

Permits, Certifications & Endorsements for Mariculture Projects Puerto Rico & U.S. Virgin Islands

Preliminary Findings by
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GOAL:

To compile all regulatory procedures for mariculture projects in Puerto Rico and U.S. Virgin Islands

- To evaluate all laws and regulations related to mariculture activities
- To interview federal and local government officials (permit applications, documentation/proposals)
- To interview mariculture project managers
- To prepare a flowchart of all mariculture permitting steps

Steps to Develop a Mariculture Project

1. Project Concept

- Identify the species to be cultured (native or imported)
- Production system: hatchery, land-based tanks, offshore cages, ponds, seabed culture, etc.
- Project goals: research, pilot-scale or commercial operation
- Preliminary feasibility assessment

Steps to Develop a Mariculture Project

2. Conduct Site Selection and Environmental Assessment

- Evaluate environmental suitability: water quality, depth, currents, bottom type and temperature
- Land-based facilities: building and electrical permits, local zoning, septic/wastewater connections
- Check for potential environment impacts (habitat, protected areas, water quality, navigation)

Steps to Develop a Mariculture Project

2. Conduct Site Selection and Environmental Assessment

- Consider social and community impacts
- Identify potential conflicts with other ocean users (fisheries, tourism, marinas, harbors, etc.)

Steps to Develop a Mariculture Project

3. Mariculture operation

- Brooders
- Feeding and chemical protocols
- Harvesting procedures

Steps to Develop a Mariculture Project

4. Processing Plant (fish and crustacean)

- Type of product: whole, filleted, frozen, etc.
- Estimate production volume and processing capacity
- Conduct a feasibility study (water supply, energy demand, waste management plan, biosecurity)
- Building permits and land use authorization

Steps to Develop a Mariculture Project

5. Engineering, Design and Technology Selection

- Design of cages, longlines, tanks, etc.
- Mooring system design for offshore structures
- Water intake/outflow systems for land-based facilities
- Selection of equipment

Steps to Develop a Mariculture Project

6. Prepare Environmental Documentation

- Environmental Impact Assessment (EIA) or Environmental Impact Statement (EIS); it depends on the selected region
- Mitigation and monitoring plans
- Biosecurity and disease management plans

Puerto Rico – Permits, Endorsements and Applications

- Department of Natural and Environmental Resources
(DRNA, in Spanish)

Coastal use and marine resource permits: authorization for occupying coastal waters placing gear/structures, or using public submerged lands

Aquaculture permit

Species permits and import authorization

Endangered Species/Essential Fish Habitat consultation-
federal consultation if listed species may be affected
by (NMFS/USFWS)

Puerto Rico – Permits, Endorsements and Applications

- Department of Natural and Environmental Resources
(DRNA, in Spanish)
 - Local environmental quality/solid waste as required for processing or feed/waste handling
 - Capture Permit Application
 - Water Quality Certification
 - Puerto Rico Coastal Zone Management (Federal Consistency)
 - Permits are valid for one year and must be renewed annually
 - A public liability insurance policy

Puerto Rico – Permits, Endorsements and Applications

- Puerto Rico Department of Agriculture/DNER)
Species permits and import authorization; permits to move, or possess specific aquatic species; veterinary certificates for live organisms

Capture Permit Application

Puerto Rico – Permits, Endorsements and Applications

Planning Board (JP in Spanish)

It is a federal and local joint permit application form for water resource alterations including wetlands of Puerto Rico

Puerto Rico Department of Health- processing and selling the product

U.S. Virgin Islands– Permits, Endorsements and Applications

Department of Planning and Natural Resources

Aquaculture/Mariculture registration and licensing
Operators must register and obtain the territorial
aquaculture authorization

Permits and Coastal/Marine Use Approvals

For use of public trust resources, nearshore
structures or activities in territorial waters.

Application forms, site plans and environmental
information

U.S. Virgin Islands– Permits, Endorsements and Applications

Department of Planning and Natural Resources

(Division of Fish and Wildlife)

Permits related to the possession, transport or propagation of certain species (native and imported species)

Territorial conservation/protected area restrictions

DPNR may restrict site selection or required mitigation measures

Local Business and building permits

Business license, Certificate of Use and Occupancy, mechanical/electrical permits and local zoning approvals

U.S. Virgin Islands– Permits, Endorsements and Applications

Aquaculture & Mariculture Commission: guidelines and approvals.

Federal Government

- Offshore projects beyond Puerto Rico and U.S. Virgin Islands' seaward jurisdiction or larger offshore operations
- NOAA/NMFS-guidance and consultations under Magnuson-Stevens
- U.S. Corps of Engineers-structures in navigable waters and possible impacts to navigation
- U.S. Coast Guard- safety of navigation, lighting, and any markers for floating installations; may require notifications and aids to navigation coordination

Federal Government

- Environmental Protection Agency (EPA)

Discharges from offshore operations may require review under CWA and NPDES

Fish and Wildlife Service

If the operation can interact with protected species or critical habitat

Federal Government

- USDA APHIS

 - Health certificate for imported broodstock

 - Quarantine plans and facility biosecurity protocols

 - Restrictions on non-native or invasive species

 - Monitoring, disease control, and traceability systems

- Food and Drug Administration (FDA)

 - HACCP required for seafood processing facilities