

# FEDERAL REGULATIONS FOR MARINE AQUACULTURE IN THE UNITED STATES

This fact sheet was created by the Aquarium of the Pacific's Seafood for the Future Program and reviewed by policy experts at the National Oceanic and Atmospheric Administration (NOAA) and the National Sea Grant Law Center. Any mistakes are those of the authors, not the reviewers.

*NOTE: This fact sheet is designed to provide an overview of current laws and regulations that apply to marine aquaculture in U.S. federal waters for general audiences. It is not meant to serve as a legal document. Anyone using this content should consider the abbreviated nature of this fact sheet. More research is recommended to get more comprehensive information on these topics.*

## FREQUENTLY ASKED QUESTIONS

### **HOW IS MARINE AQUACULTURE REGULATED TO PROTECT THE ENVIRONMENT IN U.S. WATERS?**

As with any human activity in the U.S., marine aquaculture is regulated by a suite of regulations to protect the environment and human health (e.g. Clean Water Act; Endangered Species Act, National Environmental Policy Act; Marine Mammal Protection Act; Federal Food, Drug, and Cosmetic Act; etc.). These regulations have contributed to improved environmental quality in the U.S. since they were established. They require either a permit, a consultation, or an authorization from an agency or group with authority from the federal government to manage natural resources and human safety in the U.S. All aquaculture operations currently operating or applying to operate in U.S. marine waters must meet the minimum requirements of these regulations. Farms operating or planning to operate in state waters (within 3 miles from shore), must also comply with the laws and regulations of that state that may, in some cases, be more stringent than the federal laws. State laws also apply to shore-based activities of farms operating in federal waters.

While there are a number of regulations and policies that apply to marine aquaculture in the U.S., the development of a National Aquaculture Development Plan (as required under National Aquaculture Act of 1980) could help to support more consistent and predictable application of these regulations specific to marine aquaculture. The National Aquaculture Act also calls on the Secretaries of Agriculture, Commerce, and Interior to determine if there are regulatory constraints on aquaculture development and, if so, formulate a plan that contains specific steps the Federal Government can take to remove those burdens. This has yet to be accomplished.

### **IF THE REGULATORY FRAMEWORK ALREADY EXISTS, WHY DO WE NEED A SEPARATE BILL FOR MARINE AQUACULTURE?**

The foundational tools for effective management of marine aquaculture in domestic waters exist in a suite of regulations (e.g. Clean Water Act, Endangered Species Act, National Environmental Policy Act, Marine Mammal Protection Act, etc.) designed to protect human and environmental health. What is missing is a mechanism to support a more cohesive and consistent approach to implementing these regulations among the diverse agencies involved in permitting farms in U.S. federal waters. The development of a National Aquaculture Development Plan (as required under National Aquaculture

Act of 1980) could help to support more consistent and predictable application of these laws specific to marine aquaculture. The National Aquaculture Act also calls on the Secretaries of Agriculture, Commerce, and Interior to determine if there are regulatory constraints on aquaculture development and, if so, formulate a plan that contains specific steps the Federal Government can take to remove those burdens.

As part of, or in addition to, the development of a National Aquaculture Development Plan, legislators could support efforts to make the permitting process for aquaculture in U.S. federal waters more consistent and predictable by:

- establishing a lead federal agency to coordinate the environmental review process that is required under the National Environmental Policy Act (NEPA);
- providing resources and flexibility for appropriate agencies to collaborate more effectively on inter-agency efforts to permit marine aquaculture projects in U.S. federal waters;
- expanding investment in research so U.S. marine aquaculture can be more economically competitive, while also maximizing benefits and minimizing risks to the environment;
- establishing appropriate management standards specific to marine aquaculture that integrate with, rather than duplicate, the existing regulatory requirements; and
- designating appropriate tenure agreements to instill confidence among private sector investors and public stakeholders.

#### **HOW IS THE LOCATION, OR SITING, OF FARMS REGULATED IN U.S. MARINE WATERS?**

There are a number of regulations that address impacts from activities, like marine aquaculture, to marine living resources and habitat (e.g. Endangered Species Act, Marine Mammal Protection Act, and National Sanctuaries Act). Science-based siting analysis is an important tool used by resource managers to ensure compliance with these laws. These tools identify important habitats and wildlife distribution so activities like marine aquaculture can be located in areas that maximize environmental and economic benefits while minimizing risks. These analyses can also address navigation and user conflict concerns that are regulated under the Clean Water Act, Coastal Zone Management Act, Rivers and Harbors Act, and Title 33 CFR part 66 Private Aids to Navigation.

#### **HOW DO CURRENT ENVIRONMENTAL REGULATIONS ADDRESS POTENTIAL RISKS MARINE AQUACULTURE MAY POSE TO MARINE ECOSYSTEMS?**

There are a number of regulations in effect now that address many of the potential risks marine aquaculture may pose to marine ecosystems. These laws are designed to protect various aspects of the marine environment from wildlife (e.g. Marine Mammal Protection Act and Endangered Species Act) to the use or release of any toxins (e.g. Toxic Substance Control Act and Federal Insecticide, Fungicide, and Rodenticide Act). Potential risks, such as escapes and genetic pollution, disease transmission, water pollution, antibiotic use, adverse effects on habitat, and wildlife interactions are all addressed in some capacity by existing regulations. Under the Clean Water Act (CWA), for example, farmers must obtain permits to ensure that discharge from their farms do not *“unreasonably degrade the nation’s waters.”* Permittees must control, monitor, and report pollutant discharges (in the case of marine aquaculture, fish escapees and feed waste count as a “pollutant”). The CWA requirements also apply to the construction of new or expanding farms. Farms that fail to comply with these laws can be fined or have their permits revoked.

#### **HOW DO CURRENT POLICIES APPLY TO MARINE AQUACULTURE TO PROTECT WILDLIFE?**

Marine aquaculture in U.S. marine waters must be located in areas where interactions with sensitive habitats, endangered species, marine mammals, and other sensitive species are minimized. Regulations in effect to protect marine wildlife include the Marine Mammal Protection Act, Endangered Species Act, Migratory Bird Protection Act, and

the Magnuson Stevens Fishery Management Act. In addition to locating farms in areas where potential interactions are minimized, farmers are required to monitor and report the presence of endangered and threatened species. Any interactions must be reported. As with wild-capture fisheries, farms that exceed permitted “take limits” for special status species may be fined or required to cease production until the risks have been adequately addressed.

#### **HOW DO CURRENT U.S. POLICIES APPLY TO MARINE AQUACULTURE TO PROTECT ANIMAL WELFARE ON THE FARMS?**

There is currently no federal law related to the welfare of farmed fish in the U.S. However, the U.S. has implemented some strategies designed to support fish health, which is an important part of animal welfare (e.g. National Aquatic Animal Health Plan and Commercial Aquaculture Health Program Standards). These strategies require fish farmers to have fish health management plans that include veterinary oversight for treatments as needed. Also, there are a number of policies designed to protect the welfare of terrestrial animals that can be adapted to also include fish.

#### **HOW DO CURRENT REGULATIONS REDUCE THE RISK OF FARMS CREATING OR INCREASING THE FREQUENCY AND SEVERITY OF HARMFUL ALGAL BLOOMS?**

There are a number of regulations, including the National Environmental Protection Act and Clean Water Act that are designed to identify and regulate potential pollutants that can contribute to harmful algal blooms. More specifically, the Harmful Algal Bloom and Hypoxia Research Control Act requires NOAA and the EPA to advance the scientific understanding and ability to detect, monitor, assess, and predict Harmful Algal Blooms (HAB) and hypoxia events. NOAA develops HAB detection tools and forecasts, and researches what makes blooms toxic, develops tools to detect toxins, and analytical methods and reference materials to ensure measurements are accurate. Additionally, NOAA provides immediate assistance to help federal, state and local officials manage events and advance the understanding of HABs as they occur. Leveraging the data provided by the detection and monitoring tools, NOAA researchers and other scientific collaborators are better able to site farms in areas where the risk of increasing the severity or frequency of HABs is low.

#### **HOW IS THE SEAFOOD FARMED IN U.S. WATERS REGULATED TO PROTECT HUMAN HEALTH?**

There are a number of regulations and legal mechanisms to ensure public health and seafood safety requirements that apply to U.S. marine aquaculture. The use of chemical substances, medications, feed ingredients and other production inputs are regulated by the Toxic Substance Control Act and Federal Food, Drug, and Cosmetic Act. Under the Food Safety Modernization Act, all businesses that handle seafood—from the seafood farms and fishing vessels to the retailers and restaurants—are required by the U.S. Food and Drug Administration (FDA) to develop a plan that identifies potential health hazards and outline preventive control methods to prevent food contamination. HACCP (Hazard Analysis Critical Control Point) is a science-based tool regulators use to implement food safety controls. Companies that import seafood to the U.S. are also required to participate in the HACCP program. The FDA also works with the states to implement the National Shellfish Sanitation Program (NSSP) to ensure the safety of bivalve molluscan shellfish (clams, oysters and mussels) sold in the U.S. The U.S. Department of Agriculture (USDA), Center for Disease Control (CDC), NOAA Fisheries, and state governments also play a role in the implementation of HACCP and NSSP programs.

#### **HOW DO CURRENT REGULATIONS ADDRESS THE SAFETY AND WELL-BEING FOR PEOPLE WHO WORK ON THE FARMS?**

The Occupational Safety and Health Act is designed to ensure safe and healthy working conditions for workers, including marine aquaculture workers. The Act authorizes the Occupational Safety and Health Administration (OSHA) to regulate worker safety by setting and enforcing safety and health standards in the workplace. Individual states that have OSHA-approved safety and health plans can enforce OSHA standards and may also set stricter standards. These regulations do not apply to some activities in federal waters because OSHA is barred from enforcing working conditions of employees where another federal agency has promulgated occupational safety and health regulations regarding such

conditions. For example, the Coast Guard is responsible for labor standards aboard vessels. In addition, jurisdiction over workplace safety at offshore energy production facilities (oil rigs and wind farms) belongs to the Department of Interior’s Bureau of Ocean Energy Management (BOEM) and Bureau of Safety and Environmental Enforcement (BSEE).

However, craft that do not have a practical capability of being used as transportation on the water are classified by the U.S. Coast Guard as permanently moored craft and are not considered vessels for workplace safety purposes. As a result, OSHA’s enforcement authority is not displaced by the Coast Guard on such craft and the agency retains full authority to cite employers for violations of working conditions to which their employees are exposed on such craft. Likewise, OSHA is responsible for safety and health hazards at facilities or structures in offshore federal waters that are not covered by other agencies’ regulations. Because neither BOEM, BSEE, nor the Coast Guard has been delegated authority over workplace safety for aquaculture operations in offshore federal waters, responsibility for the regulation thereof passes to OSHA under the current statutory framework.

To support the Act’s research component, OSHA developed the National Institute for Occupational Safety and Health (NIOSH) to study worker safety and health, and empower employers and workers to create safe and healthy workplaces. Aquaculture is among the many occupations for which NIOSH is compiling data. NIOSH is part of the U.S. Centers for Disease Control and Prevention (CDC). The Fair Labor Standards Act (FLSA) also applies to U.S. marine aquaculture producers. It provides assurances that employees are paid fairly and children are not exploited for labor.

## SNAPSHOT OF US REGULATIONS THAT APPLY TO OFFSHORE AQUACULTURE IN THE U.S.

Legislative Overview	Agencies	Enforcement Mechanisms	Key Issues
<b>ENVIRONMENT AND ECOSYSTEMS</b> <b>Key issues addressed:</b> <b>wildlife interactions, pollution, escapes, habitat</b>			
<p>The <b>Clean Water Act (CWA)</b> was enacted to protect the chemical, physical, and biological qualities of United States waters and by prohibiting the discharge of pollutants into aquatic environments.</p> <p>Proposed marine aquaculture operations need to obtain a National Pollutant Discharge Elimination System (NPDES) permit to ensure that discharge from an operation does not unreasonably degrade the nation’s waters by setting requirements for discharge concentration limits. Permits contain requirements for controlling pollutant discharges, monitoring discharges, and reporting compliance.</p>	<p>Environmental Protection Agency (EPA)</p> <p>United States Army Corps of Engineers (USACE)</p>	<p>Marine aquaculture facilities that have obtained a NPDES permit must operate within the determined discharge limitations and conduct regular monitoring, testing, reporting, and record-keeping of the quality of the water where pollutants are discharged.</p> <p>The EPA and state agencies may also conduct inspections. The penalty for not obtaining a NPDES permit is whether or not meeting requirements established in the NPDES permit for the operation is an administrative order to correct violation combined with monetary penalties. There is also the possibility for the EPA or other agencies to pursue civil and criminal actions for</p>	<p>Ecosystem health</p> <p>Escapes</p> <p>Pollution</p> <p>Medications and chemical use</p> <p>Conflict with other users</p>

<p>EPA and state agencies review reports and monitoring data, conduct inspections and special studies, provide technical assistance, and work to ensure compliance with environmental requirements.</p> <p>For the purposes of marine aquaculture, potential discharge includes feed waste, fish waste, any fish that may escape, medications, etc. The CWA also requires farms to ensure any construction in the marine environment does not adversely affect ecosystems on the seafloor.</p>		<p>endangering the health of the environment and the public.</p>	
<p>The <b>National Environmental Protection Act (NEPA)</b> is a broad-reaching U.S. policy that plays an important role in the conservation and management of natural resources, including coastal and ocean marine resources. It requires the evaluation of the impacts a human activity, including marine aquaculture, can or will have on the environment. Impacts are identified through an Environmental Assessment (EA) or Environmental Impact Statement (EIS).</p>		<p>NEPA only requires that impacts be identified, and it cannot prohibit activities that may have adverse impacts on the environment. Failure for not following NEPA policies could lead to lawsuits, project delays, and denial of funding.</p>	<p>Ecosystem health</p>
<p>The <b>National Marine Sanctuaries Act (NMSA)</b> serves as the framework for designating marine protected areas (MPAs) and prohibits certain activities within MPAs unless granted a special use permit.</p> <p>A consultation with the National Marine Sanctuaries Program (NMSP) is necessary if a proposed activity, including marine aquaculture, is otherwise prohibited within a MPA. The NMSP can suggest alternative actions to minimize adverse impacts to sanctuary resources if a proposed project will take place in an MPA.</p>	<p>National Marine Sanctuaries Program (NOAA)</p>	<p>The NMSA authorizes NOAA to assess civil penalties for violations of the NMSA and damages against people who injure sanctuary resources.</p>	<p>Ecosystem health Habitat protection</p>
<p>The <b>Magnuson Stevens Fishery Conservation and Management Act (MSA)</b> governs the management of U.S. fisheries, including the protection of</p>	<p>NOAA Fisheries Regional Fishery</p>		<p>Habitat protection</p>

<p>marine habitats that are necessary to support fisheries production, or essential fish habitat (EFH), determined by Regional Fishery Management Councils.</p> <p>If a proposed aquaculture project has the potential to adversely affect EFH, agencies proposing the project must consult with NMFS about potential interactions and how to reduce the risks posed by the farm.</p>	<p>Management Councils</p>		<p>Wildlife interactions</p>
<p>The <b>Endangered Species Act (ESA)</b> protects threatened and endangered species from human activities. If there is potential for a proposed marine aquaculture operation to adversely impact a threatened or endangered species, the proposed operation must consult with NOAA Fisheries and the USFWS to ensure the existence of a species is not jeopardized by the proposed activities and then obtain authorization for incidental take.</p> <p>If a listed species will be adversely affected, NOAA Fisheries or USFWS will propose alternative actions that must be adopted for the proposed project to move forward. Marine aquaculture operations that will have some incidental take, or accidental injury or killing of a listed species, can receive an exemption from NOAA Fisheries or USFWS. This exemption establishes a limit for incidental takes and requires the marine aquaculture operation to adopt best management practices that minimize incidental takes.</p>	<p>NOAA Fisheries U.S. Fish and Wildlife Service</p>	<p>If permitted operations fail to obtain an exemption or to implement alternative actions suggested by NMFS and USFWS, they are subject to project delays as well as civil and criminal penalties.</p>	<p>Wildlife interactions Ecosystem health</p>
<p>The <b>Marine Mammal Protection Act (MMPA)</b> protects marine mammals and their habitats from human activities. The MMPA requires federal agencies proposing to permit commercial fishing operations, including marine aquaculture, to consult with NMFS or the USFWS (depending on the species at risk of being impacted) and seek an</p>	<p>NOAA Fisheries US Fish and Wildlife Service</p>	<p>If permitted operations fail to obtain an exemption or to implement alternative actions suggested by NMFS or USFWS, they are subject to project delays as well as civil and criminal penalties, which could include monetary fines or imprisonment.</p>	<p>Wildlife interactions Ecosystem health</p>

<p>exemption for the incidental take, or the accidental killing or injuring, of marine mammals. Exemptions require that farms develop and implement a protected species monitoring program to protect and collect information on mammals that can potentially interact with the operation in the water.</p>			
<p><b>FOOD SAFETY AND HUMAN HEALTH</b>  <b>Key issues addressed:</b>  Food safety, medication and chemical use, human health, employee welfare</p>			
<p>The <b>Federal Food, Drug, and Cosmetic Act</b> gives authority to the U.S. Food and Drug Administration to ensure the safety of food, drugs, medical products, and cosmetics. Section 408 gives the EPA authority to set limits for pesticide residues on food and ensure no unsafe levels of pesticides or pesticide residues are on food products.</p>	<p>U.S. Federal Food and Drug Administration (FDA)</p>	<p>If pesticide residue detected on a product exceeds the established level for what is considered to be safe for human consumption, the product is subject to seizure by the EPA.</p>	<p>Food safety  Medication and chemical use  Human health and safety</p>
<p>The <b>Food Safety Modernization Act</b> is in place to prevent food contamination. It requires businesses to create a plan that identifies hazards and outlines preventative control methods for human and animal foods; establishes safety standards for growing, harvesting, packing, and storing produce; requires importers to comply with FDA regulations; accredits third-party certifications; requires registered facilities identify and develop a mitigation plan for contamination vulnerabilities; and creates requirements for food transportation.</p>	<p>FDA</p>	<p>Failure to comply with the preventative controls or to produce safety regulations will result in regulatory action by the FDA that could include issuance of advisory letters, court actions (including seizure or injunction), or administrative actions (including administrative detentions, mandatory recall of the food product, or suspension of the facility's food registration)</p>	<p>Human health and safety  Food safety</p>
<p><b>Title 21 Code of Federal Regulations part 123 – the Seafood Hazard Analysis Critical Control Point (HACCP)</b> regulation requires seafood processors to conduct (on their own or by another party) an analysis of the reasonably likely seafood safety hazards to could occur in their product and develop plans (called a HACCP Plan) to control those hazards. A HACCP Plan is a science-based tool regulators use to</p>	<p>US FDA</p>	<p>The FDA conducts inspections of seafood processors to assess the adequacy of the processor's controls to prevent the occurrence of food safety hazards.  Failure to allow an inspection or provide records during an inspection is a violation of law that can result in fines.</p>	<p>Food safety  Human health and safety</p>

<p>implement food safety controls. Seafood importers are also required to participate in the HACCP program. HACCP applies to all shore side businesses that handle seafood, including farmed seafood. It was adopted into law in 1997 when the FDA adopted 21 CFR part 123, which requires all seafood processors to use it as part of their food safety controls.</p>		<p>If deviations from critical limits occur, processors are required by regulation to take corrective actions.</p>	
<p><b>National Shellfish Sanitation Program (NSSP)</b> is a federal-state cooperative program that promotes a uniform standard of sanitation in harvesting, transporting, and processing molluscan shellfish for safe human consumption. It serves as a model ordinance that helps guide local counties and municipalities to draft appropriate legislation to implement the recommended standards.</p>	<p>Federal Food and Drug Administration (FDA)</p> <p>State and local governments</p>		<p>Food safety</p> <p>Human health and safety</p>
<p>The <b>Occupational Safety and Health Act</b> ensures employees work in healthy and safe working conditions by establishing standards that protect employees from activities that compromise their safety. The Occupational Safety and Health Administration enforces the regulations defined in the act.</p>	<p>OSHA</p>	<p>Failure to maintain safe working conditions for employees could result in an inspection from an OSHA agent, which can result in fines or citations if OSHA standards are found to be violated. Citations require employers to take corrective actions.</p>	<p>Employee welfare</p> <p>Human health and safety</p>
<p><b>ANIMAL WELFARE</b>  <b>Key issues addressed:</b>  Animal health and welfare</p>			
<p>The <b>National Aquatic Animal Health Plan</b> provides general principles for how federal agencies can protect farmed and wild fish, including how to address diseases and bolster aquaculture and aquatic animal resources in the U.S. The NAAHP is not a legal document. It was developed pursuant to the authorities of the National Aquaculture Act of 1980, via the Joint Subcommittee on Aquaculture. An MOU was established between USDA APHIS VS, USFWS, and</p>	<p>USDA</p> <p>US FWS</p> <p>NOAA Fisheries</p>		<p>Animal health and welfare</p>



<p>NMFS to coordinate on NAAHP activities. The MOU is renewed every 5 years.</p>			
<p><b>OTHER OCEAN-BASED ACTIVITIES</b>  <b>Key issues addressed:</b>  Coastal resource management, navigation, coastal use management</p>			
<p>The <b>Coastal Zone Management Act (CZMA)</b> provides a framework for states to manage coastal resources and gives power to authorized state-run coastal programs to protect coastal resources alongside promoting economic development.</p> <p>CZMA is administered by NOAA's Office for Coastal Management and implemented through state coastal zone management programs. The Act requires an applicant for federal license or permit for an activity affecting the coastal zone to provide a certification to the authorizing agency that the proposed activity complies with the enforceable policies of approved state coastal zone management programs and that such activity will be conducted in a manner consistent with the program.</p> <p>Any action by a federal agency that occurs in the coastal zone and may have an effect on coastal resources or use must be consistent to the maximum extent practicable with the CMP of the location of the action.</p>	<p>States – develop CMPs pursuant to the CZMA</p> <p>Local gov'ts – implement state-approved CMPs through legislation</p> <p>NOAA OCM – implement CZMA national policies and provisions</p>	<p>The CZMA requires actions seeking federal license or permit for an activity in the coastal zone to comply with the coastal management plan determined by the state coastal management program.</p> <p>If the state determines that the action complies with the coastal management plan, the action can move forward. If the state objects to the activity because it is not consistent with the Coastal Management Plan, then an appeal can be sent to the Secretary of Commerce. If the Secretary agrees with the state's objection, then the action is not allowed in the state's coastal zone. If the Secretary disagrees with the state's objection, a federal agency may authorize the activity.</p>	<p>Coastal resource management</p> <p>Coastal use management</p>
<p>The <b>Rivers and Harbors Act of 1899 (RHA)</b> prevents navigable US waterways from being unlawfully altered or modified in any way so as to maintain navigation for commerce. Section 10 Permits are necessary for putting structures into or conducting work in (like structures and activities necessary for marine aquaculture operations) the navigable waters of the U.S.</p>	<p>USACE</p>	<p>Section 10 Permits, which show an action to construct in U.S. waterways is authorized by the Secretary of the Army through the U.S. Army Corps of Engineers (USACE), are necessary to commence operation.</p>	<p>Navigation</p> <p>Coastal use management</p>

<p><b>Title 33 Code of Federal Regulations Section 66</b> requires an application for permission to establish and maintain, discontinue, change or transfer ownership of any aid to maritime navigation from the District Commander of the U.S. Coast Guard (USCG).</p>	<p>United States Coast Guard (USCG)</p>	<p>After an RHA Section 10 permit is approved by the USACE, an operation can seek authorization from the USCG District Commander for determining if and where to place private aids to navigation. If private aids to navigation are necessary for an operation, then an application needs to be completed for authorization from the USCG District Commander.</p>	<p>Navigation  Coastal use management</p>
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**ADDITIONAL REGULATIONS AND AGREEMENTS:**

*\*Indicates agreements and MOUs that are not codified in law.*

**Environment and Ecosystems**

- Fish and Wildlife Coordination Act
- Endangered Species Act
- Marine Mammal Protection Act
- National Marine Sanctuaries Act
- Magnuson Stevens Fishery Conservation and Management Act
- National Environmental Protection Act (NEPA)
- Federal Insecticide, Fungicide, and Rodenticide Act
- Federal, Food, Drug and Cosmetic Act
- Toxic Substance Control Act
- Migratory Bird Protection Act
- Clean Water Act
- Harmful Algal Bloom and Hypoxia Research Control Act

**Endangered and Threatened Wildlife**

- Fish and Wildlife Coordination Act
- Endangered Species Act
- Marine Mammal Protection Act
- Magnuson Stevens Fishery Conservation and Management Act, 16 USC 1855(b) (citing the Essential Fish Habitat consultation requirements)
- Migratory Bird Protection Act

**Conflict with Other Users**

- National Historic Preservation Act
- National Marine Sanctuaries Act
- Outer Continental Shelf Lands Act
- Rivers and Harbors Act of 1899
- Clean Water Act

**Human Health and Food Safety**

- Toxic Substance Control Act
- Federal Food, Drug, and Cosmetic Act
- Food Safety Modernization Act
- Virus Serum Protection Act

- Animal Health Protection Act
- Federal, Food, Drug and Cosmetic Act
- Agricultural Marketing Act of 1946
- Fish and Wildlife Act of 1956
- Fish and Wildlife Coordination Act
- Federal, Food, Drug and Cosmetic Act
- Magnuson Stevens Fishery Conservation and Management Act
- Hazard Analysis and Hazard Analysis Critical Control Point (HACCP) plan\*
- National Shellfish Sanitation Program (NSSP)\*

Additionally, pursuant to the authorities listed above, agencies have entered into Memorandums of Understanding (MOUs) covering public health and seafood safety requirements:

- MOU On Issuance of Animal Health Certificates for the Export of Live Aquatic Animals and Non-living Aquatic Animal Products (NOAA, USDA, USFWS/DOI)
- MOU On Shared Aquatic Animal Health Roles and Responsibilities (NOAA, USDA, USFWS/DOI)
- MOU On Cooperation and Information Sharing In the Inspection of Fish and Fishery Products and Establishments (NOAA and FDA)

#### **Plastic Debris**

- Clean Water Act
- Save our Seas Act of 2018