

AQUACULTURE BEST MANAGEMENT PRACTICES MANUAL

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Florida Department of Agriculture and Consumer Services
Division of Aquaculture
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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 off site 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, aquaculture facility operators 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 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 XIII through XVIII, including obtaining necessary federal permits. Those few species 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 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), FWC).

Pursuant to Sections 597.004(2)(c) & (d), 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 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 on site inspections at least once during each year and re-inspections as needed.

The certified facility 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 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 (ACOE) 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 ACOE 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 ACOE is the Individual Permit. Another form of authorization is the General Permit that typically covers activities the ACOE 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 an ACOE 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 works on any state sovereignty submerged lands would also be required to contact FDACS to obtain a state sovereignty submerged land's authorization.

The federal definition for agriculture does not include aquaculture. Therefore, regarding wetlands protection, the ACOE 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 ACOE 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 Rules Chapters 62-620, 62-621, and 62-660, F.A.C.

Aquaculture is considered a point source, subject to industrial waste water 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 aquaculturalist 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 a 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 clam 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 (nonpotable) 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 off site discharge of production water. Effluents must be treated and retained on site, 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 will require authorization/permitting from the local municipal wastewater treatment plant authority.
- Design a waste treatment system to accommodate the semi solid 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-3.006₂ 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.

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.
- 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.
- 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 times, 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

wetland 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.

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.

Contact FDACS before implementing the use of such ponds.

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 best management practices. This section ~~is~~ 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 timelines should not exceed 12 months. 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 XIX 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 best management practices 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.

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 off site water flow patterns.
- Fill materials from off site 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 off site 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 on site 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.
- 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 on site 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 off site 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.

H. INDUSTRY SPECIFIC CRITERIA

All new construction activities which will that create more than two acres of impervious

surface must provide stormwater treatment holding capacity for the 25 year, 24 hour rainfall event. For assistance in determining the required holding capacity, contact FDACS or consult a stormwater engineer.

In addition to complying with the water quality and attenuation criteria outlined below, aquacultural operators must also comply with all BMPs pertaining to their species which appear in the tabbed section at the back of this manual. For purposes of this BMP manual, the water quality and attenuation (flood protection) criteria have been grouped together. Rather than deal with each segment of the aquaculture industry differently, the criterion is segmented and arranged on the basis of *earthen aquacultural systems and recirculating intensive aquacultural systems*.

Best Management Practices:

- Construction that cumulatively results in more than two acres of impervious surface must provide 24-hour storage for the 25-year, 24-hour rainfall event. (Production pond water surface area is not considered impervious.)
- Construction that cumulatively results in 5% or more impervious surface, which is greater than two acres, must hire 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.)

I. 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.
- 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 sheetflow when discharging into wetlands.
- Maintain existing watersheds and point(s) of discharge during pre and post development conditions.

J. 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 for you 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 your facility to eliminate adverse impacts.

Determine if impounded water poses a safety hazard to downgrade residents and/or property and design your 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.

K. 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 you 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.

L. 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.

M. 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 State-owned (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 wall panels and 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 oversized 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 or archaeological and historical sites 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 foot print 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.

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.

Restricted nonnative species include all species that are listed as conditional species in Rule 68-5.002, F.A.C. Changes in taxonomic nomenclature do not alter the regulatory status of a species, please contact FDACS if you plan to add new species to your facility to verify the restricted or prohibited status. See the appendix for the complete list.

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

Aquaculturists who possess nonnative species are responsible for preventing their release to the environment.

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 FWC 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

Facilities culturing restricted nonnative species must adhere to the following BMPs, as well as the BMPs listed for nonnative species.

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 as listed in Rule 68-5.002, F.A.C. 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.

- 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.
- Written authorization may be required by FWC to import restricted nonnative aquatic species.
- Restricted species shall not be taken on a fee- or for-hire basis using hook and line or rod and reel.
- For owners of aquaculture facilities that are operating under permit or a certificate of registration, but which are not cultivating Nile perches (Genus *Lates*, all species including barramundi) 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. Facilities must be constructed to prevent the release of animals during a disaster.
- 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.
- The culture of restricted species of crawfish including; Australian red claw (*Cherax quadricarinatus*), red swamp crayfish (*Procambarus clarkii*) and white river crayfish (*Procambarus zonangulus*) is limited to tank culture in an enclosed structure. 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.
- The culture of restricted aquatic turtle species 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. Containment barriers shall be constructed

of solid material, or it's equivalent, and shall be secured in place. Mesh material can not 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, it is to be immediately killed and properly disposed of.

Prohibited aquatic species are not eligible for possession or culture in Florida. Prohibited species are identified by Prohibited Non-Native Species, Rule 68-5.003, F.A.C., and Aquatic Plant Importation, Transportation, Non-Nursery Cultivation, Possession and Collection, Rule 5B-64.011, F.A.C.

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 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 Disposal of Dead Animals BMPs.
- 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 on site 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.

- On site 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. Sharks 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., Aquaculture Broodstock Collection Special Activity License.
- 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., Stock Collection and Release Special Activity License.
- 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 XVI 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 XV 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 a Certificate of Veterinary Inspection signed by a licensed 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.
- Implement quarantine/isolation or disinfection procedures to reduce the risk of pathogen translocation.
- Facilities must notify their aquatic animal health professional or the Florida Department of Agriculture and Consumer Services, 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.
- 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 XIII Health Management, Chapter XVII Aquaculture Chemical and Drug Handling, and Chapter XVIII 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.
- 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

Off site discharges 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 Section IV, subsection E, Water Resources, Effluent Treatment.
- Penaeid shrimp production facilities must place screens with mesh sizes sufficient to prevent escape of the 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 (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 and a signed Certificate of Veterinary Inspection from a licensed veterinarian. The Certificate of Veterinary Inspection at a minimum should identify the type test performed, test results, and the dates of such testing for any notifiable or reportable pathogen as determined by the World Organisation for Animal Health (OIE), USDA APHIS VS, or the State Veterinarian.
- Broodstock brought into a facility 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 Florida Department of Agriculture and Consumer Services, Division of Animal Industry, State Veterinarian's Office, (850) 410-0900, 407 South Calhoun Street, Mayo Building, Room 330, Tallahassee, Florida 32399 in the event of a suspected or confirmed finding of any notifiable or reportable pathogen as determined by the World Organisation for Animal Health (OIE), USDA APHIS VS, or the State Veterinarian.

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*) can not 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 a signed Certificate of Veterinary Inspection attesting to the current health status of the sturgeon dated within 30 days of shipment.
- 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. Aquaculturists should also contact the Division 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 will be made available for inspection by FDACS upon request.
- In the event of an accidental release or escape of sturgeon into surface waters of the State, the facility manager or designated representative must report the release within 24 hours, to FDACS. The report should include the species released, the approximate size and number of fish released, the exact location of the release and the name of the receiving body of water.

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 for 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 – 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. UPLAND FACILITY OPERATIONS

Best Management Practices:

- Sovereignty submerged lands authorizations must be obtained for structures located on or over state-owned submerged lands. Contact FDACS for information.
- Land-based facilities must be designed and operated in a manner which minimizes adverse impacts to the receiving waters, adjacent wetlands, and uplands.
- Pumping, intake and discharge systems must be designed in a manner which does not create currents which increase sedimentation, scouring, turbidity, or in anyway 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.
- Hatchery operators must maintain records of all brood stock purchases and seed sales for a period at least two years. These records must be available for inspection by FDACS upon request.

- A Florida based clam hatchery selling seed must be certified as a clam hatchery facility. Clam seed sold/transferred from these certified facilities must be accompanied with an aquaculture certification number attached to all product containers and associated sales documentation.

B. SUBMERGED LANDS - GROW-OUT

Best Management Practices:

- Aquaculturists culturing shellfish on Sovereignty Submerged Lands (state-owned) 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 Programmatic General Permit (SAJ-99), Live Rock and Marine Bivalve Aquaculture – State of Florida or comply with the conditions of an ACOE individual permit.
- Aquaculturists culturing shellfish on privately held submerged lands and selling products must have an Aquaculture Certificate of Registration from FDACS or a Saltwater Products license from FWC and must follow all shellfish sanitary handling requirements found in Rule Chapter 5L-1, F.A.C.
- 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.
- Mechanical harvesting is prohibited on aquaculture grow-out areas unless specified in the lease agreement.
- 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 grow-out 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 available 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.

C. 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 Chapters 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 2013 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 processor or must become a certified shellfish processor to sell shellfish for human consumption to a retailer or the consumer.
- Seed clams 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.
- Relaying must comply with the provisions of Shellfish Relaying, Rule Chapter 5L-1.009, F.A.C.
- Transport, harvest or sale of shellfish, other than seedstock as defined in this section, from a grow-out facility (lease) which is closed for public health purposes to another grow-out facility is prohibited without a valid special activity license for relaying.
- 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.

D. GENETIC PROTECTION

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 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 in their genetic selection program. Documentation of broodstock origin must be obtained and retained for two years by the hatcheries.
- 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.
- Aquaculturists culturing diploid shellfish, other than hard clams, located on Atlantic coast waters, who intend to sell or use seed stocks for further grow out in the State of Florida must use broodstock which originated from Florida Atlantic coast waters in their genetic selection program. Aquaculturists located on Gulf Coast waters, who intend to sell or use seed stocks for further grow-out in the State of Florida must use broodstock which

originated from Florida waters of the Gulf of Mexico in their genetic selection program. Documentation of broodstock origin must be obtained from the hatchery and retained for two years.

- Clam seed stocks provided by an out-of-state source must utilize Florida broodstock in their genetic selection program. Documentation of broodstock origin must be obtained from the hatchery and retained for two years.
- 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.
- Out of State Source -Triploid seed derived from a tetraploid crossed with a diploid oyster require the use of broodstock from the Gulf of Mexico.
- Out of State Source (Grow out in Gulf Coast waters) -Triploid seed derived from the manipulation of a cross of two diploid oysters require that the broodstock come from Florida Gulf Coast waters.
- Out of State Source (Grow out in Atlantic Coast waters) -Triploid seed derived from a manipulation of the cross of two diploid oysters require that the broodstock come for Florida Atlantic Coast waters.

E. 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 a Certificate of Veterinary Inspection signed by a licensed veterinarian certifying that the stock shows no clinical signs of the following pathogens: Quahog Parasite Unknown

(QPX) in clams; *Haplosporidium nelsoni* (MSX), *Perkinsus marinus* (Dermo) and *Bonamia exitiosa* in oysters. Certificates are valid for 30 days following issuance by the veterinarian. Additional pathogens as identified by the State Veterinarian, USDA APHIS VS or OIE list may require additional testing.

- 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 from Atlantic Coast waters is prohibited in Florida Gulf Coast waters.
- Florida Atlantic Coast hatcheries and nurseries can only provide oyster seed for grow-out in Florida Atlantic Coast waters.
- The producer's Aquaculture Certification Number must accompany shellfish being transported from a hatchery or nursery and to or from grow out areas.
- All shellfish facility operators will notify the Florida Department of Agriculture and Consumer Services, Division of Animal Industry, State Veterinarian's Office, (850) 410-0900, 407 South Calhoun Street, Mayo Building, Room 330, Tallahassee, Florida 32399 within 24 hours of confirmed disease outbreaks considered listed or reportable by the State Veterinarian, USDA APHIS VS or OIE.

F. 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.

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 – 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.

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 – State of Florida or comply with the conditions of an ACOE 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 on site and off site 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 off site 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 number and lease number if from a submerged lands lease
 - Name and address of the Purchaser
 - Purchaser's Aquaculture Certificate 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., and retain source documentation (receipts, bills of sale, bills of lading, or customs receipts) for live rock and marine live species legally harvested from sources outside Florida waters. This documentation shall be made available for inspection upon request.
- 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.

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

XII. AQUATIC PLANTS

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 **not** 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. 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 importing aquatic species from outside the United States or Florida. Please contact, USDA, USFWS, and FWC 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 Certification 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.
- The confirmed diagnosis of a World Organization for Animal Health (OIE) reportable disease, a US notifiable disease, or a disease identified as a concern in Florida, must be reported to the State Veterinarian immediately at (850) 410-0900, see http://www.aphis.usda.gov/animal_health/nahrs/disease_list.shtml 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, 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.
- Promptly remove pathogen harboring organic debris from tanks or ponds.
- Sanitize tanks or ponds following disease outbreaks or before stocking with new populations.

SEE INDIVIDUAL SPECIES SECTIONS FOR SPECIFIC HEALTH BMPS
OR CONTACT FDACS

XIV. DISPOSAL OF DEAD ANIMALS

Dead animals and those culled from production must be disposed of following State and Federal guidelines.

Best Management Practices:

- Sanitize or disinfect and then dispose of organisms(s) in a sanitary and humane fashion in accordance with applicable local and state regulations.
- Contact FDACS for additional information.

XV. 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 a specific animal predation 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 be directed to the Division of Aquaculture, Holland Building, Suite 217, 600 South Calhoun Street, Tallahassee, Florida 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.

XVI. 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. 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 product 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 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 as listed in Rule 68-5.002, F.A.C. 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.

- Fish of the genus *Centropomus* (snook) or the genus *Micropterus* (black bass) may be cultured for stocking purposes only. Buying, selling, bartering, trading or exchanging of these species for human consumption is prohibited.
- Pursuant to Rule 68A-25.002(6)(c), F.A.C., the sale of turtles or turtle eggs taken from the wild is prohibited.
- 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 U.S. Fish and Wildlife Service 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.

XVII. 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) 617-7997.

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.

A. 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/fisheries/aadap/home.htm>.

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.

XVIII. 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 XV. Preventing Wildlife Depredation.
- Comply with Aquaculture Best Management Practices, Chapter XVI. Shipment, Transportation, and Sale.
- Comply with Aquaculture Best Management Practices, Chapter XVII. Aquaculture Chemical and Drug Handling.
- For more information, see <https://www.avma.org/kb/policies/documents/euthanasia.pdf>

XIX. APPENDIX

CHAPTER 5L-3 AQUACULTURE BEST MANAGEMENT PRACTICES

5L-3.001	Purpose
5L-3.002	Definitions
5L-3.003	Requirement for an Aquaculture Certificate of Registration
5L-3.004	Aquaculture Best Management Practices Manual
5L-3.005	Aquaculture Certificate of Registration
5L-3.006	Minimal Impact Aquaculture Facilities
5L-3.007	Failure to Comply With the Best Management Practices

5L-3.001 Purpose.

This rule establishes application procedures and best management practices, as provided by Chapter 597, F.S., to be followed by aquaculture producers in order to obtain an aquaculture certificate of registration from the Florida Department of Agriculture and Consumer Services.

Rulemaking Authority 570.07(23), 597.004(2)(b) FS. Law Implemented 597.002, 597.003(1)(a), (j), 597.004(2) FS. History—New 10-4-00.

5L-3.002 Definitions.

Definitions used in Chapter 5L-3, F.A.C.

(1) “Department” means the Florida Department of Agriculture and Consumer Services.

(2) “Individual Production Unit” means any pond, tank, raceway, marine net pen, or integrated aquacultural system constructed and maintained in accordance with Aquaculture Best Management Practices wherein aquatic species are cultured.

Rulemaking Authority 403.0885(5) FS. Law Implemented 570.07(23), 597.002, 597.003(1)(a), (j), 597.004(2) FS. History—New 10-4-00.

5L-3.003 Requirement for an Aquaculture Certificate of Registration.

All aquaculture producers shall have an aquaculture certificate of registration from the Department and apply the best management practices identified in this rule. The aquaculture certificate of registration shall have a duration as specified in Section 597.004(6), F.S., unless suspended or revoked by the Department for failure to comply with Sections 597.004 and 597.0041(1), F.S.

Rulemaking Authority 570.07(23), 597.004(2)(b) FS. Law Implemented 597.003, 597.004, 597.0041 FS. History—New 10-4-00.

5L-3.004 Aquaculture Best Management Practices Manual.

(1) The Aquaculture Best Management Practices manual, FDACS-02034 rev. September 2015 is hereby adopted and incorporated by reference and is immediately available at

<http://www.flrules.org/Gateway/reference.asp?No=Ref-05760> or may be obtained by contacting the Division of Aquaculture, Holland Building, 600 South Calhoun Street, Suite 217, Tallahassee, FL 32399, (850) 617-7600

(2) The following documents have been adopted by reference into the Aquaculture Best Management Practices Manual, FDACS-02034 rev. September 2015 and are hereby incorporated by reference and available online as indicated:

(a) USDA NRCS, Ponds-Planning, Design and Construction Agricultural Handbook, Number 590 (November, 1997), <http://www.flrules.org/Gateway/reference.asp?No=Ref-05761>

(b) University of Florida IFAS, Stormwater Detention and Discharge from Aquaculture Ponds in Florida, Publication BUL334 (January, 2015) <http://www.flrules.org/Gateway/reference.asp?No=Ref-05762>

(c) USDA NRCS Conservation Practice Standard, Conservation Cover, Code 327, (October, 2011)

<http://www.flrules.org/Gateway/reference.asp?No=Ref-05763>

(d) USDA NRCS, Conservation Practice Standard, Aquaculture Ponds, Code 397 (June, 2004/March, 2003) <http://www.flrules.org/Gateway/reference.asp?No=Ref-05764>

(e) Southern Regional Aquaculture Center, Watershed Fish Production Ponds: Guide to Site Selection and Construction, SRAC Publication No. 102, (September, 2002), <http://www.flrules.org/Gateway/reference.asp?No=Ref-05765>

(f) Standard Manatee Conditions For In-Water-Work, U.S. Army Corps of Engineers, (2011), <http://www.flrules.org/Gateway/reference.asp?No=Ref-05766>

(g) National Shellfish Sanitation Program (NSSP), Guide for the Control of Molluscan Shellfish, (2013), <http://www.flrules.org/Gateway/reference.asp?No=Ref-05848>

(h) USDA APHIS Wildlife Services, Prevention and Control of Wildlife Damage, Bird Dispersal Techniques (1994), <http://www.flrules.org/Gateway/reference.asp?No=Ref-05849>

(i) USDA APHIS Wildlife Services, Prevention and Control of Wildlife Damage, Bird Damage at Aquaculture Facilities (1994), <http://www.flrules.org/Gateway/reference.asp?No=Ref-05850>

Specific Authority 570.07(23), 597.004(2)(a), 791.07 F.S. Law Implemented 597.003, 597.004 F.S. History-New 10-4-00, Amended 12-29-02, 6-8-04, 11-22-05, 4-9-07, _____.

5L-3.005 Aquaculture Certificate of Registration.

(1) 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) One Hundred dollar annual registration fee.
- (i) 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).
- (2) The Department shall issue an aquaculture certificate of registration when an applicant:
 - (a) Has submitted the required information pursuant to Section 597.004(1), F.S.;
 - (b) Signs a statement of intent to comply with the Best Management Practices (BMPs) in Rule 5L-3.003, F.A.C.
 - (c) Pays the appropriate fee to the Department; and
 - (d) Provides 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).

Specific Authority 570.07(23), 597.004(2) FS. Law Implemented 597.003(1)(a), 597.004 FS., Amended_____.

History New 10-4-00_____.

5L-3.006 Minimal Impact Aquaculture Facilities.

- (1) When determined by the Division of Aquaculture's evaluation of facility design and on site inspections, the following individual production units are deemed to have minimal impacts on water resources and are not required to follow the effluent treatment BMPs in Rule 5L-3.004, F.A.C. All other applicable Rule 5L 3.004, F.A.C., BMPs must be followed.
 - (a) Recirculation systems that do not discharge to waters of the state.
 - (b) Culture of filter feeders which does not include-feed or fertilizer inputs.
 - (c) Raceway or down-weller systems for native filter feeders that utilize less than 800 square feet of raceways or down-wellers, and do not add supplemental algae as a food source.
 - (d) Fee fishing operations with a standing crop of less than 1000 pounds of fish per acre.
 - (e) 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 free board at the discharge point control structure.
 - (f) Aquaculture systems that do not discharge production unit water to surface waters of the state.

- (2) Aquaculture facilities which do not qualify as minimal impact aquaculture facilities are required to follow all applicable BMPs in Rule 5L-3.004, F.A.C., in order to be certified.

Specific Authority 570.07(23), 597.004(2)(a), FS. Law Implemented 597.002, 597.003(1)(a), 597.004 FS. History New 10-4-00, Amended_____.

5L-3.007 Enforcement Actions and Administrative Penalties for Failure to Comply With the Best Management Practices.

- (1) This rule sets forth the guidelines the department will follow in imposing the penalties authorized under Section 597.0041, F.S. The purpose of the guidelines is to give notice of the range of penalties which will be imposed for a single violation within a twelve (12) month period. The twelve-month period shall be based on the date of the last non-compliance event documented against the violator. These guidelines list aggravating and mitigating factors that, if

present, will increase or reduce the penalties to be imposed against the violator by the department. No aggravating factors will be applied to increase a fine imposed for a single violation above the statutory maximum for a Section 570.971, F.S., Class I category of \$1,000 for each violation as provided in Chapter 597, F.S. The guidelines in this rule chapter are based upon a single count violation of each provision listed. Multiple counts of the violated provision or a combination of the listed violations will be added together to determine a total penalty and will be grounds for enhancement of penalties.

(2) The department will enforce compliance with Chapter 597, F.S., and this rule chapter by issuing a noncompliance letter or an administrative fine.

(3) Any person failing to meet the BMPs and/or refusing to implement the BMPs must obtain all necessary permits/authorizations required by the Department of Environmental Protection, Water Management District, Florida Fish and Wildlife Conservation Commission and any other appropriate regulatory authority.

(4) Nothing in this chapter shall limit the ability of the department to informally dispose of administrative actions by settlement agreement, consent order, or other lawful means.

(5) Rule Not All-Inclusive. This rule contains illustrative violations. It does not, and is not intended to encompass all possible violations of statutes or department rules that might be committed by any person. The absence of any violation from this rule chapter shall in no way be construed to indicate that the violation does not cause harm to the public or is not subject to a penalty. In any instance where the violation is not listed in this rule chapter, the penalty will be determined by consideration of:

(a) The closest analogous violation, if any, that is listed in this rule; and

(b) The aggravating or mitigating factors listed in this rule.

(6) Aggravating and Mitigating Factors. The department will consider aggravating and mitigating factors in determining penalties for violations of Chapter 597, F.S., and this rule chapter. These factors shall be applied against each single count of the listed violation.

(a) Aggravating Factors:

1. The violation endangered the public safety or welfare.

2. Previous violations within the preceding three (3) years for the same or a similar offense that resulted in imposition of administrative penalties, issuance of a noncompliance letter, or a suspension or revocation of a license.

3. The violator impeded, or otherwise failed to cooperate with, the department's inspection or investigation.

4. The violation resulted from negligence or an intentional act.

5. The number of other violations proven in the same proceeding.

6. The benefit to the violator.

(b) Mitigating Factors:

1. Any documented efforts by the violator at rehabilitation.

2. Financial hardship.

3. Acts of God or nature that impair the ability of the violator to comply with Chapter 597, F.S., or Rule 5L-3.007, F.A.C.

4. The violator took corrective action within twenty-four (24) hours of receiving written

notification of the violation.

5. The disciplinary history of the person committing the violation in the preceding three years.

6. If a repeat violation, whether twelve (12) months has passed since the prior violation.

7. A statement, in writing, provided to the department during an investigation declaring acceptance of responsibility for a violation.

(7) The provisions of this rule chapter shall not be construed so as to prohibit or limit any other civil action or criminal prosecution that may be brought.

(8) Penalties. Any person who violates any provision of Chapter 597, F.S., or Rule 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 certificate of registration.

(a) Notice of Noncompliance. Any departmental inspection which reveals the following will result in the issuance of a noncompliance letter as the department's first response to the violation.

1. Minor violations of this rule chapter in which the department determines that the violator was unaware of the rule or unclear as to how to comply with the rule.

2. First time violations of Chapter 597, F.S., or Rule Chapter 5L-3, F.A.C., other than Minor or Major violations. The violator will have 60 days within which to correct the deficiencies.

3. Failure to provide division staff access for inspections during department business hours.

(b) Minor violations. Minor violations shall result in imposition of a fine of up to \$500. A violation of Chapter 597, F.S., or this rule chapter is a minor violation if it does not result in economic or physical harm to a person or adversely affect the public health, safety, or welfare or create a significant threat of such harm. The following violations shall be considered minor violations:

1. Failure to correct deficiencies within 60 days following a noncompliance letter.

2. First repeat violations of Chapter 597, F.S., or Rule Chapter 5L-3, F.A.C., other than Minor or Major violations, within twelve (12) months.

3. Possession of restricted/conditional species as defined in Rule 68-5.002, F.A.C., without proper authorization.

(c) Major violations. Major violations shall result in imposition of a fine of up to \$1,000. Any person who violates any provision of Chapter 597, F.S., or Rule 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 certificate of registration. The following violations shall be considered major violations:

1. First repeat minor violation of Chapter 597, F.S., or Rule Chapter 5L-3, F.A.C., within twelve (12) months.

2. Second repeat of violation of Chapter 597, F.S., or Rule Chapter 5L-3, F.A.C., other than Minor or Major violations, within twelve (12) months.

3. Commingling wild and aquaculture products.

4. Live sale of restricted/conditional species as defined in Rule 68-5.002, F.A.C., without proper authorization and documentation.

5. Possession of prohibited species as defined in Rule 68-5.003, F.A.C., without proper authorization.

6. Construction or excavation in a wetland without proper authorization from the Florida

Department of Environmental Protection, Water Management District and/or Army Corps of Engineers.

7. Improper disposal of bags, cover netting, or other materials used in the culture of shellfish on submerged lands when materials are removed during maintenance or harvesting or dislodged during storm events.

8. Direct sale of aquaculture shellfish from the farmer to the retailer or consumer.

9. Failure to properly tag aquacultured shellfish pursuant to Rule Chapter 5L-1, F.A.C.

(9) Additional Costs.

In addition to the penalties established in this rule, the department reserves the right to seek to recover any penalties, attorney’s fees, court costs, service fees, collection costs, damages, and other costs including costs resulting from a payment that is returned for insufficient funds to the department. Additionally, the cost of any enforcement proceeding may be added to any penalty imposed.

(10) Nothing in this rule chapter shall prohibit the department and person charged with a violation from resolving violations prior to administrative hearing, or from entering into settlement pursuant to s. 120.57(4), F.S. The department is authorized to utilize all available remedies to ensure compliance including administrative action, civil actions, and referrals for criminal prosecution.

(11) Failure to Comply.

1. A failure to comply with an agreement to resolve violations or a settlement agreement shall result in the penalties and remedies provided in the agreement as authorized by Chapter 120, F.S., or Chapter 597, F.S.

2. A failure to comply with either a Final Order or Default Final Order shall result in a permit revocation and an administrative fine of up to \$1,000 per violation as provided in Section 597.0041, F.S. Additional penalties shall be sought through the enforcement of the order in circuit court.

(12) Failure to Respond. Failure to respond to an administrative complaint shall result in the entry of a Default Final Order against the violator or entity responsible for the violation. The department shall impose the maximum administrative fine amount of \$1,000 per violation pursuant to Section 570.971, F.S., for a Default Final Order.

Specific Authority 597.07(23), 597.004(2)(a), FS. Law Implemented 597.004, 597.0041 FS. History New 10-4-00, Amended_____.

Aquaculture Authority

Agricultural and Fish Hatchery Use of Firecrackers.	83
Prohibited Aquatic Plants	84
Containment.	86
Nonnative Marine Plants and Animals	89
Florida Aquaculture Policy Act.	91
Sale of Fireworks.	114

Citations of Relevant Federal Law	122
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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 XIII- Health Management
Chapter XIV- Disposal of Dead Animals
Chapter XV- Preventing Wildlife Depredation
Chapter XVI- Shipment, Transportation and Sale
Chapter XVII- Aquaculture Chemical and Drug Handling
Chapter XVIII- 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 XIII - Health Management
Chapter XVI - Shipment, Transportation and Sale
Chapter XVII - 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 XIII- Health Management
Chapter XIV- Disposal of Dead Animals
Chapter XV- Preventing Wildlife Depredation
Chapter XVI- Shipment, Transportation and Sale
Chapter XVII- Aquaculture Chemical and Drug Handling
Chapter XVIII- Aquatic Animal Welfare

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

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

Freshwater

**Ornamental/
~~Tropical Fish:~~**

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

Ponds:

Chapter V - Construction
Follow IFAS Guidelines
Follow NRCS Guidelines

Raceways:

Chapter IV - Water Resources

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 XIII - Health Management
Chapter XVI - Shipment, Transportation and Sale
Chapter XVII - Aquaculture Chemical and Drug Handling
Chapter XVIII - 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 XIII - Health Management
Chapter XIV - Disposal of Dead Animals
Chapter XV - Preventing Wildlife Depredation
Chapter XVI - Shipment, Transportation and Sale
Chapter XVII - Aquaculture Chemical and Drug Handling
Chapter XVIII - Aquatic Animal Welfare

Sturgeon:

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

Tilapia:

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

RESOURCES FOR AQUACULTURE INFORMATION

Florida Department of Agriculture and Consumer Services-

Division of Aquaculture

Florida Department of Agriculture and Consumer Services

Division of Aquaculture

Holland Building, Suite 217

600 South Calhoun Street

Tallahassee, Florida 32399

(850) 617-7600

www.FreshFromFlorida.com

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.FreshFromFlorida.com

Division of Food Safety-Bureau of Food and Meat Inspection

Florida Department of Agriculture and Consumer Services

3125 Conner Blvd., Suite H

Tallahassee, Florida 32399-1650

(850) 245-5520

www.FreshFromFlorida.com

Division of Plant Industry

1911 SW 34th Street

Gainesville, Florida 32608-1201

(352) 395-4700

www.FreshFromFlorida.com

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

Natural Resources Conservation Service (NRCS) Area Offices -

State Office

P.O. Box 141510

Gainesville, Florida 32614-1510
(352) 338-9500

Area 1 Administrative Office
4155 Hollis Drive
Marianna, Florida 32448-2708
(850) 482-2002

Area 2 Administrative Office
3804 South First Street
Lake City, Florida 32025-4212
(904) 755-5100

Area 3 Administrative Office
5700 Lake Worth Road, Suite 100
Lake Worth, Florida 33463-3213

University of Florida (IFAS)

Tropical Aquaculture Laboratory
(ornamental fish, general aquaculture, nonnative species, aquatic animal health)
1408 24th Street, Southeast
Ruskin, Florida 33570
(813) 671-5230
(813) 671-5234 FAX

Cedar Key Field Station (shellfish)
P.O. Box 89
Cedar Key, Florida 32625
(352) 543-5057
(352) 543-6958

Fisheries and Aquatic Sciences Program
(shellfish, general aquaculture, aquatic animal health)
7922 Northwest 71st Street
Gainesville, Florida 32606
(352) 273-3672
Fax:(352)-392-3672

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) 377-5556
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. 10th 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 -
6620 Southpoint Drive S, Suite 310
Jacksonville, Florida 32216
(904) 232-2580

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

1339 20th Street
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) 725-5922

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
U.S. Highway 41 South
Brooksville, Florida 34609-6899
1 (800) 423-1476

Department of Environmental Protection – District Offices

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794
(850) 444-8300

Northeast District
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
(904) 448-4300

Central District
33319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
(407) 894-7555

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619-8318
(813) 744-6100

South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901
(941) 332-6975

Southeast District
400 North Congress Avenue
West Palm Beach, Florida 33401
(561) 681-6600

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-3002 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 for 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.

Specific 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.

Rule 68-5.001, Florida Administrative Code
Introduction of Non-Native Aquatic Species in the Waters of the State
(text is as of date of publication, see <https://www.flrules.org/> for latest version)

- (1) No person shall transport into the state, introduce, or possess for any purpose that might be reasonably expected to result in liberation into the waters of the state, any freshwater fish, aquatic invertebrate, marine plant, marine animal, or wild animal life not native to the state, without having secured a permit from the Commission, except:
- (a) Fathead or tuffy minnow (*Pimephales promelas*).
- (b) Variable platy (*Xiphophorus variatus*).

Introduction of Non-Native Aquatic Species in the Waters of the State. Rulemaking Authority Art. IV, Sec. 9, Fla Const, Law Implemented Art. IV, Sec. 9, Fla Const, History-New 6-7-07, Amended 8-23-10.

Rule 68-5.002, Florida Administrative Code
Conditional Non-native Species.

Live specimens of the following species, including their taxonomic successors, subspecies, or hybrids or eggs thereof may be possessed only pursuant to permit issued by the Executive Director except as provided in subsection 68-5.001(3), F.A.C.

- (1) Non-native freshwater fish and aquatic invertebrate species.
- (a) Bighead carp (*Aristichthys nobilis*).
- (b) Bony-tongue fishes (Family Arapaimidae).
1. Arapaima (*Arapaima gigas*).
2. Heterotis (*Heterotis niloticus*).
- (c) Dorados (Genus *Salminus*, all species).
- (d) Freshwater stingrays (Family Potamotrygonidae, all species).
- (e) Grass carp (*Ctenopharyngodon idella*), with restrictions as provided in Rule 68A-23.088, F.A.C.
- (f) Silver carp (*Hypophthalmichthys molitrix*).
- (g) Snail or black carp (*Mylopharyngodon piceus*).
- (h) Nile perches (Genus *Lates*, all species). 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:
1. Shall be held only in indoor facilities.
2. Shall not be taken on a fee or for-hire basis using hook and line or rod and reel.
- (i) Blue tilapia (*Oreochromis aureus*), except that *Oreochromis aureus* may be possessed, cultured, and transported without permit in Citrus County in the North Central Region; and all counties of the Northeast, South and Southwest Regions.
- (j) Wami tilapia (*Oreochromis urolepis*).
- (k) Mozambique tilapia (*Oreochromis mossambicus*)
- (l) Nile tilapia (*Oreochromis niloticus*)

- (m) Walking catfish (*Clarias batrachus*)
- (n) 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.
- (o) Australian red claw crayfish (*Cherax quadricarinatus*) only in closed tank culture systems.
- (p) Red swamp crayfish (*Procambarus clarkii*) and white river crayfish (*Procambarus zonangulus*)
 1. Pond aquaculture of either species is prohibited.
 2. Red swamp crayfish and white river crayfish may be possessed west of the Apalachicola River and its tributaries or imported for direct sale to food wholesalers and food retailers for resale to consumers without permit.
- (q) Arowanas (Family Osteoglossidae, all species except silver arowana, *Osteoglossum bicirrhosum*).
- (r) 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.
- (2) Non-native mammals – Nutria (*Myocaster coypus*).
- (3) Non-native turtles. Red-eared slider (*Trachemys scripta elegans*): red-eared sliders may be possessed only by permitted individuals or commercial import or export businesses according to the provisions of paragraph 68-5.001(3)(d), F.A.C., except as provided below:
 - (a) Red-eared sliders in personal possession prior to July 1, 2007 may continue in the possession of the owner without a permit, except that red-eared sliders less than four inches carapace length may not be possessed after July 1, 2008 without a permit.
 - (b) Red-eared sliders with distinctive aberrant color patterns, including albino or amelanistic specimens, may be possessed without a permit otherwise required by this rule.

Rulemaking Authority Art. IV, Sec. 9, Fla Const, Law Implemented Art. IV, Sec. 9, Fla Const, History-New 6-7-07, Amended 7-1-10, 8-23-10.

**68-5.003, Florida Administrative Code
Prohibited Non-native Species.**

Live specimens of the following species, including their taxonomic successors, subspecies, or hybrids or eggs thereof may be possessed only pursuant to permit issued by the Executive Director except as provided in subsection 68-5.001(4), F.A.C.

- (1) Non-native freshwater aquatic species:
 - (a) African electric catfishes (Family Malapteruridae, all species).
 - (b) African tigerfishes (Genus *Hydrocynus*, all species).
 - (c) Airbreathing catfishes (Family Clariidae, all species except *Clarias batrachus*).
 - (d) Candiru catfishes (Family Trichomycteridae, all species).
 - (e) Freshwater electric eels (*Electrophorus electricus*).
 - (f) Lampreys (Family Petromyzontidae, all species).
 - (g) All species of piranha and pirambeba (subfamily Serrasalminae).
 - (h) Snakeheads (Family Channidae, all species).
 - (i) Tilapias (Genera *Tilapia*, *Sarotherodon*, *Alcolapia* and *Oreochromis*, all species except *Oreochromis aureus*, *Oreochromis urolepis*, *Oreochromis mossambicus*, and *Oreochromis*

niloticus).

- (j) Trahiras or Tigerfishes (Family Erythrinidae, all species).
- (k) Airsac catfishes (Family Heteropneustidae, all species).
- (l) Green sunfish (*Lepomis cyanellus*).
- (m) Australian crayfish (Genus *Cherax*, all species except *Cherax quadricarinatus* cultured in a closed tank system).
- (n) Zebra mussel (*Dreissena polymorpha*).
- (o) Quagga mussel (*Dreissena bugensis*).
- (2) Non-native mammals – African giant pouched rats (Genus *Cricetomys*, all species).
- (3) Non-native marine species:
 - (a) Mitten crab (Genus *Eriocheir*, all species).
 - (b) Sea snakes (Family Hydrophiidae, all species), except that sea snakes may be possessed as described in subsection 68-5.001(4)(a)6., F.A.C.
 - (c) Weeverfishes (Family Trachinidae, all species).
 - (d) Stone fishes (Genus *Synanceia*, all species).
 - (e) Genus *Synanceia*, all species.
 - (f) Pitted stonefish (*Erosa erosa*).
 - (g) Red rock cod (*Scorpaena papillosa*).
 - (h) Stonefish (*Leptosynanceia asteroblepa*).
 - (i) Stargazing stonefish (*Trachicephalus uranoscopus*).

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History–New 6-7-07, Amended 7-1-10, 8-26-10.

Section 379.26, Florida Statutes
Illegal importation or possession of nonindigenous marine plants and animals;
rules and regulations.

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

- (1) It is unlawful to import or possess any marine plant or marine animal, not indigenous to the state, which, due to the stimulating effect of the waters of the state on procreation, may endanger or infect the marine resources of the state or pose a human health hazard, except as provided in this section.
- (2) Marine animals not to be imported shall include, but are not limited to, all species of the following:
 - (a) Sea snakes (Family Hydrophiidae), except as provided in subsection (4);
 - (b) Weeverfishes (Family Trachinidae); and
 - (c) Stonefishes (Genus *Synanceja*).
- (3) The Fish and Wildlife Conservation Commission is authorized to adopt, pursuant to chapter 120, rules and regulations to include any additional marine plant or marine animal which may endanger or infect the marine resources of the state or pose a human health hazard.
- (4) A zoological park and aquarium may import sea snakes of the family Hydrophiidae for exhibition purposes only under the following conditions:
 - (a) Only male sea snakes may be possessed.
 - (b) A zoological park and aquarium possessing sea snakes shall not be located in a coastal county and shall have no contiguous connection with any waters of the state.
 - (c) Each zoological park and aquarium possessing sea snakes shall provide quarterly reports to the department regarding the number of each species of sea snakes on the premises and any changes in inventory resulting from death or additions by importation.
 - (d) Sea snakes shall not be released into the waters of the state.
 - (e) Each zoological park and aquarium possessing sea snakes shall post with the commission a \$1 million letter of credit. The letter of credit shall be in favor of

the State of Florida, Fish and Wildlife Conservation Commission, for use by the commission to remove any sea snake accidentally or intentionally introduced into waters of the state. The letter of credit shall be written in the form determined by the commission. The letter of credit shall provide that the zoological park and aquarium is responsible for the sea snakes within that facility and shall be in effect at all times that the zoological park and aquarium possesses sea snakes.

- (f) A zoological park and aquarium shall not barter, sell, or trade sea snakes within this state.
 - (g) A zoological park and aquarium that imports sea snakes may bring the sea snakes into this state only by airplane that may only land at an airport located in a noncoastal county within this state.
 - (h) A zoological park and aquarium possessing sea snakes shall abide by all statutory and regulatory requirements of the Fish and Wildlife Conservation Commission with respect to venomous reptiles.
- (5) It is unlawful to release into the waters of the state any nonindigenous saltwater species whether or not included in subsection (2) or prohibited by rules and regulations adopted pursuant to subsection (3) or authorized by subsection (4).
- (6) Any person who violates this section commits a Level Three violation under s. 379.401.

History.--s. 1, ch. 71-68; s. 1, ch. 77-65; s. 1, ch. 92-60; s. 220, ch. 94-356; s. 11, ch. 98-333; s. 102, ch. 99-245; s. 7, ch. 2006-304; s. 90, ch. 2008-247; s. 10, ch. 2010-185.

Note.—Former s. 370.081.

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.
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- 597.003 Powers and duties of Department of Agriculture and Consumer Services.
- 597.004 Aquaculture certificate of registration.
- 597.0041 Prohibited acts; penalties.
- 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, ch. 2012-190.

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

- (1) The department is hereby designated as the lead agency in encouraging the development of aquaculture in the state and shall have and 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.
 - (b) Coordinate the development, annual revision, and implementation of a state aquaculture plan. The plan shall 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) Submit the list of research and development projects proposed to be funded through the department as identified in the state aquaculture plan, along with the department's legislative budget request to the Governor, the President of the Senate, and the Speaker of the House of Representatives. If funded, these projects shall be contracted for by the Division of Aquaculture and shall require public-private partnerships, when appropriate. The contracts shall 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 the 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. Nothing in this subparagraph or subparagraph 1. shall 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 shall be responsible for regulating marine aquaculture producers, except as specifically provided herein.
 - (2) 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.

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.
- (b) Rules adopted pursuant to this subsection shall become effective pursuant to the applicable provisions of chapter 120, but must be submitted to the President of the Senate and the Speaker of the House of Representatives for review by the Legislature. The rules shall be referred to the appropriate committees of substance and scheduled for review during the first available regular session following adoption. Except as otherwise provided by operation of law, such rules shall remain in effect until rejected or modified by act of the Legislature.
- (c) 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.
- (d) 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.
- (e) This section does not limit federally delegated regulatory authority.
- (f) Any aquatic plant producer permitted by the department pursuant to s. 369.25 shall also be subject to the requirements of this section.
- (g) Any alligator producer with an alligator farming license and permit to establish and operate an alligator farm shall be issued an aquaculture certificate of registration pursuant to this section. This chapter does not supersede the authority under chapter ~~379~~ ~~372~~ to regulate alligator farms and alligator farmers.
- (3) FEES.--Effective July 1, 1997, all fees collected pursuant to this section shall be deposited into the General Inspection Trust Fund in the Department of Agriculture and Consumer Services.
- (4) 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.

(5) SALE OF AQUACULTURE PRODUCTS.--

- (a) Aquaculture products, except shellfish, snook, and any fish of the genus *Micropterus*, and prohibited and restricted freshwater and marine species identified by rules of the Fish and Wildlife Conservation Commission, may be sold by an aquaculture producer certified pursuant to this section without restriction so long as product origin can be identified.
- (b) Aquaculture shellfish must be sold and handled in accordance with s. 597.020.

(6) 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.

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.

597.0045 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 as follows: the chair of the State Agricultural Advisory Council or designee and seven additional members to be 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. A prioritized list of research projects to be included in the department's legislative budget request. 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 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 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 chapters 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.**--
- (a) The department shall improve, enlarge, and protect the natural oyster and clam reefs and beds of this state to the extent it may deem advisable and the means at its disposal will permit.
 - (b) The Fish and Wildlife Conservation Commission shall, to the same extent, assist in protecting shellfish aquaculture products produced on leased or granted reefs and beds.
 - (c) The department, in cooperation with the commission, shall provide the Legislature with recommendations as needed for the development and the proper

protection of the rights of the state and private holders therein with respect to the oyster and clam business.

- (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 SEASONS; SPECIAL PROVISIONS RELATING TO APALACHICOLA BAY.**--
 - (a) The Fish and Wildlife Conservation Commission shall by rule set the noncultured shellfish harvesting seasons in Apalachicola Bay.

 - (b) If the commission changes the harvesting seasons by rule as set forth in this subsection, for 3 years after the new rule takes effect, the commission, in cooperation with the department, shall monitor the impacts of the new harvesting schedule on the bay and on local shellfish harvesters to determine whether the new harvesting schedule should be discontinued, retained, or modified. In monitoring the new schedule and in preparing its report, the following information shall be considered:
 - 1. Whether the bay benefits ecologically from the new harvesting schedule.
 - 2. Whether the new harvesting schedule enhances the enforcement of shellfish harvesting laws in the bay.
 - 3. Whether the new harvesting schedule enhances natural shellfish production, oyster relay and planting programs, and shell planting programs in the bay.
 - 4. Whether the new harvesting schedule has more than a short-term adverse economic impact, if any, on local shellfish harvesters.

(18) REMOVING OYSTERS, CLAMS, OR MUSSELS FROM NATURAL REEFS; LICENSES, ETC.; PENALTY.--

- (a) It is unlawful to use a dredge or any means or implement other than hand tongs in removing oysters from the natural or artificial state reefs or beds. This restriction shall apply to all areas of Apalachicola Bay for all shellfish harvesting, excluding private grounds leased or granted by the state prior to July 1, 1989, if the lease or grant specifically authorizes the use of implements other than hand tongs for harvesting. Except in Apalachicola Bay, upon the payment of \$25 annually, for each vessel or boat using a dredge or machinery in the gathering of clams or mussels, a special activity license may be issued by the Fish and Wildlife Conservation Commission pursuant to subsection (15) or s. 379.361 for such use to such person.
- (b) Approval by the department to harvest shellfish by dredge or other mechanical means from privately held shellfish leases or grants in Apalachicola Bay shall include, but not be limited to, the following conditions:
1. The use of any mechanical harvesting device other than ordinary hand tongs for taking shellfish for any purpose from public shellfish beds in Apalachicola Bay shall be unlawful.
 2. The possession of any mechanical harvesting device on the waters of Apalachicola Bay from 5 p.m. until sunrise shall be unlawful.
 3. Leaseholders or grantees shall notify the department no less than 48 hours prior to each day's use of a dredge or scrape in order for the department to notify the Fish and Wildlife Conservation Commission that a mechanical harvesting device will be deployed.
 4. Only two dredges or scrapes per lease or grant may be possessed or operated at any time.
 5. Each vessel used for the transport or deployment of a dredge or scrape shall prominently display the lease or grant number or numbers, in numerals which are at least 12 inches high and 6 inches wide, in such a manner that the lease or grant number or numbers are readily identifiable from both the air and the water.

Any violation of this paragraph or of any other statutes, rules, or conditions referenced in the lease agreement shall be considered a

violation of the license and shall result in revocation of the lease or a denial of use or future use of a mechanical harvesting device.

- (c) Oysters may be harvested from natural or public or private leased or granted grounds by common hand tongs or by hand, by scuba diving, free diving, leaning from vessels, or wading. In Apalachicola Bay, this provision shall apply to all shellfish.
- (19) FISHING FOR RELAYING OR TRANSPLANTING PURPOSES.--
- (a) The department shall designate areas for the taking of oysters and clams to be planted on leases, grants, and 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, 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.
- (20) OYSTER AND CLAM REHABILITATION.--The board of county commissioners of the several counties 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.
- (21) DREDGING OF DEAD SHELLS PROHIBITED.--The dredging of dead shell deposits is prohibited in the state.
- (22) 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.

(23) 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 shell, and when the collection and handling of such shell is practicable and useful, except that bona fide holders of leases and grants may retain 75 percent of such shell 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) Whenever the department determines that it is unfeasible to collect oyster or clam shells, the shells become the property of the producer.
- (c) Whenever oyster or clam shells are owned by the department and it is not useful or feasible to use them in the rehabilitation projects, and when no leaseholder has exercised his or her option to acquire them, the department may sell such shells for the highest price obtainable. The shells thus sold 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.

- (24) OYSTER CULTURE.--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 and control the pollution of the waters over or surrounding beds, grounds, or reefs, and to this end the Department of Health is authorized and directed to lend its cooperation to the department, to make available its laboratory testing facilities and apparatus.
- (25) 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 be provided with false bottoms and bulkheads fore and aft to prevent onboard shellfish from coming in contact with any bilge water. No dogs or other animals shall be allowed at any time on vessels used to harvest or transport shellfish. A violation of any provision of this subsection shall result in at least 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.

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, callops, 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 1 category pursuant to s. 570.971 for each violation, for each day the violation exists,¹ or suspend or revoke such licenses or certificates upon satisfactory evidence of a violation of rules adopted pursuant to this section,² 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.

¹**Note.**- The word “to” following the word “or” was deleted by the editors for clarity.

²**Note.**-The word “to” following the word “and” was deleted by the editors for clarity.

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.
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- 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.

791.001 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 hand held 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 ~~Weekly~~ 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 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

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 certificateholder 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.”

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.