



The University of Mississippi

Oxford • Jackson • Tupelo • Southaven

National Sea Grant Law Center
Kinard Hall, Wing E - Room 262
Post Office Box 1848
University, MS 38677-1848
Office Phone: (662) 915-7775
Fax: (662) 915-5267
E-mail: sealaw@olemiss.edu

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Sarah Bobbe
NOAA Coral Reef Conservation Program
1305 East-West Highway, N/OCRM, Rm. 10405
Silver Spring, MD 20910

Re: Coral Reef Protection Laws (MASGP 09-008-10)

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Dear Sarah,

Please find attached our compilation of federal laws that may be used to protect coral reef ecosystems. The attached information is intended as advisory research only and does not constitute legal representation of the NOAA Coral Reef Conservation Program or its constituents. It represents our interpretations of the relevant laws and regulations.

The U.S. Coral Reef Task Force asked the Sea Grant Law Center for assistance on an assessment of legislation related to coral reef ecosystems to determine what gaps may exist. In response, the Law Center compiled federal laws that either directly protect coral reefs, grant agency authority to protect coral reefs, or that indirectly protect coral reefs. The summaries highlight the lead agency in applying the law, the law's framework, the law's application to coral reefs, the role of other federal agencies in enforcing the law, and any limitations the law may have in protecting coral reefs.

I hope you find this information helpful. If you would like additional information, please let me know.

Sincerely,

Terra Bowling
Research Counsel

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Executive Order 13089, Coral Reef Protection
63 Fed. Reg. 32701 (June 11, 1998).

Lead Agency: U.S. Coral Reef Task Force (USCRTF)

Framework: Executive Order 13089 provided an outline for the Coral Reef Conservation Act (CRCA) below, which is the main legislative tool used for coral reef conservation. The Executive Order also created the U.S. Coral Reef Task Force (USCRTF), which provides management guidance for those involved in coral reef protection.

The Task Force is co-chaired by the Secretary of the Interior and the Administrator of the National Oceanic and Atmospheric Administration (NOAA), and includes members from multiple federal agencies, such as the administrators of the Environmental Protection Agency (EPA) and the National Aeronautics and Space Administration (NASA), as well as leaders from seven U.S. States, Territories, Commonwealths, and three Freely Associated States.

The Executive Order charges the Task Force with overseeing the mapping and monitoring of all U.S. coral reefs, researching coral degradation, conserving and restoring coral reefs, and promoting coral reef conservation internationally.¹ Additionally, NOAA may consult the Task Force when determining coral reef conservation policies, priorities, and goals.

Application: In 2000, the Task Force published a National Action Plan that outlines conservation strategies under two themes: understanding coral reef ecosystems and reducing the adverse impacts of human activities. The Plan is meant to provide the framework for the priorities, strategies, and implementation plans of the Task Force and its members.

The CRCA also requires NOAA and the Task Force to develop a National Action Strategy. The Strategy uses short-term goals to implement the National Action Plan. The Strategy has thirteen goals for protecting coral reef ecosystems. NOAA must report on the implementation of the strategy to Congress every two years.

Role of Other Federal Agencies:

Task Force Co-chairs: U.S. Department of Commerce (NOAA); U.S. Department of the Interior (U.S. Fish and Wildlife Service- manages the National Wildlife Refuge System; Office of Insular Affairs- works with the U.S.-affiliated insular areas to protect coral reefs; U.S. Geological Survey- multi-disciplinary science organization that focuses on biology, geography, geology, geospatial information, and water, and provides impartial study of the landscape, natural resources, and the natural hazards in U.S. waters; National Park Service-manages coastal parks; Minerals Management Service- manages renewable and mineral resources on the Outer Continental Shelf; Bureau of Land Management- works to protect the California Coastal National Monument.)

Federal Agency members: U.S. Agency for International Development (USAID), U.S. Department of Agriculture (USDA), Department of Defense, U.S. Department of Homeland Security, U.S. Department of Justice, U.S. Department of State, U.S.

¹ Exec. Order No. 13089, 63 Fed. Reg. 32701 (Jun. 11, 1998).

Department of Transportation, U.S. Environmental Protection Agency (EPA), National Aeronautic and Space Administration (NASA), National Science Foundation (NSF).

Further, the Executive Order requires “[a]ll [f]ederal agencies whose actions may affect U.S. coral reef ecosystems” to identify those actions, use “their programs and authorities to protect and enhance the conditions of such ecosystems,” and ensure that those ecosystems will not be degraded by any actions they authorize, fund, or carry out.² Additionally, those “[f]ederal agencies whose actions affect U.S. coral reef ecosystems” must allow for the research, management, and restoration of ecosystems affected by “pollution, sedimentation, and fishing” along with other detrimental actions.³

State/Local Authority: State and Territory members: Northern Mariana Islands, Puerto Rico, Florida, Guam, American Samoa, U.S. Virgin Islands. Freely Associated states (non-voting members): Micronesia, Marshall Islands, Palau

Limitations: Though the Executive Order establishes new requirements for federal actions affecting coral reef ecosystems, it does not provide a framework for the prevention of activities that may harm coral reefs. Additionally, agencies may have conflicting interests, which can prevent them from achieving the Executive Order’s mandates. Furthermore, the order does not provide a framework for the prevention of activities that are harmful to coral reefs.

Furthermore, executive orders are a “weaker” form of law. They have the force of law when they have express or implied authority from Congress or when Congress is silent, as long as they do not impede the powers of another branch of government.

Available at: http://www.coralreef.gov/about/executive_order13089.pdf

² *Id.*

³ *Id.*

Executive Order 13158, Marine Protected Areas
65 Fed. Reg. 34909 (May 31, 2000).

Lead Agency: Department of Commerce/Department of the Interior

Framework: The Executive Order was designed to strengthen and expand the system of marine protected areas (MPAs) in the United States. The Order provides for the development of a scientifically based, national system of MPAs. The Order also seeks to prevent federally sanctioned activities from causing harm to existing MPAs. The Order further mandates that every Federal agency authorized to establish MPAs must take steps to expand existing MPAs and to establish or recommend new MPAs.

The Order directs the Department of Commerce and the Department of the Interior to consult with other appropriate federal agencies to enhance or expand the protection of existing MPAs. The agencies are required to use "science-based identification and prioritization of natural and cultural resources for additional protection."⁴ The Order directs the agencies to work together to form a biological assessment of the extent to which consumptive use of resources must be prohibited in order to preserve representative habitats of marine environment. The agencies are also required to assess the threats and gaps in the levels of protection that are currently provided for natural and cultural resources, develop criteria for measuring the effectiveness of MPAs, and identify emerging threats affecting MPAs.

The Order requires the Department of Commerce to establish a Marine Protected Area Federal Advisory Committee (Committee) to aid in carrying out the Order. The Committee is to consist of "non-Federal scientists, resource managers, and other interested persons and organizations."⁵ The Committee provides advice and recommendations to the Department of Commerce and the Department of the Interior for carrying out the requirements of the Order.

The Order requires the Secretary of Commerce/National Oceanic and Atmospheric Administration (NOAA) to establish a Marine Protected Areas Center (MPA Center) to aid in carrying out the requirements of the Order. The MPA Center, in cooperation with the Department of the Interior, must develop a framework for the national system of MPAs. Every agency that is charged to take action under the Order must prepare and make available to the public an annual statement of the action taken by that agency in the previous year to implement the Order. Furthermore, the Order charges the Department of Commerce and the Department of the Interior to establish and manage a website for information regarding MPAs. They must also publish and maintain a list of established MPAs.

Application: The Order established a network for Marine Protected Areas and the National Marine Protected Areas Center.⁶ Additionally, the MPA Federal Advisory committee has worked to advise the Secretaries of Commerce and the Interior on implementing the Order.⁷ The establishment of the network of MPAs, the Center, and the

⁴ 65 Fed. Reg. 34909, 34910 (May 31, 2000).

⁵ *Id.*

⁶ See www.mpa.gov.

⁷ See <http://mpa.gov/mpafac/fac.html>.

Committee provides greater protection to coral reefs located within MPAs. The expansion or identification of new MPAs could protect more coral reef ecosystems. Furthermore, the monitoring and reporting requirements in the Order could identify gaps in protection of MPA resources, like coral reefs, as well as to identify emerging threats to coral reefs within MPAs.

Role of Other Federal Agencies: The Department of Commerce and the Department of the Interior must consult with other appropriate federal agencies, including the Department of Defense, the Department of State, the United States Agency of International Development, the Department of Transportation, the Environmental Protection Agency, and the National Science Foundation. The agencies must share information and provide guidance for one another so that each agency may further enhance or expand the protection of existing MPAs.

The agencies are also required to work together to form a biological assessment of the extent to which consumptive use of resources must be prohibited in the Order to preserve representative habitats of marine environment. The agencies must assess the threats and gaps in the levels of protection that are currently provided for natural and cultural resources, develop criteria for measuring the effectiveness of MPAs, and identify emerging threats affecting MPAs.

State/Local Authority: n/a

Limitations: Executive Orders are a weaker form of law, in that they only direct federal agency actions. They have the force of law when they have express or implied authority from Congress or when Congress is silent, as long as they do not impede the powers of another branch of government.

Furthermore, this Executive Order does not specifically protect all coral reefs, but only coral reefs within MPAs.

Available at: http://mpa.gov/executive_order/execordermpa.pdf

Coral Reef Conservation Act
16 U.S.C. §§6401-6409.

Lead Agency: National Oceanic and Atmospheric Administration (NOAA)

Framework: The Coral Reef Conservation Act (CRCA)⁸ contains many of the goals and mandates outlined in Executive Order 13089 (above). The Act aims to preserve and protect coral reef ecosystems, to effectively manage those ecosystems with the aid of scientific research, and to fund programs consistent with those goals.⁹ It requires, in conjunction with existing environmental laws, that coral reefs be monitored, mapped, and researched in order to better understand how to manage their ecosystems.¹⁰

The CRCA requires NOAA to submit a National Action Strategy with goals and objectives for the protection of coral reefs, as well as an implementation plan. The Coral Reef Task Force's National Coral Reef Action Strategy was used to meet this requirement.

The Act also introduced a matching grant program for coral reef conservation projects. Of all available funds, at least 80% must go to conservation projects on the Pacific (40%) and Atlantic (40%) coast, with the remaining 20% allocated for priorities decided upon by NOAA.¹¹ The Administrator must report to Congress every two years, detailing how grant funding has resulted in progress towards the above goals.¹² Government agencies, educational institutions, and nongovernmental organizations qualified in coral reef conservation may apply for these grants.¹³ Additionally, grants may be awarded to government agencies in need of emergency assistance for coral reefs due to "unforeseen or disaster-related circumstance[s]."¹⁴

The CRCA establishes a Coral Reef Conservation Fund through which NOAA may work with a nonprofit, the National Fish and Wildlife Foundation, to establish a conservation fund and to build public-private partnerships to carry out the goals of the Act. The CRCA also authorizes NOAA to conduct activities to protect coral reef ecosystems, such as increasing public awareness of the importance of coral reef ecosystems, assisting with debris removal from coral reefs, and aiding in the cooperative management of coral reef ecosystems.¹⁵

Application: The CRCA is the primary federal legislative tool used for coral reef conservation. Though the CRCA promotes the research, conservation, and management of U.S. coral reef ecosystems and provides funding for projects consistent with those goals, it does not establish a regulatory framework for preventing activities that may harm coral reefs. The legislation requires the Administrator of NOAA to report to Congress every two years.

⁸ 16 U.S.C. §§ 6401-6409 (2006).

⁹ *Id.* § 6401.

¹⁰ *Id.* § 6406.

¹¹ *Id.* § 6403(d).

¹² *Id.* § 6407.

¹³ *Id.* § 6403(c).

¹⁴ *Id.* § 6405.

¹⁵ *Id.*

Role of Other Federal Agencies: Agencies on the Task Force help shape the National Action Strategy. Furthermore, the Act states that “[a]ll Federal agencies whose actions may affect U.S. coral reef ecosystems shall: (a) identify their actions that may affect U.S. coral reef ecosystems; (b) utilize their programs and authorities to protect and enhance the conditions of such ecosystems; and (c) to the extent permitted by law, ensure that any actions they authorize, fund, or carry out will not degrade the conditions of such ecosystems.”¹⁶ And, federal agencies whose actions affect U.S. coral reef ecosystems, must “provide for implementation of measures needed to research, monitor, manage, and restore affected ecosystems, including, but not limited to, measures reducing impacts from pollution, sedimentation, and fishing.”¹⁷

State/Local Authority: Under the CRCA, state governments and other entities may apply for matching grants for coral reef conservation projects. NOAA is also authorized to provide grants to state and local governments for unforeseen or disaster-related coral reef emergencies.

Limitations: The Act does not establish a regulatory framework for preventing activities that may harm coral reefs. Additionally, the grant process for disaster-related coral reef emergencies may be too lengthy to provide emergency protection for coral reefs.

Available at: http://coris.noaa.gov/activities/actionstrategy/08_cons_act.pdf

¹⁶ *Id.* § 1601.

¹⁷ *Id.*

National Marine Sanctuaries Act
16 U.S.C. §§ 1431-1445.

Lead Agency: National Oceanic and Atmospheric Administration (NOAA)

Framework: The National Marine Sanctuaries Act (NMSA)¹⁸ designates “areas of the marine environment which are of special national significance” as national marine sanctuaries, providing for their protection, management, and conservation.¹⁹ The National Marine Sanctuary System includes thirteen national marine sanctuaries. National Marine Sanctuaries can be created when either the Secretary of Commerce designates sanctuaries pursuant to the Sanctuaries Act or when Congress directly designates a sanctuary.²⁰

NMSA prohibits the destruction of, or injury to, “any sanctuary resource managed under law or regulations for that sanctuary.”²¹ A sanctuary resource is defined as “any living or nonliving resource of a national marine sanctuary that contributes to the conservation, recreational, ecological, historical, educational, cultural, archeological, scientific, or aesthetic value of the sanctuary.”²² Pursuant to NMSA, NOAA has authority to review federal agency actions that may affect sanctuary resources.²³

Section 307 of NMSA authorizes the Secretary to enforce the Act.²⁴ Any person authorized to enforce the act may board vessels, seize evidence, execute warrants, and make arrests for the purposes of enforcing the Act.²⁵ Agencies enforcing the Act may include the NOAA Office for Law Enforcement, the U.S. Coast Guard, and the U.S. Department of the Interior, as well as state marine and wildlife enforcement agencies in the states where the sanctuaries are located.²⁶ Any person in violation of the Act may be subject to criminal and civil penalties, including up to six months in prison and up to \$100,000 per day in penalties for each violation.²⁷ Additionally, the U.S. Coast Guard may also enforce any violations of NMSA.²⁸

Destruction of or injury to resources within a sanctuary may make the person responsible liable for “the amount of response costs and damages resulting from the destruction, loss, or injury” and interest on that amount.²⁹ For example, if a vessel were to intentionally ground on a coral reef in order to avoid sinking during a storm, provided the owner knew or should have known of the storm, and the injury to the coral reef was more than negligible, then the vessel’s owner will be strictly liable for the damages he caused.³⁰

¹⁸ Title III of the Marine Protection, Research and Sanctuaries Act of 1972, 16 U.S.C. §§ 1431-1445c-1 (2006).

¹⁹ *Id.* § 1431.

²⁰ *Id.* § 1433.

²¹ *Id.* § 1436(1).

²² *Id.* § 1432(8).

²³ *Id.* § 1434(d)(1).

²⁴ *Id.* § 1437.

²⁵ *Id.*

²⁶ See <http://sanctuaries.noaa.gov/protect/enforcement/welcome.html>.

²⁷ 16 U.S.C. § 1437.

²⁸ *Id.* § 1437(i).

²⁹ *Id.* § 1443(a)(1).

³⁰ See *U.S. v. M/V Miss Beholden*, 856 F.Supp. 668 (S.D. Fla. 1994).

Finally, NOAA, in conjunction with the appropriate state and local government agencies, is required to develop a comprehensive management plan and regulations for individual sanctuaries.³¹ A management plan contains regulations, boundaries, and resource protection, research, and education programs designed to conserve the sanctuary.

Application: The areas designated as National Marine Sanctuaries under the Act contain many coral reef ecosystems, which receive protection under the Act as a "sanctuary resource." Destruction and injury to coral reefs located within designated national marine sanctuaries is prohibited by NMSA. Furthermore, the individual regulations for some national marine sanctuaries specifically prohibit the destruction or injury of coral.³² The Act provides criminal and civil consequences for violations of the Act and holds violators strictly liable for their actions.

Role of Other Federal Agencies: The U.S. Coast Guard may assist in enforcing the Act.

State/Local Authority: Under the Submerged Lands Act, Congress gave States title to submerged lands within 3 miles³³ (3 marine leagues along Gulf Coast of Florida and Texas).³⁴ When a sanctuary includes state waters, states may have a more active role in the management of the sanctuary. NOAA, in conjunction with the appropriate state and local government agencies, is required to develop a comprehensive management plan and regulations for individual sanctuaries.³⁵ The role of state and local authorities may be specified in the sanctuary designation process and the sanctuary management plan.

Limitations: Coral reefs must be within sanctuaries to receive protection. The designation process is difficult, which may limit the number of sanctuaries.

Available at: <http://sanctuaries.noaa.gov/library/National/NMSA.pdf>

³¹ 16 U.S.C. § 1434(a)(2)(c).

³² Fagatele Bay National Marine Sanctuary: 15 C.F.R. 922.102(a)(1)(i)(A) (2009); Florida Keys National Marine Sanctuary: 15 C.F.R. 922.163(a)(2) (2009); Flower Garden Banks National Marine Sanctuary: 15 C.F.R. 922.122(a)(5) (2009).

³³ 43 U.S.C. §§ 1301 *et seq.*

³⁴ *U.S. v. Louisiana*, 363 U.S. 1, 66 (1960) ("[P]ursuant to the Annexation Resolution of 1845, Texas' maritime boundary was established at three leagues from its coast for domestic purposes. . . Accordingly, Texas is entitled to a grant of three leagues from her coast under the Submerged Lands Act."); *U.S. v. Florida*, 363 U.S. 121, 129 (1960) ("We hold that the Submerged Lands Act grants Florida a three-marine-league belt of land under the Gulf, seaward from its coastline, as described in Florida's 1868 Constitution.").

³⁵ 16 U.S.C. § 1434(a)(2)(c).

Ocean Dumping Act

33 U.S.C. §§ 1401-1430.

Lead Agency: Environmental Protection Agency (EPA)

Framework: The Ocean Dumping Act (ODA)³⁶ prohibits or strictly limits “the dumping into ocean waters of any material which would adversely affect human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities.”³⁷ The ODA applies to all waters within the U.S. territorial sea and contiguous zone, extending seaward twenty-four nautical miles from the baseline or coastline.³⁸

The Act allows the Environmental Protection Agency (EPA) to issue ocean dumping permits designating appropriate sites or times for ocean dumping.³⁹ EPA may issue permits for dumping after a determination “that such dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or *the marine environment, ecological systems*, or economic potentialities.”⁴⁰ Such permits may only be issued after considering, among other criteria, the effect that ocean dumping would have on marine ecosystems.⁴¹

Additionally, the Secretary of the Army may issue permits, in consultation with EPA, for the dumping or discharge of dredged material into ocean waters.⁴² Typically issued in connection with U.S. Army Corps of Engineers’ projects, these permits allow the moving of sediment and other materials from rivers or harbors to the ocean floor.

Application: The ODA bans the dumping and associated transport of materials into the territorial sea and contiguous zone of the U.S. The Act’s policy of protecting marine ecosystems protects coral reefs. Though not explicitly stated in the Act, those individuals found dumping unauthorized materials over or near coral reefs could be criminally or civilly liable for their actions, just as they would be for other unauthorized dumping in U.S. waters. Each violation carries up to a \$50,000 civil penalty and may reach \$125,000 for the dumping of medical waste.⁴³ Further, violation of the ODA may result in up to five years in prison and the seizure of any property associated with the violation.⁴⁴

For example, a district court found a permit authorizing the dumping of dredged material near a coral community to be in violation of the ODA.⁴⁵ The U.S. Army Corps of Engineers had deposited approximately 4.4 million cubic yards of dredged material and was forced to stop dumping at that location.⁴⁶ Though not a case regarding coral

³⁶ Titles I & II of the Marine Protection, Research and Sanctuaries Act of 1972, 33 U.S.C. §§ 1401-1445 (2006).

³⁷ *Id.* § 1401(b).

³⁸ *Id.* § 1402(b).

³⁹ *Id.* § 1412(c).

⁴⁰ *Id.* § 1412(a) (emphasis added).

⁴¹ *Id.* § 1412(a)(D).

⁴² *Id.* § 1413.

⁴³ *Id.* § 1415(a).

⁴⁴ *Id.* § 1415(b).

⁴⁵ See *Manatee County v. Gorsuch*, 554 F.Supp. 778 (M.D.Fla. 1982).

⁴⁶ *Id.* at 784.

reefs, but hard and soft corals attached to exposed limestone, the case offers an example of how the ODA might be used to protect coral reefs.

Role of Other Federal Agencies: The Secretary of Commerce and the Secretary of Department which houses the Coast Guard (Homeland Security), along with other federal agencies, are authorized to conduct research and monitoring on ocean dumping, as well as research on the long-range effects of pollution, overfishing, and human-induced changes on ocean ecosystems.⁴⁷ The ODA requires yearly reports to Congress from the Secretary of Commerce, EPA Administrator, and NOAA's Under Secretary for Oceans and Atmosphere regarding ocean dumping research and actions taken to enforce the ODA.⁴⁸

Additionally, the U.S. Army Corps of Engineers may issue permits for the dumping of dredged material.⁴⁹ The U.S. Coast Guard is responsible for assisting EPA by monitoring the seas for violations of the ODA.⁵⁰ NOAA provides research support and guidance regarding the issuance of permits.⁵¹

State/Local Authority: The ODA states that "[e]xcept as expressly provided..., nothing in this title shall preclude or deny the right of any State to adopt or enforce any requirements respecting dumping of materials into ocean waters within the jurisdiction of the State."⁵² Furthermore, pursuant to the Coastal Zone Management Act, permits issued under the ODA must be consistent with a state's Coastal Zone Management Plan. Finally, the Act requires federal, state, and local agencies to assess the feasibility of regional management plans for the disposal of waste materials.⁵³

Limitations: The ODA does not specifically provide for the protection of coral reefs. However, the prohibition or limitation on dumping material into ocean waters will protect the entire ecosystem, including coral reefs.

Available at: <http://epw.senate.gov/mprsa72.pdf>

⁴⁷ *Id.* §§ 1441-1442.

⁴⁸ *Id.* § 1444.

⁴⁹ *Id.* § 1413.

⁵⁰ *Id.* § 1417(c).

⁵¹ *Id.* §§ 1414(h)(3), 1442.

⁵² *Id.* § 1416(d).

⁵³ *Id.* § 1433.

Antiquities Act of 1906
16 U.S.C. §§ 431-433.

Lead Agency: The President of the United States designates monuments and delegates management duties to various federal agencies.

Framework: The Antiquities Act of 1906⁵⁴ authorizes the President to designate landmarks, structures, and “other objects of historic or scientific interest” as national monuments, thereby granting them government protection from private interests. The Act allows for these designations by Presidential Proclamations, requiring measures that are “compatible with the proper care and management of the objects to be protected.”⁵⁵ The Act authorizes the Secretaries of the Interior, Agriculture, and the Army to issue permits for excavation, examination, or gathering of objects at the site of any monument designated under the Act.⁵⁶ The President may set criminal penalties for any person injuring a monument or object of antiquity.⁵⁷

Each area designated a national monument by Presidential Proclamation has site-specific regulations. Based on the unique characteristics of each national monument, the associated Proclamation and regulations detail the site’s prohibitions and protections. Though historically used to designate pieces of land as national monuments, the Act has recently been used to protect coral reefs.

The Virgin Island Coral Reef National Monument and the Buck Island Reef National Monument regulations prohibit the harvesting or collecting of nearly all resources and fish within the monuments, as well as any boating activity that would strike or otherwise damage “any underwater features.”⁵⁸ The National Park Service is responsible for the management and care of both national monuments.

Northwestern Hawaiian Islands Marine National Monument regulations prohibit anchoring on any live or dead coral, taking or attempting to take any living or non-living resource, and touching live or dead coral.⁵⁹ The Fish and Wildlife Service and the National Oceanic and Atmosphere Administration are jointly responsible for the monument’s management and care.

Three areas containing coral reefs⁶⁰ were designated as national monuments early in 2009, but the accompanying regulations have not yet been published. NOAA will be the agency responsible for managing all three monuments.

Application: National monument designations are an effective way to preserve and protect coral reef ecosystems. Activities harmful to coral reefs within national monuments are limited by specific regulations. Additionally, the regulations for each monument may provide for criminal and/or civil punishment. For example, violation of

⁵⁴ 16 U.S.C. §§ 431-433 (2006).

⁵⁵ *Id.* § 431.

⁵⁶ *Id.* § 432.

⁵⁷ *Id.* § 433.

⁵⁸ 36 C.F.R. §§ 7.46, 7.73.

⁵⁹ 50 C.F.R. § 404.6.

⁶⁰ Marianas Trench Marine National Monument: Pres. Proc. 8335 (Jan. 6, 2009); Pacific Remote Islands Marine National Monument: Pres. Proc. 8336 (Jan. 6, 2009); Rose Atoll Marine National Monument: Pres. Proc. 8337 (Jan. 6, 2009).

regulations in the Virgin Island Coral Reef National Monument or the Buck Island Reef National Monument may result in up to three months in prison, a "fine as provided by law," or both.⁶¹ Regulations for the Northwestern Hawaiian Islands Marine National Monument prohibit many actions regarding coral reefs, but provide no penalties for such violations.

It appears that national monuments may be eliminated only through the legislative process.⁶² The Act does not specify whether the President has the power to remove or modify a monument that has been proclaimed by a previous president.

Roles of Other Federal Agencies: The Act authorizes the Secretaries of the Interior, Agriculture, and the Army to issue permits for excavation, examination, or gathering of objects at the site of any monument designated under the Act. Other agencies may be delegated management authority, such as the National Oceanic and Atmosphere Administration, National Park Service, Fish and Wildlife Service, Department of Interior's Bureau of Land Management, the U.S. National Forest Service, and other agencies within the Department of the Army.

State/Local Authority: The designation may specify state or local roles in managing a monument. For example, the Northwestern Hawaiian Islands Marine National Monument is co-managed by the Secretaries of Commerce and Interior and the state of Hawaii.

Limitations: Protection depends on the President's decision to create a monument to protect a certain area. Additionally, regulations do not necessarily have to impose penalties for harming coral reefs, as seen within the Northwestern Hawaiian Islands Marine National Monument.

Available at: <http://www.nps.gov/history/local-law/anti1906.htm>

⁶¹ 36 C.F.R. § 1.3(b).

⁶² See U.S. Const., art. I, §8, cl. 18; See also Pub. L. No. 81-648; 81-652; 83-360.

Endangered Species Act
16 U.S.C. §§ 1531-1534.

Lead Agency: National Oceanic and Atmospheric Administration (NOAA)/U.S. Fish and Wildlife Service (FWS)

Framework: The Endangered Species Act (ESA) provides for the conservation of endangered and threatened species and for the conservation of "the ecosystems upon which endangered species and threatened species depend."⁶³ The Secretary of the Interior or Commerce, depending on species, publishes a list of all the species classified as endangered or threatened in the Federal Register. The Fish and Wildlife Service and the National Marine Fisheries Service administer the ESA. The FWS has primary responsibility for terrestrial and freshwater organisms. NMFS is primarily responsible for marine organisms. The Secretaries must conduct a review of all the species listed as threatened or endangered once every five years to determine whether any species should be removed from the list or reclassified.

The ESA requires federal agencies to ensure that their actions do not jeopardize the continued existence of the species⁶⁴ and prohibits the taking, importing, or selling of any specimen, or specimens, of a listed species.⁶⁵ "The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct."⁶⁶ There are civil and criminal penalties for violating the Act.

The Secretaries must designate a "critical habitat" for the listed species.⁶⁷ In determining whether to classify a habitat as "critical," the Secretaries must examine "the best scientific data available."⁶⁸ He or she must also consider the economic impact and the impact on national security that will result from designating an area as "critical."

The Secretaries of the Interior must develop "recovery plans"⁶⁹ for conserving and promoting the survival of threatened or endangered species. The Secretary must report to the Committee on Environment and Public Works of the Senate and the Committee on Merchant Marines and Fisheries of the House every two years on the development and implementation of "recovery plans" and on the status of all species for which such plans have been implemented.

The Secretary of the Interior must implement a system, in cooperation with the States, to monitor, for at least five years, the status of species which have recovered to the point that the protective measures are no longer necessary.⁷⁰

Application: The ESA provides for the protection of endangered and threatened species, including corals. Currently, there are only two species of corals listed. Both elkhorn and staghorn coral are listed as "threatened." However, the prohibitions on take and

⁶³ Endangered Species Act of 1973, 16 U.S.C. § 1531(b) (2006).

⁶⁴ *Id.* § 1536.

⁶⁵ *Id.* § 1538(a).

⁶⁶ *Id.* § 1532(19).

⁶⁷ *Id.* § 1533(b)(2)

⁶⁸ *Id.*

⁶⁹ *Id.* § 1533(f)

⁷⁰ *Id.* § 1533(g)

commercial trade do not apply to the species and no critical habitat was established.⁷¹ In addition to protecting specific species, entire coral reef ecosystems may be protected through designation as a "critical habitat."

Role of Other Federal Agencies: Under § 7 of the ESA, federal agencies are required to ensure that federal actions do not jeopardize the continued existence of a species or destroy or adversely modify critical habitat. To fulfill this duty, federal agencies are required to consult with NMFS or FWS on activities that may affect a listed species.

State/Local Authority: Section 6 of the ESA provides for cooperation between the federal government and state governments in the conservation of threatened, endangered, and candidate species. NMFS or FWS may enter into agreements with any state that establishes and maintains an "adequate and active" program for the conservation of endangered and threatened species. Federal assistance, in the form of funding or support, is available to implement and support the program and projects to support management, outreach, research, and monitoring that have direct conservation benefits for listed species, recently de-listed species, and candidate species that reside within that state.

Limitations: Species must be listed as endangered or threatened to receive protection. However, coral reef ecosystems may be indirectly protected if they are designated as a "critical habitat" for any endangered species.

Available at: <http://www.nmfs.noaa.gov/pr/laws/esa/>

⁷¹ National Oceanic and Atmospheric Administration, *Endangered and Threatened Species: Final Listing Determination for Elkhorn Coral and Staghorn Coral*, 71 Fed. Reg. 26,852, 26,859-60, 26,860 (2006).

Abandoned Shipwreck Act
43 U.S.C. §§ 2101-2106.

Lead Agency: National Park Service (NPS)

Framework: The Abandoned Shipwreck Act (ASA)⁷² requires states to protect and preserve abandoned shipwrecks in their waters for recreational and historical purposes, encouraging the creation of underwater parks to provide additional protection.⁷³ Additionally, the federal government claimed title to all abandoned shipwrecks embedded in state-owned submerged lands, embedded in state-protected coral formations, or on state-owned submerged lands that are a part of, or eligible for, the National Register of Historic Places.⁷⁴ After asserting ownership, the U.S. transferred the shipwreck titles to the respective states responsible for their protection.⁷⁵ Those abandoned shipwrecks located on or in U.S. public lands must remain the property of the federal government and wrecks on or in Indian lands must be owned by the tribe owning such lands.⁷⁶

Any abandoned vessel located within state waters and eligible for protection under the ASA is not subject to recovery under the laws of salvage or finds.⁷⁷ However, the states may allow for "public and private sector recovery of shipwrecks consistent with the protection of historical values and environmental integrity of the shipwrecks and the sites" as they deem appropriate.⁷⁸

As required by the ASA,⁷⁹ NPS issued guidelines to advise states and federal agencies in carrying out their responsibilities.⁸⁰ These management guidelines recommend that states cooperate with federal agencies, state agencies, interest groups, and generally focus on the long-term protection and preservation of the affected sites.⁸¹

Application: The ASA's primary goals are to protect and preserve abandoned shipwrecks of historical value. In order to do so, however, the surrounding environment may also require protection, such as when disturbing the site would damage the abandoned vessel. Should a wreck be on or sufficiently near a coral reef, the reef may receive protection under the ASA. Violators of a state's regulations concerning an abandoned shipwreck detrimentally affecting coral reefs may be subject to civil or criminal punishment, but that determination is left to the respective state.

⁷² Abandoned Shipwreck Act of 1987, 43 U.S.C. §§ 2101-2106.

⁷³ *Id.* § 2103.

⁷⁴ *Id.* § 2105(a).

⁷⁵ *Id.* § 2105(c).

⁷⁶ *Id.* § 2105(d).

⁷⁷ *Id.* § 2106.

⁷⁸ *Id.* § 2103(a)(2)(C).

⁷⁹ *Id.* § 2104.

⁸⁰ See Abandoned Shipwreck Act Guidelines, 56 Fed. Reg. 50116-01 (Dec. 4, 1990); see also National Park Service Archeology Program, *Abandoned Shipwreck Act Guidelines*, <http://www.nps.gov/archeology/submerged/state.htm> (last visited Jun. 23, 2009).

⁸¹ *Id.*

Role of Other Federal Agencies: The NPS Guidelines recommend that states coordinate and cooperate with federal agencies during the formation and application of abandoned shipwreck management policies and regulations. States may consult with the following agencies: U.S. Army Corps of Engineers; U.S. Coast Guard; Advisory Council on Historic Preservation; National Oceanic and Atmospheric Administration; Office of the Judge Advocate General, U.S. Department of the Navy; General Services Administration; Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State; and others.⁸²

State/Local Authority: Each state is responsible for the management and care of abandoned shipwrecks and their sites located in state waters. Furthermore, the NPS Guidelines recommend that states coordinate and cooperate with federal agencies during the formation and application of abandoned shipwreck management policies and regulations.

Limitations: The ASA does not specifically provide for the protection of coral reefs. However, since shipwrecks embedded in "coralline formations"⁸³ may not be disturbed, those reefs receive protection under the Act.

Available at: http://www.cr.nps.gov/local-law/FHPL_AbndShipwreck.pdf

⁸² *Id.*

⁸³ 43 U.S.C. § 2102(a).

Magnuson Stevens Fishery Conservation and Management Act
16 U.S.C. §§1801-1891.

Lead Agency: National Marine Fisheries Service (NMFS)

Framework: The Magnuson Stevens Fishery Conservation and Management Act (Magnuson Act) is the primary law regulating the nations' fisheries. The Act regulates fishery resources within the exclusive economic zone (200 nm from the baseline).⁸⁴ Pursuant to the Act, eight regional Fisheries Management Councils develop fishery management plans to regulate fisheries in their respective regions.⁸⁵ The Act contains ten national standards which management plans and regulations must comply with.⁸⁶ In addition to other goals, the standards seek to prevent overfishing while sustaining optimum yields and minimizing bycatch. Additionally, the Councils are required to describe and identify essential fish habitat in fishery management plans.⁸⁷ The Act authorizes the Secretary of Commerce to review, approve, and implement fishery management plans and other recommendations developed by the councils.

Deep sea coral language was included in the reauthorization of the Act in 2007. The Act requires the Secretary to establish a program to identify research on deep sea corals, map the locations of deep sea corals, monitor activity in deep sea coral habitats, conduct research on deep sea corals and survey methods, and develop technologies to assist fishermen to reduce the interactions of fishing gear with deep sea coral. The Secretary and Councils must submit biennial reports to Congress on the progress of the program. Fishery management plans may designate zones where deep sea corals live and restrict certain types of fishing in those zones based on an assessment of the benefits and impacts of the closure, so long as the closure is based on the best scientific information available, the conservation benefit is determined, and there is a timetable for review of the effect of the closure.

Application: The Act directly protects deep-sea corals through the Deep-Sea Coral Research and Technology Program, as well as the Act's authorization to designate zones to protect deep-sea corals. Coral reefs designated as essential fish habitat in fishery management plans will receive additional protection. Furthermore, with goals to reduce bycatch and overfishing, fishery management plans may indirectly prohibit or limit fishing practices that are harmful to coral reefs. Under Magnuson Stevens, NOAA has amended five fishery management plans to prohibit trawling in a 370,000 square mile area in Alaska to protect cold water corals as essential fish habitat and habitat areas of particular concern.⁸⁸

Role of Other Federal Agencies: The Act directs the Secretary to coordinate with Fishery Management Councils and other federal agencies, such as NOAA, and educational

⁸⁴ Magnuson Stevens Fishery Conservation and Management Act, 16 U.S.C.S. § 1811(a) (2006).

⁸⁵ *Id.* § 1852.

⁸⁶ *Id.* § 1851.

⁸⁷ *Id.* § 1855.

⁸⁸ National Oceanic and Atmospheric Administration, *Fisheries of the Exclusive Economic Zone Off Alaska; Groundfish, Crab, Salmon, and Scallop Fisheries of the Bering Sea and Aleutian Islands Management Area and Gulf of Alaska*, 71 Fed. Reg. 36,694-99 (2006).

institutions in the development of the Deep-Sea Coral Research and Technology Program. The services of the Department of Defense and the U.S. Coast Guard may be utilized to enforce the Act.⁸⁹

State/Local Authority: The Magnuson-Stevens Act claims exclusive jurisdiction over all fishery-related activities within the EEZ. However, the Act preserves state jurisdiction within state waters.⁹⁰ The Act also recognizes state jurisdiction over fisheries in other circumstances, such as when the state's laws and regulations are consistent with the federal fishery management plans and regulations.⁹¹

Limitations: Only provides specific protection for deepwater coral.

Available at:

[http://www.nmfs.noaa.gov/msa2005/docs/MSA_amended_msa%2020070112_FINAL.p
df](http://www.nmfs.noaa.gov/msa2005/docs/MSA_amended_msa%2020070112_FINAL.pdf)

⁸⁹ *Id.* § 1861.

⁹⁰ *Id.* § 1856 (a).

⁹¹ *Id.*

Marine Mammal Protection Act
16 U.S.C. §§ 1361-1423.

Lead Agency: National Oceanic and Atmospheric Administration (NOAA); Fish and Wildlife Service (FWS)

Framework: The Marine Mammal Protection Act (MMPA)⁹² prohibits the taking of marine mammals and calls for the protection of their “essential habitats.”⁹³ Intended to prevent the dangerous depletion or extinction of marine mammals, the MMPA imposes a moratorium on the taking and importing of marine mammals and marine mammal products absent a permit.⁹⁴

This moratorium applies to those subject to U.S. jurisdiction, whether in domestic or international waters, and all individuals in U.S. waters.⁹⁵ Though generally prohibited, some groups, such as Alaska Natives and those conducting scientific research, may receive permits and authorizations to take marine mammals.⁹⁶

The Act also established the Marine Mammal Commission, which is responsible for monitoring population sizes and recommending how to best protect and conserve marine mammals.⁹⁷ The Commission consults with federal agencies such as National Oceanic and Atmospheric Administration (NOAA) and the Fish and Wildlife Service (FWS) in forming its recommendations.

Application: NOAA is responsible for the protection of whales, dolphins, porpoises, seals, and sea lions.⁹⁸ FWS enforces the MMPA with respect to polar bears, sea otters, walruses, dugongs, and manatees.⁹⁹

The Secretary of Commerce has the authority to protect the habitat of marine mammals, which potentially includes coral reefs.¹⁰⁰ Individuals in violation of the MMPA may face civil penalties up to \$10,000 per infraction or criminal charges with the potential for one year in prison, a fine up to \$20,000, or both for each conviction.¹⁰¹ Additionally, each vessel found in violation of the MMPA may face civil penalties up to \$25,000 per violation and the forfeiture of its entire cargo.¹⁰²

Role of Other Federal Agencies: The Commission may coordinate its efforts with those of “any Federal agency.”¹⁰³ NOAA and FWS remain the primary agencies, dividing the responsibilities for marine mammal protection.

⁹² Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361-1423h(2006).

⁹³ *Id.* § 1361.

⁹⁴ *Id.* § 1371.

⁹⁵ *Id.* § 1372.

⁹⁶ *See id.* §§ 1374, 1388.

⁹⁷ *Id.* § 1402.

⁹⁸ 50 C.F.R. § 216.3.

⁹⁹ *Id.* § 18.3.

¹⁰⁰ Marine Mammal Protection Act Amendments of 1994, Pub. L. No. 103-238, §4 (1994).

¹⁰¹ 16 U.S.C. § 1375.

¹⁰² *Id.* § 1376.

¹⁰³ *Id.* § 1405.

State/Local Authority: NOAA and FWS may designate state officials and employees to assist in enforcing the MMPA.¹⁰⁴ The Act preempts state laws regarding the take of marine mammals unless there is “a transfer of management authority by the Secretary.”¹⁰⁵

Limitations: The MMPA calls for the protection of marine mammals’ habitats, but does not establish a regulatory framework for preventing activities that may harm coral reefs.

Available at: <http://www.nmfs.noaa.gov/pr/pdfs/laws/mmpa.pdf>

¹⁰⁴ *Id.* § 1377.

¹⁰⁵ *Id.* § 1379.

Coastal Zone Management Act
16 U.S.C. §§ 1451-1466.

Lead Agency: National Oceanic and Atmospheric Administration (NOAA)

Framework: The purpose of the Coastal Zone Management Act (CZMA) is to “preserve, protect, develop, and where possible, to restore or enhance the resources of the Nation’s coastal zone for this and succeeding generations.”¹⁰⁶ The CZMA specifically calls for the federal government to encourage and assist states regarding “the protection of natural resources, including [...] coral reefs, and fish and wildlife, and their habitat within the coastal zone.”¹⁰⁷

The CZMA provides federal funding to assist states in developing and administering coastal zone management plans (CMPs) to carry out its purpose.¹⁰⁸ Pursuant to the Act, the Secretary of Commerce approves or denies CMP proposals.¹⁰⁹ State proposals must meet a set of elements to obtain approval.¹¹⁰

The CZMA also contains a provision to ensure that all federal agency actions within the coastal zone, or that are likely to affect its resources, are consistent with the state management program.¹¹¹ Proposed federal activities must be submitted to the appropriate state for a consistency determination.¹¹² Additionally, states may object to any private activity requiring federal approval.¹¹³ States may object to plans for the exploration and development of natural resources, such as oil and gas, within the coastal zone.¹¹⁴

Application: The CZMA specifically calls for the federal government to encourage and assist states with the protection of coral reefs and their habitat within the coastal zone. Coral reef ecosystems may receive protection under state CMPs. Furthermore, any proposed federal, private, or resource development action that would harm coral reefs in violation of state CMP could be blocked under the CZMA’s consistency provision. Consequently, any coral reef falling within the state’s coastal zone areas receive state and federal protection under the CZMA.

Role of Other Federal Agencies: In approving state CMPs or amendments, the CZMA requires NOAA to consult with “other interested Federal agencies.”¹¹⁵ Additionally, federal agency actions, including permitting, must be consistent with the state CMPs.

¹⁰⁶ 16 U.S.C. § 1452 (2006).

¹⁰⁷ § 1452(2)(A).

¹⁰⁸ *Id.* § 1455.

¹⁰⁹ *Id.* § 1454.

¹¹⁰ *Id.* § 1454(d); *See* 15 C.F.R. § 923.41.

¹¹¹ *Id.* § 1456(c)(1)(A).

¹¹² *Id.* § 1456(c)(1)(C).

¹¹³ *Id.* § 1456(c)(3)(A).

¹¹⁴ *Id.* § 1456(c)(3)(B).

¹¹⁵ *Id.* § 1456(a).

State/Local Authority: States have broad authority in developing and enforcing CMPs. States may object to federal actions in the coastal zone if such actions would be inconsistent with the state's coastal zone management plan.

Limitations: The level of protection provided for coral reef ecosystems is dependent on individual state CMPs. The CZMA gives states the right to object to federal actions in the coastal zone, but such objections may be overcome by Presidential exemption or an override by the Secretary of Commerce.

Available at: http://coastalmanagement.noaa.gov/about/media/CZMA_10_11_06.pdf

National Environmental Policy Act
42 U.S.C. §§ 4321-4370.

Lead Agency: Council on Environmental Quality (CEQ)

Framework: The purpose of the National Environmental Policy Act (NEPA)¹¹⁶ is “[t]o declare a national policy which will encourage productive and enjoyable harmony between man and his environment to promote efforts which will prevent or eliminate damage to the environment.” NEPA requires all federal agencies to analyze the potential environmental impacts of their proposed actions “significantly affecting the quality of the human environment.”¹¹⁷ These analyses, or Environmental Impact Statements (EIS), must consider the proposed actions’ environmental impacts, unavoidable adverse environmental impacts, alternatives, short-term impacts as they relate to long-term productivity, and the actions’ potential for “irreversible and irretrievable commitments of resources.”¹¹⁸ Federal actions necessitating an EIS include: adopting official policies, rules, or regulations; adopting formal plans; adopting programs; and approving specific projects.¹¹⁹ Agencies proposing actions that would significantly affect the environment must consider and include alternatives and mitigation measures in each EIS, including the alternative of no action.¹²⁰

NEPA established the Council on Environmental Quality (CEQ), within the Executive Office of the White House, which is responsible for ensuring compliance with the Act and overseeing the EIS process.¹²¹ CEQ regulations provide the framework agencies use to determine whether an EIS is required. If an agency is uncertain as to whether a proposed action would require an EIS, the agency may prepare an Environmental Assessment (EA).¹²² NEPA also allows, when appropriate, agencies to file a Finding of No Significant Impact (FONSI) detailing why the proposed action will not significantly affect the environment.¹²³

Application: Proposed federal actions that would threaten coral reefs, either directly or indirectly, would require an EIS or an EA to assess the impact and to propose alternatives or mitigation measures, if necessary. Though neither NEPA nor CEQ regulations specifically address coral reef protection, the Act could encompass a coral reef as part of the affected “human environment.”

Role of Other Federal Agencies: All federal agencies proposing actions that may significantly affect the environment are subject to NEPA. Additionally, NEPA compels the appropriate federal agencies to cooperate when preparing an EIS.

¹¹⁶ 42 U.S.C. §§ 4321-4370h (2006).

¹¹⁷ *Id.* § 4332(c).

¹¹⁸ *Id.*

¹¹⁹ 40 C.F.R. § 1508.18(b).

¹²⁰ *Id.* § 1508.20.

¹²¹ 42 U.S.C. § 4344.

¹²² 40 C.F.R. § 1508.9.

¹²³ *Id.* § 1508.13.

State/Local Authority: Federal, state, and local agencies and the public may comment on an EIS or an EA before it becomes final.¹²⁴

Limitations: Although NEPA does encompass actions affecting coral reefs, the Act is not the most practical way to protect coral reefs.

Available at: <http://www.nepa.gov/nepa/regs/nepa/nepaeqia.htm>

¹²⁴ 42 U.S.C. § 4332(v).

Clean Water Act

33 U.S.C. §§ 1251-1387.

Lead Agency: Environmental Protection Agency (EPA)

Framework: The purpose of the Clean Water Act (CWA)¹²⁵ is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”¹²⁶ The CWA prohibits the unauthorized discharge of pollutants into U.S. waters in an effort to restore and maintain water quality.¹²⁷ The EPA is required to develop and oversee comprehensive pollution control programs designed to prevent, reduce, or eliminate water pollution.¹²⁸ The EPA regulates point and nonpoint sources through a permit system based on national technological standards and science-based criteria.¹²⁹

The National Pollutant Discharge Elimination System (NPDES) is the primary means by which entities may obtain permits for the discharge of pollutants.¹³⁰ A secondary permitting system is administered by the U.S. Army Corps of Engineers (Corps) and primarily concerns the placement of dredge or fills materials into wetlands and waters of the United States.¹³¹

Application: The CWA protects coral reefs by regulating the discharge of pollutants from point and nonpoint sources. Though the CWA does not specifically protect coral reefs, they benefit from the water quality protections necessary for healthy coral reef ecosystems.

Role of Other Federal Agencies: U.S. Army Corps of Engineers issues permits regarding dredged material.¹³²

State/Local Authority: NPDES and the Corps permitting may be carried out by states with authority from the EPA or the Corps.¹³³ The CWA requires states to monitor and report water pollution levels.¹³⁴ Additionally, the Act encourages states to develop water quality standards and programs.¹³⁵

Limitations: The CWA does not directly address coral reef protection. Further, the act does not regulate ocean vessel discharges beyond a three-mile zone, which could harm coral reefs.

Available at: <http://www.epa.gov/npdes/pubs/cwatxt.txt>

¹²⁵ 33 U.S.C. §§ 1251-1387 (2006).

¹²⁶ *Id.* § 1251(a).

¹²⁷ *Id.* § 1251.

¹²⁸ *Id.* § 1252.

¹²⁹ *Id.* § 1251(a)(2).

¹³⁰ *Id.* § 1342.

¹³¹ *Id.* 1344(e)(1).

¹³² *Id.* § 1344.

¹³³ *Id.* §§1342(b); 1344(e).

¹³⁴ *Id.* § 1315.

¹³⁵ *Id.* § 1251.

Rivers and Harbors Act

33 U.S.C. §§ 401-426.

Lead Agency: U.S. Army Corps of Engineers

Framework: Section 9 of the Rivers and Harbors Act (RHA) prohibits the construction of bridges and dams over navigable waters in the United States without Congressional consent and approval by the Secretary of Transportation (for bridges or causeways) or the Chief of Engineers and Secretary of the Army (for dams or dikes).¹³⁶ However, structures authorized by state legislatures may be built if the affected navigable waters are located entirely within one state and if the plans for its construction are approved by the Secretary of Transportation, or the Chief of Engineers and the Secretary of the Army.¹³⁷

Section 10 of the RHA prohibits obstructions to navigability without approval by Congress, except as authorized by the Corps.¹³⁸ The Act also prohibits the discharge of "any refuse matter of any kind" into navigable waters in the United States.¹³⁹ However, if the Chief of Engineers determines that navigation will not be negatively impacted, the Secretary of the Army may grant permits to deposit such material in navigable waters.¹⁴⁰ This authority has been modified by the Clean Water Act (CWA). In issuing permits, the CWA requires the Corps to consider the public and private need for the activity, reasonable alternative locations and methods, and the benefits and detriments to the public and private uses to which the area is suited.¹⁴¹

Application: The regulation of construction and the prohibition of discharge into navigable waters without a permit positively affect water quality necessary for healthy coral reef ecosystems.

The Department of Justice is responsible for conducting the legal proceedings needed to enforce this statute.¹⁴² The RHA requires United States attorneys to "vigorously prosecute" offenders and report to the Attorney General of the United States the action taken against those offenders.¹⁴³

Role of Other Federal Agencies: Although the Corps has primary permitting authority for obstructions to navigation and the discharge of material into navigable waters, the U.S. Department of Transportation has approval authority over construction plans for bridges and causeways.

¹³⁶ 33 U.S.C. § 401 (2006).

¹³⁷ *Id.*

¹³⁸ *Id.* § 403.

¹³⁹ *Id.* at § 407.

¹⁴⁰ 33 U.S.C. § 1342.

¹⁴¹ 33 U.S.C. §§1341-1345; Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 852 (1972).

¹⁴² *Id.* § 413.

¹⁴³ *Id.*

The Fish and Wildlife Coordination Act provides authority for the U.S. Fish and Wildlife Service to review and comment on the effects on fish and wildlife of activities permitted or undertaken by the Corps of Engineers.¹⁴⁴

State/Local Authority: States do not have a significant role under the Act.

Limitations: The statute is primarily concerned with navigability of U.S. waters, not the protection of water quality or ecosystems.

Available at: http://www.usace.army.mil/CECW/Pages/reg_materials.aspx

¹⁴⁴ 16 U.S.C. 661-667(e).

Oil Pollution Act

33 U.S.C. §§ 2701-2762.

Lead Agency: U.S. Coast Guard

Framework: The Oil Pollution Act (OPA) requires vessels over 300 gross tons to “establish and maintain ... evidence of financial responsibility sufficient to meet the maximum amount of liability to which the responsible party could be subjected under section 2704 (a) or (d).”¹⁴⁵ It also requires tank vessels operating in the waters of the United States to be equipped with a double hull,¹⁴⁶ which helps reduce the amount of oil discharged by damaged ships. Vessel owners must obtain a Certificate of Financial Responsibility (COFR) from the U.S. Coast Guard’s National Pollution Funds Center (NPFC) prior to operation within the waters of the United States.¹⁴⁷ The NPFC also administers the Oil Spill Liability Trust Fund (OSLTF), which provides up to one billion dollars per incident for the clean up of oil discharges.¹⁴⁸

Application: The Act helps reduce damage caused by oil spills by requiring double-hulled vessels. Additionally, the Act facilitates the clean-up of spills.

Role of Other Federal Agencies: The Act mandates the establishment of the Interagency Coordinating Committee on Oil Pollution Research (Interagency Committee). The Interagency Committee must coordinate a program for oil pollution research and technology development. The Interagency Committee is to assess the current technologies and knowledge regarding oil pollution prevention, response and mitigation. They must also identify oil pollution research gaps and establish goals for the development of oil pollution technology.

The members of the Interagency Committee must be representatives from various departments and agencies. Interagency Committee representatives: Coast Guard, Department of Commerce, Department of Energy, Department of the Interior, Department of Transportation, Department of Defense, Department of Homeland Security, Environmental Protection Agency, National Aeronautics and Space Administration, and any other Federal agencies that the President may designate.

State/Local Authority: States may enforce requirements for financial responsibility in navigable waters of the state.¹⁴⁹

Limitations: Protects water quality and ecosystem in oil spills, but does not directly address coral reef ecosystems.

¹⁴⁵ 33 U.S.C. 2716(a)(1) (2006).

¹⁴⁶ See Oil Pollution Act of 1990, Pub. L. No. 101-380, § 3703(a) 104 Stat. 484, 517-519 (1990) (adding the double hull requirement to the Oil Pollution Act of 1990).

¹⁴⁷ 33 C.F.R. § 135.215; 33 C.F.R. 135.9.

¹⁴⁸ 33 C.F.R. 133.25.

¹⁴⁹ 33 U.S.C. § 2719.

Available At: <http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=BROWSE&TITLE=33USCC40>

Coastal Barriers Resources Act (CBRA)
16 U.S.C. 3501-3510.

Lead Agency: United States Fish and Wildlife Service

Framework: The Coastal Barriers Resources Act (CBRA) was enacted for the purpose of “minimiz[ing] the loss of human life, wasteful expenditure of Federal revenues, and the damage to fish, wildlife, and other natural resources associated with the coastal barriers.”¹⁵⁰ The Act works to identify underdeveloped coastal barrier islands that should be precluded from receiving Federal financial assistance that might support development. Exceptions are made for Federal funding that involves emergency life-saving activities as well as fish and wildlife research.

The Act created the Coastal Barrier Resources System (CRBS), which identifies undeveloped coastal barriers.¹⁵¹ The Act also created the Departmental Coastal Barriers Task Force, which has the responsibility to implement the statute’s funding prohibitions. The Task Force, co-chaired by the United States Fish and Wildlife Service, National Park Service, and the Geological Survey, conducts research to determine how best to implement the statute’s funding prohibitions.

The Secretary of the Interior is assigned mapping and study requirements to examine economic impacts resulting from the avoidance of Federal expenditures for (1) disaster relief under the Robert T. Stafford Disaster Relief and Emergency Assistance Act; (2) the national flood insurance program established under chapter 1 of the National Flood Insurance Act of 1968; and (3) development assistance for roads, potable water supplies, and wastewater infrastructure.¹⁵²

Application: While the CBRA does not specifically regulate coral reef ecosystems, the prohibition of federal funds for hazardous coastal development on barrier islands helps to protect water quality, which is essential to the viability coral reefs.

Role of Other Federal Agencies:

Federal agencies affected by the Act are required to promulgate regulations to assure compliance with the act and to provide annual reports and certifications of compliance with the Act.¹⁵³

Task Force Co-chairs: The United States Fish and Wildlife Service, National Park Service and the Geological Survey make up the Coastal Barriers Task Force, which works to implement the statute’s funding prohibitions.

State/Local Authority: n/a. However, the law has established a process for the RTC and FDIC to transfer interests in land to public or nonprofit conservation organizations.

¹⁵⁰ 16 U.S.C. § 3501 (2006).

¹⁵¹ *Id.* §§ 3503, 3502(1)(7).

¹⁵² *Id.* § 3501.

¹⁵³ *Id.* § 3506.

Limitations: The CBRA does not forbid privately financed development. Additionally, the CBRA does not specifically regulate coral reef ecosystems.

Available at: <http://www.usda.gov/rus/water/ees/pdf/cbra.pdf>

Fish and Wildlife Coordination Act

16 U.S.C. §§ 661-667e.

Lead Agency: Fish and Wildlife Service

Framework: The Fish and Wildlife Coordination Act was created to protect wildlife resources and to minimize the effects of Federal activities on such resources.¹⁵⁴ The Act provides that wildlife conservation “shall receive equal consideration and be coordinated with other features of water-resource development programs through the effectual and harmonious planning, development, maintenance, and coordination of wildlife conservation and rehabilitation.”¹⁵⁵

The Act authorizes the Secretary of the Interior, through the Fish and Wildlife Service (FWS) to provide assistance to, and cooperate with, Federal, State, and public or private agencies and organizations in (1) the protection, rearing, and stocking of all species of wildlife; (2) in controlling losses from disease or other causes; (3) in minimizing damages from overabundant species; (4) in providing public shooting and fishing areas; and (5) in carrying out other measures necessary to effectuate the purposes of this Act.¹⁵⁶ Additionally, the Act also allows the FWS to make surveys and investigations of wildlife and to accept donations of land and contributions of funds in furtherance of the purposes of the Act.¹⁵⁷

The FWCA mandates that any project involving construction or modification of dams, levees, impoundments, stream relocation, water-diversion structures be reviewed and authorized by the FWS. The agency may also suggest recommendations for protecting fish and wildlife, which the agency submitting the project for review must follow wherever possible. Additionally, the FWS is authorized to make investigations to determine the effects of domestic sewage, mine, industrial wastes, erosion silt, and other polluting substances on wildlife.

Application: Under the Act, coral reef ecosystems are protected when federal actions seek to control or modify a natural water body in proximity to a coral reef. For example, before issuing a permit, the U.S. Army Corps of Engineers is required to consult with the FWS to determine the impact on fish and wildlife. The Act also authorizes the FWS to conduct studies and surveys on wildlife, which helps determine potential effects a project may have on coral reefs. Additionally, FWS is able to provide technical expertise and recommendations to agencies toward protecting coral reefs that serve as fish habitat.

Role of Other Federal Agencies: The Act authorizes the U. S. Bureau of Mines, in addition to the FWS, to make investigations into activities involving sewage, mines, industrial wastes, erosion, and other polluting substances to determine its effect on

¹⁵⁴ 16 U.S.C. § 661 (2006).

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

wildlife.¹⁵⁸ The Act also requires any agency constructing a new dam to consult with the Bureau of Fisheries for fish migration.

Additionally, the Act directs any federal agencies involved with a project that may modify or have an effect on wildlife resource to consult with the Service and State Fish and Wildlife agencies regarding possible impacts.

State/Local Authority: Any department or agency of the U.S. engaged in an activity that may result in the control or modification of a body of water must be in accordance with plans approved jointly by: the head of the department or agency exercising primary administration; the Secretary; the head of the state agency exercising administration of the wildlife resources.

Limitations: While the Act does not directly protect coral reefs, it does apply to plants and animals that use coral reefs as habitat. Additionally, Bill H.R. 860, The Coral Reef Conservation Act Reauthorization and Enhancement Amendments of 2009 has been introduced and would add coral reefs to Fish and Wildlife Coordination Act.¹⁵⁹

Available at: <http://www.usbr.gov/power/legislation/fwca.pdf>

¹⁵⁸ 16 U.S.C. § 665.

¹⁵⁹ See <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:H.R.860:>.

National Park Service Organic Act
16 U.S.C. §§ 1-4.

Lead Agency: National Park Service (NPS)

Framework: The National Park Service Organic Act¹⁶⁰ established NPS and outlined its responsibilities and authorities in managing the National Park System. NPS regulates national parks, monuments, and reservations for the purposes of conserving their natural and historic objects, including wildlife.¹⁶¹ The Act prohibits the sale or lease of “natural, [sic] curiosities, wonders, or objects of interest” found in the National Park System that would interfere with the public’s access.¹⁶²

As required by the Act, NPS established regulations for the National Park System as a whole and for individual national parks, monuments, and reservations. Within the National Park System, the possession, destruction, and removal of “living or dead wildlife or fish” or “plants or the parts of products thereof” is prohibited.¹⁶³

Dry Tortugas National Park regulations restrict public access to areas of the park containing coral and prohibit the taking or damaging of coral.¹⁶⁴ Visitors to the Virgin Islands Coral Reef National Monument and the Buck Island Reef National Monument may not remove corals or operate watercrafts in a manner that damages them.¹⁶⁵

Application: By establishing NPS and requiring it to regulate the National Park System, the Act indirectly provided for the protection of coral reefs located within national parks, monuments, and reservations. The Act itself does not specifically protect coral reefs, but they could be included in the undefined “natural, [sic] curiosities, wonders, or objects of interest.”

State/Local Authority: n/a

Role of Other Federal Agencies: The U.S. Forest Service may be consulted regarding the “supervision, management, and control of national monuments contiguous to national forests.”¹⁶⁶

Limitations: Reefs must be within jurisdiction of NPS to receive protection.

Available at: <http://www.nps.gov/legacy/organic-act.htm>

¹⁶⁰ 16 U.S.C. §§ 1-4 (2006).

¹⁶¹ *Id.* § 1.

¹⁶² *Id.* § 3.

¹⁶³ 36 C.F.R. § 2.1(a)(1).

¹⁶⁴ *Id.* § 7.27(c)(1), (i).

¹⁶⁵ *Id.* § 7.46(a)(1), (e)(1); *id.* § 7.73(a), (d)(1).

¹⁶⁶ 16 U.S.C. § 2.

Lacey Act

16 U.S.C. §§ 3371-3378.

Lead Agency: National Oceanic and Atmospheric Administration (NOAA)/Fish and Wildlife Service (FWS)

Framework: The Lacey Act¹⁶⁷ prohibits the importation, exportation, sale, receipt, acquisition, or purchase of any fish, wildlife or plant taken in violation of U.S., foreign, or Indian tribal law or in interstate or foreign commerce in violation of any state or foreign law.¹⁶⁸ This prohibition applies to all wild animals, alive and dead, and all wild plants, except for common food crops.¹⁶⁹

Any person who knowingly or negligently violates the Act may be subject to a civil penalty of up to \$10,000 per violation.¹⁷⁰ Further, those who knowingly violate the Act may be subjected to criminal penalties, including up to five years in prison and up to a \$20,000 fine for each violation.¹⁷¹ The potential civil and criminal penalties may be lessened depending on the violator's knowledge and the severity of the violation.

Fish, wildlife, and plants transported or sold in violation of the Act may be seized by the U.S.¹⁷² All vessels and equipment used in furtherance of violating the Act may be seized as well, provided that the violation results in a felony conviction and the property owner participated in or should have known of the violation.¹⁷³

Application: The Lacey Act protects coral reefs by prohibiting the unauthorized taking of fish, wildlife, and plants from U.S. waters. Coral species, fish, and plants receiving protection under other laws benefit from the Act's additional protection. Furthermore, coral reefs under the jurisdiction of foreign laws receive protection via the Act's importation ban if obtained illegally.

Role of Other Federal Agencies: Secretaries of the Interior and Commerce must consult with the Secretary of the Treasury in carrying out their duties under the Act.¹⁷⁴ The National Oceanic and Atmospheric Administration has the authority to "assess civil penalties, impose permit sanctions, issue written warnings, and/or seize and forfeit property" for violations of the Act.¹⁷⁵ The Animal and Plant Health Inspection Service may initiate forfeiture proceedings against all equipment used in the transportation of plants in violation of the Act.¹⁷⁶

State/Local Authority: The Act prohibits the import, export or movement of interstate commerce of any protected species under the Act in violation of state law. The Act also

¹⁶⁷ 16 U.S.C. §§ 3371-3378 (2006).

¹⁶⁸ *Id.* § 3372.

¹⁶⁹ *Id.* § 3371.

¹⁷⁰ *Id.* § 3373(a)(1).

¹⁷¹ *Id.* § 3373(b)(1).

¹⁷² *Id.* § 3374(a)(1).

¹⁷³ *Id.* § 3374(a)(2).

¹⁷⁴ *Id.* § 3376(a).

¹⁷⁵ 15 C.F.R. § 904.1(c).

¹⁷⁶ 7 C.F.R. § 356 n.2.

makes it illegal to import, export, or move in interstate commerce, any protected species under the Act unless the package meets labeling requirements.¹⁷⁷

Limitations: The Act does not directly regulate coral reef ecosystems. The Act limits its applicability to fisheries regulated under the Magnuson-Stevens Fishery Conservation and Management Act and to highly migratory species taken on high seas as regulated by the Tuna Conventions Act of 1950 or the Atlantic Tunas Convention Act of 1975.¹⁷⁸

Available at: www.fws.gov/le/LawsTreaties/Lacey.pdf

¹⁷⁷ 16 U.S.C. § 3372(b).

¹⁷⁸ *Id.* § 3377.

Law	Lead Agency	Description
<i>Executive Order 13089</i>	U.S. Coral Reef Task Force	Creates task force charged with overseeing the mapping and monitoring of all U.S. coral reefs, researching coral degradation, conserving and restoring coral reefs, and promoting coral reef conservation internationally.
<i>Coral Reef Conservation Act</i>	National Oceanic and Atmospheric Administration (NOAA)	The Act aims to preserve and protect coral reef ecosystems, to effectively manage those ecosystems with the aid of scientific research, and to fund programs consistent with those goals. It requires, in conjunction with existing environmental laws, coral reefs to be monitored, mapped, and researched in order to better understand how to manage their ecosystems.
<i>National Marine Sanctuaries Act</i>	NOAA	Designates "areas of the marine environment which are of special national significance" as national marine sanctuaries, providing for their protection, management, and conservation.
<i>Ocean Dumping Act</i>	Environmental Protection Agency (EPA)	Prohibits or strictly limits "the dumping into ocean waters of any material which would adversely affect human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities."
<i>Antiquities Act</i>	U.S. President	Authorizes the President to designate landmarks, structures, and "other objects of historic or scientific interest" as national monuments.
<i>Endangered Species Act</i>	NOAA/United States Fish and Wildlife Service (FWS)	Provides for the conservation of endangered and threatened species and for the conservation of "the ecosystems upon which endangered species and threatened species depend."
<i>Abandoned Shipwreck Act</i>	National Park Service (NPS)	Requires states to protect and preserve abandoned shipwrecks in their waters for recreational and historical purposes, encouraging the creation of underwater parks to provide additional protection.
<i>Magnuson Stevens Fishery Conservation and Management Act</i>	National Marine Fisheries Service (NMFS)	The Act directly protects deep-sea corals through the Deep-Sea Coral Research and Technology Program, as well as the Act's authorization to designate zones to protect deep-sea corals. Coral reefs designated as essential fish habitat in fishery management plans will receive additional protection. Furthermore, with goals to reduce bycatch and overfishing, fishery management plans may prohibit or limit fishing practices that are harmful to coral reefs.
<i>Marine Mammal Protection Act (MMPA)</i>	NOAA FWS	Prohibits the taking of marine mammals and calls for the protection of their "essential habitats," including coral reef ecosystems.
<i>Coastal Zone Management Act</i>	NOAA	The CZMA provides federal funding to assist states in developing and administering coastal zone management plans (CMPs) to carry out its purpose to "preserve, protect, develop, and where possible, to restore or enhance the resources of the Nation's coastal zone for this and succeeding generations."

<i>National Environmental Policy Act</i>	Council on Environmental Quality (CEQ)	NEPA requires all federal agencies to analyze the potential environmental impacts of their proposed actions "significantly affecting the quality of the human environment," which could include actions affecting coral reef ecosystems.
<i>Clean Water Act</i>	EPA	The CWA prohibits the unauthorized discharge of pollutants into U.S. waters in an effort to restore and maintain water quality.
<i>Rivers and Harbors Act</i>	U.S. Army Corps of Engineers	Regulates construction and prohibits the discharge of "any refuse matter of any kind" into navigable waters in the United States.
<i>Oil Pollution Act</i>	U.S. Coast Guard	Requires vessel owners to demonstrate evidence of financial responsibility for oil spills and requires tank vessels operating in the waters of the United States to be equipped with a double hull.
<i>Coastal Barriers Resources Act</i>	FWS	The Act works to identify underdeveloped coastal barrier islands that should be precluded from receiving Federal financial assistance that might support development.
<i>Fish and Wildlife Coordination Act</i>	FWS	The Act authorizes the FWS to act to protect wildlife resources and to minimize the effects of Federal activities on such resources.
<i>National Parks Act</i>	NPS	The Act establishes the National Parks Service (NPS) and authorizes it to regulate the National Park System.
<i>Lacey Act</i>	NOAA/FWS	The Act prohibits the importation, exportation, sale, receipt, acquisition, or purchase of any fish, wildlife or plant taken in violation of U.S., foreign, or Indian tribal law or in interstate or foreign commerce in violation of any state or foreign law.