A)
- Self-Help Program (MGLA 132A:11, 301 CMR 5.00, 7.00)
- Limited Liability for Public Use of Land for Recreational Purposes (MGLA 21:17C)
- The Division of Marine Fisheries [MGLA 130:17(8)]
- Division of Conservation Services (MGLA 21:18-25)

APPENDIX D: LIST OF MAINE LAWS

I. Regulated Activities

A. Development

1. Zoning

- Mandatory Shoreland Zoning Act (38 MRSA 435-447, DEP Ch. 1000)
- Comprehensive Planning and Land Use Regulation Act (30-A MRSA 4311-4344, DECD Chs. 200-202)
- Subdivision Law (30 MRSA 481-490)
- Land Use Regulation Act (12 MRSA 681-689, LURC Ch. 10)

2. Coastal Facilities Site Review

- Site Location of Development Act (38 MRSA 481-490, DEP Chs. 372-376)
- Coastal Management Policies (38 MRSA 1801-1803)

3. Environmental Impact Assessment

B. Pollution Control

1. Ocean Dumping

(See Protection and Improvement of Waters Act and Natural Resources Protection Act)

2. Discharge from Vessels

- Monofilament Nets (12 MRSA 6522)

[See watercraft wastes under Protection and Improvement of Waters]

3. Point Source Pollution

- Protection and Improvement of Waters (38 MRSA 361-434, 464-470, DEP Chs. 514-596)
- Interstate Water Pollution Control (38 MRSA 491-537)

- Waste Management (38 MRSA 1301-1310B, DEP Chs. 420, 567)

4. Nonpoint Source Pollution

- State of Maine Nonpoint Source Management Program

- Lake and Coastal Watershed Districts (38 MRSA 2001-2022)

C. Hazardous Wastes

- Hazardous Matter Control Law (38 MRSA 1317-1319, 1361-1371, 1401-1404, DEP Chs. 800-860)

- Toxic Use Reduction Law (38 MRSA 2301-2312)

- Disapproval of High Level Radioactive Waste Repository (38 MRSA 1461A-1466)

- Low-Level Radioactive Wastes (38 MRSA 1471-1542)

D. Oil Spill Prevention and Liability

- Oil Discharge Prevention and Pollution Control (38 MRSA 541-560, DEP Chs. 600-680)

E. Oil/Gas/Mineral Development

- Mining on State Lands (12 MRSA 541-550)

II. Protected Areas

A. Coastal Wetlands and Sand Dune Protection

- Natural Resources Protection Act (38 MRSA 480 A-S, DEP Chs. 310, 343-345, 355)

- Coastal Barrier Resource System Law (38 MRSA 1901-1905)

B. Tidelands/Submerged Lands Management

- Submerged Land Leasing Law (12 MRSA 558-573, DOC BPL Ch. 3)

- Aquaculture Leasing Act (12 MRSA 6071-6074, DMR Ch. 2)

- Closure of Contaminated or Polluted Flats (12 MRSA 6172, 6621, DMR Ch. 23)

C. **Marine Estuaries and Sanctuaries**

D. **Critical Coastal Areas**

- Critical Areas and Endangered Plants Program (5 MRSA 3310-3316)

E. **Coastal Wildlife Protection**

- Endangered Species Law (12 MRSA 7751-7758, DIF&W Ch. 8)

  [See also Natural Resources Protection Act]

F. **Coastal Acquisition and Assistance Programs**

- Land For Maine's Future Law (5 MRSA 6200, Strategy and Guidelines for Acquisition)

- Limited Liability for Recreational or Harvesting Activities (14 MRSA 159-A)

APPENDIX E: LIST OF NEW HAMPSHIRE LAWS

I. Regulated Activities

A. Development

1. Zoning

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2. Coastal Facilities Site Review

- N.H. Coastal Management Policies (1982)
- Energy Facility Evaluation, Siting, Construction and Operation (RSA 162-H:1-16, NHAR Ener. 100-400)
- Northeastern Water and Related Land Resources Compact (RSA 484:13-16)

3. Environmental Impact Assessment

- Council on Resources and Development (RSA 162-C:1-5)

B. Pollution Control

1. Ocean Dumping

[See Water Discharge Permits and Dredge and Fill in Surface Waters under Water Pollution and Waste Disposal]

2. Discharge From Vessels

- Marine Toilets and Disposal of Sewage from Boats (RSA 487:1-14)

3. Point Source Pollution

- Water Pollution and Waste Disposal (RSA 485:27-30, 485-A:1-54, 486:1-18, NHAR Ws and Env-Ws 403, 415-439, 600-1000)
- Water Protection Assistance Program (RSA 4-C:19-23, NHAR PLN 100-600)
- N.E. Interstate Water Pollution Control Compact (RSA 484:17-26)

4. Non-Point Source Pollution

- New Hampshire Nonpoint Source Management Plan (1989)

- Acid Rain Control Act (RSA 125-D:1-13)

- Control of Algae and Other Aquatic Nuisances (RSA 487:15-18)

C. Hazardous Wastes

- Hazardous Waste Management Program (RSA 147-A through 147-D, NHAR He-P 1905)

D. Oil Spill Prevention

- Oil Spillage in Public Waters (RSA 146-A:1-15, 146-D:1-9, NHAR Ws 402, 404, 410-411)

E. Oil/Gas/Mineral Development

- Mining and Reclamation (RSA 12-E:1-14)

II. Protected Areas

A. Coastal Wetlands and Sand Dune Protection

- Fill and Dredge in Wetlands (RSA 482-A:1-27, NHAR Wt 100-700)

- Hampton Harbor Channel and Beach Erosion (RSA 216-B:1-6)

- Shore and Beach Preservation and Development (RSA 217:1)

B. Tidelands/Submerged Lands Management

- Conveyance of Property Under Water [RSA 4:40(a-e)]

- N.H. State Port Authority (RSA 271-A:1-17, NHAR Por 100-500)

- Aquiculture (RSA 211:62-e)

C. Marine Estuaries and Sanctuaries

D. Critical Coastal Areas

- Areas of Preservation Restoration (NHCMP 8-42)

E. Coastal Wildlife Protection

- Endangered Species Conservation Act (RSA 212-A:1-15, NHAR Fis 1001)
- Native Plant Protection Act and Natural Heritage Inventory (RSA 217-A:1-12, NHAR RES-N 100-300)
- Damage to Fish, Other Aquatic Wildlife, or Their Habitats (RSA 211:71-74)

F. Coastal Acquisition and Assistance Programs

- Land Conservation Investment Program (RSA 221-A:1-13)
- Right of Way to Recreational Waters (RSA 230:72-73)
- Conservation Districts (RSA 430-B:1-10)

CC: N/GO
CZIC

Work Product

PROGRESS REPORT
April 1, 1991 - June 30, 1991

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Gulf of Maine Program

NA90AA-D-CZ527

This award provides $98,000 in federal funds ($29,000 in non-federal funds) and extends from September 1, 1990 to August 31, 1991. The funds are used to support the Gulf of Maine Program activities of Maine, New Hampshire and Massachusetts.

This award provides support for three tasks:

- Completion and Implementation of Gulf Action Plan;
- Development of Public Education Tools; and
- Implementation of Gulf Monitoring Program

Gulf Action Plan

During the period the Action Plan was distributed for public and agency review. Over 75 organizations and individuals responded with comments and the Plan was revised for presentation to the Gulf Working Group. The priorities in the Plan are:

- Coastal and marine pollution;
- Monitoring and research;
- Public education and outreach; and
- Habitat protection

The current draft of the Plan (see attached) will be presented to the Council for approval and then sent to the Governors and Premiers for their adoption. The draft describes over 25 work tasks and calls for a budget in excess of $1.5 million. In the draft each task is defined and the responsible entity and budget is identified.

The development of the Action Plan has been applauded by the United Nations Environmental Programme and will be presented at the 1992 UN conference in Brazil as an innovative approach to international waterbody management.

Develop public education tools

During the reporting period the Program continued to prepare the Program's newsletter Turning the Tide. The mailing list is now over 1,700 individuals in the region. The newsletter is produced six times a year and helps to keep people informed about the Program and Gulf related events.

The Program also produced the final Environmental Monitoring Plan and a three page Executive Summary. (These are being sent under separate cover.)

Gulflinks -- a guide to marine organizations in the Gulf -- was also completed during the period and will be distributed at the CME meeting in July. The CME Annual Report was drafted and published for release at the CME meeting.

The Public Education Task Force completed the development of their recommendations to the CME on how a regional public education program should be structured and funded. (see attached) These recommendations will be acted upon by the Council at the July meeting.

Environmental Quality Monitoring Program

As suggested above, the final Monitoring Plan and Executive Summary were completed during the period. Also during the period a final proposal for Gulfwatch -- a pilot monitoring project -- was completed and implementation was initiated. Training sessions for program participants were held in the U.S. and Canada and the mussel cages will be deployed in July. Laboratory analysis on body burdens (metals and organics) and measures for growth will be conducted.

An extension to the federal award for this task may be necessary. It is likely the project will require several months beyond the August 31, 1991 termination date of the award. A decision will be made soon on this issue.

Analysis of legal regime

An early decision of the Program was to conduct an analysis of the legal and management regime in the Gulf region. This work was needed to identify conflicting management approaches and the gaps/deficiencies in the legal regime.

The analysis of state and federal laws affecting the Gulf is completed. (The enclosed report was funded under NA89AA-D-CZ140.) The Council has provided funding to the Oceans Institute of Canada to conduct a companion study of provincial and Canadian federal laws. This work will be completed this Fall.

The final product of this effort will be a Council funded region wide analysis of the laws and the development of statutory amendments to the legal regime. This will be completed this Winter and acted on by the Council.

RECOMMENDATIONS ON A GULF EDUCATION AND PARTICIPATION STRATEGY

TO THE COUNCIL ON THE MARINE ENVIRONMENT

From the Education and Participation Task Force

July 19, 1991

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The Education and Participation Task Force was given its mandate at the November, 1990, Council meeting. The Task Force was directed to:

a. offer recommendations to the Council on methods that will foster a regional consciousness about the Gulf of Maine in state and provincial residents; and

b. offer recommendations to the Council on methods that will promote the exchange of technical skills and pertinent information among education and participation organizations in the region.

During its tenure, the Education and Participation Task Force reviewed materials generated at the 1989 Gulf Conference work sessions on public education. Other materials reviewed by the Task Force included the education section of the Draft Action Plan, and the education activities of several existing regional programs in Canada and the United States. An inventory of marine education programs from the Gulf region was put into a matrix form in order to assess which groups and topics were not covered. Using the matrix, the Task Force found that there is a lack of marine educational activities targeted at the media, local officials, and state legislators.

Additional information on those education/participation efforts which are ongoing under the National Estuaries Program in areas such as Puget Sound and Chesapeake Bay was compiled by the US EPA.

In considering the many education strategies currently conducted by marine programs in the US and Canada, compiling an inventory of existing education efforts underway in the Gulf Region, and assessing the gaps in ongoing efforts, the Education and Participation Task Force has arrived at four priority recommendations for the Council.

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In order to provide the level of commitment necessary to develop and implement effective and enduring Gulf educational programs, there must be a core group of people willing to spend time on this task. Such a committee will insure that all jurisdictions and sectors are adequately represented, and the proper expertise is available for the development of regional education and participation programs.

Recommendation 1: Council Should Form a Standing Education and Participation Committee, comprised of 15 members - 2 from each state and province; 1 from a Canadian federal agency; 1 from a US federal agency; 3 from the general public, 1 of which represents a news medium. The committee should have a 1/2 time coordinator as staff.

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The Council must encourage, spport and acknowledge the public's role in managing and protecting Gulf resources. The Council needs to make clear that local actions regarding such issues as pollution prevention, sustainable resource use, or conservation of critical habitats, are critical to the overall health of the Gulf. There are many different opportunities that the Council might use to convey this message. Dozens of local efforts currently are underway should be highlighted by the Council. Other Council opportunities include conducting a survey of public attitudes toward the Gulf to provide a baseline measurement of public awareness; coordinating Gulf of Maine educational events/programs through the US Coastweeks and Canadian Environment Week; making use of participation techniques developed by provincial offices involved in the Sustainable Development Consultative Process; and increasing contact with local officials at events such as Council meetings.

Recommendation 2: Council Should Develop a Public Participation/Involvement Strategy for the Gulf Program

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The Gulf Program suffers from the public's lack of awareness of the Program's mission and activities. It is critical that, along with a concerted public education and participation strategy, the news media of the region also be made aware of the unique characteristics of the Gulf of Maine and of the Gulf Program itself. The experience of marine protection programs throughout the US and Canada indicates that cultivating contacts and sources within all levels of news media is imperative to facilitate public awareness. During the next two years the Gulf Program must concentrate on raising the profile of the Program among local, state, provincial, regional and national media. In order to carry out this task the Gulf Program should use the skills of a 1/2 time media coordinator.

Recommendation 3: Council Should Develop a Broad-based Media Strategy to Improve the Profile of the Gulf Program

It is evident that there is a wealth of marine research currently conducted or proposed to be conducted in the Gulf region. Unfortunately, much of that research does not emerge in a form suitable for public comprehension. Given that much of the research is supported by federal, state, or provincial funds, it is incumbent upon researchers to provide a summary of research results to the original financial supporters, the general public. In doing so, the research community will improve the level of scientific literacy among the general public, and thus improve public support for protection of the Gulf. As a public body, the Council should adopt a policy that reflects this principle. Such a policy statement is provided below:

> "The Gulf of Maine Council on the Marine Environment's policy shall be to support and encourage researchers to convey research results in a manner that promotes a scientifically literate society. Furthermore, research in the Gulf should be interactive, and in response to the public's need for information."

Recommendation 4: Council Should Adopt a Policy on Gulf Research that Promotes Scientific Literacy

Current Task Force Members who have expressed interest in continuing on the Standing Committee:

New Hampshire	New Brunswick	Nova Scotia
Stephanie D'Agostino	Gerry Hill	Pat Hinch
Sharon Meeker	Jaimie Steele	Diane Kenny

Maine	Massachusetts	US Federal Agency
Mary Cerullo	none	none

Canadian Federal Agency

none

Additional Nominees suggested by Task Force members:

Canadian - Federal

Peter LeBlanc
Environment Canada

Canadian - Public	Canadian - Media
Katharine Rice Universalia Atlantic	Gerry Whelan Canadian Broadcasting Corp. - Radio
Marcel Maesson N.S. Trails Federation	Nancy Reagan ATV, Halifax
Max Moulton Halifax School Board	Heather Proudfoot ATV, Halifax
Karen Westhaven-Stevens NS Aquaculture Assoc.	Richard Zurawski ATV, Haiifax
Dr. Karen Sullinger University of NB	Rob Gorham Chronicle Herald (Yarmoth, NS)
Robert Shaw National Sea Products, NS	

APPENDIX F: SUMMARIES AND ABSTRACTS OF STATE LAWS

(Submitted under separate cover.)