

A map of Florida showing coastal waters and aquaculture sites. The map is overlaid with a blue geometric design consisting of several parallel lines and a large arrow pointing right. The map shows the state's coastline, major cities like Tallahassee, Gainesville, and Palm Bay, and various numbered sites along the coast. The Atlantic Ocean is labeled on the right side. The text "Leasing Process and Regulations for Offshore Finfish Aquaculture in State Waters" is overlaid on the map in white font.

# Leasing Process and Regulations for Offshore Finfish Aquaculture in State Waters

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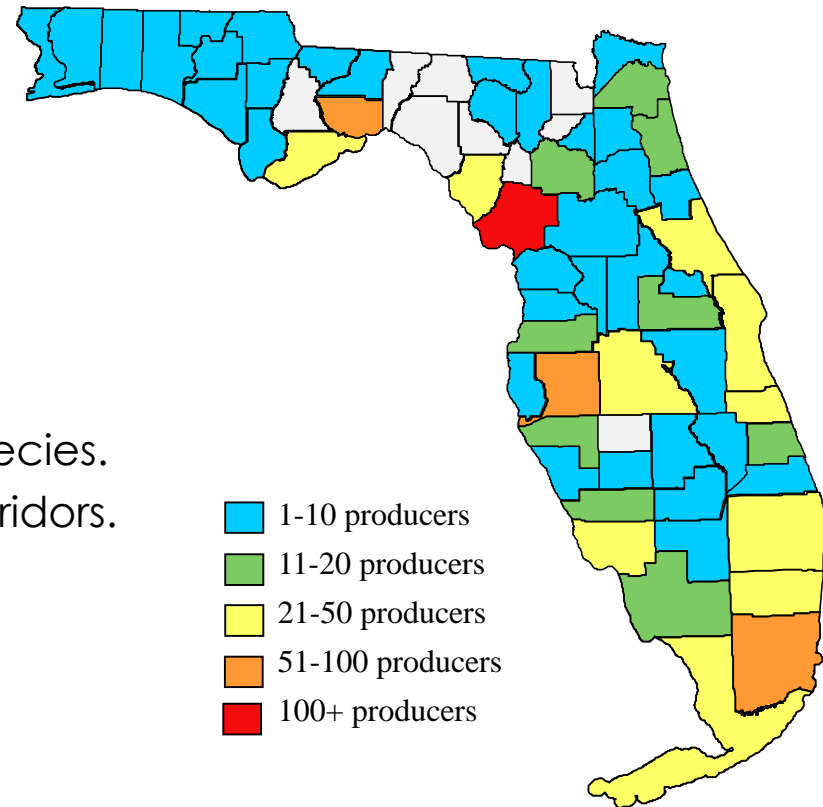
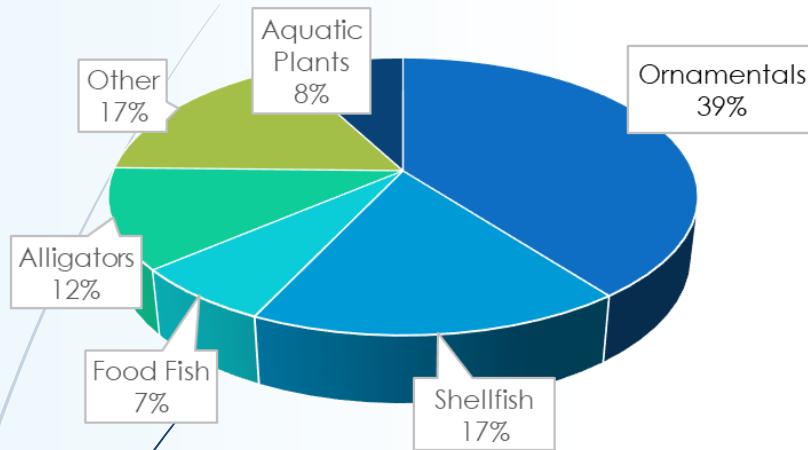


# Overview

- ▶ Aquaculture Certificate of Registration
- ▶ Net Pen Application Process
- ▶ Sovereignty Submerged Land Leasing Process
- ▶ Aquaculture Best Management Practices



# Florida's Aquaculture Industry



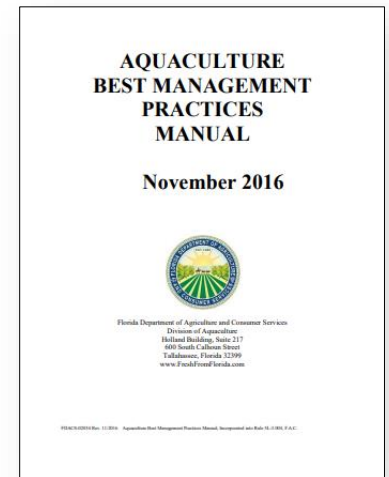
## Why Florida?

- Warm climate ideal for tropical species.
- Proximity to ports and shipping corridors.
- Streamlined regulations.



# Florida Aquaculture Policy Act

- ▶ Established intent of Legislature to enhance the **growth of aquaculture while protecting Florida's environment.**
- ▶ Designation of FDACS as the regulatory agency of aquaculture in Florida.
  - ▶ **“Aquaculture is Agriculture”**
- ▶ Established:
  - ▶ Aquaculture Best Management Practices
  - ▶ Aquaculture Certificate of Registration





# Division of Aquaculture Programs



Aquaculture  
Certificate of  
Registration  
and Best  
Management  
Practices



Shellfish  
Harvesting  
Area  
Classification



Sovereignty  
Submerged  
Land Leasing



Shellfish  
Processing  
Facility  
Certification

Six field offices – 44 staff





# Aquaculture Best Management Practices

- ▶ Establishes a **streamlined regulatory process**.
- ▶ Ensures environmental protection.
- ▶ BMP Manual is a “Living Document”.
  - ▶ Developed in coordination with the industry associations and Aquaculture Review Council.
- ▶ Incorporated the requirements of and replaced the need for the following permits:
  - ▶ General Fish Farm Permit
  - ▶ Marine Bivalve Permit
  - ▶ Restricted/conditional species
  - ▶ Aquaculture Game Fish License
  - ▶ Temporary 370 Permit
  - ▶ MSSW
  - ▶ Environmental Resource Permits
  - ▶ General permits for pond construction
  - ▶ SAL (for possession of certain species)
  - ▶ Freshwater & Marine Fish Dealers Licenses





# Farm Certification

- ▶ All facilities engaged in commercial aquaculture in Florida must be **annually certified** by FDACS.
- ▶ To be certified, a facility must **implement and maintain compliance** with all applicable BMPs.
- ▶ Initial on-site inspections verify farm design/construction requirements.
- ▶ **Facility Plan Required:**
  - ▶ Facility description
  - ▶ Construction plan
  - ▶ Production plan
  - ▶ Species cultured
  - ▶ Intended markets
  - ▶ Timeline
  - ▶ BMPs to be implemented





# All farms are inspected twice per year.

- ▶ Inspectors confirm BMP compliance of:
  - ▶ Animal containment
  - ▶ Water source and flow
  - ▶ Water discharge/effluent treatment
  - ▶ Wetland and floodplain impacts
  - ▶ Documentation/receipts
    - ▶ Species purchases, sales and transfers.
    - ▶ Health records
    - ▶ Invoices and receipts
    - ▶ Shellfish broodstock purchases and seed sales



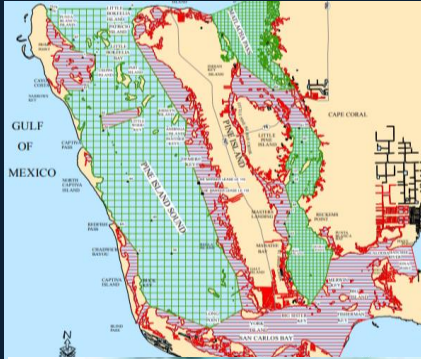


# Offshore Net Pen Application Process

1. Valid National Pollutant Discharge Elimination System (NPDES) permit.
2. Valid Section 10 Rivers and Harbors Act permit.
3. Aquaculture Certificate of Registration Application
  1. Site Selection
  2. Farm Site Plan
  3. Solid Waste Management Plan
  4. Loss-Control and Escape Recovery Plan
  5. Net Pen Structure and Mooring System Preventative Maintenance Program
4. Water Column Lease Application



# Site Selection



- Select sites with good water exchange, sufficient depth, and adequate current velocity.
- Sites must have a sand or mud bottom.
- Sites must not have natural resources present, *i.e.* seagrasses, coral reefs, EFH, etc.
- Title encumbrances
- Historical resources
- Other users conflicts

# Farm Site Plan

- Schematics for:
  - Net pens
  - Mooring systems
  - Anchors
  - Feeding systems
  - Other fixed structures
- Map of the proposed structures with coordinates which shows configuration.





# Solid Waste Management Plant

- **Identify all wastes** generated on a site or from an aquaculture facility.
- At a minimum, **waste management plans must address:**
  - Human waste
  - Feedbags
  - Scrap rope and netting
  - Buoys and weights
  - Fish mortalities and disposal
  - Spoiled feed
  - Packaging materials
  - Fouling organisms
  - Any other solid waste



# Loss-Control and Escape Recovery Plan

- ▶ Site-specific analysis of the **potential risks of escapes**, their causes, and the specific procedures employed by the farm to reduce risk.
- ▶ Fish holding and transportation systems must be **designed, operated and maintained to prevent escape.**
- ▶ **Plan must address:**
  - ▶ Minimum equipment and operating standards
  - ▶ Emergency repair procedures
  - ▶ Escape recovery procedures
  - ▶ Practices and equipment that reduce the need for predator reduction/destruction (i.e., anti-predator nets)
  - ▶ Preparations for severe weather (i.e., hurricanes)



# Net Pen Structure and Mooring System Preventative Maintenance Plan

- ▶ Identify **maximum loading capacities** of the system:
  - ▶ Net pen densities
  - ▶ Wind speed
  - ▶ Wave and current velocity
- ▶ Schedule of **regular maintenance and testing**
- ▶ Nets or net pen structural components that fail testing standards must be retired and disposed of properly.
- ▶ **Documentation of maintenance and repair** must be available for inspection by FDACS.



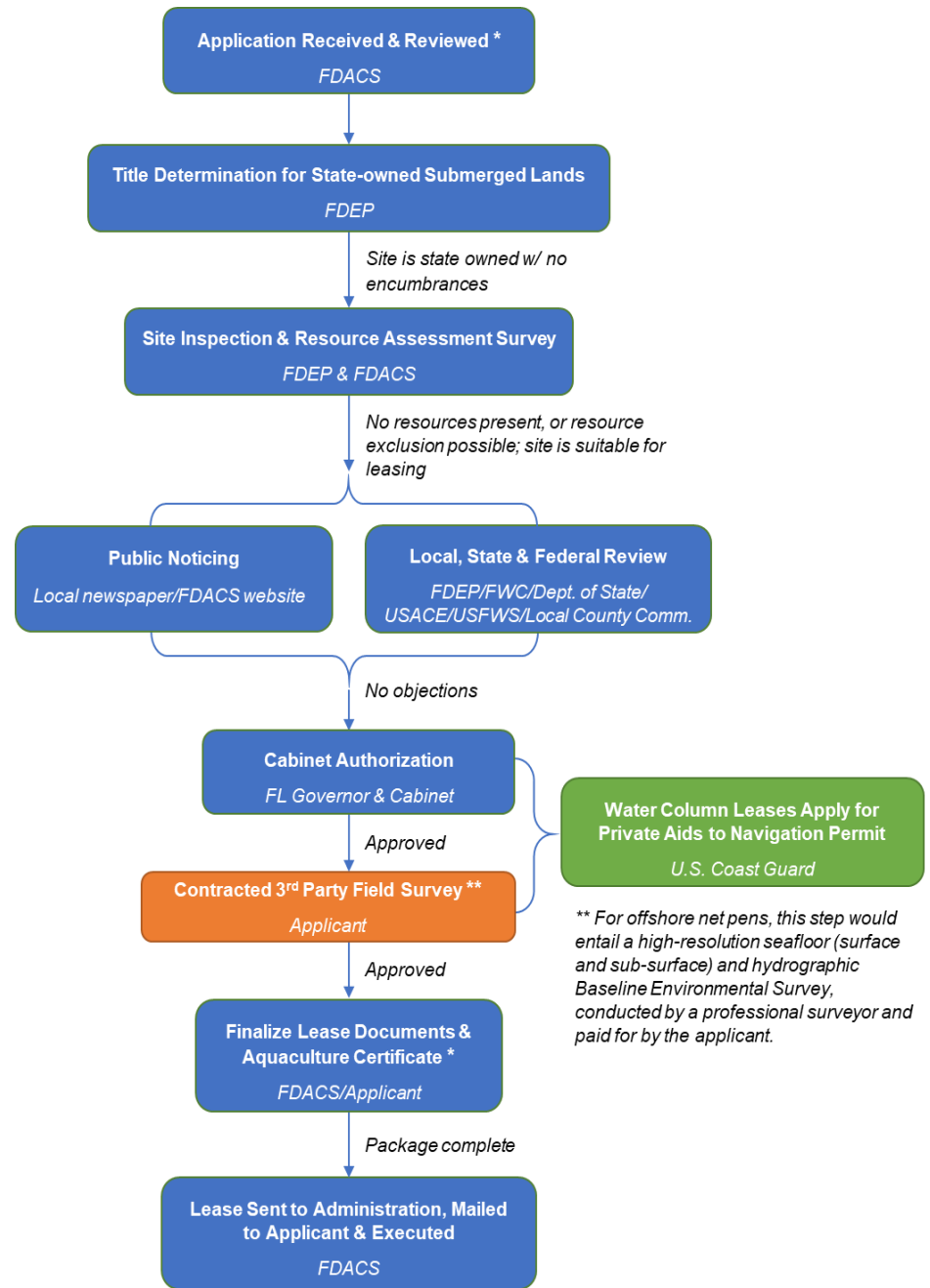
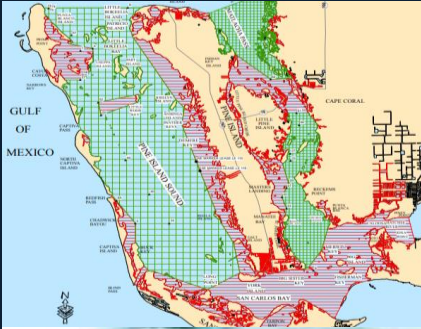




# Aquaculture on Sovereignty Submerged Land Leases

- Division oversees the application, execution and compliance of all aquaculture leases.
  - **Assess proposed sites** and identify new areas for culture.
  - **Lease permitting** and administration.
  - Enforces **Aquaculture Best Management Practices**.
  - Conducts **inspections and audits** to ensure regulatory compliance.
- To date: Florida has **703 active leases covering 1,556 acres**.

# Aquaculture Leasing Process



# AQUACULTURE BEST MANAGEMENT PRACTICES MANUAL

**November 2016**



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Division of Aquaculture  
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## Selected BMPs for Offshore Net Pen Facilities

*BMPs are designed to  
minimize environmental  
impacts.*

- Facility Operation and Maintenance
- Genetics
- Animal Health
- Containment/Escape Prevention
- Feed Management
- Waste Management
- Records
- Product Landings



# Facility Operation and Maintenance

- Document comprehensive **stocking and production methods**.
- Nets and Mooring:
  - Maintained in a whole and intact condition.
  - Placement of nets or gear on the bottom is prohibited.
  - Nets, mooring and rigging lines, and anti-predator equipment must be stretched tight and held taut and maintained in a manner to **diminish the likelihood of entanglement**.
- Maintain and make available to FDACS, upon request, a Marine Entanglement Log.



# Genetics

- ▶ Culture of **non-native species is prohibited.**
- ▶ Genetically engineered or transgenic species are prohibited.
- ▶ **Broodstock rules:**
  - ▶ GoM facilities must use stocks that originate from waters of the Gulf of Mexico east of the Mississippi River.
  - ▶ Pelagic species must be collected within 186 miles.
  - ▶ Estuarine species must be collected within 62 miles.
- ▶ Net pen facilities must maintain documentation **identifying the source of all animals.**
- ▶ Collection of wild stocks requires an Aquaculture Broodstock Collection Special Activity License from FWC.



# Animal Health

- ▶ **All stocking of live aquatic organisms must be accompanied by an OCVI and diagnostic results.**
- ▶ Facilities must notify FDACS in the event of any notifiable disease outbreak.
- ▶ Any medications must be approved by FDA and used as directed by a licensed veterinarian (VFD).
- ▶ Implement quarantine/isolation or disinfection procedures that reduce the risk of pathogen translocation.
- ▶ **Health management records** must be a component of the farm records.
  - ▶ Behavioral changes
  - ▶ Clinical signs of disease
  - ▶ Treatment procedures
  - ▶ Unusual morbidity and mortality events.





# Containment and Escape Prevention

- ▶ **Any escape must be reported to FDACS within 24 hours.**
- ▶ All vessel operators must receive SOP training.
- ▶ The service vessel SOP must be made available to FDACS prior to compliance visits.
  
- ▶ **Fish stocking, grading, transfer, or harvest must be:**
  - ▶ Conducted in appropriate weather conditions.
  - ▶ Conducted to prevent stray fish from escaping, shields or additional nettings must be used.



# Containment and Escape Prevention

## ▶ Nets pens must:

- ▶ Be made from ultraviolet light stabilized compounds.
- ▶ Have jump nets installed at an appropriate height (surface pens only).
- ▶ Be secured in a manner that **minimizes load strains and chafing**.
- ▶ Have **second layer of net** added one foot above and below wear points.
- ▶ Have **bird nets** to prevent predation.
  - ▶ Mesh size must be designed to reduce entanglement.



# Containment and Escape Prevention

## ▶ Mooring systems must be:

- ▶ Installed in consultation with the manufacturer or supplier.
- ▶ Maintained under design maximums.
- ▶ **Inspected and adjusted on a biannual basis and prior to and immediately following a severe weather.**
- ▶ Hauled out of the water for visual inspection at least every five years.



# Feed Management

- ▶ Operate feed storage, handling, and delivery methods to **minimize waste and the creation of feed particles.**
- ▶ Wet feeds (ground or whole fish or shellfish and other raw meat or plant materials) are prohibited.
- ▶ **Feeding at slack tide is prohibited.**
- ▶ Conduct employee training in fish husbandry and feeding methods.
- ▶ **Benthic video surveys** must be conducted twice per year, below pens and >100m transect down current.
  - ▶ Document features such as depositional areas, flora and fauna, feed pellets and any debris.





# Waste Management

- ▶ **Mortalities must be:**
  - ▶ Collected regularly and frequently.
  - ▶ Stored and transported in closed containers.
  - ▶ Returned to shore for disposal.
- ▶ **Minimize discharge** of in-place net cleaning debris.
  - ▶ Strategies that reduce biofouling are encouraged.
- ▶ Antifoulant coating product labels must be approved by FDACS.
- ▶ **Biocidal chemicals are prohibited.**
- ▶ All trash must be collected, returned to shore and disposed of properly.





# Product Landings

- ▶ Aquaculture products must be identified with an Aquaculture Certificate of Registration number **while possessed, transported or sold from harvest to point of sale.**
- ▶ Aquaculture products must be transported in containers that separate aquaculture products from wild stocks



# Product Landing

Containers must have required information listed on an attached packing list, affixed with a tag, printed on box, etc.

- ▶ Containers and invoices/manifests must contain the following information:
  - ▶ Date
  - ▶ Harvest location information (lease number)
  - ▶ Name and address of seller
    - ▶ AQ number must be listed **for all FL products**
  - ▶ Species identification
  - ▶ Quantity in container







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