

# **AQUACULTURE BEST MANAGEMENT PRACTICES MANUAL**

## **November 2023**



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Division of Aquaculture  
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## I. INTRODUCTION

Florida aquaculture has a vested interest in protecting and managing environmental resources. As conscientious environmental stewards, this responsibility lies with each aquatic farmer. The Florida Legislature and the aquaculture farming community worked to amend the Florida Aquaculture Policy Act, Chapter 597, Florida Statutes (F.S.), to create the Aquaculture Certificate of Registration and Aquaculture Best Management Practices (BMPs).

The BMPs in this manual are intended to preserve environmental integrity while eliminating cumbersome, duplicative and confusing environmental permitting and licensing requirements. Aquaculturists following these practices meet the minimum standards necessary for protecting and maintaining offsite water quality and wildlife habitat. These practices represent a mutually beneficial relationship between commercial aquaculture production and natural resource protection. These BMPs were developed specifically for Florida aquaculture to protect Florida's natural resources and as required by Florida law are to be implemented at all certified aquaculture operations. As part of the annual aquaculture certification process, you, the Florida aquaculturist, have pledged your intention to implement these practices as part of the ongoing daily management practices at your facility.

Unless authorized in statute the BMPs enumerated in this manual do not supersede other applicable federal or local authorities nor natural resource collection authorizations. Therefore, aquaculturists need to be aware of the pertinent environmental regulations that affect surface water quality, navigability, wetland dredge and fill, and/or endangered species issues. The Florida Fish and Wildlife Conservation Commission (FWC) must approve collection of broodstock, from natural populations, for aquacultural purposes. **Furthermore, operators need to recognize that there are other federal, state, and local regulations not specifically listed in this manual which relate to solid and hazardous waste disposal, worker safety and building and zoning considerations.**

Aquatic species not specifically mentioned in the BMP manual are covered under chapters applicable to all aquaculture facilities. All certified aquaculturists are required to follow the BMPs in Chapters II through VI and XIV through XIX, including obtaining necessary federal permits. The species or methods specifically identified in this manual have unique circumstances requiring more specific management practices to mitigate the potential for environmental impacts. For a complete list of BMPs required for your aquatic species, see the Appendix.

For additional information about these aquaculture BMPs, general aquaculture information or assistance in clarifying requirements specific to your aquaculture operation, please contact the Florida Department of Agriculture and Consumer Services (FDACS), Division of Aquaculture at The Holland Building, Suite 217, 600 South Calhoun Street, Tallahassee, Florida, 32399, phone (850) 617-7600.

## **II. COMPLIANCE MONITORING**

The Best Management Practices (BMPs) in this manual are required for implementation by all holders of an Aquaculture Certificate of Registration. Anyone conducting aquacultural activities not in compliance with this manual and/or not certified by FDACS is in violation of Florida Law, and is subject to the penalties described below and required to obtain any and all permits required by the appropriate state and county or local regulatory agencies (i.e., Florida Department of Environmental Protection (FDEP), Water Management District (WMD), Fish and Wildlife Conservation Commission (FWC)).

Pursuant to Sections 597.004(2)(b) and (c), Florida Statutes (F.S.), notwithstanding any provision of law, FDEP is not authorized to institute proceedings against any person certified under this section to recover any costs or damages associated with contamination of groundwater or surface water, or the evaluation, assessment, or remediation of contamination of groundwater or surface water, including sampling, analysis, and restoration of potable water supplies, where the contamination of groundwater or surface water is determined to be the result of aquaculture practices.

There is a presumption of compliance with state groundwater and surface water standards if the holder of an Aquaculture Certificate of Registration implements best management practices that have been verified by FDEP to be effective at representative sites and complies with the following:

1. Provides the department with a notice of intent to implement applicable best management practices adopted by the department;
2. Implements applicable best management practices as soon as practicable according to rules adopted by the department; and
3. Implements practicable interim measures identified and adopted by the department which can be implemented immediately, or according to rules adopted by the department.

Pursuant to the Florida Aquaculture Policy Act, Chapter 597, F.S., certified aquaculturists must fully implement all applicable BMPs described in this manual. The BMPs must be implemented upon initiation of operation and maintained for the duration of that phase of operation by the holder of an Aquaculture Certificate of Registration and followed for the term of the certificate. As such, FDACS authorized representatives will periodically visit the site to inspect the facility and records as required herein.

In order to remain in good standing with the Department's Aquaculture Certificate of Registration and Best Management Practices Program, the following compliance requirements are the expectations that must be fully understood and adhered to:

A. COMPLIANCE REQUIREMENTS

1. All applicable BMPs must be implemented immediately and followed for the full term of the certificate.
2. Upon signature and submission of an application for Aquaculture Certificate of Registration, the applicant has filed a notice of intent that he or she will comply with the BMPs described in this manual.
3. Representatives of FDACS, will periodically conduct an unannounced physical inspection of the farm and a review of records (where required), to ascertain BMP compliance.
4. Operators of aquaculture facilities that are unable or unwilling to comply with the BMPs or whose proposed activities are not covered by the BMPs will be directed to the appropriate regulatory agencies to obtain applicable permits. When an operator chooses the permit option, failure to comply with the permit conditions will subject the operator with the enforcement action of the permitting agency and enforcement by FDACS pursuant to Rule 5L-3.007, Florida Administrative Code (F.A.C.).

B. INSPECTION PROTOCOL

FDACS staff will conduct unannounced onsite inspections at least once during each year and reinspections as needed.

The certificate holder must maintain and provide access to copies of pertinent records as required by subsequent chapters in this manual.

C. PENALTIES

Any person who violates any provision of the Florida Aquaculture Policy Act, Chapter 597, F.S., or the Aquaculture Best Management Practices, Chapter 5L-3, F.A.C., commits a misdemeanor of the first degree, and is subject to a suspension or revocation of his or her Aquaculture Certificate of Registration. The department may, in lieu of, or in addition to the suspension or revocation, impose on the violator an administrative fine in an amount not to exceed \$1,000 per violation per day, pursuant to section 597.0041, F.S. Please see Rule 5L-3.007, F.A.C., for specific administrative fine criteria.

### **III. FEDERAL PERMITTING**

#### **WETLANDS OR SOVEREIGNTY SUBMERGED LANDS**

The United States Army Corps of Engineers (USACE) regulatory program is one of the oldest in the Federal Government and includes the Rivers and Harbors Act of 1899 which establishes permit requirements to prevent unauthorized obstruction or alteration of any navigable water of the United States. This navigable water's jurisdiction includes all navigable fresh waters and ocean waters out to a distance of 200 nautical miles. Section 10 of this Act covers construction, excavation, or deposition of materials in, over, or under such waters which could affect the course, location, condition, or capacity of those waters. Section 9 of this Act typically applies to dams and dikes.

The Federal Water Pollution Control Act, as amended in 1977, and commonly referred to as the Clean Water Act, includes Section 404 authorizing the Secretary of the Army, acting through the Chief of Engineers, to issue permits for dredging or filling waters of the United States. While the USACE acts as the lead permitting agency, the Environmental Protection Agency has veto powers and may invoke this authority at any time.

The basic form of authorization used by the USACE is the Individual Permit. Another form of authorization is the General Permit that typically covers activities the USACE has identified as substantially similar in nature and causing only minimal environmental impacts. Nationwide General Permits, Programmatic General Permits, or General Permits may be applicable to aquaculturists contemplating activities in waters of the United States.

The Coastal Zone Management Act of 1972 (Section 307) requires applicants to certify that projects are in compliance with an approved State Coastal Zone Management Program and that the State concurs with the applicant's certification prior to issuance of a USACE permit. Pursuant to Section 380.205, F.S., Coastal Zone means "an area of land and water from the territorial limits to the most inland extent of marine influences." Florida Coastal Zone provisions generally apply only in the geographical area encompassed by 35 Florida coastal counties listed in the Final Environmental Impact Statement for the Florida Coastal Management Program. Moreover, an aquaculturist proposing work on any state sovereignty submerged lands would also be required to contact FDACS to obtain a sovereignty submerged land's authorization.

The federal definition for agriculture does not include aquaculture. Therefore, regarding wetlands protection, the USACE is the lead federal agency. As such, many of the conventions developed by the National Resource Conservation Service (NRCS) pursuant to the Food Security Act (Swamp buster provisions) do not apply; thus, wetland determinations (i.e., prior converted) should not be taken for granted and you must receive all required Corps approvals/permits before construction activities commence.

Before considering or starting any activities that may impact wetlands or occur on sovereignty submerged lands, contact FDACS, WMDs, FDEP or the USACE for assistance.



State or federal wetland jurisdiction, delineation methodology, and regulations are not the same. Furthermore, existing Programmatic General Permits may already authorize certain activities for farmers that possess an Aquaculture Certificate of Registration and sovereignty submerged land lease agreement.

## SURFACE WATER DISCHARGE

Responsibility for implementing and enforcing provisions of the Clean Water Act pertaining to surface water quality has been delegated by the U.S. Environmental Protection Agency to the Florida Department of Environmental Protection. The applicable Federal rules and regulations are contained in Title 40, Chapter I, Part 122.24 and Part 122.25 of the Code of Federal Regulations. The corresponding Florida rules and regulations can be found in Rule Chapters 62-620, 62-621, and 62-660, F.A.C.

Aquaculture is considered a point source, subject to industrial wastewater rules under the Clean Water Act and includes established thresholds when a National Pollution Discharge Elimination System (NPDES) permit is required. Should an aquaculture facility exceed the NPDES size thresholds of more than 100,000 pounds of live weight production per year and discharges 30 days or more from the farm excluding rainfall events, the aquaculture effluent BMP will not apply and a NPDES permit from FDEP must be obtained. Chapter IV, subsection E, of this document provides further detail. An aquaculture facility that must acquire a NPDES permit must continue to maintain an Aquaculture Certificate of Registration and implement all other applicable Aquaculture Best Management Practices.

## IV. WATER RESOURCES

### A. WATER SUPPLY CONSIDERATIONS

Florida's five Water Management Districts issue a Water or Consumptive Use Permit that allows the withdrawal of a specified amount of water from either a groundwater well or from an allowable surface water source. These permits are categorized as either Individual Permits (requiring Governing Board approval) or General Permits (staff level approval). They typically require an application fee and are issued for 10 to 20 years. Some Water Management Districts have declared certain groundwater basins as severely stressed and have designated as Water Use Caution Areas which may have more stringent permit issuance criteria and require well metering to track the amounts withdrawn. Within the Water Use Caution Areas there are also Most Impacted Areas where new consumptive use permits are no longer available. To determine whether your facility is within one of these areas, contact your local Water Management District. Water Management Districts (in some cases the delegated local county government) also issue Well Construction Permits which are generally required if the aquaculturist either plans to have a new well constructed, or needs to repair or plug an existing well. ***Please note that the aquaculture BMP manual is not designed to replace the need for water use or well drilling permits; therefore, it is imperative for all water use situations that operators contact their local water management district Water Use Permitting Department to determine permitting requirements.***

Best Management Practices:

- Contact the Water Management District and/or FDACS before constructing a well or withdrawing water from an unpermitted well.

### B. WATER CONSERVATION AND REUSE

The thoughtful use and management of water resources may improve productivity and profitability, and provide measurable conservation returns to Florida's environment.

Best Management Practices:

- Use water conservation practices where appropriate and feasible to minimize water use. Water conservation and reuse practices may include:
  - Recirculation systems
  - Maintaining proper freeboard levels
  - Maintaining perimeter ditches
  - Retaining production water on site
  - Water reuse practices
  - Reclaimed water
  - Alternate water sources

### C. SALTWATER SOURCES

There may be circumstances where aquaculture operations will need saline water to culture certain marine or estuarine plants or animals (i.e., shrimp or shellfish hatcheries). There are two environmental issues which may arise: (1) potential permitting issues associated with withdrawal of saline water and (2) potential impacts to freshwater systems from saline water discharge.

Best Management Practices:

- Contact a Water Management District for permitting requirements to withdraw saline or mineralized (non-potable) water.
- Saline water shall not be discharged to freshwater environments.
- When utilizing a near shore saline water source, the intake and discharge pipes should be located so as not to interfere with navigation.
- Facilities should be designed and installed to avoid or minimize impacts to resources, including scouring caused by discharge pipes.

### D. RECIRCULATING AQUACULTURE SYSTEMS

Production systems that treat and reuse all, or a major portion of their production water are termed Recirculating Aquaculture Systems (RAS). While the volume of effluent from a recirculating/intensive system does not typically approach the quantity associated with the more traditional forms of aquaculture, the concentration of nutrients associated with the effluent is usually greater.

Best Management Practices:

- Design the system for no direct offsite discharge of production water. Effluents must be treated and retained onsite, or discharged to a permitted sanitary sewer system. Treatment techniques include, but are not limited to percolation ponds, irrigation systems or filter strips. These techniques may be utilized individually or in combination with other approved treatment methods. Please note that discharging production water to a sanitary sewer system may require authorization/permitting from the local municipal wastewater treatment plant authority.
- Design a waste treatment system to accommodate the semisolid waste stream and non-recycled production effluent from filters and solids separators. Dispose of waste solids in a legal manner that will not cause environmental degradation. Potential options for solids treatment and disposal include composting followed by appropriate land application as a soil amendment or disposal at a sanitary landfill.

## E. EFFLUENT TREATMENT

Effluent treatment BMPs are required of all certified aquaculturists except for those certified facilities, as specified in Rule 5L-3.006, F.A.C., that are determined to have a minimal impact on the surrounding environment or are required to obtain an NPDES permit (see appendix, Code of Federal Regulations). These facilities are, however, required to follow all other applicable BMPs.

Minimal Impact Aquaculture Facilities include:

- (1) Recirculation systems that do not discharge to waters of the state.
- (2) Culture of filter feeders which does not include feed or fertilizer inputs.
- (3) Raceway or upweller/downweller systems for native filter feeders that utilize less than 800 square feet of raceways or upwellers/downwellers, and do not add supplemental algae as a food source.
- (4) Fee fishing operations with a standing crop of less than 1,000 pounds of fish per acre.
- (5) Individual production units producing less than 10,000 pounds of product per year that minimize the release of sediments off site by using an onsite ditch system with a minimum 100 linear feet of ditch between the production water entry point and the discharge point and one foot of freeboard at the discharge point control structure.
- (6) Aquaculture systems that do not discharge production unit water to surface waters of the state.

Effluent or production water discharge from culture systems typically contain suspended and settleable solids, both organic and inorganic, as well as other dissolved compounds as a result of feeding and other farm activities. It is necessary for aquaculturists to manage effluent or production water discharge to prevent or minimize environmental impact to receiving waters. Because of the variation in production systems (e.g., ponds, cages or net pens, tanks and raceways), stocking rates, feed types, feed volumes, and feeding frequencies, in combination with variable site characteristics; several options for management of effluents are recommended as best management practices. Contact FDACS for assistance in determining which option is most appropriate for your aquaculture operation or prior to changing an approved method implemented at your facility.

Best Management Practices:

- DETENTION FACILITY OPTION: Treatment of effluent prior to discharge to waters of the state by detention or temporary storage in a pond or ditch system. Maximum feeding rates for production units utilizing a detention pond system are: 1) 180 pounds/acre/day for a one-day detention period; and 2) 360 pounds/acre/day for a five-day detention period. Aquaculturists interested in this treatment option should contact FDACS.
- FILTER STRIP OPTION: Treatment of effluent by passing it through a constructed or natural filter strip, of appropriate dimensions, prior to discharge to waters of the state is an effective means of reducing effluent pollutants. A filter strip of vegetated land is utilized and designed such that water will flow in a thin sheet slowly across it. This strip allows for capture of sediment, organic matter and other pollutants by deposition,

infiltration, absorption, decomposition and volatilization. Aquaculturists interested in this treatment option should contact FDACS for assistance.

- **WETLAND TREATMENT OPTION:** Discharge of effluent from a detention facility, filter strip or minimal impact facility, implementing the BMPs in this section, into or through constructed wetlands prior to discharge to waters of the state provides an effective and environmentally sound means of providing additional treatment. Existing facilities previously authorized to discharge into a natural wetland may also utilize this option.
- **INTEGRATED PRODUCTION OPTION:** Effluent from aquaculture production units can be reused for the purposes of producing a secondary aquaculture crop, agronomic crops or aquatic plants or combinations thereof. This option allows for numerous design opportunities including water recirculation. This type of practice may provide adequate treatment itself or provide improvements in water quality allowing for a reduction in the scale of effluent treatment infrastructure. Utilization of this option may require additional treatment prior to discharge to waters of the state. Aquaculturists interested in this treatment option should contact FDACS.
- **MECHANICAL AND BIOLOGICAL FILTRATION:** For systems culturing filter feeders (corals, shellfish, etc.), effluent from hatchery production systems or nursery systems where feed is added may be treated by implementing a series of mechanical (sand filters, settling screens, filter socks) and biological filtration (macroalgae and/or aquatic plant culture) prior to discharge to waters of the state. Aquaculturists interested in this treatment option should contact FDACS prior to construction to discuss plans prior to construction.
- **INJECTION WELL:** There are five classes of wells defined in state and federal law that regulate fluid injection below ground surface. Class V wells include an “aquaculture” activity within its defined uses and for any salinity. Water from an aquaculture facility can be returned as long as it does not contain hazardous substances, the withdrawal well and return well are cased to prevent mixing with overlying strata(s) of water, and a confining strata separates the receiving strata from potable water. A monitoring well in the overlying strata, above the confining layer, may be required as well as other Class I injection well standards that are decided on a case-by-case basis. Aquaculturists interested in this treatment option should contact FDACS. A permit or variance from FDEP’s Underground Injection Control Program must be obtained prior to use of any well to dispose of effluent.
- **RETENTION OPTION OR ZERO SURFACE WATER DISCHARGE:** Retention of all production unit effluent on site may be a viable option for certain facilities and can be accomplished by a variety of methods:

1. RETENTION, EVAPORATION OR PERCOLATION PONDS - In certain locations, where the soil is highly porous allowing for water infiltration, a treatment pond may be constructed to hold all discharge and allow for percolation. The volume of the pond is determined by the expected quantity of discharge and the evaporation and percolation rate of the soil, as determined by the USDA Natural Resources Conservation Service soil survey or independent testing. Under no circumstances are direct discharges, by pipes or other structures, to ground water authorized. Construction in wellfield protection areas is strongly discouraged, but is not a requirement. Aquaculturists interested in this treatment option should contact FDACS.

2. FIELD APPLICATION - Effluent must be applied at less than or equal to agronomic rates to a field where there is sustained vegetative cover. Saline water shall not be discharged to freshwater environments.

3. SEPTIC SYSTEM - In those situations where the effluent volume and the rate of discharge is determined appropriate by the Division of Aquaculture, a septic system is a suitable option for handling effluent. Aquaculturists interested in this treatment option should contact FDACS and comply with applicable requirements of the Department of Health and local governments regarding septic systems.

#### F. WATER QUALITY ENHANCEMENT PRACTICES

Several management practices when incorporated into the design and facility management can be utilized in conjunction with the treatment options to improve the water quality of effluents. These methods include: 1) aeration within a detention facility to increase dissolved oxygen, volatilization of gases and enhance bacterial oxidation of organic matter; 2) use of biological filtration to enhance the conversion of ammonia to nitrite and nitrite to nitrate (this practice is useful for small volumes of water such as tank production systems); 3) chemical treatments to reduce concentrations of certain parameters of concern, such as the use of alum to reduce turbidity or the addition of beneficial bacteria to enhance oxidation of organic matter (this method may only be effective with extended water residence times); 4) or previously authorized discharges to a natural wetland.

##### Best Management Practices:

- If an excavated pond discharges off site, limit the crop biomass to 1,500 pounds per surface acre or follow the effluent treatment guidelines found in this chapter.
- If an excavated pond discharges off site, limit feeding to five percent (5%) of biomass per day or follow the effluent treatment guidelines found in this chapter.
- For all pit pond use relating to aquaculture, submit a facility plan to FDACS, for approval

prior to beginning any construction. If an excavated pond does not meet the NRCS pond bank slope requirements it shall be considered a “pit pond”. USDA NRCS, Ponds-Planning, Design, Construction, Agricultural Handbook, Number 590 (November, 1997) is incorporated by reference into Rule 5L-3.004, F.A.C.

- Pit ponds which penetrate or are directly connected to a Class I drinking water aquifer, as determined by depth of digging relative to the underlying aquifer, are limited to a crop biomass of less than 1,500 pounds per surface acre and a limited daily feeding rate not to exceed 5% of biomass.
- Pit ponds with a crop biomass of less than 1,500 pounds per surface acre should limit feeding to five percent (5%) of biomass per day.
- Pit ponds with a crop biomass greater than 1,500 pounds per surface acre or ponds with feeding rates that exceed a five percent (5%) of biomass per day, should:
  - Utilize aerators, pumps, or other effective destratification methods, including limits on pond depth, to eliminate pond stratification.
  - Establish a feeding protocol which eliminates overfeeding.
  - Utilize cage systems which are designed to minimize feed loss and that allow for the collection and removal of waste. Treatment of removed waste can be accomplished either by in-pond treatment, swale treatment, ditch system treatment, filter strip treatment, wet detention, and/or constructed wetlands, singly or in combination.
- Single inlet detention facilities must have a length to a width ratio of at least 1:1. Multi-inlet detention facilities must maintain at least 100 linear feet between the outlet and inlets.
- Water quality treatment is to be accomplished via a combination of in-pond treatment, such as described in University of Florida IFAS, Stormwater Detention and Discharge from Aquaculture Ponds in Florida, Publication No. 334, (January, 2015) which is incorporated by reference into Rule 5L-3.004, F.A.C., or utilization of a vegetated filter strip with a minimum 15-minute travel time, or by using wet detention facilities with one or five day residence times based on feeding rates. For maintenance or harvesting purposes, scheduled pond drawdown(s) shall be accomplished in the following manner:
  - Ponds should be drained for harvesting and maintenance only as necessary.
  - Ponds should be drained during the dry season when possible.
  - For maintenance or harvesting purposes, scheduled pond drawdown(s) should be

routed to existing on site surface water management facilities, dry pond cells, filter strips via a pulsed dry season discharge, to adjacent crops at the proper agronomic rate, or distributed to adjacent ponds.

- Routinely maintain pond/dike facilities to minimize seepage and to maintain the integrity of the structure.
- Control the rate and timing of discharge to assure the flow into surface waters and wetlands will mimic predevelopment flow patterns.
- Plant nurseries must follow all applicable BMPs including fertilizer recommendations referred to in the Aquatic Plants Chapter.
- Debris removed from retention structures shall be disposed of pursuant to local rules and/or ordinances.
- Plastic from greenhouses and/or freeze protection materials shall be disposed of pursuant to Section 823.145, F.S., or local regulations.

In lieu of the preceding effluent treatment BMPs, an aquaculture facility, at their option, may choose to be permitted pursuant to Part IV of Chapter 373 and/or NPDES permitting.

#### G. DUAL USE OF PERMITTED STORMWATER TREATMENT PONDS

Although not encouraged, agricultural operators may look to diversify their business by the use of previously permitted stormwater treatment ponds. These “ponds” may have been permitted by a regional Water Management District or FDEP. These permitted ponds may have been approved as part of a Management and Storage of Surface Waters (MSSW) Permit or an Environmental Resource Permit (ERP). **FDACS does not recommend the use of stormwater treatment ponds for commercial food fish production.**

Best Management Practices:

- Modify existing MSSW/62-25 or ERP permits prior to utilizing stormwater treatment ponds for aquaculture production.
- Review the permitting history of the existing pond(s) and ascertain any special permitting conditions which may preclude the use of the pond for aquaculture.
- Limit crop biomass to a maximum of 1,500 pounds per surface acre and feeding to a maximum of five percent of biomass per day.
- Where stormwater ponds have been constructed for water quality treatment and nutrient uptake, aquaculturists should avoid adding feed to these ponds.
- No feed may be added to stormwater ponds that discharge off the farm.



## V. CONSTRUCTION

Agricultural Lands and Practices, Chapter 163.3162, F.S., addresses duplicative regulations between state and local government and provides precedence for agricultural operations regulated through Best Management Practices adopted by FDACS. However, predominately urbanized counties with a population greater than 1,500,000 and more than 25 municipalities may have a delegated pollution control program that prevails.

### A. NEW CONSTRUCTION

Individuals and/or companies constructing facilities on new farms or expanding current facilities must follow this section as well as all other applicable BMPs. This section provides a certificate holder with a mechanism that identifies a new aquaculture operation as an agriculture enterprise in the development phase with the final objective being commercial aquaculture production. Construction timeline deviations shall be submitted to the Division. Failure to meet the development expectations of the given requirements will result in non-issuance or cancellation of the aquaculture certification and subsequent referral to all other appropriate regulatory agencies.

Best Management Practices:

- A new farm or facility application for an Aquaculture Certificate of Registration must contain the following:
  - (a) Applicant's name/title.
  - (b) Company name.
  - (c) Complete mailing address.
  - (d) Legal property description for aquaculture facility.
  - (e) Actual physical street address for aquaculture facility.
  - (f) Detailed description of production facilities, including a construction plan, sketch and associated timeline.
  - (g) Detailed species production plan and associated timeline (i.e. stocking/harvest dates, projected production, etc.).
  - (h) Description detailing implementation of appropriate BMPs. (See XX Appendix for a species and system cross reference guide.)
  - (i) One Hundred dollar (\$100) annual registration fee.
  - (j) A copy of a current shellfish harvester education training certificate (required for all Aquaculture Certificates of Registration listing clams, mussels, scallops, or oysters as products).
- Construction must adhere to the requirements of Chapter V of the Aquaculture Best Management Practices Manual.
- As provided in Chapter V, Section C, Aquaculture Best Management Practices, wetlands shall not be impacted.

- Supporting documentation to substantiate the above requirements must be maintained by the applicant and available for review upon request by FDACS.
- During the construction phase a certificate holder will be subject to unannounced inspections, one of which will be prior to the issuance of an Aquaculture Certificate of Registration, to confirm compliance with all applicable BMPs and completion of construction/production timelines.
- FDACS may grant a time extension to complete construction provided the applicant requests, in writing, an extension with sufficient and plausible detail explaining circumstances necessitating an extension.
- Aquaculturists proposing new construction of nonresidential farm buildings, as defined in Section 604.50(2)(d), F.S., on property located within the boundaries detailed in a military installation compatibility plan must comply with the military installation compatibility requirements of Section 163.3175, F.S.

#### B. AQUACULTURE POND RECLAMATION

Existing certified aquaculture facilities may reclaim constructed ponds to allow for alternative non aquaculture land use activities.

Best Management Practices:

- Reclamation processes must follow all aquaculture erosion control best management practices.
- Existing berms and/or dikes may be used to fill ponds so long as there is no change to existing offsite water flow patterns.
- Fill materials from offsite may be utilized so long as the fill material is clean and free of debris and waste.
- The reclamation process is intended to return the site as near as feasible to its original topography.
- Once the reclamation process is completed any non-aquaculture activity or construction must be permitted/authorized by the appropriate state and/or local regulatory agency(s).

#### C. WETLANDS PROTECTION AND CONSERVATION

Wetlands are important components of Florida's water resources. They provide spawning areas and nurseries for many species of fish and wildlife, flood water storage, uptake of nutrients in runoff water, habitat for plant and animal biodiversity, and recreational opportunities for the public. Wetlands are complex transitional ecosystems between aquatic and terrestrial

environments. Prior to development, Florida's wetlands (including open waters and seasonally flooded areas) covered about half of the state's area. That area has been greatly reduced primarily due to early water management efforts focused on draining wetlands to facilitate development interests and augmentation of agricultural lands. Today, landowners may qualify for various USDA NRCS incentive programs designed to encourage wetland restoration. Contact FDACS or USDA for additional information.

Wetlands may exist as isolated features in the landscape or may be connected to surface water bodies such as rivers, streams, lakes and often have no discernable shoreline. A goal of the Aquaculture Best Management Practices Manual is to protect wetlands from adverse impacts associated with dredging, filling, hydro-period alteration, expansion or reduction of watersheds, or water quality degradation. **DO NOT CONDUCT DREDGE OR FILL ACTIVITIES IN WETLANDS OR WETLAND BUFFERS.** If plans include the construction of sea walls, bulkheads, beach armoring or similar structures, the following wetland BMPs do not apply. Please contact the Florida Department of Environmental Protection for authorization to construct these structures. It is the intent of this manual to employ BMPs which do not adversely affect on site (project area) or offsite wetlands. As such, all proposed aquacultural operation designs must first consider elimination and/or reduction of wetland impacts through practicable design alternatives or modifications. Aquacultural operations unable or unwilling to follow this wetland BMP must obtain applicable permits under Part IV of Chapter 373, F.S.

Note: Wetlands constructed (man-made) for water treatment purposes are not subject to this wetland BMP.

#### Best Management Practices:

- Contact FDACS to confirm the presence or absence of onsite and adjacent wetlands prior to initiating any aquaculture construction activities.
- All new pond construction must maintain a minimum 50-foot upland buffer from the boundary of all wetlands and or natural water bodies. Fill material shall not be placed in the 50-foot buffer.
- If production exceeds 10,000 pounds/year, do not discharge untreated effluents into wetlands.

Prior to construction of any land-based effluent treatment system (i.e., filter strip) ultimately discharging to surface waters, the determination of the landward extent of any receiving water must be made or verified by FDACS. This determination is necessary to prevent the location or inclusion of water treatment facilities in wetlands or other surface waters pursuant to Rule Chapter 62-340, F.A.C., or waters of the United States.

#### D. FLOODPLAIN ISSUES

Floodplains are typically dry or semi-dry areas around rivers, lakes and near the coast, where water can overflow or pond for extended periods as a result of seasonal rainfalls. Flooding is a natural phenomenon and occurs when the amount of water flowing into an area exceeds the land's ability to store and convey the water. Aquaculture facilities must be designed to reasonably prevent an increase in flooding of adjacent properties both up gradient and down gradient of the proposed aquacultural activity. Flood information can be obtained from the local county planning and zoning office or by contacting FDACS.

Best Management Practices:

- Prior to any new construction within the 100-year flood zone, submit a facility plan to FDACS.

#### E. EROSION CONTROL GUIDELINES

During the construction phase of your project, care must be taken to prevent or control erosion, sediment deposition, turbidity and other potential adverse effects to water quality due to increased runoff rates downstream from your facility. Sediment loads to aquatic environments can block waterways, kill aquatic plants and reduce oxygen levels. Sediments from stormwater runoff may also be associated with the transport of unwanted chemicals and nutrients to aquatic environments. **Be sure to obtain all applicable construction, zoning and consumptive water use permits before site clearing and construction commence.**

Best Management Practices:

- Select a site where the natural drainage patterns can be incorporated into the facility design to move water more effectively while avoiding “in stream” construction.
- Where it is necessary to modify the natural onsite drainage patterns use *swales* and/or *berms* to direct surface water flow through, or around your property in order to maintain natural off site drainage patterns. Criteria for these and other surface water control techniques can be obtained from the local Natural Resources Conservation Service (NRCS) office.
- Stabilize exposed soils to prevent erosion and use silt barriers around wetlands and other surface waters to prevent inadvertent filling by sedimentation.
- Terrain alterations are permitted so long as the alterations do not cause an increase in offsite silting or flooding. Acceptable alterations include, but are not limited to, removal of trees, vines, bushes, and other vegetative ground cover. Any standard agricultural practice may be utilized such as, but not limited to, mowing, disking, plowing, and dragging, in addition to tree cutting and stump removal.

- Use recommended methods (USDA NRCS Conservation Practice Standard, Conservation Cover, Code 327, (October, 2011)), which is incorporated by reference into Rule 5L-3.004, F.A.C.) to reduce surface water velocity in order to prevent erosion, and to promote the removal of suspended solids.

#### F. WATER ATTENUATION CRITERIA

As authorized by Florida Law, aquaculture BMPs replace the existing pertinent industrial wastewater requirements under Chapter 403, F.S., and the existing pertinent Environmental Resource Permits requirements under Chapter 373, Part IV, F.S.

#### G. STORMWATER MANAGEMENT

Florida receives an average 50" of rainfall from about 120 storms a year. Given the intensity and frequency of these storms, the resulting stormwater runoff can present a risk to sensitive downstream receiving water bodies both in terms of its potential to transport pollutants (natural or synthetic) from the land and in the volume/rate of discharge. Of primary importance is the so-called "first flush." This term describes the washing action that stormwater has on accumulated pollutants in a watershed. Studies in Florida have determined that the first one-inch of runoff generally carries 90% of pollutants released by virtue of the storm induced discharge.

Before you settle on a final design for your facility, consider the following issues and the impact each may have on your design and the impact your design may have on your site and on surrounding properties.

- Where and how much water flows onto your property?
- Where and how much water flows off your property?
- What are the predominant soil types on your property?
- Are your soils susceptible to excessive runoff?
- How much new impervious surface are you adding to your operation/property?
- Will the proposed activity significantly increase or decrease the flow and timing off your property?

Best Management Practices:

- Where appropriate, incorporate into the final design any design modifications, features necessary to minimize the potential impacts of commingling surface water and production water.
- Know your operation - knowledge of the composition of your production water effluent, utilization of other water quality BMPs described and enumerated in this manual, and knowledge of local rainfall patterns will benefit your operation in terms of design efficiency.

- For all construction activities which will cumulatively create more than two acres of impervious surface, the facility must provide a stormwater treatment holding capacity of 24-hours for the 25-year, 24-hour rainfall event. Production pond water surface area is not considered impervious. For assistance in determining the required holding capacity, contact FDACS or consult a stormwater engineer.
- Construction that cumulatively results in 5% or more impervious surface, which is greater than two acres, must include an analysis by a State of Florida licensed Professional Engineer to demonstrate that there will be no adverse downstream impacts. (Production pond water surface area is not considered impervious.)

#### H. EXCAVATED PONDS

##### Best Management Practices:

- Ponds must be constructed in accordance with the USDA-NRCS Field Office or IFAS guidelines (USDA NRCS, Ponds – Planning, Design, Construction Agriculture Handbook, Number 590 (November, 1997) or USDA NRCS, Conservation Practice Standard, Aquaculture Ponds, Code 397 (June, 2004) which is incorporated by reference into Rule 5L-3.004, F.A.C.) or a department approved design and shall maintain a minimum one-foot of freeboard.
  - Fill may not be removed from the property unless permitted pursuant to local regulations. Documentation must be on file for the facility for the duration of active construction and plans shall fully describe the amount of fill to be removed from the property.
  - Ponds should typically be constructed with no discharge; ponds which are designed to discharge or could be expected to discharge should demonstrate the ability to follow the Effluent Treatment BMPs.
  - Remove trees, stumps, and brush which may undermine the integrity of berms and dams.
  - Where necessary, design and install upland excavated sediment sumps landward of wetland buffers to minimize scouring and sediment transport.
  - Use spreader swales and other functionally equivalent devices to create sheet flow when discharging into wetlands.
- Maintain existing watersheds and point(s) of discharge during pre and post development conditions.
- Submit a facility plan to FDACS for approval prior to beginning any construction.

## I. WATERSHED PONDS

In hilly terrain, aquaculturists may take advantage of runoff from rainfall within the watershed. Watershed to pond surface acreage ratios vary from site to site, with soil types being the determining factor. When ponds are built in series, less water is required for maintenance, and the last pond in the series may be used for one (1) day production water treatment. Supply water for aquaculture watershed fish production ponds typically comes from watershed runoff and springs, but ground water wells can serve as supplementary water supplies, provided that applicable consumptive use permits are obtained. Because each site will have specific requirements, the aquaculturist must submit a facility plan to FDACS for approval prior to beginning any construction. Some options to consider in the planning process are:

- Create harvest and access areas during pond construction.
- Utilize cage culture where ponds are deep and/or irregular shaped.
- Determine the potential for impact upon surrounding property and historical water flow rates and design the facility to eliminate adverse impacts.
- Determine if impounded water poses a safety hazard to downgrade residents and/or property and design the facility to eliminate any safety hazards.

Best Management Practices:

- Submit a facility plan to FDACS for approval prior to beginning any construction.
- Follow recommended USDA NRCS, Ponds – Planning, Design and Construction, Agriculture Handbook, Number 590 (November, 1997) and Southern Regional Aquaculture Center, Watershed Fish Production Ponds: Guide to Site Selection and Construction, SRAC Publication No. 102 (September, 2002) which is incorporated by reference into Rule 5L-3.004, F.A.C.
- Provide erosion controls.
- Stabilize pond banks during construction.
- Remove all undesirable trees, stumps, and brush which may hinder harvest activities or undermine the integrity of berms and dams, or create safety hazards.
- When utilizing drain-harvesting, construct catch basins and holding structures at the drain intake or outfall.
- Avoid digging a pond that penetrates a Class I drinking water aquifer.

- If a pond penetrates a Class I drinking water aquifer, the applicant will be limited to less than 1,500 pounds per surface acre stocking density and daily feeding rates not to exceed 5% of biomass. The pounds per surface acre are determined by multiplying the known fish population by the average fish weight and dividing that number by the total surface acres.
- For embankment and/or excavated ponds, initial stocking density shall be a minimum of 1,000 fish or 1,000 pounds of fish per surface acre.

#### J. PIT PONDS

Rock, sand and phosphate mining operations throughout Florida have resulted in the construction of thousands of “pit” ponds in Florida. These pits are very common in southern Florida where large quantities of fill material have been excavated for use in road construction. These systems may appear to be an inexpensive source of vast quantities of water; however, they also involve significant challenges in terms of animal containment, animal harvest, water quality, and animal health. Inexperienced culturists often greatly overestimate the production capacity of these systems and fail to recognize the significant disadvantages. Limitations on biomass are included to minimize eutrophication and associated fluctuations in water quality. It is important to avoid overfeeding which is costly and can lead to water quality issues. Adhering to the BMPs outlined in the previous “Water Resources” section will assist in maintaining water quality and decrease the chance of a catastrophic crop loss due to oxygen depletion.

- Ponds which do not meet the NRCS pond bank slope requirements shall be considered “pit ponds”.

#### Best Management Practices:

- Pit ponds with a crop biomass of less than 1,500 pounds per surface acre should limit feeding to five percent (5%) of biomass per day.
- Pit ponds with a crop biomass greater than 1,500 pounds per surface acre or ponds with feeding rates that exceed a five percent (5%) of biomass per day, should:
  1. Utilize aerators, pumps, or other effective, destratification methods to prevent pond stratification.
  2. Establish a feeding protocol which prevents overfeeding.
  3. Utilize cage systems which minimize feed loss and provide for the collection and removal of waste. Floating cage technology is encouraged.
  4. Water quality treatment can be accomplished either by in-pond treatment, swale treatment, ditch system treatment, filter strip treatment, wet detention, and/or constructed wetlands, singly or in combination.



- Pit ponds which penetrate or are directly connected to a Class I drinking water aquifer, must limit crop biomass to less than 1,500 pounds per surface acre and a limited daily feeding rate not to exceed 5% of biomass.
- For embankment, excavated, and pit ponds initial stocking density shall be a minimum of 1,000 fish or 1,000 pounds of fish per surface acre.

#### K. PIPE PLACEMENT

If pipes are used to discharge water from an aquaculture operation, they should use the following:

Best Management Practices:

- Pipes must be placed in a location and in a manner which minimizes environmental and aesthetic impacts.
- Discharge pipes must be situated to prevent erosion or excessive scouring of the bottom in the receiving waters.

#### L. AQUACULTURE DOCKS

This BMP is intended for the construction of aquaculture docks originating on upland property and extending on or over wetlands and other surface waters, including either privately-held or sovereignty submerged lands. Aquaculture-dependent docks are docks used exclusively for aquaculture purposes or private single-family residential docks with dual aquaculture and recreational use by the adjacent upland resident. To qualify under these provisions, docks must be less than or equal to 2,000 square feet total surface area moor 4 or fewer aquaculture vessels, must be associated with a certified aquaculture facility or activity, and must comply with all applicable BMPs.

Docks larger than 2,000 square feet, moor more than 4 aquaculture vessels, or which cannot meet or follow all of the BMPs listed below must obtain an Environmental Resource Permit from the Florida Department of Environmental Protection or may require an aquaculture submerged lands lease.

For purposes of constructing an aquaculture dock, the term “natural resources” shall include corals; emergent and submerged aquatic vegetation; mangrove species; coastal and freshwater wetlands; oyster reefs; endangered or threatened species and their designated critical habitat; and, shore or seabird nesting sites.

Aquaculture Letter of Consent Best Management Practices:

- Requests for an Aquaculture Letter of Consent must comply with Rule 18-21.021(3), F.A.C.

- Prior to notifying FDACS of the intent to construct an aquaculture dock on or over sovereignty submerged lands, aquaculturists shall obtain the required proprietary authorization from the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Chapter 253, F.S., and Rule Chapter 18-21, F.A.C.
- Prior to construction, certified aquaculturists must request approval from FDACS to construct an aquaculture dependent dock, in accordance with all Aquaculture Best Management Practices requirements. The request for approval must include a construction plan and proof of riparian ownership or equivalent rights to use privately or publicly held lands.
- Authorized aquaculture docks are for aquaculture purposes by the adjacent upland resident. In the event that aquaculture activities cease on an authorized aquaculture dock all associated aquaculture structures erected on the dock shall be dismantled and removed immediately. Additionally, the dock must comply with the requirements of 403.813(1)(b), F.S., or authorization shall be obtained from DEP and/or WMD for an over-sized dock. This condition must be disclosed to any potential purchaser, as a requirement of ownership. The applicant must provide to FDACS written acknowledgement of this requirement to obtain an approved Letter of Consent.
- Dock construction shall:
  1. Be less than or equal to 2,000 square feet total surface area and moor four or fewer vessels.
  2. Use only FDACS approved wooden marine construction materials or approved alternative marine grade material for dock construction.
  3. Meet all applicable local zoning and building requirements as evidenced by copies of building permits, and /or other local authorizing documents.
  4. Comply with the permitting requirements of the U.S. Army Corps of Engineers; contact FDACS for a U.S. Army Corps of Engineers application for Works in the Waters of Florida.
  5. When constructing in waters frequented by manatees, all in-water construction shall follow Standard Manatee Conditions For In-Water Work, U.S. Army Corps of Engineers, (2011), which is incorporated by reference into Rule 5L-3.004, F.A.C.
  6. Be constructed or held in place by pilings so as not to involve filling or dredging other than that necessary to install the pilings.
  7. Ensure that portions of the structure used for docking vessels are constructed in waters that are sufficiently deep to avoid bottom scouring by vessel operation or by prop

dredging by ensuring that a minimum of one-foot clearance is provided between the deepest draft of a vessel and the top of any submerged resources at mean or ordinary low water.

8. Comply with the following requirements when natural resources are present:
  - a. Avoid or minimize impacts, including shading, during dock construction and maintenance or vessel docking.
  - b. Construct the main access dock not to exceed six feet in width and the terminal platform not to exceed eight feet in width.
  - c. Walls constructed shall be made of lattice, chain-link fence, or equivalent type of marine building material only, which will minimize potential for shading impacts.
  - d. Finger piers must not exceed three feet in width and 25 feet in length; finger piers dimensions are included in the overall total allowable maximum 2,000 square feet.
  - e. Align the structure so as to minimize the size of the footprint of the dock and associated mooring areas over natural resources.
  - f. Construct walkway surfaces utilizing deck planking no more than eight inches wide and spaced no less than one-half inch apart after shrinkage; alternative materials, such as grating, may be utilized provided they allow light penetration that meets or exceeds that of plank construction.
  - g. Construct the main access dock and terminal platform a minimum of five feet above mean or ordinary high water.
  - h. A step-down platform may be constructed, comprising up to 25 percent of the surface area of the terminal platform, at a lower elevation to facilitate access to a vessel; no structure of any type is to be erected on the terminal step down platform.
  - i. Total footprint of the access walkway, finger piers, terminal platform and step-down platform shall not exceed 2,000 square feet.
  - j. All solid wall panels are prohibited.
9. Not impact more than 500 square feet in Outstanding Florida Waters, or 1,000 square feet outside of Outstanding Florida Waters, of emergent or submerged aquatic vegetation, naturally occurring oyster and clam beds or hard bottom communities by dock construction or boat mooring areas.

10. Be located to ensure that boat access routes avoid injury to natural resources or archaeological and historical sites in the surrounding areas.
11. Not substantially impede the flow of water or create a navigational hazard and meet all applicable federal navigation right-of-way and setback requirements.
12. Not include any aquaculture processing facilities, boat repair facilities or fueling facilities.
13. Mooring of non-aquaculture vessels to an aquaculture dock is prohibited.
14. Not infringe on the riparian rights and setback provisions of adjacent property owners pursuant to Rule Chapter 18-21, F.A.C., or extend across property lines on privately owned lands, except where applicant has received and provides to FDACS a copy of written permission from the adjacent property owner agreeing to the infringement.
15. Not extend waterward of the mean or ordinary high water line more than 500 feet or 20 percent of the width of the water body at that particular location, whichever is less.
16. Limit trimming of vegetation, such as mangroves, to the minimum necessary for construction of the access walkway, pursuant to 403.9326, F.S.
17. For all private residential single-family docks located in aquatic preserves; all docks located in Lake Jackson, Boca Ciega Bay or Pinellas County Aquatic Preserves; and all docks located in Biscayne Bay Aquatic Preserve shall comply with the applicable provisions of Rule Chapter 18-20, F.A.C., or Rule Chapter 18-18, F.A.C. The applicable rule provisions, whether more or less stringent, shall supersede the BMPs listed above.
18. If archaeological or historic artifacts are discovered within a construction site when constructing a dock over sovereign submerged lands, all activities involving subsurface disturbance in the vicinity of the discovery shall cease and the aquaculturist shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850) 245-6333 pursuant to Chapter 267.061(1)(b), F.S.

## VI. CONTAINMENT

A native species is a species within its natural range or natural zone of dispersal, within the range it could or would occupy without direct or indirect introduction by humans. Nonnative species are those species not indigenous or native to a particular area. Nonnative species identified as Restricted Species below require compliance with additional BMPs and written authorization annually by FDACS to culture these species at a certified facility. Aquaculturists are responsible for preventing the release of all cultured species to the environment. Changes in taxonomic nomenclature do not alter the regulatory status of a species.

Contact FDACS for approval before you import or add new species to your facility to verify facility requirements and the restricted or prohibited status of the organism. Species not currently in culture in Florida require the following information to be supplied to FDACS for review prior to culture or possession:

- 1) Taxonomic nomenclature
- 2) Planned source of stock
- 3) Biological information and culture history of species
- 4) Facility culture plans (life stage to be obtained, plan to breed or growing out smaller stock for market)
- 5) Containment measures
- 6) Target market (e.g. fry/fingerlings/food/ornamental/live/on ice/filleted/wholesale/retail etc.) **Note:** Do not provide cost, price, or buyer contact information.

### A. NATIVE SPECIES

Best Management Practices:

- All holding, transport, and culture systems at land-based facilities must be designed, operated and maintained to prevent the escape of cultured aquatic species into waters of the state. Any method of containment that will effectively prevent release or escape may be utilized.

### B. NONNATIVE SPECIES CONTAINMENT

Best Management Practices:

- All holding, transport, and culture systems must be designed, operated and maintained to prevent the escape of all life stages of nonnative aquatic species into waters of the state. Any method of containment that will effectively prevent nonnative species from being released may be utilized.

- Written authorization may be required from FDACS and/or the U.S. Fish and Wildlife Service prior to importing nonnative aquatic species from outside of Florida or the United States.

#### Lionfish Best Management Practices:

Although lionfish have never been aquacultured, the following BMPs are designed to limit the number of lionfish in Florida but still allow restricted grow out and sale of individuals legally harvested from Florida waters.

- The breeding or reproduction of lionfish (*Pterois spp.*) is prohibited regardless of the origin of the broodstock.
- Lionfish lawfully harvested in Florida waters or from adjacent federal waters pursuant to Rule 68B-5.006, F.A.C., may be possessed and grown out for sale at aquaculture facilities that meet the following containment requirements:
  - a. Lionfish cultured outdoors may only be held in culture systems that have the lowest point of the top edge of its levee, dike, bank, or tank at an elevation of at least one foot above the 100-year flood elevation determined by reference to elevation maps issued by the National Flood Insurance Program, U.S. Department of Homeland Security. Such culture systems shall have no water discharge or shall be constructed with a barrier system designed to prevent escape of adults, juveniles, and eggs in effluent water or into effluent treatment areas in the 100-year flood zone.
  - b. Lionfish cultured indoors may only be held in culture systems having no water discharge, having a water discharge through a closed drain system, or other system designed to prevent discharge of water containing adults, juveniles and eggs.
- Any escape or accidental release of lionfish, regardless of life stage, including eggs shall be immediately reported to FDACS.

#### C. RESTRICTED NONNATIVE SPECIES CONTAINMENT

The following species require approval prior to culture by obtaining a Restricted Species Authorization from FDACS:

- Bighead carp (*Aristichthys nobilis*)
- Grass carp (*Ctenopharyngodon idella*), with restrictions as provided in Rule 68A-23.088, F.A.C.
- Silver carp (*Hypophthalmichthys molitrix*)
- Snail or black carp (*Mylopharyngodon piceus*)

- Arowanas (Family Osteoglossidae, all species except silver arowana, *Osteoglossum bicirrhosum*).
- Bony-tongue fishes (Family Arapaimidae)
  1. Arapaima (*Arapaima gigas*).
  2. Heterotis (*Heterotis niloticus*)
- Dorados (Genus *Salminus*, all species)
- Freshwater stingrays (Family Potamotrygonidae, all species)
- Nile perches (Genus *Lates*, all species)
- Tilapia; only 4 species of tilapias are allowed for culture as follows:
  - a) Blue tilapia (*Oreochromis aureus*), except that *Oreochromis aureus* may be possessed, cultured, and transported without a Restricted Species Authorization in all counties east of Jefferson County.
  - b) Nile tilapia (*Oreochromis niloticus*), except that *Oreochromis niloticus* may be possessed, cultured, and transported without a Restricted Species Authorization in all counties east of Jefferson County.
  - c) Mozambique tilapia (*Oreochromis mossambicus*)
  - d) Wami tilapia (*Oreochromis urolepis*)
- Walking catfish (*Clarias batrachus*).
- Blue catfish (*Ictalurus furcatus*), except that blue catfish may be possessed in the Suwannee River and its tributaries and north and west of the Suwannee River.
- Australian red claw crayfish (*Cherax quadricarinatus*)
- Red swamp crayfish (*Procambarus clarkii*) and white river crayfish (*Procambarus zonangulus*).
- Northern largemouth bass (*Micropterus salmoides salmoides*), except that intergrade largemouth bass (northern largemouth bass x Florida largemouth bass *Micropterus salmoides floridanus*) may be possessed in the Suwannee River and its tributaries and north and west of the Suwannee River.
- Red-eared slider turtles (*Trachemys scripta elegans*): excluding distinctive aberrant color patterns, including albino or amelanistic specimens.

Facilities culturing restricted nonnative species must adhere to the following BMPs, as well as the BMPs listed for nonnative species. Additional containment requirements apply to organisms as listed below.

### Best Management Practices:

- Restricted nonnative species cultured outdoors may only be held in a water body which has the lowest point of its levee, dike, bank, or tank at an elevation at least one foot above the 100-year flood elevation as determined by elevation maps issued by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA).
- All holding, transport, and culture systems must consist of a solid construction, and be designed to prevent the escape of all life stages of aquatic species.
- The facility must have effective measures in place to prevent theft of restricted nonnative species.
- Live sale or transfer of restricted nonnative aquatic species or their hybrids is limited to those individuals specifically authorized by FDACS or FWC.
- Facilities must maintain records of all live purchases and/or all live sales of restricted species.
  - These records must include the date of shipment, name, address, and Aquaculture Certification of Registration number(s) of the supplier and the recipient if purchased or sold in Florida and a copy of the Restricted Species Authorization or Conditional Species Authorization for the buyer.
  - Records must be retained by the hatchery or farm and available for inspection for at least two years from the transaction.
- Written authorization must be obtained annually from FDACS to possess restricted nonnative species. Restricted species authorizations issued by FDACS expire on June 30 of each year and must be renewed annually. Any facility failing to maintain an active Aquaculture Certificate of Registration and restricted species authorization must legally and humanely dispose of any restricted species within their possession. Failure to do will result in referral to FWC.
- Restricted species may be taken on a fee or for-hire basis using hook and line or rod and reel so long as anglers are accompanied by an AQ facility representative, and no live restricted animals leave the facility unless that angler possesses a Restricted Species Authorization or Conditional Species Authorization for the restricted species.

The following Restricted species have additional aquaculture criteria as listed below:

- Nile perches (Genus *Lates*, all species including barramundi)
  - a) For owners of aquaculture facilities that are operating under permit or a certificate of registration, but which are not cultivating Nile perches as of April 11, 2007, and for owners of aquaculture facilities which are issued



original permits or certificates of registration after April 11, 2007, Nile perches shall be held only in indoor facilities and shall not be taken on a fee or for-hire basis using hook and line or rod and reel.

b) Facilities must be constructed to prevent the release of animals during a disaster.

c) Culture systems shall have no outdoor water discharge.

- Northern largemouth bass (*Micropterus salmoides salmoides*) must meet restricted species containment requirements throughout Florida.
- Intergrade largemouth bass (northern largemouth bass x Florida largemouth bass *Micropterus salmoides floridanus*) must meet restricted species containment requirements at facilities south and east of the Suwannee River.
- Australian red claw crayfish (*Cherax quadricarinatus*), red swamp crayfish (*Procambarus clarkii*) and white river crayfish (*Procambarus zonangulus*)
  - a) Culture is limited to tank culture in an enclosed structure. Pond aquaculture of these species is prohibited.
  - b) All systems will be designed to meet the minimum requirements set forth above, as well as preventive measures to assure that the species is unable to escape indoor systems or crawl out of the tank system.
  - c) Effective containment measures must be in place for all system water leaving the enclosed structure to ensure containment of all life stages.
- Restricted red ear slider turtle (*Trachemys scripta elegans*)
  - a) Culture in outdoor facilities is limited to systems integrating a permanent containment barrier secured at least six inches below ground level to prevent escape by digging or erosion.
  - b) Containment barriers shall be constructed of solid material, or its equivalent, and shall be secured in place. Mesh or degradable material cannot be used for the containment barrier.

#### D. ALTERNATIVE CONTAINMENT PRACTICES

Any system may be utilized as long as it meets the containment requirements above

- No discharge or zero discharge production systems are designed to ensure that water from the production unit is not discharged from the facility. This includes design parameters and management practices to ensure that stormwater does not cause the system to discharge.

- Screened discharge systems utilizing screen or filter devices at the point of production unit discharge or at the point of discharge from the operation or effluent treatment facility (such as a detention or retention pond). A screen or filter device must be sized so as to retain the smallest size fish or egg. Examples of screened/filter systems include a series (multiples are used to ensure at least one screen is in place while others are cleaned) of mesh screens capable of screening all water, a dry bed filter constructed with gravel and sand to trap eggs and fish, a commercially available micro screen solids filter, or a pond trap with screened discharge.
- Disinfection or sterilization techniques such as ultraviolet light (UV), ozone or chlorine may be utilized in conjunction with the above mentioned methods to ensure that live organisms do not escape the facility.
- Use of biological controls (e.g., stocking detention ponds with native predatory fish such as largemouth bass).

#### E. PROHIBITED SPECIES

Best Management Practice:

- Anytime a prohibited species is discovered at a certified facility without FWC authorization via a permit, it is to be immediately euthanized and properly disposed of.

#### **Prohibited aquatic species are not eligible for possession or culture in Florida.**

Prohibited species are identified in Aquatic Plant Importation, Transportation, Non-Nursery Cultivation, Possession and Collection, Rule 5B-64.011, F.A.C. and the aquatic species listed below.

- African electric catfishes (Family Malapteruridae, all species).
- African tigerfishes (Genus *Hydrocynus*, all species).
- Airbreathing catfishes (Family Clariidae, all species except *Clarias batrachus*).
- Candiru catfishes (Family Trichomycteridae, all species).
- Freshwater electric eels (*Electrophorus electricus*).
- Lampreys (Family Petromyzontidae, all species).
- All species of piranha and pirambeba (subfamily Serrasalminae).
- Snakeheads (Family Channidae, all species).
- Tilapias (Genera *Tilapia*, *Sarotherodon*, *Alcolapia* and *Oreochromis*, all species except *Oreochromis aureus*, *Oreochromis urolepis*, *Oreochromis mossambicus*, and *Oreochromis niloticus*).
- Trahiras or Tigerfishes (Family Erythrinidae, all species).
- Airsac catfishes (Family Heteropneustidae, all species).
- Green sunfish (*Lepomis cyanellus*).
- Australian crayfish (Genus *Cherax*, all species except *Cherax quadricarinatus* cultured in a closed tank system).

- Zebra mussel (*Dreissena polymorpha*).
- Quagga mussel (*Dreissena bugensis*).
- Mitten crab (Genus *Eriocheir*, all species).
- Sea snakes (Family Hydrophiidae, all species)
- Weeverfishes (Family Trachinidae, all species).
- Stone fishes (Genus *Synanceia*, all species).
- Pitted stonefish (*Erosa erosa*).
- Red rock cod (*Scorpaena papillosa*).
- Stonefish (*Leptosynanceia asteroblepa*).
- Stargazing stonefish (*Trachicephalus uranoscopus*).

#### F. TRANSGENIC SPECIES

Transgenic aquatic organisms are defined as organisms whose genomes have been modified by the introduction or deletion of specific genetic material. Organisms created by hybridization or polyploidy techniques do not fall under this definition.

Best Management Practices:

- Certified aquaculturists must supply information to FDACS describing:
  - 1) facility design
  - 2) production system design
  - 3) containment measures
  - 4) Federal Agency review
  - 5) biological information
  - 6) genetic construct and development process
  - 7) genetic construct introduction and organism information
  - 8) gene construct expression information
  - 9) related human health information
  - 10) survival and persistence studies
- Certified aquaculturists must apply to and receive from FDACS, written authorization prior to culturing transgenic aquatic species. Authorization will only be considered:
  - 1) after all requested information is provided;
  - 2) after the Department has reviewed all other information that has been submitted by the public; and
  - 3) if upon review of all the foregoing it can be determined that authorization will not pose a threat to the public health, safety, and welfare.
- Certified aquaculturists must adhere to all stipulations required in the FDACS written letter of authorization.

## VII. MARINE NET PENS AND CAGES

Net pens and cages are submerged, suspended, floating or other holding systems that utilize a netting (fiber or metal) to contain and culture marine fish or crustaceans. This chapter pertains only to the operation of net pens or cages (hereinafter referred to as “net pens”) that are located in the marine waters of the State of Florida.

Net pen operations must acquire: 1) an annual Aquaculture Certificate of Registration; 2) a sovereignty submerged land and water column lease; and 3) if the aquaculture facility produces more than 100,000 pounds of live weight product annually, a National Pollution Discharge Elimination System (NPDES) permit. Bivalve molluscs (clams, mussels, scallops or oysters) being produced for sale as food for human consumption can only be cultured within the boundaries of state managed Shellfish Harvesting Areas. Contact FDACS for Aquaculture Certificate of Registration, sovereignty submerged land and water column lease, and shellfish harvest area, harvesting, and processing information. Contact the Florida Department of Environmental Protection, Industrial Wastewater Program, for NPDES permit information.

Net pen operators who do not operate their aquaculture facilities in compliance with the sovereignty submerged land and water column lease conditions and this *Aquaculture Best Management Practices Manual* risk the revocation of the lease instrument and/or Aquaculture Certificate of Registration and enforcement action including administrative fines.

### A. SITE SELECTION

Appropriate site selection for net pens is critical for the minimization of potential environmental impacts, and optimal fish health and performance. Wise site selection has significant potential to reduce the risk of net pen environmental impacts. With the exception of site selection, net pen farm operators have little ability to control the environmental conditions their fish may experience. Sites with frequent, extreme weather or sea-state conditions that would limit the grower’s access to the farm site and cultured animals should be reconsidered. Harmful algal blooms (i.e., red tide) are common in Florida waters. Net pen operators should investigate red tide history for the location that they are considering.

In addition to BMP compliance, the Division of Aquaculture will review Aquaculture Certificate of Registration applications based upon their relative distance to other net pens that may be in the area to assess potential cumulative environmental impacts. The number of net pens or their configuration in certain marine environments may require additional environmental, farm design or production information from the applicant to determine potential cumulative environmental impacts.

Best Management Practices:

- Evaluate each potential farm site to ensure that environmental conditions on the farm site are appropriate for the species being considered for culture and the equipment proposed for use.

- A Farm Site Plan that maps the location of the net pens, anchoring, and feeding systems must be submitted with an Aquaculture Certificate of Registration application to FDACS. Net pens and anchors must be mapped using Global Positioning System (GPS) or latitude/longitude coordinates. The Farm Site Plan must be maintained, updated and made available for review by FDACS personnel during compliance inspections.
- Select sites with good water exchange, sufficient depth, and adequate current velocity.
- Sites must have a sand or mud bottom.
- Sites for polyculture of finfish and filter-feeding shellfish (mussels, clams, oysters or scallops) can only occur in Shellfish Harvesting Areas classified and managed by FDACS. This is not a requirement where shellfish are being used solely for the ecological benefits they provide and will not be sold as a food product.
- Contact FDACS for information about shellfish harvest areas, harvesting, and processing.

#### B. FEED MANAGEMENT

Waste feed and fish feces constitute most of the wastes generated by a net pen farm. An effective way to reduce the potential environmental impact of net pens is to aggressively and proactively manage feed selection, distribution and utilization.

Effective feed management is based on two components: waste reduction and optimal feed conversion ratio. Waste reduction focuses on ensuring that feed used by the farm is not lost or discharged prior to intake by the fish. Optimal conversion focuses on ensuring that all feed offered to the fish is actually consumed, digested, and utilized. Monitoring long- and short-term changes in feed conversion ratios allows farmers to quickly identify significant changes in feed consumption and waste production rates in individual net pens.

Best Management Practices:

- Operate feed storage, handling, and delivery methods to minimize waste and the creation of fine particles of feed.
- Maintain feed conversion ratio records by using feed and fish biomass inventory tracking systems.
- Minimize nutrient and solids discharges through optimization of efficient feed formulations. Use formulations designed to enhance nitrogen and phosphorus retention efficiency, and reduce metabolic waste output.
- Feed manufacturer labels, or copies thereof, must be retained for the prior two years of operation. Labels must be made available for review by FDACS personnel during

compliance inspections.

- Use efficient feeding practices, monitor active feed consumption, and reduce feed loss. The appropriate quantity and type of feed for a given species is influenced by fish size, water temperature, dissolved oxygen levels, health status, reproductive status, and management goals. Feed particle size should be appropriate for the size of fish being fed. Feeding behavior must be observed to monitor feed utilization and evaluate health status.
- Maintain and properly operate feeding equipment.
- Feeding at slack tide is prohibited.
- Conduct employee training in fish husbandry and feeding methods to ensure that workers have adequate training to optimize feed conversion ratios.
- Wherever practical, interactive feedback feeding systems such as video, “lift-ups,” Doppler, sonar, infrared, or equivalent methods should be used to monitor feed consumption, and reduce feed waste.
- Color video or still photographic surveys will be conducted twice per year (January 1 and June 30) of the sea floor under and adjacent to each net pen on a 100 meter transect up the prevailing current from the edge of the net and 100 meters down the prevailing current from the edge of the net pen to determine solids loadings and whether eutrophication of the local environment is occurring as a result of food loss and fish excretion. Monitoring will include recording the date(s) on which monitoring was conducted, a site schematic of the video track(s) or still photos in relation to the net pen, and Global Positioning System (GPS) locations of the beginning and end points for the transects. The video survey shall be continuous. Still photographs shall be taken at least every 5 meters. The video or photographic survey will document sediment type and color as well as features such as erosional and depositional areas, flora and fauna and their relative abundance, feed pellets, and any other manmade debris. Images shall be of sufficient detail and clarity to allow for the accurate assessment of benthic conditions. The camera must be positioned at a height above the substrate that will provide approximately one square meter of bottom coverage and illuminated with sufficient artificial light to enable the accurate identification of epibenthic organisms and sediment conditions. A brief written narrative with the tape or photographs describing current speed and direction and reference points shall be included. The tape or photographs with narrative will be submitted to FDACS within 60 days of the survey completion.
- The feeding of wet feeds (ground or whole fish or shellfish and other raw meat or plant materials) is prohibited.
- Physical disturbance of the bottom such as harrowing, dragging or other mechanical means shall not be used to mitigate the benthic impacts of feed or fish excretion.

### C. SOLID WASTE MANAGEMENT AND DISPOSAL

Sources of solid waste include biofouling organisms that colonize nets, mortalities, feedbags, packaging materials, scrap rope and netting, worn or broken net pen structural components, and other miscellaneous items. Net pen operators must make every effort to collect and properly dispose of solid waste.

Proper fish health management is the best means for reducing costly mortalities in net pens. Optimizing fish health will reduce the need to deal with dead fish. Even under optimal conditions some mortality will occur. Net pens, by their very design, contain and collect mortalities and this result facilitates mortality monitoring and their timely removal.

Best Management Practices:

- Develop a Solid Waste Management plan. This plan must identify all wastes generated on a site or from an aquaculture facility. The Solid Waste Management Plan must be submitted with an Aquaculture Certificate of Registration application and maintained, implemented, and made available, upon request, to FDACS personnel. At a minimum, waste management plans must address:

- Human waste
- Feedbags
- Scrap rope
- Scrap netting
- Buoys and weights
- Fish mortalities
- Spoiled feed
- Packaging materials
- Fouling organisms
- Any other solid waste

- Mortalities will attract predators and contribute to fish health problems. Mortalities must be collected regularly and as frequently as possible (weather permitting) to avoid accumulation at the net pen bottom.
- Farmers must use collection and removal methods that do not stress remaining animals or compromise net integrity. Mortalities must be stored and transported in closed containers with tight fitting lids. Mortalities must be returned to shore, disposed of and notification given in accordance with Chapter XV, Disposal of Dead Animals.
- Farmers must avoid the discharge of substances associated with in-place net cleaning. Implement gear and management strategies to reduce biofouling that will minimize or eliminate the need for onsite net cleaning. Strategies may include, but not be limited to: stocking mullet (*Mugil spp.*), sheepshead (*Archosargus probatocephalus*), or similar

native species in the net pen to biologically control fouling, use of fouling resistant materials (e.g., copper alloy netting), net changing, rotating cage designs, or the application of antifoulant coatings.

- Onsite mechanical cleaning must include methods to prevent the accumulation of solids on the sea floor or the release of solids that cause or contribute to water quality impairment.
- The use of biocidal chemicals for cleaning nets on site is prohibited.
- Copies of antifoulant coating product labels must be provided to FDACS prior to use. Antifoulant coating use and restrictions as described in Chapter 376, Pollutant Discharge Prevention and Removal, F.S.; Chapter 487, Pesticide Regulation and Safety, F.S.; Federal Insecticide, Fungicide and Rodenticide Act, Title 7, Chapter 6, Code of Federal Regulations; and Organotin Antifouling Paint Control Act, Title 33, Chapter 37, Code of Federal Regulations must be followed. The use of organotin or petroleum based antifoulant products such as creosote, oils, bitumen, coal tar, or greases are prohibited.
- All feed bags, spoiled feed, packaging materials, waste rope and netting, or worn structural components must be collected, returned to shore and disposed of properly. Recycling is strongly encouraged.

#### D. ESCAPE MANAGEMENT

The escape of cultured species may pose a variety of potential risks to marine species and ecosystems or unrelated economic activities. Three effective ways to reduce potential environmental impacts by escapees are prevention, genetic compatibility or genetic isolation.

Prevention involves proactively reducing the potential causes of escape. Escape risks associated with net pen aquaculture in areas inhabited by large number of sharks is high and the success of the operation will depend on the implementation of efficient yet passive and environmentally-sound methods of predator deterrence. In tropical and subtropical waters all over the world, sharks attack dead fish that sink to the bottom of net pens. Shark attacks can tear holes into the netting that are large enough to allow fish to escape. Sharks are common in Florida waters. For these reasons, efficient methods of predator control such as anti-predator netting are required. Escape response actions such as mortality removal, net repair and animal recovery plans, will help mitigate the impact of escapes. All net pen farm operators must continuously strive to reduce escape risk through net pen maintenance and frequent net pen structural monitoring.

Genetic compatibility can be achieved through implementation of the following BMPs and consultation with FDACS. Genetic isolation is accomplished by using sterile stock or strains that are unable to interbreed with wild fish or unlikely to survive in the wild.



## Best Management Practices:

- Net pen culture of species not native to Florida waters or transgenic species is prohibited.
- Net pen facilities must maintain documentation identifying the source of all eggs, fry, fingerlings or adult fish for at least two years. These records must be available for inspection by FDACS staff upon request.
- If genetic studies are not available that indicate broodstock are genetically similar to and originate from the same genetic stock as conspecific wild animals in the net pen locality, the following requirements for broodstock animals apply: 1) broodstock must originate from waters of the Gulf of Mexico east of the Mississippi River outflow to produce juveniles for stocking net pens in state waters of the Gulf or broodstock must originate from waters of the Atlantic Ocean to produce juveniles for stocking net pens located in state waters of the Atlantic and, 2) broodstock for pelagic species may only be collected within a 300 kilometer (186 mile) radius distance from the net pen site or broodstock for estuarine species may only be collected within a 100 kilometer (62 mile) radius distance from the net pen site.
- Obtain a Special Activity License from the Florida Fish and Wildlife Conservation Commission for the collection of wild broodstock pursuant to Rule Chapter 68B-8, F.A.C., Marine Special Activity License Program.
- The intentional release of fish or shellfish to state waters beyond the confines of the net pens is prohibited unless a Special Activity License from the Florida Fish and Wildlife Conservation Commission has been obtained pursuant to Rule Chapter 68B-8, F.A.C., Marine Special Activity License Program.
- Loss-Control and Escape Recovery Plan must be submitted with an Aquaculture Certificate of Registration application and maintained, implemented and made available to FDACS personnel during compliance inspections. Plans must include a site-specific analysis of the potential risks of escapes, their causes, and the specific procedures employed by the farm to reduce risk. Loss-control plans must be designed to address the principle causes of escape (equipment failure, operational errors, and predator attacks) and must include: 1) minimum equipment and operating standards; 2) emergency repair procedures; 3) escape recovery procedures; 4) practices and equipment that reduce the need for predator reduction/destruction (i.e., anti-predator nets or equivalent equipment); and (5) preparations for severe weather (i.e., hurricanes). The Loss Control and Escape Recovery Plan must include a notification procedure to inform FDACS when fish are not recovered following an escape.
- The facility manager or designated representative will report, within 24 hours, any escape to FDACS. The report must include species identification, approximate size and number of fish, and location.

- Fish transfers such as stocking, grading, transfer, or harvest must be conducted in appropriate weather conditions and under constant visual supervision. Equipment appropriate to the weather and net pen or cage designs must be used. Where necessary or appropriate, shields or additional netting must be used to prevent stray fish from escaping during transfer.
- All holding, transportation, and culture systems must be designed, operated and maintained to prevent escape. Implement Chapter XVII Shipment, Transportation and Sale.
- All nets in use must be made from ultraviolet light stabilized compounds.
- Net pen design, specification, and installation must be commensurate with the prevailing conditions and capable of withstanding the maximum weather and sea conditions prevailing at the site. A written statement from the net pen manufacturer certifying that net pen(s) have been assembled and moored to their specifications must be available to FDACS personnel during compliance inspections.
- To prevent fish from jumping out of the primary containment nets, surface net pens must have jump nets installed that are an appropriate height for the species being cultured.
- Nets must be secured to the cage collar such that the collar bears the strain and not the handrail of the net pen.
- Net weights, when used, must be installed to prevent chafing. A second layer of net must be added one foot above and below wear points. The use of weight rings is recommended at appropriate sites.
- A Net Pen Structure and Mooring System Preventative Maintenance Program must be submitted with an Aquaculture Certificate of Registration application and maintained, updated, implemented and made available to FDACS personnel during compliance inspections. The program must have the ability to: 1) identify individual nets, net pen structures, mooring systems and 2) schedule and document regular maintenance and testing. Nets or net pen structural components that fail testing standards must be retired and disposed of properly. The program must document regular maintenance and repair: the nature of the maintenance or repair, date conducted, any supporting documentation for new materials used, and the identity of the individuals or firms that conducted the maintenance.
- Mooring system designs must be compatible with the cage systems they secure. Mooring systems must be installed in consultation with the net pen manufacturer or supplier. Mooring system design, specification and installation must be commensurate with the prevailing conditions and capable of withstanding the maximum weather and sea

conditions prevailing at the site. A mooring system schematic must be included and updated as a component of the Farm Site Plan. Design maximums must be recorded in the Net Pen Structure and Mooring System Preventative Maintenance Program.

- Facility operators must inspect and adjust mooring systems on a biannual basis and prior to and immediately following a tropical storm or hurricane. New components must undergo their first inspection no later than six months after deployment. A diver or remote camera must regularly and visually inspect subsurface mooring components. Special attention must be given to connectors and rope/chain interfaces. Chafe points must be identified, inspected, and biofouling removed. With the exception of anchors, mooring systems must be hauled out of the water for a visual inspection of all components at least every five years. When considering what inspection method to employ, net pen operators must consider the relative risks and benefits associated with the inspection method.
- Shackles used in mooring systems must be either safety shackled, wire-tied, or welded to prevent pin drop-out.
- Where appropriate, bird nets must be used to cover net pens in order to reduce the risk of escape due to bird predation. Bird nets must be constructed using appropriate materials and mesh sizes designed to reduce the risk of bird entanglement. Implement Chapter XVI Preventing Wildlife Depredation.
- Develop a service vessel Standard Operating Procedure (SOP). Vessel operations around a net pen site can cause escapes. All vessel operators must receive appropriate training in the operation of the vessel. The service vessel SOP must be made available to FDACS prior to compliance visits.

#### E. AQUACULTURE FACILITY OPERATIONS AND MAINTENANCE

Net pen farms are expensive to install and operate. Operators are subject to elevated public scrutiny because they are located in and actively utilize public waters. Net pen farms operate in these public waters under the provisions of sovereignty submerged land and water column lease instruments and an Aquaculture Certificate of Registration that can be revoked by the State of Florida. Net pen operators who do not operate their facilities in compliance with lease conditions and the *Aquaculture Best Management Practices Manual* directly jeopardize their investment and risk the revocation of the lease instrument and/or Aquaculture Certificate of Registration and enforcement action including administrative fines.

Best Management Practices:

- Farmers must conduct annual, systematic reviews of their operations and provide those reviews to FDACS personnel during compliance inspections.

- When considering modifications to existing farming practices, procedures or structures, growers must conduct a review of the type and extent of probable environmental impacts that may occur as a result of the new methods and amend their existing operational practices to mitigate potential impacts.
- When conducting activities such as stocking/seeding, harvesting, feeding, grading, thinning, transfer, cleaning, gear maintenance or fallowing, all standard operating procedures must include diligent efforts to minimize probable environmental impacts.
- Comprehensive stocking and production strategies that optimize production while minimizing environmental impacts must be used. Production planning must include a systematic review of any probable and cumulative environmental impacts that would be associated with a particular production plan or method.
- Nets and moorings must be maintained in a whole and intact condition. No gear may be abandoned. Storage of nets or gear on the bottom is prohibited. Any net or gear accidentally dropped or lost during storm events that is not recovered immediately shall be tagged with a float, positioned using differential Global Positioning System, and reported to FDACS within 24 hours. The lost net or gear shall be recovered within 30 days of the date lost. FDACS shall be notified on the date the net or gear is recovered.
- 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 entangling finfish, decapod crustaceans, sea birds, marine mammals, and sea turtles.
- Maintain and make available to FDACS, upon request, a Marine Entanglement Log for finfish, decapod crustaceans, sea birds, marine mammals, and sea turtles. The Log should identify the species, size, number, date of entanglement, and disposition of the species.
- Consider potential impacts on water circulation patterns when installing net pens and their associated mooring systems. Gear deployment must optimize circulation patterns and maximize water exchange through the pens, thereby improving fish health and reducing benthic impacts.
- Design and operate harvest procedures and equipment in a fashion that reduces any associated discharges. Harvest and post-harvest vessel and equipment clean-up procedures must minimize wastes discharged overboard.
- Farm support vessels must be fueled at licensed fueling stations.
- All fuel or oil spills must be reported as required by law to the appropriate state and federal authorities. Appropriate clean-up and repair actions must be initiated as soon as possible.

- Farm support vessels of the appropriate size must have approved Marine Sanitation Devices (MSD) on board. All human wastes must be disposed of according to applicable state and federal regulations.

#### F. HEALTH MANAGEMENT

Aquatic animal health management involves proactively managing culture species, pathogens and the environment to optimize conditions for growth and health. Strategies to prevent and/or mitigate risk factors which adversely impact animal health are critical for effective health management. Open water systems, such as net pens or lease sites present a concern for the exposure of pathogens, both to and from wild animals.

Best Management Practices:

- Identify pathogens and non-infectious issues of concern for species being cultured and develop strategies to mitigate the risk.
- Net pen facilities must maintain documentation identifying the source of all eggs, fry, fingerlings or adults.
- All stocking of live aquatic organisms, regardless of life stage, must be accompanied by an Official Certificate of Veterinary Inspection signed by a licensed and accredited veterinarian attesting to the health of the organisms to be stocked.
- Minimize cross-contamination between groups/lots of organisms through cleaning and disinfection of equipment and biosecurity practices.
- Implement quarantine/isolation or disinfection procedures to reduce the risk of pathogen translocation.
- Facilities must notify their aquatic animal health professional and the Florida Department of Agriculture and Consumer Services (FDACS), Division of Animal Industry, State Veterinarian's Office in the event of a suspected or diagnosed outbreak of a State or Federal notifiable disease or pathogen at (850) 410-0900, or after hours at 1-800-342-5869, or by email at RAD@FDACS.gov.
- Health management records must be a component of the farm records and include behavioral changes, other clinical signs of disease, treatment procedures, and unusual morbidity and mortality events. These records must be retained for at least two years and will be made available for inspection by FDACS upon request.

- Implement the requirements of Chapter X Shellfish Culture, Chapter XIV Aquatic Organism Health Management, Chapter XVIII Aquaculture Chemical and Drug Handling, and Chapter XIX Aquatic Animal Welfare.

#### G. RECORD KEEPING

Farm Records identified in this chapter must be updated, maintained and made available to FDACS personnel during compliance inspections or upon request by FDACS. Farmers may keep and analyze additional records related to feeding, chemical use, water quality, serious weather conditions, fish culture operations, and inventory to facilitate improvements in the efficiency of farm input use. Such records must be reviewed by the farmer periodically to determine if they are useful and to provide insight into opportunities to improve farm operations.

##### Best Management Practices:

- Maintain the records required by the *Aquaculture Best Management Practices Manual* for a minimum of two years in a form readily and immediately available to FDACS personnel during compliance visits or to FDACS upon request.
- The processes and procedures utilized to collect and analyze environmental data (physical, chemical or biological) must be documented in a Quality Assurance Project Plan. Farm operators must submit such plans to FDACS during the aquaculture certification process.

## **VIII. PENAEID SHRIMP CULTURE**

Penaeid shrimp aquaculture technology is in a process of continual evolution, evaluation and improvement. These BMPs are intended to help penaeid shrimp producers set high standards and maintain environmental compatibility.

### **A. CONTAINMENT**

Systems must be designed to accommodate rainfall events and to prevent stormwater from causing the escape of cultured shrimp and discharge of production waters into waters of the State. Similarly, aquaculture production units and aquaculture systems must be designed to prevent native species and other unwanted species from entering the system and interacting with domesticated animals.

Best Management Practices:

- Selling or using live, nonnative penaeid shrimp as bait is prohibited.
- Sales of live nonnative penaeid shrimp must be accompanied with a written statement informing the purchaser that selling or using live, nonnative penaeid shrimp as bait is prohibited and the release of nonnative species is prohibited by Rule 68-5.001, F.A.C.
- All holding, transport, and culture systems must be designed, operated and maintained to prevent the escape of all life stages of nonnative aquatic species into waters of the State.
- Any escape of cultured penaeid shrimp from a certified facility into waters of the State must be reported within 24 hours, with the details of the release to FDACS.

### **B. EFFLUENT TREATMENT**

Offsite discharge to surface waters of the state must follow these treatment practices.

Best Management Practices:

- Discharge of effluents from marine shrimp production facilities must comply with the BMPs stated in Chapter IV, Water Resources, subsection E, Effluent Treatment.
- Penaeid shrimp production facilities must place screens with mesh sizes sufficient to prevent escape of all life stages of cultured shrimp at all discharge control points.
- All production water must be contained, chlorinated and otherwise sanitized prior to discharge in the event of an outbreak of any notifiable or reportable pathogen as, determined by the World Organisation for Animal Health (WOAH, founded in 1924 as the Office International des Epizooties (OIE)), United States Department of Agriculture,

Animal and Plant Health Inspection Service Veterinary Services (USDA APHIS VS), or the State Veterinarian.

- Use redundant barrier, containment or disinfecting procedures.

### C. PENAEID SHRIMP HEALTH

#### Best Management Practices:

- All live penaeid shrimp, regardless of life stage, sold to an aquaculture certified Florida facility/operator must be accompanied by diagnostic results from an accredited laboratory.
  - Diagnostic results are valid for 30 days following testing.
  - Diagnostic results must identify the type of tissue sampled, the type of test performed for each pathogen and the dates of such testing for all notifiable or reportable pathogens for penaeid shrimp as determined by the WOA, USDA APHIS VS or the State Veterinarian.
- All live penaeid shrimp, regardless of life stage, and gametes transferred to a certified aquaculture facility must be accompanied by a signed Official Certificate of Veterinary Inspection (OCVI) from a licensed and accredited veterinarian.
  - An OCVI is a legible certificate made on an official form from the animal's state of origin, issued and signed by veterinarians licensed and accredited in the animal's state of origin for the purpose of certifying the test requirements and health status of specific animals for movement.
  - An OCVI is valid for 30 days following issuance by the veterinarian.
  - Intrastate shipments of all live penaeid shrimp, regardless of life stage, and gametes transferred to a certified Florida aquaculture facility must be accompanied by an OCVI using form FDACS-09000, which is incorporated by reference into Rule 5C-24.003, F.A.C. The form can be ordered from the FDACS, Division of Animal Industry, State Veterinarian's Office by contacting the Bronson Animal Disease Diagnostic Laboratory at (321) 697-1400 or via email at [DiagLab@FDACS.gov](mailto:DiagLab@FDACS.gov).
- OCVIs and diagnostic results must be submitted to FDACS for approval a minimum of two business days prior to shipment. Submit documents to FDACS via email at [Aquaculture\\_Health@FDACS.gov](mailto:Aquaculture_Health@FDACS.gov).



- Native shrimp obtained for broodstock must be isolated from the remaining stocks in the hatchery until their health status is verified.
- All health management documentation and records must be retained for at least two years by certified aquaculturists. These records will be made available for inspection by FDACS request.
- Certified aquaculturists and/or their aquatic animal health professional will notify the FDACS Division of Animal Industry, State Veterinarian's Office, at (850)-410-0900, or after hours at 1-800-342-5869, or by email at RAD@FDACS.gov in the event of a suspected or confirmed finding of any notifiable or reportable pathogen as determined by the World Organisation for Animal Health (WOAH), USDA APHIS VS, or the State Veterinarian. Reporting must be done within 24 hours of the suspicion of disease.

**See Appendix for complete list of all required BMPs for shrimp**

## **IX. STURGEON CULTURE**

Sturgeon aquaculture is a capital intensive, high-risk effort requiring the holding of sturgeon for five to eight years in culture before product is available for market. Very thorough investigation and planning is encouraged before investing in land and production systems.

### **A. SPECIES**

Best Management Practices:

- Live Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) cannot be sold or transferred to the aquarium/ornamental fish trade.
- Certified aquaculture facilities culturing sturgeon must retain for at least two years U.S. Fish and Wildlife and/or Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) sturgeon permits or importation documents for inspection by FDACS representatives.

### **B. CONTAINMENT**

Best Management Practices:

- Facilities must be designed, operated and maintained with geographical and/or physical barriers in place to prevent the escape of cultured sturgeon.
- In the event of an escape of sturgeon into surface waters of the State, the facility manager or designated representative must report the escape within 24 hours to FDACS. The report must identify the species, approximate size and number of fish, exact location of the escape, the name of the receiving body of water, and, if production water was lost as well, the approximate volume of water.
- Outside facility construction within the 100-year flood zone as delineated by FEMA - Flood Insurance Rate Maps is discouraged. However, if any portion of the outside facility is to be constructed within the 100-year flood zone, the facility must be designed so that the minimum control elevation is at least one foot above the 100-year flood elevation.
- Physical barriers or management practices must be designed/implemented to prevent the escape of all life stages of sturgeon to surface waters of the State.
- Containment features include:
  - Containment berms.
  - Covered tanks/ponds containing fish weighing less than four pounds.
  - Native predator stocked retention/detention ponds.

- Screened discharge pipes with proportionately sized screen mesh to contain all life stages in the pond.
- Redundant barriers, containment or disinfecting procedures.

C. STURGEON HEALTH

Best Management Practices:

All imports of live sturgeon must be accompanied by an Official Certificate of Veterinary Inspection (OCVI). An OCVI is a legible certificate made on an official form from the animal's state of origin, issued and signed by veterinarians licensed and accredited in the animal's state of origin for the purpose of certifying the test requirements and health status of specific animals for movement. An OCVI is valid for 30 days following issuance by the veterinarian.

OCVI and diagnostic results must be submitted to FDACS for approval a minimum of two business days prior to shipment using form FDACS-09000, which is incorporated by reference into Rule 5C-24.003, F.A.C. The form can be ordered from the FDACS, Division of Animal Industry, State Veterinarian's Office by contacting the Bronson Animal Disease Diagnostic Laboratory at (321) 697-1400 or via email at [DiagLab@FDACS.gov](mailto:DiagLab@FDACS.gov). Submit these documents to FDACS via email at [Aquaculture\\_Health@FDACS.gov](mailto:Aquaculture_Health@FDACS.gov).

- The facility must maintain for inspection, documentation identifying the source of all adult fish, fingerlings, fry, and eggs of sturgeon imported into the state for at least two years.
- Facilities should notify the FDACS, Division of Animal Industry, State Veterinarian's Office in the event of disease or other suspected pathogens observed in cultured stocks at (850) 410-0900, or after hours at 1-800-342-5869, or by email at [RAD@FDACS.gov](mailto:RAD@FDACS.gov).
- Aquaculturists should also contact the Division of Aquaculture before disposing of sturgeon manifesting signs of disease.
- Health management records must be a component of the farm records and include behavioral changes, other clinical signs of disease, treatment procedures, or unusual morbidity and mortality events. These records must be retained for at least two years and made available for inspection by FDACS upon request.

**See Appendix for complete list of all required BMPs for sturgeon.**

## **X. SHELLFISH CULTURE**

For the purpose of this manual, shellfish refers to clams, mussels, scallops, and oysters. Shellfish culture occurs primarily on sovereignty submerged lands leased from the State of Florida. In addition to inspecting farms for compliance with the aquaculture BMPs, FDACS accepts applications to lease sovereignty submerged state lands and regulates and inspects shellfish processing plants for compliance with shellfish handling, labeling and food safety requirements.

A U.S. Army Corps of Engineers Programmatic General Permit (SAJ-99), Live Rock and Marine Bivalve Aquaculture in the State of Florida, authorizes farmers that hold an Aquaculture Certificate of Registration and comply with the Aquaculture Best Management Practices, Sovereignty Submerged Lands Lease Agreement, and Special Conditions described in the Programmatic General Permit to deposit materials and other works in the waters of the State of Florida. Aquaculturists that cannot comply with the Programmatic General Permit must acquire an Individual Permit and should contact FDACS for information or assistance.

### **A. RESOURCE PROTECTION**

Perform all aquaculture activities in such a manner so that there will not be adverse impacts on resources such as corals; emergent and submerged aquatic vegetation; mangrove species; coastal and freshwater wetlands; oyster bars or clam beds; archaeological and historical sites; endangered or threatened species and their designated critical habitat; and shore or seabird nesting sites.

### **B. GENETIC PROTECTION**

The following BMPs are to protect endemic shellfish populations and farmed shellfish stocks from potentially deleterious effects of introduced genes from non-indigenous shellfish. They should be employed during all production and transport phases to provide responsible resource management.

Best Management Practices:

- Only indigenous or hybrids of indigenous shellfish may be cultivated on submerged lands. Each Aquaculture Certificate of Registration holder shall notify the Division of the species of shellfish being cultured in Florida waters.
- All shellfish must be transported or shipped in distinct containers identified by the producer's Aquaculture Certificate of Registration Number and be kept separate from any harvested wild shellfish.

- Aquaculturists who intend to sell or use clam seed stocks for further grow-out in the State of Florida must use broodstock which originated from Florida waters.
- Oyster seed produced utilizing Atlantic Coast waters or from shellfish broodstock exposed to Atlantic Coast waters can only be placed for grow-out in Florida Atlantic Coast waters. A statement to this effect must be included on all sales documentation provided to Florida aquaculturists.
- Aquaculturists producing diploid oyster seed to sell or use as stocks for grow-out in Florida Gulf Coast waters must use broodstock which originated from Florida Gulf Coast waters. Submittals for out-of-state imports must include documentation of this information with the import submittal.
- Aquaculturists producing diploid oyster seed to sell or use as stocks for grow-out in Florida Atlantic Coast waters must use broodstock which originated from Florida Atlantic Coast waters. Submittals for out-of-state imports must include documentation of this information with the import submittal.
- Aquaculturists producing triploid oysters, derived from a tetraploid crossed with a diploid, which originated from Gulf Coast waters may be sold or used for grow-out in Florida Gulf Coast and Atlantic Coast waters.
- Aquaculturists producing triploid oysters, derived from a tetraploid crossed with a diploid, which originated from Atlantic Coast waters may be sold or used for grow-out in Florida Atlantic Coast waters only.
- Triploid seed or gamete suppliers must provide written documentation:
  1. Describing the methods utilized to create the triploid (tetraploid X diploid or chemical induction of triploidy).
  2. Addressing whether any shellfish stocked for grow out are expected to attain reproductive maturity.
  3. Describing how ploidy of the seed shellfish will be tested.
  4. Providing ploidy testing results from a representative sample of seed purchased.
  5. Addressing whether the triploid seed is guaranteed to be sterile triploids.
- Hatchery operators shall maintain records of all broodstock purchases and seed sales for at least two years. These records will be made available for inspection by FDACS upon request.
- Documentation of broodstock origin must be obtained from the hatchery and listed on the receipt or bill of lading.

- For in-state purchases of oyster seed intended for grow-out in Florida Gulf Coast waters, the following statement must appear on the seed receipt: “All shellfish included in the receipt originated from a Florida certified aquaculture hatchery and were produced using Gulf Coast broodstock.”
- For in-state purchases of oyster seed produced utilizing Atlantic Coast waters or from shellfish broodstock exposed to Atlantic Coast waters, the following statement must appear on the seed receipt: “All shellfish included in the receipt originated from a Florida certified aquaculture hatchery, were produced using Atlantic Coast broodstock and may only be planted for grow-out in Florida Atlantic Coast waters.”
- For out-of-state purchases of shellfish seed, the seed invoice must include and reference hatchery name and location and reference the OCVI, diagnostic results and triploid documentation (if applicable) that were submitted to FDACS prior to shipment. The OCVI form FDACS-09000, is incorporated by reference into Rule 5C-24.003, F.A.C. The form can be ordered from the FDACS, Division of Animal Industry, State Veterinarian’s Office by contacting the Bronson Animal Disease Diagnostic Laboratory at (321) 697-1400 or via email at [DiagLab@FDACS.gov](mailto:DiagLab@FDACS.gov).

#### C. HEALTH MANAGEMENT

The following best management practices are to protect endemic shellfish populations from the potential introduction and transfer of diseases. They should be employed during all production and transport phases to provide responsible resource management and reduce or eliminate the risk of disease introduction or transfer.

##### Best Management Practices:

- Shellfish or shellfish gametes imported from out-of-state sources for aquaculture purposes must be accompanied by diagnostic results from an accredited laboratory and an Official Certificate of Veterinary Inspection (OCVI).
  - Diagnostic results must identify the type of test performed, test results and the dates of such testing for any notifiable or reportable pathogen for molluscan shellfish as determined by the WOA, USDA APHIS VS or the State Veterinarian and are valid for 30 days following testing.
  - An OCVI is a legible certificate made on an official form from the animal’s state of origin, issued and signed by veterinarians licensed and accredited in the animal’s state of origin for the purpose of certifying the test requirements and

health status of specific animals for movement. OCVIs are valid for 30 days following issuance by the veterinarian.

- The OCVI and diagnostic results must document that the stock shows no evidence of the following pathogens: Quahog Parasite Unknown (QPX) in clams; *Haplosporidium nelsoni* (MSX), *Perkinsus marinus* (Dermo) and *Bonamia exitiosa* in oysters.
- Additional pathogens as identified by the WOA, USDA APHIS VS, or the State Veterinarian may require additional testing.
- OCVIs and diagnostic results must be submitted to FDACS for approval a minimum of two business days prior to shipment. Submit documents to FDACS via email at [Aquaculture\\_Health@FDACS.gov](mailto:Aquaculture_Health@FDACS.gov).
- Because of the known threat of introduction of MSX from oyster stocks grown in the waters of the Atlantic Ocean or drainages into the Atlantic Ocean; the culture of oyster stocks including gametes from Atlantic Coast waters is prohibited in Florida Gulf Coast waters.
- For out-of-state imports of stock exposed to Atlantic Coast waters, seed must be held in isolated hatchery systems for the duration of diagnostic testing until shipment into Florida and submittals for import approval must include documentation of this information with the import submittal.
- All shellfish facility operators will notify the FDACS, Division of Animal Industry, State Veterinarian's Office, at (850) 410-0900, or after hours at 1-800-342-5869, or by email at [RAD@FDACS.gov](mailto:RAD@FDACS.gov) within 24 hours of confirmed disease outbreaks considered listed or reportable by the State Veterinarian, USDA APHIS VS or WOA.

#### D. UPLAND FACILITY OPERATIONS

Best Management Practices:

- Authorization must be obtained for structures located on or over sovereign submerged lands.
- Land-based facilities must be designed and operated in a manner which minimizes adverse impacts to the receiving waters, adjacent wetlands, and uplands.
- A Florida based hatchery producing or selling seed must be certified as a hatchery facility.

- A Florida based nursery selling seed must be certified as a nursery facility. This BMP does not apply to nursery stocks harvested and sold from an aquaculture bottom or water column lease.
- Seed sold/transferred from these certified facilities must include a valid Aquaculture Certificate of Registration number on all product containers and associated sales documentation. Sales documentation must contain a statement attesting to broodstock origin (see Genetic Protection in Section B above).
- Pumping, intake and discharge systems must be designed in a manner which does not create currents which increase sedimentation, scouring, turbidity, or in any way damage the surrounding habitat.
- Sediment removal and disposal must be conducted in a manner that eliminates or minimizes adverse impacts to the receiving waters.
- Shell stock shall not be used to fill wetlands or be placed on submerged lands. Shell stock may be disposed of in appropriate upland areas, landfills, or designated shell recycling areas.
- Certified hatchery and nursery operators must maintain records of all broodstock purchases and seed sales for a period at least two years. These records must be available for inspection by FDACS upon request.

#### E. SUBMERGED LANDS GROW-OUT

##### Best Management Practices:

- Aquaculturists culturing shellfish on Sovereignty Submerged Lands shall obtain an aquaculture lease or other Sovereignty Submerged Land authorization and remain current with annual fees and the conditions of that authorization agreement.
- Follow all the terms and conditions of the Sovereignty Submerged Land Aquaculture Lease, and be fully compliant with provisions of Chapters 253, 258, Part II, 597, F. S., and Rule Chapters 5L-1, 5L-3, and 18-21, F.A.C.
- Comply with the Special Conditions described within the U.S. Army Corps of Engineers (USACE) Programmatic General Permit (SAJ-99), Live Rock and Marine Bivalve Aquaculture in the State of Florida or comply with the conditions of a USACE individual permit.



- Aquaculturists culturing shellfish on privately held submerged lands and selling products must have an Aquaculture Certificate of Registration from FDACS and must follow all shellfish sanitary handling requirements found in Rule Chapter 5L-1, F.A.C.
- The producer's Aquaculture Certificate of Registration number must accompany shellfish being transported from a hatchery or nursery and to and from grow out areas.
- Aquaculturists must have proof of a valid Aquaculture Certification of Registration (original or copy of the certificate or card) available for inspection at all times while transporting aquaculture products or while operating on the sovereignty submerged land aquaculture lease, including employees or authorized users of the lease.
- Activity on aquaculture leases is allowed from sunrise to sunset.
- Prior to commencement of the aquaculture activities on the approved grow-out site, post the grow-out boundaries to delineate the corners and perimeters, per the lease agreement. Markers should be sufficient to warn mariners passing in the vicinity of the lease of the potential hazards to navigation.
- Water column leases must be marked pursuant to an approved United States Coast Guard, Private Aids to Navigation permit prior to deploying any off-bottom or floating culture gear.
- Authorized activities on the grow-out site are those activities allowed in the lease agreement or development plan for culture operations. For example: planting shellfish cultivated from eggs, transplanting live stocks, placement of cultch material, harvesting shellfish, the installation and removal of nets, bags, or other culture gear, and the placement of markers that designate the corners and perimeters of the culture area.
- No vessel of any description shall be moored on or adjacent to the grow-out premises for a period exceeding 24 hours, regardless of whether the vessel is periodically moved.
- Culture materials (cultch) placed on the grow-out area must be a suitable substrate for attachment of oyster larvae: such as natural molluscan shells; fossilized shell; coral, and other aquatic organisms; lithic materials such as crushed and graded limestone, granite, and gravel which contain calcium carbonate and/or fossilized organisms; or recycled materials which contain lithic fractions and calcium carbonate, including crushed and graded concrete. Exceptions to this list of generally accepted cultch materials must be specifically approved and identified within the aquaculture lease agreement.

- Non-natural materials placed in the water or on submerged lands shall be anchored to the bottom. This includes any protective netting used to cover the bags.
- Bags, cover nets, and/or trays used in the culture operation shall be removed from the water during all mechanical cleaning, maintenance and repair operations. During harvest, culture bags and cover nets shall be rinsed/cleaned over the lease area to allow sediments to remain in the lease area. Mechanical or hydraulic devices shall not be used below the water for the cleaning of the submerged structures. Use hand tools for cleaning shellfish, bags, and other structures under water.
- All culture materials, cover nets, bags or other designated markers placed on or in the water shall be clean and free of pollutants including petroleum-based products such as creosote, oils and greases, or other pollutants. Compounds used as preservatives must be used in accordance with the product label.
- The aquaculturist is responsible for collection and proper disposal of all bags, cover netting or other materials used in the culture of shellfish on submerged lands or when such materials are removed during maintenance or harvesting or become dislodged during storm events.
- The leaseholder's identification information shall be attached to all floating or off-bottom culturing structures. In the event that floating or off-bottom culturing structures become dislodged from the lease site, it is the leaseholder's responsibility to retrieve the structures from the shoreline, seagrass beds, or submerged bottom with minimal damage to the resources affected. The structures shall be removed and properly disposed of or returned to the lease site.
- Producers must maintain records of all seed purchases and seed sales for a period of two years. These records must be provided to FDACS pursuant to the annual lease audit requirement of the Sovereignty Submerged Land Aquaculture Lease.
- Remove all works, equipment, structures and improvements from sovereign submerged lands within 60 days following the date of expiration or termination of the lease.

#### F. MECHANICAL HARVESTING

The use of a mechanical harvesting device to harvest shellfish from a sovereign submerged land aquaculture lease may be authorized as a special lease condition pursuant to Chapter 253, F.S., following approval by the Board of Trustees of the Internal Improvement Trust Fund. A mechanical harvesting device is defined as a dredge, scrape, rake, drag, or other device that is self-propelled or towed by a vessel and is used to harvest shellfish. The term does

not include handheld or hand drawn hydraulically or mechanically operated devices used to harvest cultured clams from leased sovereign submerged lands, and this subsection does not apply to such handheld or hand drawn devices.

Best Management Practices:

- The use of mechanical harvesting devices is prohibited on natural reefs or public shellfish beds.
- Mechanical harvesting devices shall only be used for the harvesting of live shellfish. The harvesting of dead shell is prohibited.
- Mechanical harvesting is prohibited on aquaculture leases unless authorized in the lease agreement.
- An annual cultch material planting plan shall be submitted to the division. The plan shall include the quantity and type of material to be planted and a proposed timeline for planting activities.
- Only one mechanical harvesting device per lease may be possessed or operated at any time at a lease site.
- A mechanical harvesting device shall not be possessed on the waters of the state from 30 minutes prior to sunset through sunrise. Harvested shellfish must meet the time and temperature delivery requirements found in Rule 5L-1.009, F.A.C.
- A mechanical harvesting device shall not exceed 48 inches in width at the device's widest dimension or at the tooth bar.
- Mechanical harvesting device teeth shall not exceed 6 inches in length. Teeth shall be spaced approximately 2 inches on center.
- Mechanical harvesting devices shall not exceed 175 pounds in total weight.
- Mechanical harvesting devices must be clearly marked with the Aquaculture Certificate of Registration number.
- The use of mechanical harvesting devices is restricted to the approved aquaculture lease and cannot be used outside of the lease boundaries or in easements. Mechanical harvesting devices must be removed from the water upon the boat exiting the lease boundary.

- Prior to the use of a mechanical harvesting device, the leaseholder must ensure the aquaculture lease parcel is marked as specified in the submerged land lease agreement.
- A harvest plan along with dimensions and specifications of mechanical harvesting devices shall be submitted prior to deployment on an aquaculture lease.
- Mechanical harvesting devices should not be used within 100 feet of corals, emergent and submerged aquatic vegetation, seagrasses, oyster bars, clam beds or endangered species designated critical habitat (unless approved by the National Marine Fisheries Service).
- Culling or sorting of shellfish shall be performed by aquaculturists within the boundaries of their lease.
- Any endangered species or marine turtles incidentally taken during mechanical harvesting activities must be reported to FWC's Wildlife Alert Number at 1-888-404-FWC within 24 hours.
- Failure to comply with Subsection 597.010(17) or mechanical harvesting BMPs will result in the revocation of all submerged lands leases issued pursuant to Chapter 253, F.S., held by the violator and denial of any future use of sovereign submerged land.

#### G. PUBLIC HEALTH PROTECTION

##### Best Management Practices:

- Shellfish grown by the aquaculturist shall comply with provisions of the Comprehensive Shellfish Control Code (incorporated by reference into Rule 5L-3.004, F.A.C.), Rule Chapter 5L-1, and Aquaculture Best Management Practices, Rule Chapter 5L-3, F.A.C., and the Florida Aquaculture Policy Act, Chapter 597, F.S.
- Shellfish harvested by the aquaculturist to be sold in any market, other than seedstock shall comply with provisions of Rule Chapter 5L-1, F.A.C.
- Annually complete the National Shellfish Sanitation Program required harvester/processor training as a prerequisite to obtaining the annual Aquaculture Certificate of Registration. The certified aquaculturist is responsible for retaining the record of completing this training and must provide a copy when applying for new certification or renewal certification.
- Follow all requirements of the National Shellfish Sanitation Program and the Comprehensive Shellfish Control Code. (Model Ordinance 2019 of the National Shellfish

Sanitation Program Guide for the Control of Molluscan Shellfish, incorporated by reference into Rule 5L-3.004, F.A.C).

- Direct sales of aquaculture shellfish products from the farmer to the retailer or consumer are prohibited. Shellfish farmers are permitted to sell only to a certified shellfish processing facility or must become a certified shellfish processing facility to sell shellfish for human consumption to a retailer or the consumer.
- Shellfish seed other than oysters must be relocated from harvest waters classified as restricted or prohibited to an approved classified water location for grow-out prior to reaching 16mm in shell length.
- Seed oysters must be relocated from harvest waters classified as restricted or prohibited to an approved classified water location for grow-out prior to reaching 25mm in shell length.
- Aquaculture relaying must comply with the provisions of Shellfish Relaying, Rule Chapter 5L-1.009, F.A.C.
  - Aquacultured shellfish are the only shellfish allowed to be relayed.
  - Transfer of wild marine organisms to an aquaculture lease is prohibited without a valid Aquaculture Broodstock Collection Special Activity License from FWC for the collection of wild broodstock pursuant to Rule Chapter 68B-8, F.A.C.
  - A valid Special Activity License to Relay Aquacultured Shellfish is required to transport, harvest or sell shellfish, other than seedstock as defined in this section, from a lease in closed waters to another lease in open waters.
  - Any certified shellfish aquaculturist wishing to conduct aquacultured shellfish relaying operations shall submit to the Division a completed application form entitled “Application for a Special Activity License to Relay Aquaculture Shellfish to Aquaculture Lease or Certified Depuration Facility” (FDACS-15109), adopted in Rule 5L-1.009.
- Pursuant to Rule Chapter 5L-1, F.A.C., sorting or washing of shellfish may be performed by the aquaculturist over his lease (approved waters) or at a certified shellfish processing facility.

- Aquacultured shellfish that are replanted or resubmerged must be segregated from other shellfish on the lease and must be clearly identified.
- Aquaculturists must maintain and have available for inspection a replant log of all replant/resubmergence activities including:
  - 1) Date of initial removal from water at lease site
  - 2) Lease number
  - 3) Date of replant
  - 4) Replant lease number
  - 5) Replant location on lease
  - 6) Replant species and quantity
- Aquaculture oysters larger than 25 millimeters that are removed from the water during the course of routine oyster husbandry practices for more than 4 hours during April through October must be returned to the lease and submerged on an aquaculture lease for a minimum of 14 days before they can be harvested and sold to a certified shellfish processing facility. Routine oyster husbandry practices include the use of suspended grow out containers that may be unsubmerged during natural tidal cycles.

**See Appendix for complete list of all required BMPs for shellfish.**

## **XI. LIVE ROCK AND MARINE LIFE CULTURE**

Live rock consists of geologically distinct substrate placed on the ocean bottom to attract colonizing plant and invertebrate species. The rock is collected after several years of culture and sold into the marine aquaria trade. Aquaculture live rock substrate often recruits sea fans, hard or stony corals, fire coral and other attached marine life restricted species. These attached marine life species may be possessed, cultured, harvested and sold by certified aquaculturists so long as the live rock and/or marine life product is identified as an aquaculture product pursuant to Chapter 597, F.S. The use of sovereignty submerged lands for aquaculture requires that the operator obtain a sovereignty submerged land aquaculture lease. Persons interested in conducting aquaculture activities on or above state lands should contact FDACS for assistance.

Elkhorn and staghorn corals are species listed under the Endangered Species Act and may not be possessed, harvested, cultured or sold. Federal agencies and FWC may list endangered or threatened species at any time. Live rock or marine life farmers should contact FDACS for current species regulations.

A U.S. Army Corps of Engineers Programmatic General Permit (SAJ-99), Live Rock and Marine Bivalve Aquaculture in the State of Florida, authorizes farmers that hold an Aquaculture Certificate of Registration and comply with the Aquaculture Best Management Practices, Sovereignty Submerged Lands Lease Agreement, and Special Conditions described in the Programmatic General Permit to deposit materials and other works in the waters of the State of Florida. Live rock farmers that cannot comply with the Programmatic General Permit must acquire an Individual Permit and should contact FDACS for information or assistance.

The National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) issues permits for aquacultured live rock in federal waters off the Gulf of Mexico and South Atlantic coasts of Florida through U.S. Army Corps of Engineers Programmatic General Permit (SAJ-71, Live Rock Aquaculture – Off the Coasts of Florida). Visit [Fisheries.NOAA.gov/southeast/resources-fishing/permits-applications-and-forms-southeast#aquaculture-applications](https://www.fisheries.noaa.gov/southeast/resources-fishing/permits-applications-and-forms-southeast#aquaculture-applications) to access permit applications. Contact the NMFS Southeast Region Office for more information at (727) 824-5326 or [NMFS.SER.Aquaculture@NOAA.gov](mailto:NMFS.SER.Aquaculture@NOAA.gov).

Best Management Practices:

- Comply with the Special Conditions described within the U.S. Army Corps of Engineers Programmatic General Permit (SAJ-99), Live Rock and Marine Bivalve Aquaculture in the State of Florida or comply with the conditions of a USACE Individual Permit.
- All rock, natural or fabricated used for a substrate on sovereignty submerged land lease sites or at upland facilities must be geologically distinguishable from naturally occurring Florida live rock.

- Substrate materials, natural or artificial rock must be approved by FDACS prior to deposition on submerged lands or in an upland facility.
- A geologist's lithographic description of the substrate material must be retained until the time of sale and must be made available for inspection by FDACS upon request.
- Substrate material should be sufficiently free of sediment and fines so that the deployment does not result in turbidity violations inside or outside of the lease boundary.
- Substrate deployment should be conducted in a manner that minimizes turbidity and does not result in adverse impacts to natural fishery habitats or other benthic resources. Use of native live rock is prohibited.
- Substrate materials should be handled and stored in a manner that minimizes onsite and offsite impacts.
- Substrate containing marine life species not native to Florida waters can only be cultured in upland facilities which sterilize any discharge water or are managed as closed systems having no offsite discharge.
- Live rock and marine life sales records must contain at least the following information:
  - Date of Sale
  - Name and address of Seller
  - Seller's Aquaculture Certificate of Registration number and lease number if from a submerged lands lease
  - Name and address of the Purchaser
  - Purchaser's Aquaculture Certificate of Registration number (if a Florida Certified Aquaculture Facility)
  - Quantity and species identification of aquaculture product sold
- Comply with Prohibition on the Taking, Destruction, or Sale of Marine Corals and Sea Fans, Rule 68B-42.009, F.A.C.
  - Source documentation (receipts, bills of sale, bills of lading, or customs receipts) for live rock and marine life species legally harvested from sources outside Florida waters must be maintained and shall be made available for inspection upon request.
  - The nearest office of the Fish and Wildlife Conservation Commission, Division of Law Enforcement shall be notified at least 24 hours in advance of any transport in or on state waters of aquacultured live rock containing any sea fan, hard or stony coral, fire coral, or non-erect, encrusting species of the Subclass Octocorallia.



- If any marine mammal(s), sea turtle(s), or sawfish are injured or observed to be in distress, the leaseholder shall immediately call 1-888-404-FWCC (3922).
- Any sea fan, hard or stony coral, fire coral, or non-erect, encrusting species of the Subclass Octocorallia harvested pursuant to paragraph 68B-42.008(3)(a), F.A.C., shall remain attached to the cultured rock.
- Use of Florida wild live rock in the culture of aquaculture live rock is prohibited.
- An FWC license is required to harvest, possess, sell, or transport wild marine life.

Best Management Practices for Live Rock Leases Located in the Florida Keys National Marine Sanctuary:

- Live rock planted on an aquaculture lease in any area of the state, besides those located in Monroe County, shall not be moved to a live rock lease located within the Florida Keys National Marine Sanctuary.
- The lease area shall be marked with temporary surface buoys during rock deposition and harvest.
- The leaseholder shall adhere to the following detailed dive gear decontamination requirements to avoid inadvertently spreading pathogens associated with the stony coral tissue loss disease:
  - Tools, collection bags, sampling gear, transect tapes, clipboards, underwater slates, weight belts and other equipment that comes in contact with the bottom should be decontaminated using diluted chlorine bleach. Bleach is extremely corrosive to metals and should not be used to decontaminate regulators or neoprene wet suits as it can compromise the integrity of polymers such as neoprene and silicone rubber components in regulators. Bleach should never be mixed with ammonia-based solutions. Bleach rapidly degrades and must be used immediately after mixing; it should be changed daily.
  - After each dive, soak non-sensitive equipment and tools for 10 minutes in a 1% bleach solution (1/2 c. bleach/2 gal. water prepared in a 5-gallon bucket with a lid).
  - Rinse with fresh water, air dry. Wetsuits, Buoyancy Compensation Devices (BCDs), masks and fins should be decontaminated using quaternary ammonium disinfectants such as Virkon S1, RelyOn1 and Lysol1 All Purpose

Cleaner. These are broad spectrum disinfectants and are effective for treating bacteria, viruses, fungi, larval mollusks and other microorganisms.

- After each dive, soak dive gear for 10 minutes in one of the following: 0.5% RelyOn (four 5 g. tablets/1 gal. water), 1% Virkon S (1.3 oz./2 gal. water), 6.6% Lysol (1 qt./1 gal. water), or an equal concentration of another quaternary ammonium disinfectant.
- Remove from disinfecting solution, soak in fresh water for 10 minutes, and allow to air dry.
- Particular attention needs to focus on decontaminating wetsuits and the internal bladders of BCs because of their ability to trap water that can house transmissible pathogens. Pour approximately ½ liter solution into the mouthpiece of the BC's exhaust hose while depressing the exhaust button, inflate the BC, and gently rotate the BCD in all directions to ensure the solution has reached all of the internal parts. Allow the BCD to sit for 10 minutes, and then immediately dump the solution into a container for proper disposal on land Flush the BCD two times with fresh water. Regulators, computers, gauges, underwater cameras and other sensitive scientific equipment should be decontaminated using fresh water with antibacterial dish soap or an isopropyl alcohol wipe and let dry.
- Prepare a solution of warm water and antibacterial dish soap or OdoBan1 (5 oz./gal.). After each dive, soak regulators and other sensitive equipment for 20 minutes, rinse in fresh water and allow to dry.
- Additionally/alternatively, equipment can be wiped down with isopropyl alcohol. Be sure to wipe any small areas where water might accumulate.

**See Appendix for complete list of all required BMPs for live rock and marine life.**

## XII. AQUATIC PLANT CULTURE

The aquatic plant industry in Florida produces high quality plants for a wide variety of markets and uses: aquariums, water gardening, wetland mitigation and restoration, biofuels and pharmaceutical applications.

### A. FERTILIZER APPLICATION

Best Management Practices:

- Apply fertilizer to substrate during preparation of the grow-out tank while it is dry. Use a slow-release fertilizer and evenly incorporate it into the soil.
- If it is necessary to apply fertilizer into a grow-out tank or pond which is inundated, use fertilizer spikes which can be pushed into the substrate near the target plant. Once the “food spike” is below the surface, it should be covered with soil to prevent the loss of nutrients to the water column.
- Minimize the need for additional fertilizer by maintaining a static water level in the production tanks or ponds.

### B. REGULATORY REQUIREMENTS

Aquatic plant nurseries are regulated by two divisions within FDACS: the Division of Aquaculture and the Division of Plant Industry (DPI). The Division of Aquaculture ensures compliance with all aspects of this BMP manual. DPI ensures compliance with import/export, species, pest, disease, wild-collection, and environmental restoration regulations.

A primary role of DPI, with respect to the aquatic plant industry, is to oversee the possession of nonnative species. The purpose of this oversight is to prevent the introduction and spread of nuisance plants or disease which may displace native species and negatively impact Florida’s ecosystems. There are two classes of prohibited aquatic plants:

- |          |  |
|----------|--|
| Class I  | These plants may <b>not</b> be possessed, collected, transported, cultivated or imported.                      |
| Class II | These plants may be cultured in an aquatic plant nursery for sale out of state, and only with approval of DPI. |

A listing of all Class I and Class II prohibited aquatic plants is found in Prohibited Aquatic Plants, Rule 5B-64.011, F.A.C., and is referenced in the appendix.

## Best Management Practices:

- It is prohibited to possess and culture Class I aquatic plants. If you discover a Class I species in a shipment you receive, or on your facility, contact FDACS, Division of Plant Industry at once.
- Do not import, cultivate or export Class II Prohibited Species without prior authorization from FDACS, Division of Plant Industry. If you intend to handle Class II Prohibited Species, you must provide the necessary measures to ensure that these plants do not escape your facility. These methods are outlined in the Containment chapter of this manual. While the aforementioned chapter primarily addresses biosecurity for nonnative animals, the containment strategies are also applicable to the containment of nonnative aquatic plants and algae.
- Certified aquaculturists must apply to and receive from FDACS written authorization prior to culturing transgenic aquatic species. Certified aquaculturists must supply information to FDACS describing:
  - 1) facility design
  - 2) production system design
  - 3) containment measures
  - 4) Federal Agency review
  - 5) biological information
  - 6) genetic construct and development process
  - 7) genetic construct introduction and organism information
  - 8) gene construct expression information
  - 9) related human health information
  - 10) survival and persistence studies
- Authorization to culture transgenic aquatic species will only be considered:
  - 1) after all requested information is provided;
  - 2) after the Department has reviewed all other information that has been submitted by the public; and
  - 3) if upon review of all the foregoing it can be determined that authorization will not pose a threat to the environment, public health, safety, and welfare.
- Certified aquaculturists must adhere to all stipulations required in the FDACS written letter of authorization.

**See Appendix for complete list of all required BMPs for aquatic plants.**

### **XIII. FLORIDA LARGEMOUTH BASS CULTURE**

Protecting the genetic integrity of the Florida largemouth bass is critical to ensure the long-term viability of this important and iconic Florida gamefish. The following BMPs are designed to provide guidance related to genetic authentication, production, and transportation of live Florida largemouth bass.

#### Best Management Practices:

- Fish of the genus *Micropterus* (black bass), except the Florida largemouth bass, *Micropterus salmoides floridanus*, may be cultured for stocking purposes only. Buying, selling, bartering, trading or exchanging of these species for human consumption is prohibited.
- Any facility that seeks authorization to culture Florida largemouth bass must submit stock acquisition documentation and genetic testing records for approval by the Division prior to beginning any production of this species.
- Florida largemouth bass fingerlings must be purchased from a facility utilizing genetically authenticated Florida largemouth bass broodstock. Fingerlings from genetically authenticated broodstock do not require further genetic testing prior to transportation or sale. Purchase records must be maintained for three years beyond the life of the fish.
- Wild collection of broodfish requires a separate FWC permit. Please contact your local FWC Regional Office and ask for the Regional Fisheries Administrator to inquire about a broodfish collection permit application.
- A copy of the genetic authentication documentation must accompany all bills of sale, bills of lading or other such manifest and must include the Aquaculture Certificate of Registration Number.
- Florida largemouth bass imported from out-of-state sources for aquaculture purposes must be accompanied by acquisition documentation and genetic testing results from an FWC-approved laboratory. Acquisition documentation and genetic testing results must be provided to and approved by FDACS, Division of Aquaculture via email at [Aquaculture\\_Health@FDACS.gov](mailto:Aquaculture_Health@FDACS.gov) prior to shipment.

## A. GENETIC AUTHENTICATION

### Best Management Practices:

- Genetic testing procedures must be authorized by FWC before a specific laboratory can be approved to genetically authenticate Florida largemouth bass. Contact the Division for more information about genetic authentication testing procedures and for a list of approved laboratories. Refer to Section 1A, Genetic Authentication Testing Verification Requirements of the Standards for Genetic Authentication for Florida Largemouth Bass document incorporated into Rule 68A-23.009, F.A.C.
- Genetic testing must be conducted by an FWC-approved laboratory.
- Genetic testing results must be submitted to FDACS, Division of Aquaculture via email at Aquaculture\_Health@FDACS.gov by an FWC-approved laboratory upon completion of genetic testing. Testing results must correlate to individual tag numbers affixed to each broodfish. Testing results must be maintained and be available for inspection for three years beyond the life of the fish.
- Genetic tests may be conducted using a microsatellite DNA genetic technique developed to differentiate northern largemouth bass (*M. s. salmoides*) from Florida largemouth bass, the single nucleotide polymorphism assay developed by The Center for Aquaculture Technologies titled the Florida Bass Certification Test in their catalogue of services, or a laboratory must describe a proposed procedure which, at a minimum, uses PCR-based typing of no fewer than six subspecies-specific nuclear DNA markers. Other methods evaluated and approved by FWC may be utilized for genetic authentication.

## B. HATCHERY MANAGEMENT

In order to confirm that all fish being cultured are Florida largemouth bass, each hatchery holding broodstock and producing Florida largemouth bass offspring must meet the following requirements.

### Best Management Practices:

- Each broodfish must be permanently tagged with a commercially available tag that allows for individual recognition and tracking and has a high retention rate. Passive integrated transponder (PIT) tags are recommended. Each tag must have a unique number for individual identification; that is, a tag number may not be used on more than one broodfish. Each tag must remain in place throughout the time a fish is used as broodstock (or is in the same tank or pond as current broodstock).

- A genetic sample must be taken from each potential broodfish that is collected. Samples must be submitted to an FWC-approved genetic laboratory for authentication. All potential broodfish awaiting genetic authentication testing results must be held in secure systems that are accessible to sort and cull fish until genetic testing is completed and results are available. Immediately after results are obtained, any northern or hybrid largemouth bass must be promptly euthanized or culled for other legal uses.
- Once a broodfish has been genetically authenticated, that fish does not have to be reauthenticated unless it can no longer be identified by tag and tagging records. Any fish that does not have a tag must be separated from tagged fish, and subsequently re-tagged and genetically authenticated prior to being utilized for any further production or held with other genetically authenticated Florida largemouth bass.
- Each year prior to spawning, it is recommended that each broodfish have its tag inspected to confirm it is authenticated Florida largemouth bass stock. Tag inspection records must be maintained for a minimum of three years and made available for inspection by the Division upon request.
- The same tagging and genetic evaluation procedures must be completed for any domesticated offspring that are selected for use as broodstock. Any northern largemouth bass, or intergrades (i.e., hybrids) confirmed by genetic testing must be promptly euthanized or culled for other legal uses.
- FDACS may take a random sample at any facility producing Florida largemouth bass to confirm genetic authentication standards. If any sample is determined not to be Florida largemouth bass, that production system must be segregated until a secondary genetic analysis of submitted samples can be completed. If the secondary analysis determines samples not to be Florida largemouth bass, the entire production system the sample was taken from must be euthanized or culled for other legal uses.

#### **XIV. AQUATIC ORGANISM HEALTH MANAGEMENT**

Good aquatic organism health practices are necessary for the success of any aquaculture production facility. Disease prevention is based on good animal husbandry practices, including the reduction of animal stress, minimization of pathogens in the culture environment, and quarantine of unhealthy animals. FDACS strongly encourages aquaculturists to develop a written aquatic animal health management plan for their facility. Resources for training, education, and disease diagnostic assistance are available from several sources within the State. See the Appendix for contact information. The following BMPs, when used in consultation with an aquatic animal health professional or the State Veterinarian Office, are intended to provide the basic components of an aquatic animal health management plan.

##### Best Management Practices:

- Written authorization, import permit, or a certificate of health may be required from the State Veterinarian prior to interstate importation of aquatic species from outside Florida. For international importation into the U.S. please contact USDA and USFWS for more information regarding any health requirements they may impose.
- All health records for aquatic organisms imported from outside of Florida must be retained for at least two years by certified aquaculturists. These records shall include:
  - Aquaculture Certificate of Registration Number
  - Name and Address of consignor
  - Name and Address of consignee
  - Date of Shipment
  - Date of entry/receipt
  - Species
  - Total number of aquatic animals by species
  - Any pertinent recent diagnostic test results performed to the group of aquatic organisms
- Contact your aquatic animal health professional or the State Veterinarian's Office in the event of any unusual or abnormal occurrences of disease or pests affecting your aquatic species.
- Aquatic organisms affected by an abnormal occurrence of disease or an undetermined pathogen should be sent to a diagnostic laboratory for diagnostics and treatment recommendations. Seek assistance from an Aquatic Animal Health Specialist.



- Certified aquaculturists and/or their aquatic animal health professional must notify FDACS Division of Aquaculture, at (850) 617-7600 or [Aquaculture\\_Health@FDACS.gov](mailto:Aquaculture_Health@FDACS.gov), and FDACS Division of Animal Industry, State Veterinarian's Office, at (850) 410-0900 or after hours at (800) 342-5869, or by email at [RAD@FDACS.gov](mailto:RAD@FDACS.gov), in the event of any suspected, undetermined or confirmed test results, prior to shipment or during routine surveillance, of any reportable pathogen as determined by the WOA, USDA APHIS VS, or the State Veterinarian. Reporting must be done within 24 hours of receipt of results or suspicion of disease. See [APHIS.USDA.gov/aphis/ourfocus/animalhealth](http://APHIS.USDA.gov/aphis/ourfocus/animalhealth) for more information.
- Educate yourself as much as possible regarding aquatic animal health management and the husbandry requirements of the species that you are raising. Sources of information include health management classes and a Fish Health Video series produced by the University of Florida, Tropical Aquaculture Laboratory and distributed by the Florida Tropical Fish Farms Association, among others.
- Follow accepted husbandry practices to maintain a favorable growing environment, such as the following:
  - Avoid over crowding
  - Maintain optimal nutritional programs
  - Promptly remove uneaten or undigested food
  - Promptly remove dead animals
  - Maintain appropriate water quality parameters
  - Minimize stress such as inappropriate, unnecessary handling, and temperature extremes
- Establish a health surveillance and disease diagnosis control program.
- Institute effective biosecurity measures consistent with BMPs.
- Educate personnel on the normal behavioral patterns of aquatic species, to easily distinguish abnormal behavior patterns as a means for early recognition of stress or disease.
- Aquatic organisms affected by an abnormal occurrence of disease or an undetermined pathogen should be sent to a diagnostic laboratory for diagnostics and treatment recommendations.
- Use medications and remedial agents consistent with the label instructions or as directed by a licensed veterinarian.

- When necessary, establish adequate quarantine and/or isolation practices and procedures.
- Institute a daily program of observing aquatic organism behavior and feeding activity to detect disease problems.
- Periodically test water quality for dissolved oxygen, pH, temperature, ammonia and nitrite, carbon dioxide, total alkalinity and total hardness. Know the physiological limits of your species. Establish control and response actions when deviating from normal values. Document all corrective actions.
- Feed a high-quality diet proper for the species you are raising.
- Store feeds and medications under cool, dry conditions to prevent degradation.
- Sanitize nets and aquatic organism handling equipment to prevent the spread of disease.
- Sanitize tanks or ponds following disease outbreaks or before stocking with new populations.

**SEE INDIVIDUAL SPECIES SECTIONS FOR SPECIFIC HEALTH BMPS  
OR CONTACT FDACS**

## **XV. DISPOSAL OF DEAD ANIMALS**

Dead animals and those culled from production must be disposed of in a timely and sanitary manner following state and federal guidelines.

Best Management Practices:

- Render, compost, bury greater than 2 feet or burn dead animals in a timely and sanitary manner or dispose of in via a permitted waste collection or disposal site. Animals must be disposed of in a manner than reduces wildlife interactions with mortalities.
- Contact FDACS for additional information.

## **XVI. PREVENTING WILDLIFE DEPREDATION**

Wild animals contribute to our enjoyment of nature and outdoor recreation, but they can also damage property, agriculture, natural resources and threaten human health and safety. Numerous species of wildlife prey on aquaculture species or serve as vectors for disease, both of which may cause substantial losses. Protecting aquaculture species may require using several different methods of deterrence or control. Operators must be aware of and abide by all State and Federal laws regarding appropriate control methods for predatory species. The BMPs listed below should be followed to deter or control animal pests successfully and legally.

For an animal depredation control permit, contact USDA Wildlife Services, 2820 E. University Ave., Gainesville, Florida at (352) 377-5556 or 1408 24th Street S.E., Ruskin, Florida at (813) 671-5230, Ext. 105. Questions may also be directed to the Division at (850) 617-7600.

### Best Management Practices:

- Follow all state and federal laws and regulations that apply to the nuisance species as most birds, mammals, and reptiles are protected by law and require a State or Federal permit to trap or shoot.
- Adhere to the following publications which are incorporated by reference into Rule 5L-3.004, F.A.C.

USDA APHIS Wildlife Services, Prevention and Control of Wildlife Damage,  
Bird Dispersal Techniques (1994).

and

USDA APHIS Wildlife Services, Prevention and Control of Wildlife Damage,  
Bird Damage at Aquaculture Facilities (1994).

- Follow all provisions of federal or state depredation permits.
- Use of noise producing devices, including propane cannons and pyrotechnics are suitable best management practices for the control of birds but should be limited to the minimal amount needed for adequate control and shall only be used from sunrise to sunset.
- Adhere to the provisions of Agricultural and Fish Hatchery Use of Firecrackers, Rule Chapter 5A-3, F.A.C., to obtain proper authorization prior to use of pyrotechnic devices as prescribed in Sale of Fireworks, Chapter 791, F.S.
- Propane cannons and pyrotechnic devices should be strategically located and operated to minimize off site impact. Use of simple blast shields to reduce the noise projected behind the cannon when located near residential developments.

## **XVII. SHIPMENT, TRANSPORTATION AND SALE**

During shipment and transportation, care must be taken so that potential for escape of aquacultural products is minimized, and state laws are met in the identification of products. The following BMPs apply to all certified aquaculturists.

Best Management Practices:

- Aquaculture products must be identified with an Aquaculture Certificate of Registration number, while possessed, transported or sold from harvest to point of sale.
- Proof of a valid Aquaculture Certificate of Registration must be possessed and available for inspection (copy or original of the Aquaculture Certificate of Registration or card) while harvesting, transporting and selling aquaculture products.
- The receipt, bills of sale, bills of lading, or other such manifest must show the certificate number and where the product originated. If the product is sold to a Florida grow-out facility, the Aquaculture Certificate of Registration number of the buyer must also be included. Sale records must contain at least the following information:
  - Date of Sale
  - Name and address of Seller
  - Seller's Aquaculture Certificate of Registration number
  - Name and address of the Purchaser
  - Purchaser's Aquaculture Certificate of Registration number (if a Florida Certified Aquaculture Facility)
  - Quantity and species identification of aquaculture products sold
- Aquaculture products must be transported in containers that separate aquaculture products pursuant to Identification of Aquaculture Products, Section 597.004(4), F.S., from wild stocks, and such containers must be identified by tags or labels which are securely attached and clearly displayed. Tags/labels must contain information describing the source location, species identification, quantity and date of harvest.
- Facilities must maintain records of all live purchases and/or all live sales of sturgeon, marine shrimp, marine bivalves, aquatic turtles and live rock/marine life. These records must include the date of shipment, name, address, and Aquaculture Certification of Registration number(s) of the supplier and the recipient if purchased or sold in Florida. Records must be retained by the hatchery or farm and available for inspection for at least two years. Invoices or bills of lading containing the above information is sufficient to meet this BMP requirement.

- Facilities must maintain records of all live purchases and/or all live sales of restricted species. These records must include the date of shipment, name, address, and Aquaculture Certificate of Registration number(s) of the supplier and the recipient if purchased or sold in Florida and a copy of the Restricted Species Authorization or Conditional Species Authorization for the buyer. Records must be retained by the hatchery or farm and available for inspection for at least two years.
- Pursuant to Rule 68A-25.002(6)(c), F.A.C., the sale of turtles or turtle eggs taken from the wild is prohibited.
- Aquatic turtle broodstock acquisition documentation must be provided to FDACS for approval prior to certification and as broodstock are added to the facility.
- Aquaculture Certificate of Registration holders or employees of a certificate holder must notify FDACS at least 24 hours in advance of any transport of aquaculture turtles across or on state waters.
- Aquaculture turtles may not be transported in vehicles or vessels containing fishing gear including, but not limited to, trawls, seines and entangling nets, traps and hook and line.
- Aquaculture turtles may not be harvested using hook and line.
- The importation and interstate movement of live aquatic snails is regulated by United States Department of Agriculture, Animal and Plant Health Inspection Service Plant Protection Quarantine (USDA APHIS PPQ). APHIS PPQ Form 526 (Plant Pest Permit) is required for the importation or interstate movement of any terrestrial or aquatic snails listed as plant pests.
- Marine snails and terrestrial or aquatic snails that are not plant pests are not regulated by USDA APHIS PPQ and do not require a permit. Contact USDA APHIS PPQ for more information on snails recognized as plant pests and permitting requirements. Refer to the Appendix for contact information. The USFWS may require an import permit for invertebrate species.
- The processing or preparation of aquaculture products for human consumption requires a hazard analysis and critical control point (HACCP) plan and may require a license from FDACS-Division of Food Safety. See the Appendix for contact information.

## **XVIII. AQUACULTURE CHEMICAL AND DRUG HANDLING**

Florida's water resources are particularly susceptible to contamination because of the State's unique geology and hydrology. Groundwater supply often lies at or near the surface, and users of agrichemicals and drugs need to consider the soil's susceptibility to leaching, distance to the water table, slope of the land, and distance to surface water which could provide a direct pathway to ground water. Clay or muck soils are capable of binding certain pesticides with repeated applications. Proper handling, application and disposal practice through the use of BMPs can prevent the contamination of soil, surface waters, and ground water.

All persons who apply restricted use pesticides to any outdoor area in Florida not associated with buildings or public health pest control must have a pesticide applicator license issued by the FDACS, Division of Agricultural Environmental Services, Bureau of Licensing and Enforcement. For pesticide applicator certification and licensing call (850) 617-7870.

### **A. CHEMICAL USAGE AND HANDLING**

Best Management Practices:

- Follow all product label directions for use, storage and disposal.
- Use in accordance with all applicable Federal and State guidelines and laws.
- Maintain a log of chemical usage at the facility. Logs and records must be available for inspection by FDACS.

### **B. SPILL MANAGEMENT**

Best Management Practices:

- Immediately contain and dispose of spilled or leaking materials by utilizing barriers and/or absorbent material such as activated charcoal, cat litter, dry sand, or soil in accordance with manufacturers' recommendations and/or State and Federal laws.
- No spills or leaks shall be left unattended.

For additional information about chemical usage, copies of additional chemical data please contact FDACS, at (850) 617-7600.

### C. DRUG USAGE AND HANDLING

There is a limited number of Food and Drug Administration (FDA) approved drugs and therapeutants available to treat aquatic animals. For current information, contact a licensed veterinarian or visit the Aquatic Animal Drug Approval Partnership website at: <http://www.fws.gov/program/aquatic-animal-health/aquatic-animal-drug-approval-partnership>.

#### Best Management Practices:

- All drugs, therapeutic substances, and antibiotics must be used, applied, stored, or disposed only as directed by an FDA approved product label or as prescribed by a Florida licensed veterinarian.
- Drugs may not be used or prescribed for extra-label use when the drug label prohibits extra-label use.
- Maintain a log of drug usage at the facility.



## **XIX. AQUATIC ANIMAL WELFARE**

Successful aquatic animal husbandry demands that animals be held in optimal environments and fed a high-quality diet. Aquatic animals intended for human consumption shall be quickly prepared for rapid processing. Euthanasia, slaughter, or depopulation shall be performed quickly and in a manner to limit the stress to the animal. Aquatic animals reared for stocking in public waters shall be transported under optimal environmental conditions.

Best Management Practices:

- Pursuant to Humane Euthanasia of Livestock, Rule Chapter 5C-25, F.A.C., only humane methods may be used for the euthanasia of aquaculture species.
- Comply with the provisions of Cruelty to Animals, Section 828.12, F.S.
- Comply with Aquaculture Best Management Practices, Chapter XVI. Preventing Wildlife Depredation.
- Comply with Aquaculture Best Management Practices, Chapter XVII. Shipment, Transportation, and Sale.
- Comply with Aquaculture Best Management Practices, Chapter XVIII. Aquaculture Chemical and Drug Handling.
- For more information, see <https://www.avma.org/kb/policies/documents/euthanasia.pdf>

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THIS SECTION CAN BE USED AS A CROSS REFERENCE GUIDE FOR THE SPECIFIC  
BMPS REQUIRED BY A PARTICULAR SPECIES OR SYSTEM.

**BMP REQUIREMENTS**

**Alligators/**

**Aquatic Turtles:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter VI - Containment  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVI - Preventing Wildlife Depredation  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Aquatic plants:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter XII - Aquatic plants  
Chapter XIV - Aquatic Organism Health Management  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling

**Aquatic Snails:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter VI - Containment  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVI - Preventing Wildlife Depredation  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Catfish:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVI - Preventing Wildlife Depredation  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Clams/Shellfish:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter X - Shellfish Culture  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Hybrid  
Striped Bass:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVI - Preventing Wildlife Depredation  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Live Rock:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter XI - Live Rock and Marine Life Culture  
Chapter XVII - Shipment, Transportation and Sale

**Marine**

**Ornamentals:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter VI - Containment  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Freshwater**

**Ornamental Fish:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter VI - Containment  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVI - Preventing Wildlife Depredation  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Ponds:**

Chapter V - Construction  
Follow IFAS Guidelines  
Follow NRCS Guidelines

**Raceways and  
Recirculating**

**Water Systems:** Chapter IV - Water Resources

**Saltwater/**

**Marine Systems:** Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter VI - Containment  
Chapter VIII - Penaeid Shrimp Culture  
Chapter X - Shellfish Culture  
Chapter XI - Live Rock and Marine Life Culture

Chapter XIV - Aquatic Organism Health Management  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Shrimp:**

Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter VI - Containment  
Chapter VIII - Penaeid Shrimp Culture  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVI - Preventing Wildlife Depredation  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Sturgeon:**

Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter IX - Sturgeon Culture  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVI - Preventing Wildlife Depredation  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

**Tilapia:**

Chapter II - Compliance Monitoring  
Chapter III - Federal Permitting  
Chapter IV - Water Resources  
Chapter V - Construction  
Chapter VI - Containment  
Chapter XIV - Aquatic Organism Health Management  
Chapter XV - Disposal of Dead Animals  
Chapter XVI - Preventing Wildlife Depredation  
Chapter XVII - Shipment, Transportation and Sale  
Chapter XVIII - Aquaculture Chemical and Drug Handling  
Chapter XIX - Aquatic Animal Welfare

## RESOURCES FOR AQUACULTURE INFORMATION

### **Florida Department of Agriculture and Consumer Services**

Division of Aquaculture

Florida Department of Agriculture and Consumer Services

Holland Building, Suite 217

600 South Calhoun Street

Tallahassee, Florida 32399

(850) 617-7600

[www.FDACS.gov](http://www.FDACS.gov)

Division of Agricultural Environmental Services

Florida Department of Agriculture and Consumer Services

3125 Conner Blvd., Suite E

Tallahassee, Florida 32399-1650

(850) 617-7900

[www.FDACS.gov](http://www.FDACS.gov)

Division of Food Safety

Florida Department of Agriculture and Consumer Services

3125 Conner Blvd., Suite H

Tallahassee, Florida 32399-1650

(850) 245-5520

[www.FDACS.gov](http://www.FDACS.gov)

Division of Plant Industry

Florida Department of Agriculture and Consumer Services

1911 SW 34<sup>th</sup> Street

Gainesville, Florida 32608-1201

(352) 395-4700

[www.FDACS.gov](http://www.FDACS.gov)

Florida State Veterinarian's Office

Florida Department of Agriculture and Consumer Services

Division of Animal Industry

407 South Calhoun Street, Mayo Building,

Room 330, Tallahassee, Florida 32399

(850) 410-0900

[www.FDACS.gov](http://www.FDACS.gov)

**Natural Resources Conservation Service (NRCS) Area Offices-**

**State Office**

4500 NW 27<sup>th</sup> Avenue, Building A  
Gainesville, FL 32606  
(352) 338-9500

**Area 1 Administrative Office**

2741 Penn Avenue  
Marianna, Florida 32448  
(850) 526-2610

**Area 2 Administrative Office**

2080 S.W. Main Blvd.  
Lake City, Florida 32025-4212  
(386) 755-5100

**Area 3 Administrative Office**

324 8th Avenue, West, Suite 104  
Palmetto, FL 34221  
(941) 729-6804

**Area 4 Administrative Office**

420 South State Road 7, Suite 160  
Royal Palm Beach, FL 33414-4306  
(561) 792-2727 extension 3

**University of Florida (IFAS)**

Tropical Aquaculture Laboratory  
(ornamental fish, general aquaculture, nonnative species, aquatic animal health)  
1408 24<sup>th</sup> Street, Southeast  
Ruskin, Florida 33570  
(813) 671-5230

**Cedar Key Marine Field Office (shellfish)**

P.O. Box 89  
Cedar Key, Florida 32625  
(352) 543-5057



Fisheries and Aquatic Sciences Program  
(shellfish, general aquaculture, aquatic animal health)  
7922 Northwest 71<sup>st</sup> Street  
Gainesville, Florida 32606  
(352) 273-3672

**United States Department of Agriculture**

United States Department of Agriculture, Animal and Plant Health Inspection  
Service, Veterinary Services (USDA APHIS VS)  
Animal Health  
8100 NW 15th Place  
Gainesville, FL 32606  
Phone: (352) 415-4050  
Fax: (352) 313-3063

United States Department of Agriculture, Animal and Plant Health Inspection  
Service, Wildlife Services (USDA APHIS WS)  
Florida Wildlife Services State Director  
2820 East University Avenue  
Gainesville, FL 32641  
Phone (352) 448-2130  
Toll Free: 1-866-4USDAWS  
Fax: (352) 377-5559

United States Department of Agriculture, Animal and Plant Health Inspection  
Service, Plant Protection Quarantine (USDA APHIS PPQ)  
State Plant Health Director  
8100 NW 15th Place  
Gainesville, FL 32606  
Phone: (352) 313-3040  
Fax: (352) 313-3041

**Florida Fish and Wildlife Commission Regional Offices-**

Northwest Region  
3911 Highway 2321  
Panama City, Florida 32409-1658  
(850) 265-3676  
24-Hour Law Enforcement: (850) 245-7710

North Central Region  
3377 E. US Highway 90  
Lake City, Florida 32055

(386) 758-0525  
24-Hour Law Enforcement: (850) 758-0529

Northeast Region  
1239 S.W. 10<sup>th</sup> Street  
Ocala, Florida 34474-2797  
(352) 732-1225  
24-Hour Law Enforcement: (352) 732-1228

Southwest Region  
3900 Drane Field Road  
Lakeland, Florida 33811-1299  
(863) 648-3203  
24-Hour Law Enforcement (863) 648-3200

South Region  
8535 Northlake Boulevard  
West Palm Beach, Florida 33412  
(561) 625-5122  
24-Hour Law Enforcement: (561) 625-5122

Monroe and Collier County 24-Hour Law Enforcement  
(305) 289-2320

**U.S. Fish and Wildlife Service District Offices-**  
7915 Baymeadows Way, Suite 200  
Jacksonville, Florida 32256  
(904) 731-3336

1601 Balboa Avenue  
Panama City, Florida 32405  
(850) 769-0552

777 37th Street, Suite D-101  
Vero Beach, Florida 32960  
(772) 562-3909

**Water Management District Offices-**  
Northwest District  
Rt. 1 Box 3100  
Havana, Florida 32333-9700  
(850) 539-5999

St. Johns River District  
P.O. Box 1429  
Palatka, Florida 32178-1429  
1 (800) 451-7106

Suwannee River District  
9225 County Road 49  
Live Oak, Florida 32060  
1 (800) 226-1066

South Florida District  
3301 Gun Club Road  
West Palm Beach, Florida 33416-4680  
1 (800) 432-2045

Southwest Florida District  
2379 Broad Street  
Brooksville, Florida 34604  
1 (800) 423-1476

**Department of Environmental Protection- District Offices**

Northwest District  
160 Governmental Center  
Pensacola, Florida 32501-5794  
(850) 595-8300

Northeast District  
8800 Baymeadows Way, Suite 100  
Jacksonville, Florida 32256-7590  
(904) 256-1700

Central District  
33319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767  
(407) 897-4100

Southwest District  
13051 N Telecom Parkway  
Temple Terrace, FL 33637-0926  
(813) 470-5700

South District  
P.O. Box 2549  
Fort Myers, Florida 33902-2549  
(239) 344-5600

Southeast District  
3301 Gun Club Road, MSC7210-1  
West Palm Beach, Florida 33406  
(561) 681-6600

**FDEP Underground Injection Control Program**

2600 Blair Stone Road, MS 3530  
Tallahassee, FL 32399  
(850) 245-8645

**U.S. Army Corps of Engineers, District Offices-**

Jacksonville District Regulatory Office – SAMOP-S  
P.O. Box 4970  
Jacksonville, Florida 32232-0019  
(904) 232-1666

## Chapter 5A-3, Florida Administrative Code

### Agricultural and Fish Hatchery Use of Firecrackers

(text is as of date of publication, see <https://www.flrules.org/> for latest version)

- 5A-3.001 Application to Sheriff for Use of Firecrackers.
- 5A-3.002 Acquisition of Firecrackers.

#### **5A-3.001 Application to Sheriff for Use of Firecrackers.**

Any person who is engaged in agricultural works or who operates a fish hatchery may use firecrackers solely and exclusively for the purpose of frightening birds from doing harm to any such person's agricultural works or fish hatchery operation; provided that any such person shall first file with the sheriff of the county in which he is engaged in agricultural works or the operation of a fish hatchery a statement in writing that he is engaged in agricultural works, describing the nature of such, or that he operates a fish hatchery, describing the nature of such, and desires to use firecrackers to frighten birds from harming his agricultural works or his fish hatchery operation and that firecrackers will be used solely and exclusively for that purpose.

*Specific Authority 791.07 FS. Law Implemented 791.07 FS. History - Repromulgated 12-31-74, Amended 12-21-75, Formerly 5A-3.01.*

#### **5A-3.002 Acquisition of Firecrackers.**

Any person may acquire from any authorized person firecrackers for purposes state in Section 5A-3.001, F.A.C., upon presenting a copy of his statement filed with the sheriff.

*Specific Authority 791.07 FS. Law Implemented 791.07 FS. History - Repromulgated 12-31-74, Amended 12-21-75, Formerly 5A-3.02.*

**AQUACULTURE AUTHORITY**  
**Rule 5B-64.011, Florida Administrative Code**  
**Prohibited Aquatic Plants**

(text is as of date of publication, see <https://www.flrules.org/> for latest version)

- (1) Class I Prohibited Aquatic Plants -- Under no circumstances will these species be permitted for possession, collection, transportation, cultivation, and importation except as provided in Rule 5B-64.004, F.A.C.:

SCIENTIFIC NAMES

COMMON NAMES

<i>Alternanthera philoxeroides</i>	Alligatorweed, green lead plant
<i>Casuarina spp.</i>	Australian Pine
<i>Crassula helmsii</i>	Swamp stone crop
<i>Eichhornia spp.</i>	Waterhyacinth
<i>Hydrilla verticillata</i>	Hydrilla, Florida elodea, stargrass, oxygen grass
<i>Ipomoea aquatica</i>	Water spinach
<i>Ipomoea fistulosa</i>	
<i>Lagarosiphon spp.</i>	African elodea
<i>Limncharis flava</i>	Sawah flowing rush
<i>Lythrum salicaria</i>	Purple loosestrife
<i>Melaleuca quinquenervia</i>	Melaleuca
<i>Mimosa pigra</i>	Giant sensitive plant, cat's claw
<i>Monochoria hastata</i>	
<i>Monochoria vaginalis</i>	
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil
<i>Nechamandra alternifolia</i>	
<i>Oryza rufipogon</i>	Wild Red rice
<i>Pontederia rotundifolia</i>	Tropical pickerelweed
<i>Salvinia spp., (excluding S. minima)</i>	
<i>Schinus terebinthifolius</i>	Brazilian-pepper
<i>Sparganium erectum</i>	Exotic bur-reed
<i>Stratiotes aloides</i>	Water-aloe, soldier plant
<i>Trapa spp.</i>	Water chestnut
<i>Vossia cuspidata</i>	Hippo grass

- (2) Class II Prohibited Aquatic Plants -- These species are considered to be highly invasive and noxious in localized areas of the State of Florida. These plants may be cultured in a nursery regulated by the Department of Agriculture and Consumer Services pursuant to s. 581.031, 581.131, and 581.145, F.S., and shall only be sold out of state upon approval by the Department of Agriculture and Consumer Services. These species shall not be

imported or collected from the wild. They must be contained in such a manner so as to prevent the dissemination from the nursery premises.

<u>SCIENTIFIC NAMES</u>	<u>COMMON NAME</u>
<i>Hygrophila polysperma</i>	Hygro
<i>Limnophila sessiliflora</i>	Ambulia
<i>Pistia stratiotes</i>	Waterlettuce

- (3) The department is authorized to designate additional plants to be prohibited by emergency order as provided in Rule 5B-64.012, F.A.C.
- (4) The prohibited aquatic plant list comprises the most recent and accepted scientific and common names of the prohibited aquatic plant species. However, the prohibited status also applies to any synonyms.
- (5) The department is authorized to consider a plant for inclusion on the prohibited plant list when it displays, or when there is scientific evidence to believe it could display in the Florida environment, one or more of the following characteristics:
  - (a) The tendency to spread or become invasive in an ecosystem, sometimes in a rapid manner, so as to impair the ecosystems ability to function by altering its productivity, decomposition, water fluxes, nutrient cycling and loss, soil fertility, erosion, dissolved oxygen concentrations, or its ability to maintain its existing species diversity.
  - (b) The propensity to invade and disrupt aquatic and wetland ecosystems in other areas or in other countries with climates similar to that of Florida.
  - (c) The ability to create dense, monospecific stands or monotypic stands which displace or destroy native plant habitat, destroy fish and wildlife habitats, inhibit water circulation, hinder navigation and irrigation, or severely restrict the recreational use of waterways.
  - (d) The ability to resist effective management by present technology or available management agents so that only extraordinary efforts, such as repeated chemical treatments at high dosage rates, can bring about effective management.

*Rulemaking Authority 369.25, 369.251 FS. Law Implemented 369.25, 369.251 FS. History—New 8-11-86, Amended 6-13-93, Formerly 16C-52.011, 62C-52.011.*

## **CHAPTER 597 AQUACULTURE**

(text is as of date of publication, see <http://www.leg.state.fl.us> for latest version)

- 597.001 Florida Aquaculture Policy Act; short title.
- 597.0015 Definitions.
- 597.002 Legislative declaration of public policy respecting aquaculture.
- 597.0021 Legislative intent.
- 597.003 Powers and duties of Department of Agriculture and Consumer Services.
- 597.004 Aquaculture certificate of registration.
- 597.0041 Prohibited acts; penalties.
- 597.0042 Public records exemptions; aquaculture records.
- 597.0045 Cultured shellfish theft reward program.
- 597.005 Aquaculture Review Council.
- 597.010 Shellfish regulation; leases.
- 597.020 Shellfish processors; regulation.

**597.001 Florida Aquaculture Policy Act; short title.** This chapter may be cited as the “Florida Aquaculture Policy Act.”

**History.** s. 1, ch. 84-90; s. 1, ch. 93-152.

**597.0015 Definitions.** For purposes of this chapter, the following terms shall have the following meanings:

- (1) “Aquaculture” means the cultivation of aquatic organisms.
- (2) “Aquaculture producers” means those persons engaging in the production of aquaculture products and certified under s. 597.004.
- (3) “Aquaculture products” means aquatic organisms and any product derived from aquatic organisms that are owned and propagated, grown, or produced under controlled conditions. Such products do not include organisms harvested from the wild for depuration, wet storage, or relay for purification.
- (4) “Commissioner” means the Commissioner of Agriculture.
- (5) “Department” means the Department of Agriculture and Consumer Services.

**History.** s. 7, ch. 91-187; s. 23, ch. 96-247; s. 10, ch. 99-390.

**597.002 Legislative declaration of public policy respecting aquaculture.** The Legislature declares that aquaculture is agriculture and, as such, the Department of Agriculture and Consumer Services shall be the primary agency responsible for regulating aquaculture, any other law to the contrary notwithstanding. The only exceptions are those areas required by federal law,



rule, or cooperative agreement to be regulated by another agency. The Legislature declares that, in order to effectively support the growth of aquaculture in this state, there is a need for a state aquaculture plan that will provide for the coordination and prioritization of state aquaculture efforts and the conservation and enhancement of aquatic resources and will provide mechanisms for increasing aquaculture production which may lead to the creation of new industries, job opportunities, income for aquaculturists, and other benefits to the state. The state aquaculture plan shall guide the research and development of the aquaculture industry. Funds designated by the Legislature for aquaculture research and development or for contracting for aquaculture research and development shall be used to address the projects and activities designated in the state aquaculture plan. Any entity receiving legislative funding for aquaculture research and development programs shall report annually to the department all activities related to aquaculture to facilitate coordination and compliance with the state aquaculture plan.

**History.** s. 2, ch. 84-90; s. 3, ch. 90-92; s. 8, ch. 91-187; s. 24, ch. 96-247; s. 24, ch. 98-333.

**597.0021 Legislative intent.**

(1) It is the intent of the Legislature to enhance the growth of aquaculture in this state, while protecting Florida's environment.

(2) It is also the intent of the Legislature to give the department the duty to coordinate and assist the development of aquaculture.

(3) It is the intent of the Legislature that the Aquaculture Review Council is established to provide a means of communication between the aquaculture industry and the regulatory agencies.

**History.** s. 1, ch. 87-367; s. 4, ch. 90-92; s. 9, ch. 91-187; s. 29, ch. 91-201; ss. 2, 6, ch. 93-152; s. 25, ch. 96-247; s. 46, ch. 2012-190.

**597.003 Powers and duties of Department of Agriculture and Consumer Services.**

(1) The department is the lead agency in regulating and encouraging the development of aquaculture in this state and has and shall exercise the following functions, powers, and duties with regard to aquaculture:

(a) Issue or deny aquaculture certificates that identify aquaculture producers and aquaculture products, and collect all related fees. The department may revoke an aquaculture certificate of registration issued pursuant to s. 597.004 upon a finding that aquaculture is not the primary purpose of the certified entity's operation.

(b) Coordinate the development, annual revision, and implementation of a state aquaculture plan. The plan must include prioritized recommendations for research and development as

suggested by the Aquaculture Review Council and public and private institutional research, extension, and service programs.

(c) Develop memoranda of agreement, as needed, with the Department of Environmental Protection, the Fish and Wildlife Conservation Commission, the Florida Sea Grant Program, and other groups as provided in the state aquaculture plan.

(d) Provide staff for the Aquaculture Review Council.

(e) Forward the annually revised state aquaculture plan to the commissioner and to the chairs of the House Committee on Agriculture and Consumer Services and the Senate Committee on Agriculture 1 month prior to submission of the department's legislative budget request to the Governor.

(f) Upon the appropriation of funds by the Legislature, submit the list of research and development projects proposed to be funded through the department as identified in the state aquaculture plan, to the Governor, the President of the Senate, and the Speaker of the House of Representatives. These projects must be contracted for by the Division of Aquaculture and must require public-private partnerships, when appropriate. The contracts must require a percentage of the profit generated by the project to be deposited into the General Inspection Trust Fund solely for funding aquaculture projects recommended by the Aquaculture Review Council.

(g) Provide developmental assistance to the various sectors of the aquaculture industry as determined in the state aquaculture plan.

(h) Assist persons seeking to engage in aquaculture when applying for the necessary permits and serve as ombudsman to resolve complaints or otherwise resolve problems arising between aquaculture producers and regulatory agencies.

(i) Develop and propose to the Legislature legislation necessary to implement the state aquaculture plan or to otherwise encourage the development of aquaculture in this state.

(j) Issue or deny any license or permit authorized or delegated to the department by the Legislature or through memorandum of understanding with other state or federal agencies that furthers the intent of the Legislature to place the regulation of aquaculture in the department.

(k) Make available state lands and the water column for the purpose of producing aquaculture products when the aquaculture activity is compatible with state resource management goals, environmental protection, and proprietary interest and when such state lands and waters are determined to be suitable for aquaculture development by the Board of Trustees of the Internal Improvement Trust Fund pursuant to s. 253.68; provide training as necessary to lessees; and be responsible for all saltwater aquaculture activities located on sovereignty

submerged land or in the water column above such land and adjacent facilities directly related to the aquaculture activity.

1. The department shall act in cooperation with other state and local agencies and programs to identify and designate sovereignty lands and waters that would be suitable for aquaculture development.

2. The department shall identify and evaluate specific tracts of sovereignty submerged lands and water columns in various areas of the state to determine where such lands and waters are suitable for leasing for aquaculture purposes. This subparagraph or subparagraph 1. does not preclude the applicant from applying for sites identified by the applicant.

3. The department shall provide assistance in developing technologies applicable to aquaculture activities, evaluate practicable production alternatives, and provide agreements to develop innovative culture practices.

(1) Act as a clearinghouse for aquaculture applications, and act as a liaison between the Fish and Wildlife Conservation Commission, the Division of State Lands, the Department of Environmental Protection district offices, other divisions within the Department of Environmental Protection, and the water management districts. The Department of Agriculture and Consumer Services is responsible for regulating marine aquaculture producers, except as specifically provided herein.

(2) The specific delegation of authority granted under subsection (1) is intended to place responsibility and may not be construed so as to prevent the respective state agencies from cooperating with each other by exchanging information and providing copies of reports when deemed advisable.

(3) The department may employ such persons as are necessary to perform its duties under this chapter.

**History.** s. 3, ch. 84-90; s. 1, ch. 86-111; s. 5, ch. 87-367; s. 2, ch. 88-377; s. 10, ch. 91-187; s. 3, ch. 93-152; s. 467, ch. 94-356; s. 26, ch. 96-247; s. 25, ch. 98-333; s. 225, ch. 99-245; s. 25, ch. 2000-364; s. 38, ch. 2001-63; s. 47, ch. 2012-190; s. 153, ch. 2014-150; s. 7, ch. 2020-135; s.30, ch. 2023-154.

#### **597.004 Aquaculture certificate of registration.**

(1) CERTIFICATION. Any person engaging in aquaculture must be certified by the department. The applicant for a certificate of registration shall submit the following to the department:

(a) Applicant's name/title.

- (b) Company name.
  - (c) Complete mailing address.
  - (d) Legal property description of all aquaculture facilities.
  - (e) Actual physical street address for each aquaculture facility.
  - (f) Description of production facilities.
  - (g) Aquaculture products to be produced.
  - (h) An annual registration fee of \$100. The annual registration fee is waived for each elementary, middle, or high school and each vocational school that participates in the aquaculture certification program.
    - (i) Documentation that the rules adopted herein have been complied with in accordance with paragraph (2)(a).
    - (j) A certificate of training, if required under the best management practices adopted pursuant to this section.
- (2) RULES.
- (a) The department, in consultation with the Department of Environmental Protection, the water management districts, environmental groups, and representatives from the affected farming groups, shall adopt rules to:
1. Specify the requirement of best management practices to be implemented by holders of aquaculture certificates of registration.
  2. Establish procedures for holders of aquaculture certificates of registration to submit the notice of intent to comply with best management practices.
  3. Establish schedules for implementation of best management practices, and of interim measures that can be taken prior to adoption of best management practices. Interim measures may include the continuation of regulatory requirements in effect on June 30, 1998.
  4. Establish a system to assure the implementation of best management practices, including recordkeeping requirements.
  5. Require any facility that cultures *Micropterus salmoides floridanus* to maintain stock acquisition documentation or records of genetic testing.
- (b) Notwithstanding any provision of law, the Department of Environmental Protection is not authorized to institute proceedings against any person certified under this section to recover any costs or damages associated with contamination of groundwater or surface water, or the evaluation, assessment, or remediation of contamination of groundwater or surface water, including sampling, analysis, and restoration of potable water supplies, where the contamination

of groundwater or surface water is determined to be the result of aquaculture practices, provided the holder of an aquaculture certificate of registration:

1. Provides the department with a notice of intent to implement applicable best management practices adopted by the department;
2. Implements applicable best management practices as soon as practicable according to rules adopted by the department; and
3. Implements practicable interim measures identified and adopted by the department which can be implemented immediately, or according to rules adopted by the department.

(c) There is a presumption of compliance with state groundwater and surface water standards if the holder of an aquaculture certificate of registration implements best management practices that have been verified by the Department of Environmental Protection to be effective at representative sites and complies with the following:

1. Provides the department with a notice of intent to implement applicable best management practices adopted by the department;
2. Implements applicable best management practices as soon as practicable according to rules adopted by the department; and
3. Implements practicable interim measures identified and adopted by the department which can be implemented immediately, or according to rules adopted by the department.

(d) This section does not limit federally delegated regulatory authority.

(e) Any aquatic plant producer permitted by the department pursuant to s. 369.25 shall also be subject to the requirements of this section.

(3) **INSPECTIONS OF AQUACULTURE PRODUCTS.** The Legislature intends to eliminate duplication of regulatory inspections of aquaculture products. The regulatory and permitting authority over all aquaculture products as defined in s. 597.0015 is preempted to the department.

(a) Shellfish processing facilities are licensed pursuant to s. 597.020.

(b) Facilities operated by state agencies, local governments, educational institutions, research institutions, or restoration organizations which maintain aquaculture products for educational, scientific, demonstration, experimental, or restoration activities related to aquaculture are licensed pursuant to this section.

(c) Facilities culturing crocodylians of the order Crocodylia are dually regulated by the department and the Fish and Wildlife Conservation Commission. Any alligator producer issued an aquaculture certificate of registration pursuant to this section must also maintain an alligator

farming license from the Fish and Wildlife Conservation Commission. This chapter does not supersede the authority under chapter 379 to regulate alligator farms and alligator farmers.

(4) FEES. All fees collected pursuant to this section shall be deposited into the General Inspection Trust Fund in the Department of Agriculture and Consumer Services.

(5) IDENTIFICATION OF AQUACULTURE PRODUCTS. Aquaculture products shall be identified while possessed, processed, transported, or sold as provided in this subsection.

(a) Aquaculture products shall be identified by an aquaculture certificate of registration number from harvest to point of sale. Any person who possesses aquaculture products must show, by appropriate receipt, bill of sale, bill of lading, or other such manifest where the product originated.

(b) Marine aquaculture products shall be transported in containers that separate such product from wild stocks, and shall be identified by tags or labels that are securely attached and clearly displayed.

(c) Each aquaculture registrant who sells food products labeled as “aquaculture or farm raised” must have such products containerized and clearly labeled in accordance with s. 500.11. Label information must include the name, address, and aquaculture certification number. This requirement is designed to segregate the identity of wild and aquaculture products.

(6) SALE OF AQUACULTURE PRODUCTS.

(a) Aquaculture products, except shellfish and prohibited and restricted nonnative species identified in the Aquaculture Best Management Practices manual, may be sold by an aquaculture producer certified pursuant to this section or by a dealer licensed pursuant to part VII of chapter 379 without restriction so long as the product origin can be identified.

(b) Aquaculture shellfish must be sold and handled in accordance with s. 597.020.

(7) REGISTRATION AND RENEWALS.

(a) Each aquaculture producer must apply for an aquaculture certificate of registration with the department and submit the appropriate fee. Upon department approval, the department shall issue the applicant an aquaculture certificate of registration for a period not to exceed 1 year. Beginning July 1, 1997, and each year thereafter, each aquaculture certificate of registration must be renewed with fee, pursuant to this chapter, on July 1.

(b) The department shall send notices of registration to all aquaculture producers of record requiring them to register for an aquaculture certificate. Renewal notices shall be sent to the registrant 60 days preceding the termination date of the certificate of registration. Prior to the

termination date, the registrant must return a completed renewal form with fee, pursuant to this chapter, to the department.

(c) Any person whose certificate of registration has been revoked or suspended must reapply to the department for certification.

**History.** s. 27, ch. 96-247; s. 54, ch. 97-98; s. 26, ch. 98-333; s. 11, ch. 99-390; s. 78, ch. 2000-158; s. 27, ch. 2000-364; s. 9, ch. 2008-107; s. 76, ch. 2009-21; s. 48, ch. 2012-190; s. 154, ch. 2014-150; s. 37, ch. 2017-85; s. 1, ch. 2021-79; s.31, ch. 2023-154.

**597.0041 Prohibited acts; penalties.**

(1) It is unlawful for an aquaculture registrant to:

(a) Commingle in the same container any shellfish aquaculture product with any wild product;

(b) Transport by vessel over water both wild and aquaculture products of the same species at the same time; or

(c) Violate any provision of this chapter or chapter 500.

(2)(a) A person who violates this chapter or any rule adopted under this chapter is subject to a suspension or revocation of his or her certificate of registration or license under this chapter. The department may, in lieu of or in addition to the suspension or revocation, impose on the violator an administrative fine in the Class I category pursuant to s. 570.971 for each violation, for each day the violation exists.

(b) Except as provided in subsection (4), a person who violates this chapter or any rule adopted under this chapter commits a misdemeanor of the first degree, punishable as provided in s. 775.082 or s. 775.083.

(3) Any person certified under this chapter who has been convicted of taking aquaculture species raised at a certified facility shall have his or her certificate revoked for 5 years by the Department of Agriculture and Consumer Services pursuant to the provisions and procedures of s. 120.60.

(4) Any person who violates any provision of s. 597.010 or s. 597.020, or any rule adopted under those sections, commits a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083 for the first offense; and for the second or any subsequent offense within a 12-month period, commits a misdemeanor of the first degree, punishable as provided in s. 775.082 or s. 775.083.

**History.** s. 28, ch. 96-247; s. 12, ch. 99-390; s. 28, ch. 2000-364; s. 39, ch. 2001-63; s. 155, ch. 2014-150.

**597.0042 Public records exemptions; aquaculture records.**

(1) The following records held by the department are confidential and exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution:

(a) Shellfish receiving and production records generated by shellfish processing facilities licensed pursuant to s. 597.020.

(b) Audit records and supporting documentation required for submerged land leases issued in accordance with chapter 253 or former chapter 370.

(c) Aquaculture production records and receipts generated by aquaculture facilities certified pursuant to s. 597.004.

(2) A record made confidential and exempt under subsection (1) may be disclosed to another governmental entity in the performance of its duties and responsibilities and may be disclosed pursuant to s. 474.2165.

(3) The exemption from public records requirements under subsection (1) applies to aquaculture records held before, on, or after July 1, 2021.

(4) This section is subject to the Open Government Sunset Review Act in accordance with s. 119.15 and shall stand repealed on October 2, 2026, unless reviewed and saved from repeal through reenactment by the Legislature.

**History.** s. 1, ch. 2021-59.

**597.0045 Cultured shellfish theft reward program.** There is created a cultured shellfish theft reward program, to be administered by the department, for the purpose of granting rewards to persons who provide information leading to the arrest and conviction of individuals illegally possessing, harvesting, or attempting to harvest cultured shellfish.

(1) Each person who provides information leading to the arrest and conviction of an individual or individuals for illegally possessing, harvesting, or attempting to harvest cultured shellfish and for whom the respective state attorney notifies the department of such assistance, in writing, shall be eligible for a reward of up to \$2,500; except that law enforcement officers and department personnel, and members of their immediate families, shall not be eligible for rewards under the program. The department shall, by rule, establish a graduated reward payout schedule.

(2) The General Inspection Trust Fund of the department may be used for the cultured shellfish theft reward program, for deposit of general revenue funds and donations received from interested individuals, and for granting rewards to persons who provide information leading to the arrest and conviction of persons illegally possessing, harvesting, or attempting to harvest



cultured shellfish. The granting of rewards shall be subject to legislative appropriations to fund the program.

(3) The department may promote the cultured shellfish theft reward program to provide for public recognition of the rewards and to improve compliance with laws prohibiting illegal possession and harvesting of cultured shellfish.

**History.** s. 13, ch. 99-390.

**597.005 Aquaculture Review Council.**

(1) **COMPOSITION.** There is created within the department the Aquaculture Review Council to consist of eight members appointed by the commissioner, including an alligator farmer, a food fish farmer, a shellfish farmer, a tropical fish farmer, an aquatic plant farmer, a representative of the commercial fishing industry, and a representative of the aquaculture industry at large. Members shall be appointed for 4-year terms. Each member shall be selected from no fewer than two or more than three nominees submitted by recognized statewide organizations representing each industry segment or the aquaculture industry at large. In the absence of nominees, the commissioner shall appoint persons who otherwise meet the qualifications for appointment to the council. Members shall serve until their successors are duly qualified and appointed. An appointment to fill a vacancy shall be for the unexpired portion of the term.

(2) **MEETINGS; PROCEDURES; RECORDS.**

(a) The members of the council shall meet at least quarterly; shall elect a chair, a vice chair, and a secretary; and shall use accepted rules of procedure. The terms of such officers shall be for 1 year.

(b) The council shall meet at the call of its chair, at the request of a majority of its membership, at the request of the department, or at such times as may be prescribed by its rules of procedure.

(c) A majority of the members of the council constitutes a quorum for all purposes, and an act by a majority of such quorum at any meeting constitutes an official act of the council.

(d) The council secretary shall keep a complete record of the proceedings of each meeting, which record shall include the names of the members present and the actions taken. Such records shall be kept on file with the department, and these records and other documents about matters within the jurisdiction of the council shall be subject to inspection by the members of the council.

(3) **RESPONSIBILITIES.** The primary responsibilities of the Aquaculture Review Council are to:

(a) Formulate and recommend to the commissioner rules and policies governing the business of aquaculture by studying and evaluating aquacultural issues.

(b) Provide aquaculture industry recommendations for research and development to be included in the annual revision of the state aquaculture plan.

(c) Submit to the commissioner on an annual basis:

1. Upon the appropriation of funds by the Legislature, a prioritized list of research projects to be funded by the department. Each year, the council shall review the aquaculture legislative budget requests submitted to the department and rank them according to the state aquaculture plan.

2. Recommendations to be forwarded to the Speaker of the House of Representatives and the President of the Senate on legislation needed to help the aquaculture industry.

3. Recommendations on aquaculture projects, activities, research, and regulation and other needs to further the development of the aquaculture industry.

(d) On a quarterly basis, review and discuss problems that serve as barriers to the growth and development of aquaculture.

(e) Assist the department in carrying out duties identified in s. 597.003 by studying aquaculture issues and making recommendations for regulating and permitting aquaculture and in the development, revision, and implementation of the state aquaculture plan.

(f) Provide input to the department to perform studies, identify needs, research issues, write reports, record actions and meetings of the council and, in general, conduct the business of the council.

(g) Receive input from state agencies and public and private institutions on aquaculture research, service, development, and regulatory needs.

(h) For any problem that cannot be solved through simple cooperation or negotiation, provide an issue analysis to the chairs of the legislative agriculture committees. The analysis shall include, but not be limited to, specific facts and industry hardships, regulatory provisions, questions relative to the issue, and suggestions for solving the problem.

(i) Provide the Governor, the President of the Senate, the Speaker of the House of Representatives, and the chairs of legislative committees having primary jurisdiction over either the subject of aquaculture or the budget of the Department of Agriculture and Consumer

Services, by August 1 of each year, a list of prioritized research needs critical to development of the aquaculture industry.

**History.** ss. 5, 8, ch. 84-90; s. 7, ch. 87-367; ss. 3, 5, 6, ch. 88-377; s. 5, ch. 90-92; s. 11, ch. 91-187; ss. 4, 6, ch. 93-152; s. 29, ch. 96-247; s. 27, ch. 98-333; s. 29, ch. 2000-364; s. 58, ch. 2011-206; s. 49, ch. 2012-190.

**597.010 Shellfish regulation; leases.**

(1) **LEASE, APPLICATION FORM.** When any qualified person desires to lease a part of the bottom, water column, or bed of any of the water of this state for the purpose of growing oysters or clams, as provided for in this section, he or she shall present to the department a written application pursuant to s. 253.69.

(2) **LANDS TO BE LEASED.** The lands leased shall be as compact as possible, taking into consideration the shape of the body of water and the condition of the bottom as to hardness, or soft mud or sand, or other conditions that would render the bottoms desirable or undesirable for the purpose of oyster or clam cultivation.

(3) **SURVEYS, PLATS, AND MAPS OF REEFS.** The department shall accept, adopt, and use official reports, surveys, and maps of oyster, clam, or other shellfish grounds made under the direction of any authority of the United States as prima facie evidence of the natural oyster and clam reefs and beds, for the purpose and intent of this chapter. The department may also make surveys of any natural oyster or clam reefs or beds when it deems such surveys necessary and where such surveys are made pursuant to an application for a lease, the cost thereof may be charged to the applicant as a part of the cost of his or her application.

(4) **EXECUTION OF LEASES; LESSEE TO STAKE OFF BOUNDARIES; PENALTY FOR FAILURE TO COMPLY WITH REGULATIONS.** When a survey of the lands to be leased has been completed pursuant to s. 253.69 and filed with the department, and the cost thereof paid by the applicant, the department may execute in duplicate a lease of the water bottoms to the applicant. One duplicate, with a plat or map of the water bottoms so leased, shall be delivered to the applicant, and the other, with a plat or map of the bottom so leased, shall be retained by the department and registered in a lease book which shall be kept exclusively for that purpose by the department; thereafter the lessees shall enjoy the exclusive use of the lands and all oysters and clams, shell, and cultch grown or placed thereon shall be the exclusive property of such lessee as long as he or she shall comply with the provisions of this chapter and chapter 253. The department shall require the lessee to stake off and mark the water bottoms leased, by such ranges, monuments, stakes, buoys, etc., so placed and made as not to interfere with the

navigation, as it may deem necessary to locate the same to the end that the location and limits of the lands embraced in such lease be easily and accurately found and fixed, and such lessee shall keep the same in good condition during the open and closed oyster or clam season. All leases shall be marked according to the standards set forth in s. 253.72. The department may stipulate in each individual lease contract the types, shape, depth, size, and height of marker or corner posts. Failure on the part of the lessee to comply with the orders of the department to this effect within the time fixed by it, and to keep the markers, etc., in good condition during the open and closed oyster or clam season, shall subject such lessee to a fine not exceeding \$100 for each and every such offense.

(5) LEASES IN PERPETUITY; RENT.

(a) All leases issued previously under the provisions of s. 379.2525 shall be enforced under the authority of this chapter, notwithstanding any other law to the contrary, and shall continue in perpetuity under such restrictions as stated in the lease agreement. The annual rental fee charged for all leases shall consist of the minimum rate of \$15 per acre, or any fraction of an acre, per year and shall be adjusted on January 1, 1995, and every 5 years thereafter, based on the 5-year average change in the Consumer Price Index. Rent shall be paid in advance of January 1 of each year or in the case of a new lease at the time of signing, regardless of who holds the lease.

(b) All fees collected under this subsection and subsection (6) shall be deposited in the General Inspection Trust Fund and shall be used for shellfish aquaculture activities.

(6) FORFEITURE FOR NONPAYMENT. All leases shall stipulate that failure to timely pay the rent on or before January 1 of each year shall cause the department, at its discretion, to terminate and cancel the lease after the department has given the lessee 30 days' written notice of the nonpayment. If after receiving the notice the lessee chooses to keep the lease, the lessee shall pay the rental fee plus a \$50 late fee within the 30-day period. After the 30-day notice has expired, the department may take possession of the lease and all improvements, assets, clams, and oysters thereon.

(7) SURCHARGE FOR IMPROVEMENT OR REHABILITATION. A surcharge of \$10 per acre, or any fraction of an acre, per annum shall be levied upon each lease, other than a perpetual lease granted pursuant to former chapter 370 prior to 1985, and deposited into the General Inspection Trust Fund. The purpose of the surcharge is to provide a mechanism to have financial resources immediately available for improvement of lease areas and for cleanup and rehabilitation of abandoned or vacated lease sites. The department is authorized to adopt rules necessary to carry out the provisions of this subsection.

(a) Moneys in the fund that are not needed currently for cleanup and rehabilitation of abandoned or vacated lease sites shall be deposited with the Chief Financial Officer to the credit of the fund and may be invested in such manner as is provided for by statute. Interest received on such investment shall be credited to the fund.

(b) Funds within the General Inspection Trust Fund from receipts from the surcharge established in this section shall be disbursed for the following purposes and no others:

1. Administrative expenses, personnel expenses, and equipment costs of the department related to the improvement of lease areas, the cleanup and rehabilitation of abandoned or vacated aquaculture lease sites, and the enforcement of provisions of this section.

2. All costs involved in the improvement of lease areas and the cleanup and rehabilitation of abandoned or vacated lease sites.

3. All costs and damages which are the proximate results of lease abandonment or vacation.

4. Reward payments made pursuant to s. 597.0045.

The department shall recover to the use of the fund from the person or persons abandoning or vacating the lease, jointly and severally, all sums owed or expended from the fund.

#### (8) CULTIVATION REQUIREMENTS.

(a) Effective cultivation shall consist of the growing of the oysters or clams in a density suitable for commercial harvesting over the amount of bottom prescribed by law. This commercial density shall be accomplished by the planting of seed oysters, shell, and cultch of various descriptions. The department may stipulate in each individual lease contract the types, shape, depth, size, and height of cultch materials on lease bottoms according to the individual shape, depth, location, and type of bottom of the proposed lease. Each lessee leasing lands under the provisions of this section or s. 253.71 shall begin, within 1 year after the date of such lease, bona fide cultivation of the same, and shall, by the end of the second year after the commencement of such lease, have placed under cultivation at least one-half of the leased area and shall each year thereafter place in cultivation at least one-fourth of the leased area until the whole, suitable for bedding of oysters or clams, shall have been put in cultivation. The cultivation requirements for perpetuity leases granted pursuant to former chapter 370 prior to 1985 under previously existing law shall comply with the conditions stated in the lease agreement, and the lessee or grantee is authorized to plant the leased or granted submerged land in both oysters and clams.

(b) These stipulations apply to all leases granted after the effective date of this section. All leases existing prior to the effective date of this section will operate under the law that was in effect when the leases were granted.

(c) When evidence is gathered by the department and such evidence conclusively shows a lack of effective cultivation, the department may revoke leases and return the bottoms in question to the public domain.

(d) The department has the authority to adopt rules pertaining to the water column over shellfish leases. All cultch materials in place 6 months after the formal adoption and publication of rules establishing standards for cultch materials on shellfish leases that do not comply with such rules may be declared a nuisance by the department. The department has the authority to direct the lessee to remove such cultch in violation of this section. The department may cancel a lease upon the refusal by the lessee violating such rules to remove unlawful cultch materials, and all improvements, cultch, marketable oysters, and shell shall become the property of the state. The department has the authority to retain, dispose of, or remove such materials in the best interest of the state.

(9) LEASES TRANSFERABLE, ETC. The leases in chapter 253 and former chapter 370 shall be inheritable and transferable, in whole or in part, and shall also be subject to mortgage, pledge, or hypothecation and shall be subject to seizure and sale for debts as any other property, rights, and credits in this state, and this provision shall also apply to all buildings, betterments, and improvements thereon. Leases granted under this section cannot be transferred, by sale or barter, in whole or in part, without the written, express approval of the department, and such a transferee shall pay a \$50 transfer fee before department approval may be given. Leases inherited or transferred will be valid only upon receipt of the transfer fee and approval by the department. The department shall keep proper indexes so that all original leases and all subsequent changes and transfers can be easily and accurately ascertained.

(10) CANCELLATION OF LEASES TO NATURAL REEFS OR BEDS. Any person, within 6 months after the execution of any lease, may file a petition with the department for the purpose of determining whether a natural oyster or clam reef or bed having an area of not less than 100 square yards existed within the leased area on the date of the lease, with sufficient natural or maternal oysters or clams thereon (not including coon oysters) to have constituted a stratum sufficient to have been resorted to by the public generally for the purpose of gathering the same to sell for a livelihood. The petition shall be in writing addressed to the department, verified under oath, stating the location and approximate area of the natural reef or bed and the

claim or interest of the petitioner therein and requesting the cancellation of the lease to the natural reef or bed. A petition may not be considered unless it is accompanied by a deposit of \$500 to defray the expense of the department's investigation of the matter. Upon receipt of such petition, the department shall cause an investigation to be made into the truth of the allegations of the petition, and, if found untrue, the \$500 deposit shall be retained by the department to defray the expense of the investigation, but should the allegations of the petition be found true and the leased premises to contain a natural oyster or clam reef or bed, as described in this subsection, the \$500 deposit shall be returned to the petitioner and the costs and expenses of the investigation taxed against the lessee and the lease canceled to the extent of the natural reef or bed and the same shall be marked with buoys and stakes and notices placed thereon showing the same to be a public reef or bed, the cost of the markers and notices to be taxed against the lessee.

(11) **WHEN NATURAL REEFS OR BEDS MAY BE INCLUDED IN LEASE.**

(a) When an application for a submerged land lease for cultivating shellfish is filed, and when a resource survey of such lands identifies natural oyster or clam reefs or beds, the department shall determine if such reefs and beds are to be included in the leased area. The department, if it deems it to be in the best interest of the state, may include such natural reefs or beds in a lease. In those cases where a natural area is included in a lease, the department shall fix a reasonable value on the same, to be paid by the applicant for lease of such submerged land. No natural reefs shall be included in any shellfish or aquaculture lease granted in Franklin County.

(b) The department shall determine and settle all disputes as to boundaries between lessees. The department shall, in all cases, determine whether a particular submerged land area contains a natural reef or bed or whether it is suitable for raising oysters or clams.

(12) **FRANKLIN COUNTY LEASES.** On and after the effective date of this section, the only leases available in Franklin County shall be those issued pursuant to ss. 253.67-253.75; former chapter 370 leases shall no longer be available. The department shall require in the lease agreement such restrictions as it deems necessary to protect the environment, the existing leaseholders, and public fishery.

(13) **TRESPASS ON LEASED BEDS; PROTECTION OF LEASE AREAS.**

(a) Any person who willfully takes oysters, shells, cultch, or clams bedded or planted by a licensee under this chapter, or grantee under the provisions of heretofore existing laws, or riparian owner who may have heretofore planted the same on his or her riparian bottoms, or any oysters or clams deposited by anyone making up a cargo for market, or who willfully carries or attempts to carry away the same without permission of the owner thereof, or who willfully or

knowingly removes, breaks off, destroys, or otherwise injures or alters any stakes, bounds, monuments, buoys, notices, or other designations of any natural oyster or clam reefs or beds or private bedding or propagating grounds, or who willfully injures, destroys, or removes any other protection around any oyster or clam reefs or beds, or who willfully moves any bedding ground stakes, buoys, marks, or designations placed by the department, commits a violation of this section.

(b) Harvesting shellfish is prohibited within a distance of 25 feet outside lawfully marked lease boundaries or within setback and access corridors within specifically designated high-density aquaculture lease areas and aquaculture use zones.

(14) SHELLFISH DEVELOPMENT. The department, in cooperation with the Fish and Wildlife Conservation Commission and the Department of Environmental Protection, shall protect all clam beds, oyster beds, shellfish grounds, and oyster reefs from damage or destruction resulting from improper cultivation, propagation, planting, or harvesting. To this end, the Department of Health is authorized and directed to cooperate with the department and to make available its laboratory testing facilities and apparatus.

(15) SPECIAL ACTIVITY LICENSES. The department is authorized to issue special activity licenses, in accordance with s. 597.020, to permit the harvest or cultivation of oysters, clams, mussels, and crabs.

(16) STAKING OFF WATER BOTTOMS OR BEDDING OYSTERS WITHOUT OBTAINING LEASE. Any person staking off the water bottoms of this state, or bedding oysters on the bottoms of the waters of this state, without previously leasing same as required by law commits a violation of this section, and shall acquire no rights by reason of such staking off. This provision does not apply to grants heretofore made under the provisions of any heretofore existing laws or to artificial beds made heretofore by a riparian owner or his or her grantees on the owner's riparian bottoms.

(17) SHELLFISH HARVESTING FROM SOVEREIGN SUBMERGED LAND LEASES; USE OF DREDGE OR MECHANICAL HARVESTING DEVICE.

(a) As used in this subsection, the term:

1. "Dredge or mechanical harvesting device" means a dredge, scrape, rake, drag, or other device that is towed by a vessel or self-propelled and that is used to harvest shellfish. The term does not include handheld or handdrawn hydraulically or mechanically operated devices used to harvest cultured clams from leased sovereign submerged lands, and this subsection does not apply to such handheld or handdrawn devices.



2. “Shellfish” means oysters, clams, mussels, and scallops.

(b) The harvesting of shellfish from a sovereign submerged land lease may be authorized pursuant to chapter 253.

(c) The Board of Trustees of the Internal Improvement Trust Fund may authorize the use of a dredge or a mechanical harvesting device as a special lease condition of a sovereign submerged land lease issued under chapter 253 if:

1. The use of the dredge or mechanical harvesting device does not adversely impact the public health, safety, or welfare of adjacent natural resources; and

2. Aquaculture best management practices have been adopted pursuant to chapter 120 which:

a. Describe the approved size and specifications of the dredge or mechanical harvesting device to be used.

b. Provide conditions for deploying and using an approved dredge or mechanical harvesting device.

c. Specify requirements for monitoring potential impacts at, and adjacent to, the sovereign submerged land lease site by the leaseholder.

(d) The use of a dredge or mechanical harvesting device for the harvesting of shellfish from a sovereign submerged land lease is authorized if such use was previously authorized as an existing condition of a perpetual shellfish lease issued pursuant to former chapter 370.

(e) Only one dredge or mechanical harvesting device per lease may be possessed or operated at any time at a lease site.

(f) A dredge or mechanical harvesting device authorized by this subsection may not be used for taking shellfish for any purpose from public shellfish beds in waters of the state, and such dredge or mechanical harvesting device may not be possessed on the waters of the state from 5 p.m. until sunrise.

(g) This subsection does not authorize the harvesting of shellfish from natural reefs.

A violation of this subsection is a violation of the lease agreement and will result in the revocation of all leases held by the violator and denial of any future use of sovereign submerged land.

#### (18) FISHING FOR RELAYING OR TRANSPLANTING PURPOSES.

(a) The department may designate areas for the taking of oysters and clams to be planted on public areas. Oysters, clams, and mussels may be taken for relaying or transplanting at any time during the year so long as, in the opinion of the department, the public health will not be endangered. The amount of oysters, clams, and mussels to be obtained for relaying or

transplanting shall be established by the Fish and Wildlife Conservation Commission. The area relayed or transplanted to, and relaying or transplanting time periods shall be established in each case by the department.

(b) Application for a special activity license issued pursuant to subsection (15) for obtaining oysters, clams, or mussels for relaying from closed public shellfish harvesting areas to open areas or certified controlled purification plants or for transplanting sublegal-sized oysters, clams, or mussels must be made to the department. In return, the department may assign an area and a period of time for the oysters, clams, or mussels to be relayed or transplanted to be taken. All relaying and transplanting operations shall take place under the direction of the department.

(c) Relayed oysters, clams, or mussels shall not be subsequently harvested for any reason without written permission or public notice from the department.

(19) OYSTER AND CLAM REHABILITATION. The board of county commissioners may appropriate and expend such sums as it may deem proper for the purpose of planting or transplanting oysters, clams, oyster shell, clam shell, or cultch or to perform such other acts for the enhancement of the oyster and clam industries of the state, out of any sum in the county treasury not otherwise appropriated.

(20) COOPERATION WITH UNITED STATES FISH AND WILDLIFE SERVICE. The department shall cooperate with the United States Fish and Wildlife Service, under existing federal laws, rules, and regulations, and is authorized to accept donations, grants, and matching funds from the Federal Government in order to carry out its oyster resource and development responsibilities. The department is further authorized to accept any and all donations including funds, oysters, or oyster shells.

(21) OYSTER AND CLAM SHELLS PROPERTY OF DEPARTMENT.

(a) Except for oysters used directly in the half-shell trade, 50 percent of all shells from oysters and clams shucked commercially in the state shall be and remain the property of the department when such shells are needed and required for rehabilitation projects and planting operations, in cooperation with the Fish and Wildlife Conservation Commission, when sufficient resources and facilities exist for handling and planting such shells, and when the collection and handling of such shells is practicable and useful, except that bona fide holders of leases and grants may retain 75 percent of such shells as they produce for aquacultural purposes. Storage, transportation, and planting of shells so retained by lessees and grantees shall be carried out under the conditions of the lease agreement or with the written approval of the department and shall be subject to such reasonable time limits as the department may fix. In the event of an

accumulation of an excess of shells, the department is authorized to sell shells only to private growers for use in oyster or clam cultivation on bona fide leases and grants. No profit shall accrue to the department in these transactions, and shells are to be sold for the estimated moneys spent by the department to gather and stockpile the shells. Planting of shells obtained from the department by purchase shall be subject to the conditions set forth in the lease agreement or in the written approval as issued by the department. Any shells not claimed and used by private oyster cultivators 10 years after shells are gathered and stockpiled may be sold at auction to the highest bidder for any private use.

(b) If the department determines that it is unfeasible to collect oyster or clam shells, the shells become the property of the producer.

(c) If oyster or clam shells are owned by the department and it is not useful or feasible to use them in the rehabilitation projects, and if a leaseholder has not exercised his or her option to acquire them, the department may sell such shells for the highest price obtainable. Such shells may be used in any manner and for any purpose at the discretion of the purchaser.

(d) Moneys derived from the sale of shell shall be deposited in the General Inspection Trust Fund for shellfish programs.

(e) The department may publish notice, in a newspaper serving the county, of its intention to collect the oyster and clam shells and shall notify, by certified mail, each shucking establishment from which shells are to be collected. The notice shall contain the period of time the department intends to collect the shells in that county and the collection purpose.

## (22) REQUIREMENTS FOR OYSTER OR CLAM VESSELS.

(a) All vessels used for the harvesting, gathering, or transporting of oysters or clams for commercial purposes shall be constructed and maintained to prevent contamination or deterioration of shellfish. To this end, all such vessels shall have false bottoms and bulkheads fore and aft to prevent onboard shellfish from coming in contact with any bilge water. Dogs or other animals are not allowed at any time on vessels used to harvest or transport shellfish. A violation of this subsection will, at a minimum, result in the revocation of the violator's license.

(b) For the purpose of this subsection, "harvesting, gathering, or transporting of oysters or clams for commercial purposes" means to harvest, gather, or transport oysters or clams with the intent to sell and shall apply to a quantity of two or more bags of oysters per vessel or more than one 5-gallon bucket of unshucked hard clams per person or more than two 5-gallon buckets of unshucked hard clams per vessel.

**History.** s. 31, ch. 2000-364; s. 741, ch. 2003-261; s. 203, ch. 2008-247; s. 77, ch. 2009-21; s. 1, ch. 2016-200.

**597.020 Shellfish processors; regulation.**

(1) The department may:

(a) Adopt by rule regulations, specifications, training requirements, and codes relating to sanitary practices for catching, cultivating, handling, processing, packaging, preserving, canning, smoking, and storing oysters, clams, mussels, scallops, and crabs.

(b) License shellfish processors who handle oysters, clams, mussels, scallops, and crabs when such activities relate to quality control, sanitary, and public health practices pursuant to this section and chapter 500.

(c) License or certify, for a fee determined by rule, facilities used for processing oysters, clams, mussels, scallops, and crabs, and may levy an administrative fine in the Class I category pursuant to s. 570.971 for each violation, for each day the violation exists, or suspend or revoke such licenses or certificates upon satisfactory evidence of a violation of rules adopted pursuant to this section, and seize and destroy any adulterated or misbranded shellfish products as defined by rule.

(2) A shellfish processing plant certification license is required to operate any facility in which oysters, clams, mussels, scallops, or crabs are processed, including but not limited to: an oyster, clam, mussel, or scallop cannery; a shell stock dealership; an oyster, clam, mussel, or scallop shucking plant; an oyster, clam, mussel, or scallop repacking plant; an oyster, clam, mussel, or scallop controlled purification plant; or a crab or soft-shell crab processing or shedding plant.

(3) The department may suspend or revoke any shellfish processing plant certification license upon satisfactory evidence that the licensee has violated any regulation, specification, or code adopted under this section and may seize and destroy any shellfish product which is defined by rule to be an adulterated or misbranded shellfish product.

(4) Any license or certification authorized and issued under this chapter shall automatically expire on June 30 of each year.

**History.** s. 1, ch. 65-110; ss. 25, 35, ch. 69-106; s. 6, ch. 83-134; s. 2, ch. 84-121; ss. 4, 5, ch. 86-219; ss. 5, 19, ch. 86-240; s. 218, ch. 94-356; s. 13, ch. 96-247; s. 44, ch. 99-245; s. 32, ch. 2000-364; s. 42, ch. 2002-295; s. 156, ch. 2014-150; s. 72, ch. 2015-2.

**Note.** Former s. 370.071.

## CHAPTER 791

### SALE OF FIREWORKS

(text is as of date of publication, see <http://www.leg.state.fl.us> for latest version)

- 791.001 Application and enforcement.
- 791.01 Definitions.
- 791.012 Minimum fireworks safety standards.
- 791.013 Testing and approval of sparklers; penalties.
- 791.015 Registration of manufacturers, distributors, wholesalers, and retailers of sparklers.
- 791.02 Sale of fireworks regulated; rules and regulations.
- 791.03 Bond of licensees.
- 791.04 Sale at wholesale, etc., exempted.
- 791.05 Seizure of illegal fireworks.
- 791.055 Restrictions upon storage of sparklers.
- 791.06 Penalties.
- 791.07 Agricultural and fish hatchery use.
- 791.08 Use during designated holidays; exemption.

**791.001 Application and enforcement.** This chapter shall be applied uniformly throughout the state. Enforcement of this chapter shall remain with local law enforcement departments and officials charged with the enforcement of the laws of the state.

**History.** s. 6, ch. 87-118.

**791.01 Definitions.** As used in this chapter, the term:

- (1) “Distributor” means any person engaged in the business of selling sparklers to a wholesaler.
- (2) “Division” means the Division of the State Fire Marshal of the Department of Financial Services.
- (3) “Explosive compound” means any chemical compound, mixture, or device the primary or common purpose of which is to function by the substantially instantaneous release of gas and heat.
- (4) (a) “Fireworks” means and includes any combustible or explosive composition or substance or combination of substances or, except as hereinafter provided, any article prepared for the purpose of producing a visible or audible effect by combustion, explosion, deflagration, or detonation. The term includes blank cartridges and toy cannons in which explosives are used, the type of balloons which require fire underneath to propel them, firecrackers, torpedoes, skyrockets,

roman candles, dago bombs, and any fireworks containing any explosives or flammable compound or any tablets or other device containing any explosive substance.

- (b) “Fireworks” does not include sparklers approved by the division pursuant to s. 791.013; toy pistols, toy canes, toy guns, or other devices in which paper caps containing twenty-five hundredths grains or less of explosive compound are used, providing they are so constructed that the hand cannot come in contact with the cap when in place for the explosion; and toy pistol paper caps which contain less than twenty hundredths grains of explosive mixture, the sale and use of which shall be permitted at all times.
- (c) “Fireworks” also does not include the following novelties and trick noisemakers:
  - 1. A snake or glow worm, which is a pressed pellet of not more than 10 grams of pyrotechnic composition that produces a large, snakelike ash which expands in length as the pellet burns and that does not contain mercuric thiocyanate.
  - 2. A smoke device, which is a tube or sphere containing not more than 10 grams of pyrotechnic composition that, upon burning, produces white or colored smoke as the primary effect.
  - 3. A trick noisemaker, which is a device that produces a small report intended to surprise the user and which includes:
    - a. A party popper, which is a small plastic or paper device containing not more than 16 milligrams of explosive composition that is friction sensitive, which is ignited by pulling a string protruding from the device, and which expels a paper streamer and produces a small report.
    - b. A booby trap, which is a small tube with a string protruding from both ends containing not more than 16 milligrams of explosive compound, which is ignited by pulling the ends of the string, and which produces a small report.
    - c. A snapper, which is a small, paper-wrapped device containing not more than four milligrams of explosive composition coated on small bits of sand, and which, when dropped, explodes, producing

- a small report. A snapper may not contain more than 250 milligrams of total sand and explosive composition.
- d. A trick match, which is a kitchen or book match which is coated with not more than 16 milligrams of explosive or pyrotechnic composition and which, upon ignition, produces a small report or shower of sparks.
  - e. A cigarette load, which is a small wooden peg that has been coated with not more than 16 milligrams of explosive composition and which produces, upon ignition of a cigarette containing one of the pegs, a small report.
  - f. An auto burglar alarm, which is a tube which contains not more than 10 grams of pyrotechnic composition that produces a loud whistle or smoke when ignited and which is ignited by use of a squib. A small quantity of explosive, not exceeding 50 milligrams, may also be used to produce a small report.

The sale and use of items listed in this paragraph are permitted at all times.

- (5) “Manufacturer” means any person engaged in the manufacture or construction of sparklers in this state.
- (6) “Retailer” means any person who, at a fixed place of business, is engaged in selling sparklers to consumers at retail.
- (7) “Seasonal retailer” means any person engaged in the business of selling sparklers at retail in this state from June 20 through July 5 and from December 10 through January 2 of each year.
- (8) “Sparkler” means a device which emits showers of sparks upon burning, does not contain any explosive compounds, does not detonate or explode, is handheld or ground based, cannot propel itself through the air, and contains not more than 100 grams of the chemical compound which produces sparks upon burning. Any sparkler that is not approved by the division is classified as fireworks.
- (9) “Wholesaler” means any person engaged in the business of selling sparklers to a retailer.

**History.** s. 1, ch. 20445, 1941; s. 1, ch. 57-338; s. 1, ch. 84-201; s. 1, ch. 87-118; s. 36, ch. 89-233; s. 1906, ch. 2003-261.

**791.012 Minimum fireworks safety standards.** The outdoor display of fireworks in this state shall be governed by the National Fire Protection Association (NFPA) 1123, Code for Fireworks

Display, 1995 Edition, approved by the American National Standards Institute. Any state, county, or municipal law, rule, or ordinance may provide for more stringent regulations for the outdoor display of fireworks, but in no event may any such law, rule, or ordinance provide for less stringent regulations for the outdoor display of fireworks. The division shall promulgate rules to carry out the provisions of this section. The Code for Fireworks Display shall not govern the display of any fireworks on private, residential property and shall not govern the display of those items included under s. 791.01(4)(b) and (c) and authorized for sale thereunder.

**History.** s. 1, ch. 96-285.

**791.013 Testing and approval of sparklers; penalties.**

- (1) A person who wishes to sell sparklers must submit samples of his or her product to the division for testing to determine whether it is a sparkler as defined in s. 791.01. Such samples must be received by the division by September 1 to be considered for approval the following year. On February 1 of each year the division shall approve those products which it has tested and found to meet the requirements for sparklers. All approved sparkler products are legal for sale until January 31 of the following year. The list of approved sparkler products shall be published in the Florida Administrative Register and shall prominently state the dates between which the products may be sold. The division shall make copies of this list available to the public. A product must be tested and approved for sale in accordance with the rules adopted to implement this section. Beginning February 1, 1988, only those products approved by the division may be sold in the state. The State Fire Marshal shall adopt rules describing the testing, approval, and listing procedures.
- (2) Any person who alters an approved sparkler product, so that it is no longer a sparkler as defined in s. 791.01, and subsequently sells the product as if it were approved is guilty of a misdemeanor of the first degree, punishable as provided in s. 775.082 or s. 775.083. Any person who fraudulently represents a device as approved for sale as a sparkler product when it is not so approved is guilty of a misdemeanor of the first degree, punishable as provided in s. 775.082 or s. 775.083.
- (3) For purposes of the testing requirement by this section, the division shall perform such tests as are necessary to determine compliance with the performance standards in the definition of sparklers, pursuant to s. 791.01. The State Fire Marshal shall adopt, by rule, procedures for testing products to determine compliance with this chapter. The Division



of Investigative and Forensic Services shall dispose of any samples which remain after testing.

**History.** s. 2, ch. 87-118; s. 21, ch. 93-276; s. 1222, ch. 97-102; s. 58, ch. 2013-14; s. 38, ch. 2016-165.

**791.015 Registration of manufacturers, distributors, wholesalers, and retailers of sparklers.**

- (1) **REGISTRATION REQUIREMENTS.** Any manufacturer, distributor, wholesaler, retailer, or seasonal retailer of sparklers who wishes to do business in this state or to otherwise sell, ship, or assign for sale its products in this state must register annually with the division on forms prescribed by the division. Any retailer who sells sparklers at more than one retail location may submit one registration form for all such locations but must provide the address of each location with the registration form; however, any retailer may submit multiple registration forms.
- (2) **REGISTRATION FORM.** The registration form filed with the division must be notarized and must include the following information: business name; address; telephone number; officers, if the business is a corporation; and an individual designated as a contact person.
- (3) **FEES.**
  - (a) Each manufacturer, distributor, or wholesaler must pay an annual registration fee to be set by the division not to exceed \$1,000. Each seasonal retailer must pay an annual registration fee to be set by the division not to exceed \$200. Each retailer shall pay an annual registration fee to be set by the division not to exceed \$15 for each retail location registered. Each certificate holder wishing to have a duplicate certificate issued for one which is lost or to reflect a change of address shall request such duplicate in writing and shall pay a fee of \$5.
  - (b) Revenue from registration fee payments shall be deposited in the Insurance Regulatory Trust Fund for the purposes of implementing the registration and testing provisions of this chapter.
- (4) **RULES.** The State Fire Marshal may adopt rules prescribing registration forms required by this section.

**History.** s. 3, ch. 87-118; s. 37, ch. 89-233; s. 21, ch. 2000-370; s. 1907, ch. 2003-261.

**791.02 Sale of fireworks regulated; rules and regulations.**

- (1) Except as hereinafter provided it is unlawful for any person, firm, copartnership, or corporation to offer for sale, expose for sale, sell at retail, or use or explode any

fireworks; provided that the board of county commissioners shall have power to adopt reasonable rules and regulations for the granting of permits for supervised public display of fireworks by fair associations, amusement parks, and other organizations or groups of individuals when such public display is to take place outside of any municipality; provided, further, that the governing body of any municipality shall have power to adopt reasonable rules and regulations for the granting of permits for supervised public display of fireworks within the boundaries of any municipality. Every such display shall be handled by a competent operator to be approved by the chiefs of the police and fire departments of the municipality in which the display is to be held, and shall be of such a character, and so located, discharged, or fired as in the opinion of the chief of the fire department, after proper inspection, shall not be hazardous to property or endanger any person. Application for permits shall be made in writing at least 15 days in advance of the date of the display. After such privilege shall have been granted, sales, possession, use, and distribution of fireworks for such display shall be lawful for that purpose only. No permit granted hereunder shall be transferable.

- (2) A sparkler or other product authorized for sale under this chapter may not be sold by a retailer or seasonal retailer unless the product was obtained from a manufacturer, distributor, or wholesaler registered with the division pursuant to s. 791.015. Each retailer and seasonal retailer shall keep, at every location where sparklers are sold, a copy of an invoice or other evidence of purchase from the manufacturer, distributor, or wholesaler, which states the registration certificate number for the particular manufacturer, distributor, or wholesaler and the specific items covered by the invoice. Each seasonal retailer shall, in addition, exhibit a copy of his or her registration certificate at each seasonal retail location.

**History.** s. 2, ch. 20445, 1941; s. 1, ch. 61-312; s. 4, ch. 87-118; s. 1223, ch. 97-102.

**791.03 Bond of licensees.** The board of county commissioners shall require a bond deemed adequate by the board of county commissioners from the licensee in a sum not less than \$500 conditioned for the payment of all damages which may be caused either to a person or to property by reason of the licensee's display, and arising from any acts of the licensee, his or her agents, employees or subcontractors.

**History.** s. 3, ch. 20445, 1941; s. 1, ch. 61-312; s. 1224, ch. 97-102.

**791.04 Sale at wholesale, etc., exempted.** Nothing in this chapter shall be construed to prohibit any manufacturer, distributor, or wholesaler who has registered with the division

pursuant to s. 791.015 to sell at wholesale such fireworks as are not herein prohibited; to prohibit the sale of any kind of fireworks at wholesale between manufacturers, distributors, and wholesalers who have registered with the division pursuant to s. 791.015; to prohibit the sale of any kind of fireworks provided the same are to be shipped directly out of state by such manufacturer, distributor, or wholesaler; to prohibit the sale of fireworks to be used by a person holding a permit from any board of county commissioners at the display covered by such permit; or to prohibit the use of fireworks by railroads or other transportation agencies for signal purposes or illumination or when used in quarrying or for blasting or other industrial use, or the sale or use of blank cartridges for a show or theater, or for signal or ceremonial purposes in athletics or sports, or for use by military organizations, or organizations composed of the Armed Forces of the United States; provided, nothing in this chapter shall be construed as barring the operations of manufacturers, duly licensed, from manufacturing, experimenting, exploding, and storing such fireworks in their compounds or proving grounds.

**History.** s. 4, ch. 20445, 1941; s. 1, ch. 61-312; s. 5, ch. 87-118.

**791.05 Seizure of illegal fireworks.** Each sheriff, or his or her appointee, or any other police officer, shall seize, take, remove or cause to be removed at the expense of the owner, all stocks of fireworks or combustibles offered or exposed for sale, stored, or held in violation of this chapter.

**History.** s. 5, ch. 20445, 1941; s. 1225, ch. 97-102.

**791.055 Restrictions upon storage of sparklers.**

- (1) Sparklers shall not be stored or kept for sale in any store:
  - (a) In which paints, oils, or varnishes are manufactured or kept for use or sale unless the paints, oils, or varnishes are in unbroken containers.
  - (b) In which resin, turpentine, gasoline, or flammable substances or substances which may generate vapors are used, stored, or offered for sale unless the resin, turpentine, gasoline, or substances are in unbroken containers.
  - (c) In which there is not at least one approved chemical fire extinguisher ready, available, and equipped for use in extinguishing fires.
- (2) When sparklers are in storage to be offered for sale at retail, a sign shall be conspicuously displayed over the entrance to the room in which the sparklers are stored, which sign reads: "CAUTION SPARKLERS-NO SMOKING." No person shall be in such room while in possession of a lighted cigar, cigarette, or pipe.

**History.** s. 2, ch. 84-201.

**791.06 Penalties.** Any firm, copartnership, or corporation violating the provisions of this chapter shall be guilty of a misdemeanor of the first degree, punishable as provided in s. 775.083 or, in the case of individuals, the members of a partnership and the responsible officers and agents of an association or corporation, punishable as provided in s. 775.082 or s. 775.083.

**History.** s. 6, ch. 20445, 1941; s. 756, ch. 71-136.

**791.07 Agricultural and fish hatchery use.** Nothing in this chapter shall prohibit the importation, purchase, sale, or use of fireworks used or to be used solely and exclusively in frightening birds from agricultural works and fish hatcheries; and such use shall be governed entirely by the rules prescribed by the Department of Agriculture and Consumer Services.

**History.** s. 1, ch. 29780, 1955; s. 1, ch. 57-336; ss. 14, 35, ch. 69-106; s. 1, ch. 82-109.

**Note.** Section 10(5), ch. 2007-67, provides that “[p]ending completion of the Legislature’s review of the task force’s report and to ensure that fire prevention and safety standards are uniform, a new permanent retail sales facility engaged in sales otherwise permitted under s. 791.07, Florida Statutes, may not be opened in this state after March 8, 2007, unless the permanent retail sales facility has received site-plan approval and construction has begun on or before March 8, 2007; the number of permits for temporary retail sales facilities, such as tents, engaged in sales otherwise permitted by s. 791.07, Florida Statutes, which are issued after March 8, 2007, by a county, municipality, or other unit of local government may not exceed the number of permits that such governmental entity issued for such facilities during the previous calendar year; and a municipality, county, or other unit of local government may not adopt an ordinance, rule, regulation, or other law after March 8, 2007, which directly prohibits or directly interferes with the safety standards established by state law or the right to purchase, sell, use, or possess consumer fireworks in this state. However, if the Legislature enacts legislation to provide for the comprehensive regulation of fire prevention and safety standards for the use of consumer fireworks to replace this subsection on or before July 1, 2008, this subsection does not prohibit opening any such facility, permitting any such temporary facility, or adopting any such ordinance or other law after such legislation is enacted.”

**791.08 Use during designated holidays; exemption.**

- (1) As used in this section, the term “designated holiday” means:
  - (a) New Year’s Day, January 1;
  - (b) Independence Day, July 4; or
  - (c) New Year’s Eve, December 31.

- (2) This chapter does not prohibit the use of fireworks solely and exclusively during a designated holiday. This section is not intended to provide for the comprehensive regulation of fireworks as described in s. 10(5), chapter 2007-67, Laws of Florida, or to supersede any local governmental regulation relating to the use of fireworks as provided in s. 10(5), chapter 2007-67, Laws of Florida.
- (3) The Legislature does not intend for the application of this section to supersede any prohibition against the use of fireworks contained within a legally executed and properly recorded declaration of covenants or covenant running with the land of any homeowners' association pursuant to chapter 720. However, a homeowners' association, through a board of directors, may not promulgate rules that attempt to abrogate a homeowner's right to use fireworks during a designated holiday or under general law.

**History.** s. 1, ch. 2020-11.

## SELECTED CITATIONS OF CODE OF FEDERAL REGULATIONS

### Code of Federal Regulations, Title 40, Chapter 1, Part 122

#### Section 122.24 Concentrated aquatic animal production facilities (applicable to State NPDES programs, see Section 123.25)

- (a) *Permit requirement.* Concentrated aquatic animal production facilities, as defined in this section, are point sources subject to the NPDES permit program.
- (b) *Definition.* *Concentrated aquatic animal production facility* means a hatchery, fish farm, or other facility which meets the criteria in appendix C of this part, or which the Director designates under paragraph (c) of this section.
- (c) *Case-by-case designation of concentrated aquatic animal production facilities.*
  - (1) The Director may designate any warm or cold water aquatic animal production facility as a concentrated aquatic animal production facility upon determining that it is a significant contributor of pollution to waters of the United States. In making this designation the Director shall consider the following factors:
    - (i) The location and quality of the receiving waters of the United States;
    - (ii) The holding, feeding, and production capacities of the facility;
    - (iii) The quantity and nature of the pollutants reaching waters of the United States; and
    - (iv) Other relevant factors.
  - (2) A permit application shall not be required from a concentrated aquatic animal production facility designated under this paragraph until the Director has conducted on-site inspection of the facility and has determined that the facility should and could be regulated under the permit program.

[48 FR 14153, Apr. 1, 1983, as amended at 65 FR 30907, May 15, 2000]

#### Section 122.25 Aquaculture projects (applicable to State NPDES programs, see Section 123.25)

- (a) *Permit requirement.* Discharges into aquaculture projects, as defined in this section, are subject to the NPDES permit program through section 318 of CWA, and in accordance with 40 CFR part 125, subpart B.

- b) *Definitions.* (1) *Aquaculture project* means a defined managed water area which uses discharges of pollutants into that designated area for the maintenance or production of harvestable freshwater, estuarine, or marine plants or animals.
- (2) *Designated project area* means the portions of the waters of the United States within which the permittee or permit applicant plans to confine the cultivated species, using a method or plan or operation (including, but not limited to, physical confinement) which, on the basis of reliable scientific evidence, is expected to ensure that specific individual organisms comprising an aquaculture crop will enjoy increased growth attributable to the discharge of pollutants, and be harvested within a defined geographic area.

**Appendix C to Part 122 -- Criteria for Determining a Concentrated Aquatic Animal Production Facility (Section 122.24)**

A hatchery, fish farm, or other facility is a concentrated aquatic animal production facility for purposes of § 122.24 if it contains, grows, or holds aquatic animals in either of the following categories:

- (a) Cold water fish species or other cold water aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year but does not include:
  - (1) Facilities which produce less than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year; and
  - (2) Facilities which feed less than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.
- (b) Warm water fish species or other warm water aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year, but does not include:
  - (1) Closed ponds which discharge only during periods of excess runoff; or
  - (2) Facilities which produce less than 45,454 harvest weight kilograms (approximately 100,000 pounds) of aquatic animals per year.

"Cold water aquatic animals" include, but are not limited to, the *Salmonidae* family of fish; e.g., trout and salmon.

"Warm water aquatic animals" include, but are not limited to, the *Ameiuride*, *Centrarchidae* and *Cyprinidae* families of fish; e.g., respectively catfish, sunfish and minnows.