Updated Governmental Permitting and Regulatory Requirements Affecting Texas Coastal Aquaculture Operations

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Introduction

Governmental Permitting and Regulatory Requirements

A significant number of federal, state and local government agencies are involved in the regulation of aquaculture (including mariculture) operations. This involvement includes site selection, facility design and construction, operations, species obtainment, production, processing, and marketing.

The regulatory environment is often a source of concern to individuals, investors and corporations due to the possibility of unanticipated delays and increased capital and operating expenses. The source of this concern is frequently based on a small percentage of proposed projects that encounter regulatory difficulties.

In most cases, regulatory difficulties arise because of inadequate planning, lack of knowledge of the process by the applicant, and incomplete information concerning the agencies' respective requirements. This is not to imply that improvements cannot be made in the regulatory environment, but rather to point out that information on government regulations is available and agency representatives are responsive to requests for assistance concerning their agency's jurisdiction. However, it is not the responsibility of an agency representative to be knowledgeable about the regulations of all other agencies that may have regulatory authority over some phase of a proposed project. This responsibility remains with the project applicant.

Jurisdiction over various aspects of mariculture in public waters of Texas, such as mariculture licenses, navigation, natural resource protection, public health, maintenance of environmental quality, and permit review and comment is held by multiple state and federal agencies, including the Texas Department of Agriculture, Texas Parks and Wildlife Department (TPWD), Texas Commission on Environmental Quality (TCEQ), The Texas General Land Office, Texas Department of State Health Services, Texas Animal Health Control, Texas Historical Preservation and Antiquities Committee, U.S. Environmental Protection Agency, U.S. Fish & Wildlife Service, U.S. Army Corps of Engineers, U.S. Coast Guard, National Marine Fisheries Service, USDA Animal and Plant Health Inspection Service, the U.S. Food and Drug Administration, the Gulf of Mexico Fishery Management Council and, possibly, the U.S. Department of Interior, Minerals Management Service if an offshore rig platform is involved. Each agency controls, regulates, oversees or just reviews and comments on aquaculture permits or some other aspect of aquaculture (including mariculture) in varying degrees of involvement. Some are seldom involved with mariculture and others are heavily involved. For example, the state agencies (TCEQ and TPWD) are generally heavily involved in coastal aquaculture permitting, especially with exotic shrimp. On the other hand, the U.S. Department of Agriculture is not involved with the permitting process, but plays a key role in the development of the aquaculture industry in the United States.

The National Aquaculture Act Development Act of 1980 established a coordinating group, the Joint Subcommittee on Aquaculture (JSA), chaired by the U.S. Department of Agriculture. The JSA has been responsible for developing the National Aquaculture Development Plan, which identifies the relative roles of the U.S. Departments of Agriculture, Interior, and Commerce, and establishes a strategy for the development of an aquaculture industry in the United States. In addition to federal and state governmental agencies, a prospective aquaculturist might also have to seek local government permits in some cases.

In view of the need to provide prospective aquaculturists, as well as established operators who may wish to expand, with information and sources of contact regarding applicable government agencies, this manual lists each federal and state agency that has been determined to have authority over aquaculture operations. Under each agency heading are descriptions of the agency's role, responsibility and regulatory requirements. In most cases, the following format is used for presentation of these requirements:

- Agency role and responsibility
- Regulatory requirements (permit, license, certification, etc.)
- Procedures and contacts
- Review and coordination
- Processing time requirements

- Issuance, fees and terms

Local government agencies also are presented and discussed in general terms.

Aquaculture is an emerging industry not only in Texas but also throughout the United States. It is the fastest growing sector of agriculture, but is not always treated as agriculture by the regulatory agencies. For example, the Texas state regulatory agency that controls discharges treats aquaculture effluents as industrial wastewater. Some regulatory programs in place today were established prior to the time when aquaculture was recognized as having sufficient significance to warrant particular attention. The industry has grown from a few part-time culture efforts to corporate operations with substantial capital investments. Some of the small family-owned businesses have grown and are now large, partially integrated operations, with production farm, processing, cold storage, wholesale and retail sales all owned and operated by one family.

Some adjustments have been made in the existing regulatory framework to accommodate the needs of the industry and the need to protect the state's natural resources. Others, no doubt, will need to be made as the industry grows and matures. In 1989, the Texas Legislature recognized the potential of aquaculture to the Texas economy in the Fish Farming Act of 1989.

The Legislature then transferred authority to regulate aquaculture from Texas Parks and Wildlife to the Texas Department of Agriculture (TDA). TDA was designated as the lead agency and directed to establish and implement an aquaculture program for Texas, but the Legislature did not provide the funds for TDA to do the job. At the same time, the Legislature created the Aquaculture Executive Committee (AEC) to assist in promotion of the aquaculture industry. This three-member committee consisted of the Commissioner of the Texas General Land Office (GLO), the Commissioner of the Texas Department of Agriculture (TDA) and the Chairman of the Texas Parks and Wildlife Commission (TPWC). This Committee was never functional due partly to the political personalities holding those positions not being able to work together and eventually the AEC was disbanded by recommendation from the Senate Natural Resources Interim Committee on the Texas Aquaculture Industry in 1996. When the AEC was abolished it was replaced with a Memorandum of Agreement between TNRCC (now TCEQ), TPWD and TDA in 1999, which required all three state agencies to work together in permitting aquaculture.

In 1991, the Texas Water Commission (now TCEQ) reversed its position on the need for discharge permits for aquaculture, which had been in place since 1988. Farms inside the coastal plain were required to be individually permitted.

Changes in the current regulatory framework are still necessary to encourage and allow the aquaculture industry, especially the offshore aquaculture industry, to expand. Overall, the state's regulatory environment is not conducive to aquaculture and is more restrictive than it is in other states, such as Florida and Mississippi, but less restrictive than the neighboring state of Louisiana. However, the regulations in place are protecting the state's natural resources and have safeguards to protect abuses against the environment.

The current and future needs of the industry must be assessed, plans developed, programs initiated and appropriate changes made. This will involve cooperation and coordination at both the federal and state levels, and may even require new state and federal legislation to bring about change. Additional federal and state legislation is needed, especially in relation to offshore aquaculture. State agency boards and commissions must be convinced that proposed regulatory changes would be in keeping with their respective agencies' roles and responsibilities.

With all the regulatory changes that have taken place in the state and the U.S. since the Fish Farming Act of 1989, there is a need to understand and document the current permitting and regulatory process, which seems to be ever changing. While certain changes may be forthcoming, such as agency name changes, the basic framework will likely remain intact, with the exception of offshore aquaculture, where major changes are necessary before this industry can grow. The purpose of this document is to present a snapshot of the permitting and regulatory requirements that exist at the current time. The specific objective is to provide a guide to assist aquaculturists who are planning to expand current operations and to prospective aquaculturists who are considering entering the business.

Texas Agency Cooperation in Aquaculture Permitting Is Required by State Law

Generally

The Texas Commission on Environmental Quality (TCEQ) must provide copies of applications for aquaculture wastewater discharge permits to the Texas Department of Agriculture (TDA) and the Texas Parks and Wildlife Department (TPWD). All three agencies shall each appoint one representative to review aquaculture wastewater discharge permits (Texas Agriculture Code § 134.031). TPWD has the authority in consultation with TCEQ to establish guidelines that identify sensitive aquatic habitats in the coastal zone; those guidelines are to be used by TCEQ in reviewing applications for new aquaculture facilities or expansions of existing facilities in the coastal zone. The area referred to as the coastal zone is described in more detail in the section on TCEQ permitting (appendix #2, TCEQ general permit and fees) or in the section on Texas General Land Office, Coastal Management Program, under Texas Boundary.

Collective Permitting

A 1999 amendment to the Water Code requires TCEQ, TDA and the TPWD to collectively permit discharges of suspended solids from aquaculture facilities in the coastal zone (Texas Water Code § 26.0345). The State Legislature in 1999 required a Memorandum Of Understanding (MOU) between the three state agencies charged with regulating aquaculture. The MOU is referenced in TCEQ Rule Log No. 1999-035-007-WT. Pursuant to Senate Bill 873, the TCEQ, Texas Parks & Wildlife Department (TPWD), and the Texas Department of Agriculture (TDA) have adopted a Memorandum of Understanding (30 TAC § 7.013) which requires that the agencies work cooperatively in the regulation of aquaculture activities. The TDA is responsible for licensing aquaculture facilities and promoting aquaculture commerce. Prior to the TDA issuing an aquaculture production license or the TPWD issuing an exotic species permit to an applicant, the applicant must provide proof of an exemption from permitting or a discharge authorization issued from the TCEQ. The TPWD is included in the permit application and draft permit comment process to assist in the determination of whether or not the proposed discharges will adversely affect waters in the state.

Under the MOU, the TPWD has taken the task of establishing guidelines for the identification of sensitive aquatic habitat within the coastal zone. These sensitive habitat guidelines provide an outline for the Site Assessment Report, which is required for new and expanding commercial shrimp facilities located within the coastal zone. The Site Assessment Report must assess potential impacts on sensitive aquatic habitats, significant impacts related to the construction or operation of the facility and any mitigation actions proposed by the applicant. TCEQ must consider the Site Assessment Report before making a determination on the wastewater discharge permit.

General Permits

Water Code § 26.040, Issuance of General Permits to Dispose of Wastes, was established on December 20, 1999. Under this section, the TCEQ issues an industry-specific permit under which facilities meeting the inclusion criteria can operate. A general permit for aquaculture is under development.

Summary Tables of Permits, Licenses, Certificates and Regulations Affecting Aquaculture Operations

Description

The regulatory programs of all agencies that were determined to have a potential impact on aquaculture were reviewed and are summarized in the following tables. These tables should be used to identify regulations that may affect a particular project. The identification should then be verified for applicability by reviewing the more detailed descriptions of the regulations that are presented on an agency-by-agency basis in the Agency Role and Responsibilities section. This section provides a listing of the regulations that are likely to pertain to a specific project. Subsequent discussions and meetings with staff members of the relevant agencies should confirm the applicability of the regulations.

The intended use of the tables, to potential aquaculturists as well as established operators who may wish to expand operations, are as follows:

- Provide a useable source of information for aquaculturists to become familiar with the general permitting and regulatory requirements of each of the regulatory authorities.
- Enable regulatory requirements to be included in the initial site selection and evaluation process.
- Provide references to identify specific permits or regulations on an agency-by-agency basis, allow for a more detailed review consultation, and determine project applicability.
- Assist in determinations of the time and money costs attributable to regulatory compliance and the impact to the economic feasibility of the project.
- Prepare detailed project plans and specifications consistent with agency rules and regulations.
- Develop a permitting sequence plan for submission of relevant permit or license applications in a manner that reduces project delays.

Prerequisites to Submission of Permit Applications

The site selection and evaluation process is important to the determination of the permits and licenses that may be required to construct and operate the aquaculture facility. Of greater importance is determination of whether the site is appropriate for the development of a profitable operation. When several sites are being considered, the site selection and characterization process will assist in selecting the best site. There are other important prerequisites to the submission of project permit applications; the following is a suggested list of steps to be taken:

- Seek technical assistance. The Texas Marine Advisory Service, Texas Cooperative Extension, Texas Commission on Environmental Quality and the Texas Department of Agriculture should be the initial contacts for assistance. Later, contacts with the staff of the other pertinent regulatory agencies are advisable.
- Review and become familiar with the general regulatory and permitting requirements applicable to aquaculture operations.
- Evaluate the potential aquaculture site(s) to include: land and water characterization, restraints analysis, species suitability analysis, economic or cost analysis, and an assessment of the permit and regulatory implications. The evaluation should encompass the entire operation, i.e. production and bulk sales, processing, and sales at the wholesale or retail levels.
- Prepare preliminary conceptual designs for site development, service facilities construction and an operating plan for the facility.
- Meet and discuss the preliminary plans with officials from agencies having regulatory authority over the project. The project plans should also be discussed with local officials. Obtain information on regulatory requirements, suggestions on design modifications, and any additional information or plans needed for submission of future permit applications. Several meetings or discussions may be required.

- Update the economic or cost analysis of the project in view of the comments and recommendations received.
- Prepare detailed plans and specifications for site development, facility construction and facility operations.
- Prepare a permit application sequencing plan.
- Initiate the permit application process, beginning first with local governments and then proceeding to applicable state and federal agencies.

Completion of these preliminary steps should help in the timely processing of all applicable permits and authorizations to ensure that major permit requirements have not been overlooked, and to prevent the need for major project design modifications midway into the permitting process.

Site Development Involving Wetlands/Submerged Lands

The permits and regulations of specific government entities that may affect the siting and site development activities for an aquaculture facility are summarized in Table 1. This table is designed for use in evaluating potential regulations arising from land preparation activities necessary to support service facility construction and the basic site work that is usually completed prior to construction of buildings.

Site development example activities listed in Table 1 are referenced to land grading and clearing, construction of foundations, construction of service roads, dredging or filling, bulkhead construction, levee construction, digging of drainage canals, trenching for water supply and discharge lines, and other similar activities that are land disturbing. Permitting implications of these activities depend on where the activities will take place and the types of lands and waters affected. For example, dredge or fill activities in navigable waters will require a section 404/10 Permit from the Corps of Engineers, an easement or lease from the Texas General Land Office and possibly a Sand, Shell, Gravel and Marl Permit from the Texas Parks and Wildlife Department.

Table 1. Site Development Involving Wetlands/Submerged Lands

Example Activities	Agencies	Required Reviews, etc.
Pipelines, piers, dredging, spoiling, intake structures, wetlands use	COE	404/10 Permit
Any structure/activity on or over State owned submerged lands	GLO	Easement, Lease or Structure Registration
Removal of sand, shell, gravel or marl from submerged lands	TPWD	Sand, Shell, Gravel, Marl Permit
Structures or activities within the 100-year floodplain	TCEQ	Reclamation Engineer Permit
Proposed COE 404/10 Permit Activity	FWS, NMFS TPWD, TAC	Review and coordination of proposed activity before issuance of COE Permit
Placement of plant material into State Waters as part of mitigation planting	TPWD	Public Water Stocking permit

Service Facilities Construction

State and local government agencies may have direct or indirect regulatory authority over the design and construction of aquaculture service facilities. Service facilities include hatchery facilities, production or growout facilities including ponds, tanks and raceways, depuration facilities, processing plants and similar facility construction.

Table 2 lists the agencies that may have applicable plan approval and facility inspection regulations. For example, aquaculturists who plan to raise tilapia must satisfy the Texas Parks and Wildlife Department's culture facility requirements in order to obtain a permit authorizing the culture of tilapia. Failure to incorporate these requirements in the facility design and construction plans may result in later

facility modification in order to qualify for a tilapia permit. The Texas Department of State Health Services has specific regulations concerning the design of shellfish depuration facilities and for all processing plants.

This table should be used to determine if plan approval or construction inspections are required for the species to be cultured and whether depuration or processing will be a part of the aquaculture operation. Additional details can then be obtained by reviewing the agency and regulatory program descriptions.

Table 2. Service Facilities Construction

Example Activities	Agencies	Permits, Licenses, Required Reviews, etc.
Hatcheries for exotic finfish, shellfish[1], game fish and alligators	TPWD	Approval of Plans
Hatcheries for exotic finfish, shellfish, game fish and alligators	Relevant City or County	Approval of Plans, Inspection
Production/growout facilities for exotic finfish, shellfish, game fish & alligators	TPWD	Approval of Plans
Production/growout facilities for exotic finfish, shellfish, game fish and alligators	TDSHS	Classification of Molluscan Shellfish Growout Areas
Depuration activities (shellfish[2])	TDSHS	Certification
Processing facilities (shellfish)	TDSHS	Certification

[1]TPWD defines shellfish as all mollusks and crustaceans (see glossary).
[2]TDSHS defines shellfish as clams, mussels and oysters (see glossary).

Water Use and Wastewater Discharge

Tables 3 and 4 illustrate that regulations affecting aquaculture facility production and operations pertain primarily to compliance with and permit conditions applicable to the facility, including water use and wastewater discharge conditions. "Freshwater diversion" or "saltwater withdrawal" refers to the source(s) of water for operating the facility and "discharge" pertains to where the water will go when disposed of from the aquaculture facility or when the water leaves private lands.

By comparing a preliminary site development plan with the table, an initial list of potential permits and regulations can be prepared. The applicability of a particular permit to the project can then be determined by referring to the permitting agency and permit description that is presented in the section "Agency Role and Responsibilities."

Table 3. Water Use

Example Activities	Agencies	Permits, Licenses, Required Reviews, etc.
Freshwater diversion (surface waters)	TCEQ	Water Use Permit
Freshwater diversion (surface waters)	Affected River Authority	Review/Comment
Saltwater withdrawal (bays, estuaries, etc.)	TCEQ	Notice of Use
Freshwater withdrawal (underground)	Affected Water District	Withdrawal Permit

Table 4. Water Discharge

Example Activities	Agencies	Permits, Licenses, Required Reviews, etc.
Discharge into public waters (fresh or saltwater) (covered by TCEQ-TPDES permit)	EPA	NPDES Permit
Discharge into public waters (fresh or saltwater)	TCEQ	TPDES Permit
Discharge into publicly owned waste treatment facility	Relevant City or County	Approval and Possibly Pretreatment
Discharge for land irrigation	TCEQ	TPDES Permit

Species Obtainment

The aquatic species that may be raised in aquaculture operations are regulated primarily by the Texas Parks and Wildlife Department and the Texas Department of Agriculture. The U.S. Fish and Wildlife Service regulates imports and exports.

Table 5 lists the general and specific species that currently require a permit, facility inspection prior to permit issuance, and licenses authorizing culture. Additional information on the specific species authorized for culture is presented in the description of the Texas Parks and Wildlife Department's regulatory programs. Information on the regulatory programs of the other listed agencies also may be obtained by referring to the specific agency descriptions in Section 3.

Table 5. Species Obtainment

Species	Agencies	Permits, Licenses, Required Reviews, etc.
Tilapia and other approved exotic finfish	TPWD	Tilapia Permit, Facility Inspection, Transport Invoice
Tilapia and other approved exotic finfish	TAHC	Possible Certificate of Veterinary Inspection
Tilapia and other approved exotic finfish	TDA	Aquaculture License
Native shellfish	TPWD	Shellfish Culture License, Shellfish Sourcing Permit
Native or exotic shellfish	TDA	Aquaculture License
Native or exotic shellfish	TDSHS	Water Quality Approval
Exotic shellfish	TPWD	General Exotic Shellfish Culture License, Facility Inspection
Exotic shellfish	TAHC	Certificate of Veterinary Inspection
Alligators (in-state sources)	TPWD	Alligator Farmer's Permit
Alligators (out-of-state sources)	TPWD	Alligator Farmer's Permit, Alligator Import Permit
Alligators (out-of-state sources)	TAHC	Certificate of Veterinary Inspection
Imports/exports of all species with a value exceeding $25,000/yr for propagation or sale	FWS	Import/Export License
Import/export of fish or shellfish other than the nine designated "Ports-of-Entry"	FWS	Designated Port Exemption Permit

Species Grow out and Harvest for Processing and/or Sale

Table 6 gives regulations governing species harvest for processing or sale pertaining to permit compliance as well as growing water approvals and post-harvest quality control standards, including the handling, storage, and transportation quality control standards.

Table 6. Species Grow out and Harvest for Processing and/or Sale

Example Activity	Agencies	Requirements
Grow out, daily operation, water pass-through and harvest operations (all cultured species)	EPA	Compliance with NPDES Permit
	USFDA	Compliance with Drug Use Regulations
	TCEQ	Compliance with Discharge Permit
	TPWD	Exotic Species Containment
	TDSHS	Growing Waters Approval and Post-Harvest Quality Control Standards

Processing for Sale

The processing of cultured aquatic food products falls under the regulatory authority of government agencies summarized in Table 7.

In general, the processing of cultured aquatic species for human consumption that are produced by the licensed fish farmer require an Aquaculture License and, depending upon the species processed, one or more of the following authorizations:

- Food Manufacturers Registration
- Certificate of Compliance
- Crabmeat Plant License

In order to obtain the applicable processing authorizations, the processing facility must be inspected by the Texas Department of State Health Services for compliance with its plant design and operation regulations. Aquaculturists should incorporate these regulations into the initial planning and design of processing facilities prior to construction. Local health authorities (city, county) may also have regulatory authority over processing facilities.

Processing plant operations must also comply with applicable permit conditions including water use, HACCP requirements and process wastewater discharges.

Finally, licensed fish farmers who purchase aquatic species for processing and sale will be required to obtain a Wholesale Fish Dealer's License in addition to the authorizations listed above.

Table 7. Processing for Sale

Example Activity	Agencies	Permits, Licenses, Required Reviews, etc.
Transport to off site processor (fish or shellfish)	TPWD	Transport Invoice (Tilapia)
Transport to off site processor (fish or shellfish)	TDA	Aquaculture License and Bill of Lading or Fish-Farm Vehicle License
Transport to off site processor (fish or shellfish)	TDSHS	Adherence to quality control standards
Produced/processed by licensed fish farm (fish or shellfish)	TDA	Aquaculture License
Processing or packaging oysters, clams or mussels	TDSHS	Certificate of Compliance
Processing or packaging of picked crabmeat	TDSHS	Crabmeat Plant License
Processing of all species for human consumption except oysters, clams, mussels and crabs	TDSHS	Food manufacturer registration
Purchase for processing (all species of edible	TPWD	Wholesale Fish Dealer's License

aquatic products)		
Purchase of edible aquatic products (fresh or frozen) for sale to consumers	TPWD	Retail Fish Dealer's License
Any drug additives for any purpose during growout, processing, handling, etc.	TDSHS USFDA	Adherence to drug use regulations

Wholesale/Retail Sale of Cultured Species

Table 8 lists the licenses required for the wholesale and/or retail sale of cultured species from either an establishment or vehicle. After a species has been processed for sale, in addition to the numerous certifications, permits and licenses required to obtain, grow, produce and process a cultured product for sale, the primary authority governing sale of the cultured species falls under the TDA and TPWD.

Table 8. Wholesale/Retail Sale of Cultured Species

Example Activity	Agencies	Permits, Licenses, Required Reviews, etc.
Wholesale from establishment	TPWD	Wholesale Fish Dealer's License
Wholesale from establishment	TDA	Aquaculture License
Retail from establishment	TPWD	Retail Fish Dealer's License
Retail from establishment	TDA	Aquaculture License
Wholesale from vehicle	TPWD	Wholesale Fish Truck Dealer's License
Wholesale from vehicle	TDA	Aquaculture License
Retail from vehicle	TPWD	Retail Fish Truck Dealer's License
Retail from vehicle	TDA	Fish Farm Vehicle License

Note: It may not be necessary to obtain some of these licenses if the vehicle is owned and operated by the holder of an Aquaculture License. Also, in many cases possession of licenses for wholesale/retail sales from a fish farm or establishment does not negate other permits, licenses and certificates required by other agencies for the production, transportation, possession, processing and sales of cultured fish or shellfish raised in private ponds or harvested from public waters. Please refer to section on Agency Role and Responsibilities for further clarification and requirements.

Average Processing Times for Obtaining Permits, Licenses, Approvals, etc.

The previous tables presented summaries of the various permits, licenses and other regulations that may be involved in aquaculture operations. Table 9 lists the average agency processing times that may be required to obtain the necessary approvals for each major stage in facility siting, constructing, operating, processing and marketing cultured aquatic species. It must be emphasized that these time periods are estimates and the actual processing time will vary depending on site location, species to be cultured, project design, completeness of agency applications, knowledge of agency requirements, etc.

This information may be used by the potential aquaculturist in developing a permit-sequencing plan. A properly constructed sequencing plan is an important guide for the preparation and submission of permit applications in order to avoid unexpected delays. The plan, also considering the growout period of the species selected for culture, may be used to determine the total amount of time involved to market the first crop of cultured species.

Table 9. Average Processing Time for Obtaining Permits, Licenses, Approvals, etc.

Example Activity	Agencies	Permits, Licenses, Approvals, etc.	Processing Time
Site development	COE	404/10 Permit	3-4 mos.
	EPA	NPDES Permit	330 days
	TCEQ	TPDES Permit	330 days
	EPA	NPDES Permit Renewal	300 days
	TCEQ	TPDES Permit Renewal	300 days
	GLO	Easement/Lease	2-3 mos.
	TDSHS	Water Quality Approval	3 mos.
Service facilities	TPWD	Plan and Facility Reviews	3 wks.
construction	TDSHS	Plan and Facility Approval	3 wks.
Species obtainment	FWS	Import/Export Permit	2 mos.
	TDA	Aquaculture License	2 wks.
	TPWD	Shellfish Culture License	2 wks.
		Shellfish Sourcing Permit	2 wks.
		General Exotic Shellfish Culture License	3 wks.
		Tilapia Permit	2 mos.
		Red Drum/Speckled Trout Sourcing Permit	3 wks.
		Alligator Farmer Permit	1 mo.
		Alligator Import Permit	1 mo.
		Tilapia Permit	2 mos.
Harvest	TPWD	Oyster Harvest Permit	2 wks.
		Commercial Oyster-Boat License	1 wk.
		Freshwater Commercial Fishing Boat License	1 wk.
		Saltwater Commercial Fishing Boat License	1 wk.
		Alligator Hide Tags	3 wks.
Processing	TDA	Aquaculture License	1-2 mos.
	TDSHS	Food Manufacturer's Registration	2 wks.
		Certificate of Compliance	2 wks.
		Crabmeat Plant License	2 wks.
Marketing and sale	TDA	Fish-Farm Vehicle License	2 wks.
	TPWD	Commercial Fisherman's License	1 wk.
		Wholesale Fish Dealer's License	1 wk.
		Wholesale Fish Truck Dealer's License	1 wk.
		Retail Fish Dealer's License	1 wk
		Retail Fish Truck Dealer's License	1 wk.
		Bait Dealer's License	1 wk.

Agency Role and Responsibilities

U.S. Army Corps of Engineers (COE)

Agency Role and Responsibilities

The U.S. Army Corps of Engineers (COE) is responsible for the maintenance and protection of the nation's water resources. These responsibilities are carried out through the issuance, or denial, of permits authorizing certain activities involving wetlands, and navigable or other waters of the United States. Authority Under Section 10 of the Rivers and Harbors Act of 1899, as extended by the Outer Continental Shelf Lands Act (OCSLA), the Corps requires a permit for the creation of "any obstruction" in federal waters to preserve unhindered navigational access of the nation's waters [33 U.S.C. § 403 (1999)]. The OCSLA extended the Corps' section 10 authority into the EEZ allowing the agency to regulate "installations and other devices permanently or temporarily attached to the seabed, which may be erected thereon for the purpose of exploring for, developing or producing resources from the outer continental shelf" [43 U.S.C. § 1333(a), (e) (1999)].

Regulatory Requirements

Section 10 Permit

A permit for any structure or work in or affecting navigable waters of the United States is required by Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). Navigable waters are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Examples of regulated activities include piers, intake pipes, discharge pipes, dikes for ponds, open water grow out or depuration facilities, or any other structure determined to be an alteration of navigable waters or a potential hazard to navigation. A Nationwide or General permit may be available in which case the COE issues a letter of permission that serves as the permit. The COE considers a broad range of potential environmental and other impacts before issuing or denying a Section 10 permit for an aquaculture facility. These include effects and cumulative impacts upon the water quality; effects of the facility or structure on recreation, fish, and other wildlife; pollution; economic factors; safety; aesthetics; protection of navigational integrity; and accurate charting of any structures (if facility is present beyond a given time, it is added to permanent chart). There are several scenarios for receiving permission from the COE:

a. Letter of Permission. If the proposed structure does not interfere with navigation, the COE will not require a permit, and will issue a Letter of Permission that states the COE has reviewed the applicant's proposal and will allow the proposed activities to be conducted as proposed. The letter serves as a permit from the COE.

b. Existing Scientific Permits. There are also several existing General and Nationwide permits for scientific research in the Gulf. When the COE receives the information regarding the structure and plans, it will determine if the project fits within one of those programs.

c. Anchoring/Mooring Structure Permit. Any permit issued by the COE will be conditioned on compliance with the Coast Guard regulations regarding required marking (by lights, horns, etc) of all structures. Moreover, the pilings or anchoring devices, both in the Bay and Offshore waters, will constitute "Permanent Anchorage" and, therefore, be subject to permitting by the COE and Coast Guard regulations for marking.

Section 404 Permit

A permit for the discharge of dredged or fill material into waters of the United States is required by Section 404 of the Clean Water Act (33 U.S.C. 1344). Waters of the United States include navigable waters, intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie pot holes, wet meadows, playa lakes, or natural ponds. Coastal submerged lands, wetlands

or marshes may be publicly or privately owned and are generally characterized as lying between terrestrial uplands and the aquatic system. It must be emphasized that the COE does not make ownership determinations as its authority regulates a public resource, regardless of ownership. Some examples of activities requiring a 404 permit include fill behind bulkheads, road fills, pumping basins, levees, dredge material disposal, etc.

Permit Application

In order to obtain a permit for construction activities, an application must be completed and submitted to the appropriate COE district office. Completed permit applications must include vicinity and location maps, detailed descriptions of the proposed activity, and drawings of any construction to be undertaken.

Applications for COE regulated construction activities on the Texas coast and inland along the coastal plain and piney woods should be submitted to the following office:

Department of the Army
Galveston District, Corps of Engineers
Regulatory Branch
2000 Fort Point Road
P. O. Box 1229
Galveston, Texas 77553-1229
Tel. (409) 766-3930 or (409) 766-3004

Applications for construction activities in other areas of the state fall under the jurisdiction of various COE District Offices, including Forth Worth (north central, east, central, southwest and northwest), Tulsa (Red River and Canadian River Basins), and Albuquerque (Trans Pecos). Contact the nearest COE office to determine the appropriate district office for a specific project location.

Permit Review and Coordination

Upon receipt of a permit application, the COE regulatory branch will review the application for completeness and make a determination as to whether a Section 10, Section 404, or both permits are required. Incomplete applications are returned. Complete applications will be processed and a public notice will usually be issued within 15 days from the date the application is determined to be complete. Pre-application meetings with COE staff are recommended.

The public notice will identify the applicant, the location and the proposed work to be done. The notice also will indicate that plans for the proposed work are available for public review and comment. The review and comment period is usually 30 days; however, this period can be reduced to 15 days for minor projects, or extended beyond the usual 30-day period when the comments received justify a longer review period.

The COE is required by federal laws and executive orders to solicit comments on the application from certain governmental agencies during the public review period. The required coordination on Section 10 and Section 404 permits is as follows:

Agency	Law/Regulation
1. U.S. Environmental Protection Agency	Fish and Wildlife Coordination Act,
2. U.S. Fish and Wildlife Service	16 U.S.C. 661 *et seq*. and Executive Order
3. National Marine Fisheries Service	11990 (for nos. 1-4).
4. Texas Parks and Wildlife Department	
5. Federal Emergency Management Agency	Executive Order 11988, Floodplain Mgt.
6. U.S. Coast Guard	Rivers and Harbors Act of 1899, Section 10.
7. Texas Antiquities Committee and State Historic Preservation Officer	National Historic Preservation Act of 1966, 16 U.S.C. 470 *et seq*.
8. Texas Commission on Environmental Quality	Section 401, Clean Water Act, 33 U.S.C. 1251 *et seq*.

The Texas General Land Office (GLO) also routinely reviews COE permit applications to determine if state-owned public lands are involved for which state leases or easements may be required. Depending upon the nature and location of the proposed project, other state agencies, local governments, trade associations,

citizens groups, environmental organizations and individuals may review the proposed project and submit comments to the COE.

At the end of the public comment period, the COE will evaluate the project application, including any comments received, and make a decision to issue the permit as presented, deny the permit, issue the permit with agreed upon modifications and/or special conditions, or hold a public hearing to obtain additional information prior to making a final decision.

Public hearings are held on some of the permit applications. Project modifications, or conditions placed on the permit can remedy serious objections in most cases. However, if a public hearing is held, it could easily add several months to the processing of the permit application.

If the project will be near or attached to an oil or gas platform or if ownership will be transferred, then the COE will probably pass the application to the U.S. Department of Interior, Minerals Management Service. The Outer Continental Shelf Lands Act established jurisdiction over submerged lands on the outer continental shelf and the Minerals Management Service has authority over lease sites on the shelf. Consult the MMS if the project will be near or attached to an oil or gas platform or if ownership will be transferred. A permit for platform removal approval or transfer of ownership may be necessary.

Permit Processing Time Requirements

A permit is usually issued within three to four months after the receipt of a completed application. If substantial objections are submitted and/or a public hearing is held the time requirements can be increased by two to four months. If an EIS is needed, approximately 18 months will be required.

Permit Issuance, Fees and Terms

The COE will give notice when a permit application has been approved. A permit will be issued upon the payment of a $100.00 permit fee. The construction permit is valid for three years. Renewals are usually available upon written request to the COE explaining the reason for the request and subsequent delay in initiating the activity.

U.S. Environmental Protection Agency (EPA)

Agency Role and Responsibilities

The U.S. Environmental Protection Agency (EPA) is responsible for the protection of the nation's air and water quality, including potential adverse impacts to public health and fish and wildlife resources. These responsibilities are carried out through regulatory, permitting and enforcement programs. However, if the state's regulations are stricter than EPA's, then the state's regulations take precedent, which is what happens in Texas. Authority Under Section 318 of the Clean Water Act, the EPA has asserted jurisdiction to require point source pollution discharge permits for aquaculture projects in the open ocean [Regulations are located at 40 C.F.R. § 122.24 (NPDES)]. The EPA delegates its authority for state water issues in Texas to the Texas Commission on Environmental Quality.

EPA Delegates Authority to State Wastewater Permitting

Section 26.121 of the Texas Water Code, requires that a discharge permit be obtained prior to the discharge of wastes into or adjacent to the waters in the state. This includes the treatment, storage or disposal of wastewater by land treatment or evaporation, which is authorized under a Texas Land Application Permit (TLAP). The federal Clean Water Act, as amended, also requires a National Pollution Discharge Elimination System (NPDES) discharge permit prior to discharge to Waters of the US. On September 14, 1998, the TCEQ received authority from the United States Environmental Protection Agency (EPA) to administer the Texas Pollutant Discharge Elimination System (TPDES) program. It is therefore no longer necessary to apply for separate State and Federal (NPDES) coverage for discharges into waters in the state. The EPA may retain permitting authority for certain facilities on a case-by-case basis.

In addition, the Ocean Dumping Act [33 U.S.C. § 1412 (1999)] grants authority to the EPA to permit the dumping of material into U.S. waters when such dumping will not unreasonably degrade or endanger human health or the marine environment, ecological systems, or economic potentialities. The criteria for reviewing such permits include the need for the proposed dumping; the effect of such dumping on human

health and welfare, including economic, aesthetic, and recreational values; the effect of such dumping on fisheries resources, plankton, fish, shellfish, wildlife, shorelines and beaches; and the effect of such dumping on marine ecosystems. Permit: The necessary permit is the National Pollution Discharge Elimination System (NPDES) permit, which can be acquired through MDEQ. Also, an Ocean Discharge Permit may be necessary, depending on the amount of waste from the facility. The EPA is more concerned with the amount of feed put into the water than with the amount of waste actually existing in an offshore cage. Contact: For Louisiana and Texas is: Rolland Ferry Myron Knudson, USEPA, Region 6, 1445 Ross Ave., Dallas, TX 75203. ph (214) 665-6444. Email: Ferry.Roland@epamail.epa.gov.

EPA Regulatory Requirements

National Pollutant Discharge Elimination System Permit

EPA's regulation of pollutant discharges into U.S. waters under the Clean Water Act, as amended (33 U.S.C. 1251 *et seq*.). Section 402 of the Act requires that a National Pollutant Discharge Elimination System (NPDES) Permit be issued by the EPA prior to discharge into the waters of the United States. The NPDES permit requirements for aquaculture facilities in the U.S. were modified by EPA recently. In states where the regulations are more strict than EPA's then the state permits take precedent. In the case of Texas this permit is generally delegated to the Texas Commission on Environmental Quality (TCEQ), since its rules and regulations are stricter, but check with TCEQ and EPA to be sure this applies in your specific case. You may not have to work through EPA, but only with TCEQ.

After a lengthy modification process involving industry and public input, EPA issued its final rule setting forth standards for "concentrated aquatic animal production" (CAAP) facilities (fish farms, hatcheries, reserves, and other aquaculture) in 2004. The Clean Water Act prohibits the discharge of pollutants from a point source into waters of the U.S., except as authorized by a National Pollutant Discharge Elimination System (NPDES) permit. CAAP facilities are point sources subject to the NPDES permit program (40 CFR ß 122.24). The EPA established effluent limitations guidelines and standards for different categories of point sources. EPA's new rule established the effluent limitation guidelines and new source performance standards for CAAP facilities. The rule does not alter the existing regulations defining when a hatchery, fish farm, or other facility is a CAAP. The 2004 Final Rule Applies To: Both commercial (for profit) and non-commercial (generally, publicly owned) operations that: "Produce aquatic animals for food, recreation, restoration of wild populations, pet trade, and other commercial products"; AND "Produce, hold, or maintain at least 100,000 pounds a year, in flow-through and re-circulating systems, that discharge wastewater at least 30 days a year (used primarily to raise trout, salmon, hybrid striped bass and tilapia)"; OR "Produce, hold, or maintain at least 100,000 pounds a year, in net pens or submerged cage systems (primarily salmon operations)." Net pen systems rearing native species released after a growing period of no longer than 4 months to supplement commercial and sport fisheries are exempted from the rule. The Rule Requires: All applicable facilities must: "Prevent discharge of spilled drugs and pesticides and minimize discharges of excess feed"; "Regularly maintain production and wastewater treatment systems"; "Keep records on numbers and weights of animals, amounts of feed, and frequency of cleaning, inspections, maintenance, and repairs"; "Train staff to prevent and respond to spills and to properly operate and maintain production and wastewater treatment systems"; "Report the use of experimental animal drugs or drugs that are not used in accordance with label requirements"; "Report, orally and in writing, any failure of, or damage to, a containment system and report any spills of drugs, pesticides or feed that will result in a discharge to waters of the U.S."; and "Develop, maintain, and certify a Best Management Practice (BMP) plan that describes how the facility will meet the requirement".

Flow through and recirculating discharge facilities must minimize the discharge of solids such as uneaten feed, settled solids, and animal carcasses. Open water facilities must additionally: "Use active feed monitoring and management strategies to ensure the least possible amount of uneaten feed accumulates beneath the nets"; "Properly dispose of feed bags, packaging materials, waste rope, and netting"; "Limit as much as possible wastewater discharges resulting from the transport or harvest of the animals"; and "Prevent the discharge of dead animals in the wastewater". How will the rule be implemented? When a facility applies for a new NPDES permit, or when an existing NPDES permit is renewed, the new effluent rule will apply to that farm. A facility's permit application is considered new if the facility's source of discharge a constructed 30 days after the effluent rule was published in the Federal Register, on August 23, 2004. The final rule and major documents supporting it can be found online at

www.epa.gov/guide/aquaculture. For a hard copy: Call the Office of Water Resource at 202-566-1729. Send the Office of Water Resource an email at center.water-resource@epa.gov. Write or call the National Service Center for Environmental Publications (NSCEP) U.S. EPA/NSCEP P.O. Box 42419 Cincinnati, Ohio 45242-2419. Telephone (800) 490-9198. Web site: www.epa.gov/ncepihom/.

Generally, under this new rule, most ponds are not affected. A hatchery, fish farm or other aquatic animal production facility is usually a point source of discharge and subject to the NPDES permit program [40 CFR, Part 122, Subpart B, 122.24(a) & (b)]. EPA rule 40 CFR, Part 122, Appendix C, however, authorizes the granting of exemptions from the NPDES permitting program.

The NPDES program (CWA Section 402) controls direct discharges into navigable waters. Direct discharges or "point source" discharges are from sources such as pipes and sewers. NPDES permits, issued by either EPA or an authorized state/tribe contain industry-specific, technology-based and/or water quality-based limits, and establish pollutant monitoring and reporting requirements. EPA has authorized many states to administer the NPDES program and Texas is one of those states (called TPDES program in Texas, for Texas Pollutant Discharge Elimination System). A facility that intends to discharge into the Nation's waters must obtain a permit before initiating a discharge. A permit applicant must provide quantitative analytical data identifying the types of pollutants present in the facility's effluent. The permit will then set forth the conditions and effluent limitations under which a facility may make a discharge.

An NPDES permit may also include discharge limits based on federal or state/tribe water quality criteria or standards that were designed to protect designated uses of surface waters, such as supporting aquatic life or recreation. These standards, unlike the technological standards, generally do not take into account technological feasibility or costs. Water quality criteria and standards vary from state to state (tribe to tribe) and site to site, depending on the use classification of the receiving body of water. Most states/tribes follow EPA guidelines that propose aquatic life and human health criteria for many of the 126 priority pollutants.

* Aquaculture Projects

  Discharges by an aquaculture project may require a NPDES permit. An aquaculture project means a "defined managed water area which uses water and discharges pollutants into that designated area for the maintenance or production of harvestable freshwater estuarine or marine plants or animals."

* Concentrated Aquatic Animal Production Facilities

  Concentrated aquatic feeding operations are direct dischargers and require an NPDES permit if they annually meet the following general conditions: (1) produce more than 9,090 harvest weight kilograms (about 20,000 pounds) of cold water fish (e.g., trout, salmon); or (2) produce more than 45,454 harvest weight kilograms (about 100,000 pounds) of warm water fish (e.g., catfish, sunfish, minnows).

Related environmental requirements:
Clean Water Act Section 1342
40 CFR Part 122.24

Aquaculture projects within a “defined managed area” of U.S. waters determined by EPA to be ineligible for an initial exemption, or a continued exemption and that discharge into that area for the maintenance of production of harvestable fresh water, estuarine, or marine plants or animals, are subject to the NPDES permit program (Section 318; Clean Water Act, as amended, and in accordance with 40 CFR, Part 125, Subpart B).

Aquaculture facilities engaging in processing activities that result in waste water discharges into U.S. waters are subject to NPDES permitting requirements. This means production facilities that are exempt from NPDES permitting requirements (above) would be required to obtain a permit if they undertake processing activities that result in waste water discharges.

Discharges into publicly owned treatment works (local sewage treatment systems) are not subject to NPDES requirements. However, pretreatment standards of the publicly owned treatment works will apply. The applicant should consult with the publicly owned treatment facility for standards and authorization prior to any discharges into the system.

Effluent Guidelines

Effluent guidelines are national standards for wastewater discharges to surface waters and publicly owned treatment works (municipal sewage treatment plants). EPA issues effluent guidelines for categories of existing sources and new sources under Title III of the Clean Water Act. The standards are technology-based (i.e., they are based on the performance of treatment and control technologies); they are not based on risk or impacts upon receiving waters.

The June 30, 2004 EPA rule establishing regulations for CAAP, or farm raised fish facilities will apply to approximately 245 facilities that generate wastewater from their operations and discharge that wastewater directly into waters of the United States. This rule will help reduce discharges of conventional pollutants, primarily total suspended solids. It will also help reduce non-conventional pollutants such as nutrients. In January 1992, EPA agreed to a settlement with the Natural Resources Defense Council and others in a consent decree that established a schedule by which EPA would consider regulations for 19 industrial categories. EPA selected the CAAP industry for one of those rules. Issuance of this rule completes all regulations addressed under the settlement agreement.

Permit Application

The first step in the permitting process is to obtain a permit requirement determination from the Region VI, EPA Office. A letter requesting a determination can accomplish this. A description of the facility, operation plans, preliminary or conceptual designs, and information on anticipated wastewater discharges from the facility should be included.

After the proposal is reviewed, the EPA will notify the owner or operator of any required permits and provide appropriate application forms to be completed and returned for processing.

Requests for information, determinations of permit requirements and permit application forms should be submitted to the following office:

Federal Activities Branch (6E-F)
U.S. Environmental Protection Agency
Region VI
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202
Tel. (214) 655-7180

For Region 6 General Information: Tel. (214) 665-6444
Regional Administrator's Office Tel. (214) 665-2100
Regional Counsel Tel. (214) 665-2110
Compliance Assurance & Enforcement Tel. (214) 665-2210
Houston Laboratory Tel. (281) 983-2100

Permit Review and Coordination

Upon receipt of a permit application, the application will be reviewed for completeness. A determination will then be made as to whether the proposed discharge falls under “new source” or “existing source” permit requirements. If a new aquaculture facility is being proposed, it will be classified as a “new source” and the EPA will request that an Environmental Information Document (EID) be prepared and submitted by the applicant. Based on a review of the EID, the EPA will issue a public notice of the following:

Preliminary Finding of No Significant Impact Statement (FNSIS).

Preliminary Finding of Significant Impact (FSI), which requires the preparation of an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA).

During the public notice phase, the EPA is required by federal law and executive order (40 CFR Part 6) to provide a review and comment opportunity to certain federal and state agencies, including the following:

Agency	Law/Executive Order
U.S. Army Corps of Engineers	Executive Order 11990 (Wetlands)
U.S. Fish and Wildlife Service	Endangered Species Act
National Marine Fisheries Service	Executive Order 11990 (Wetlands)

National Park Service	Wild and Scenic Rivers Act
Federal Emergency Management Agency	Executive Order 11988 (Floodplains)
Texas Parks and Wildlife Department	Endangered Species Act
Texas Antiquities Committee and State Historic Preservation Officer	Historic Preservation Act of 1966

At the discretion of the EPA, other agencies may be afforded the opportunity to review or comment on the proposed operation. Interested individuals and organizations may also submit comments. Following a review of the comments received, the EPA will make a decision to hold a public hearing and/or issue the permit, deny the permit or issue the permit with modifications or special conditions.

Processing Time Requirements

In the majority of applications, permits are processed and issued within six months. The requirement for an EIS and/or a public hearing can easily extend the processing period to 12 months or more.

Permit Issuance, Fees and Term

The applicant will be notified upon issuance of a discharge permit. Permits may be issued up to a period of five years before renewal. The EPA does not charge a fee for permit application or issuance.

Regulation of Pesticides

The EPA also regulates the use and application of pesticides through the registration and establishment of tolerance levels. The EPA may remove pesticides from the marketplace temporarily or permanently if it is determined that the chemicals pose an unacceptable risk to the public or fish and wildlife (Federal Insecticide, Fungicide, and Rodentcide Act, 7 U.S.C. Section 136).

Many pesticides pose a threat to aquatic species if introduced in sufficient quantities into growing waters. Some pesticides also may be deposited in the animal's body tissue. If tissue concentrations pose a threat, the aquatic species may be deemed unfit for human consumption and sale prohibited. Pesticide contaminated growing waters may cause another potential problem in that discharges into public waters will require approval, and possibly permits, from the EPA and the Texas Commission on Environmental Quality. Denial of a request to discharge could render the growing area temporarily or permanently useless to the aquaculturist.

U.S. Fish and Wildlife Service (FWS)

Agency Role and Responsibilities

The U.S. Fish and Wildlife Service (FWS), U.S. Department of the Interior, is primarily responsible for the protection and management of fish and wildlife (including migratory birds and endangered species) resources and the natural systems, which support them.

Programs administered by the FWS that could affect aquaculture development and operation include review and comment on proposed construction projects and the regulation of fish and wildlife imports and exports.

Authority

When there is federal involvement (a permit, license, funding, etc.) in a permit under review by the COE, the FWS comments on the proposed action under authority of:

- Fish and Wildlife Coordination Act (general to all species, including plants)
- Endangered Species Act
- Marine Mammal Protection Act (very limited authority)

The FWS has not exercised their authority under the MMPA in the southeast. This authority is used in states like California where species like sea otters are present. As such, FWS' familiarity with that authority in this region is rather limited, but Randy Roach would be the contact if it should come up. Mr. Roach advised Alabama Sea Grant that his agency would probably have no involvement in a "cage culture" environment unless the agency discovered that a "take" of some covered species was involved. If a private entity were undertaking a commercial venture, the FWS would not comment unless asked to do so, and the responsibility to avoid any take rests on the private entity. FWS Permit: Comment/Review only. Contact Randy Roach, Assistant Field Supervisor Baldwin County, Alabama Field Office P. O. Box 1190 Daphne, AL 36526 Ph: (334) 441-5181 Fax: (334) 441-6222.

Regulatory Requirements

Construction Project Review

Federal agencies that issue permits, loans, loan guarantees or grants for construction projects must coordinate with and consider FWS comments concerning impacts to fish and wildlife that may be associated with the project (Fish and Wildlife Coordination Act, 16 U.S.C. Section 661 *et seq*., as amended). This includes Section 404/10 permits issued by the U.S. Corps of Engineers and NPDES discharge permits issued by the U.S. Environmental Protection Agency. An objection raised by the FWS is usually a serious impediment to permit approval and may result in the need to modify the proposed project or offset damages to fish and wildlife species and/or their habitat. This especially is the case if endangered species are involved (Endangered Species Act, 16 U.S.C. Sections 703-712).

For information concerning FWS programs or permit reviews of projects located along the Texas coast, the following offices should be contacted:

North coast (Matagorda, Wharton, and counties north)

Ecological Services
U.S. Fish and Wildlife Service
17629 El Camino Real
Houston, Texas 77058
(713) 286-8282

South coast (Lavaca, Jackson, and counties south)

Ecological Services
U.S. Fish and Wildlife Service
c/o Corpus Christi State University
Campus Box 338

6300 Ocean Drive
Corpus Christi, Texas 78412
(361) 994-9005

For projects located in other areas of the state, information on the appropriate office to contact may be obtained from the above or from the FWS regional office at the following address:

U.S. Fish and Wildlife Service
U.S. Department of the Interior
P.O. Box 329
Alburquerque, New Mexico 87103
(505) 766-2091

Regulation of Imports and Exports

The FWS is responsible for regulating the import and export of fish and wildlife. This includes shipments across international boundaries as well as across state lines within the United States. Legal authority for regulation is presented in Title 50 CFR, Parts 10-24 and is based on several federal laws including the following:

- Endangered Species Act (16 U.S.C. Sections 703-712)
- Marine Mammals Protection Act (16 U.S.C. Sections 1531-1543)
- Migratory Bird Treaty Act (16 U.S.C. Section 3371)
- Injurious Wildlife Act (16 U.S.C. Section 152)
- Lacey Act (18 U.S.C. Section 42, et seq.)

Fish and Wildlife Import/Export License

License Requirements

Any person who imports or exports animals or fish with a value exceeding $25,000 per year for purposes of propagation or sale must first apply for and obtain a Fish and Wildlife Import/Export License from the FWS.

License Application

Information and application forms for a Fish and Wildlife Import/Export License may be obtained from the following office:

U.S. Department of the Interior
U.S. Fish and Wildlife Service
P.O. Box 329
Albuquerque, New Mexico 87103
Tel. (505) 766-2091

License Review and Coordination

Upon receipt of a license application, a review for completeness will be conducted. Other agencies are not generally involved in the review. Usually the license application is processed in the FWS regional office. However, if the species are on the international listing of endangered flora and fauna the application will be forwarded to the FWS Office of Management Authority for review.

License Processing Time Requirements

The FWS is allowed 60 days to process license applications. In most cases, the license is processed in approximately three weeks. If endangered species are involved, 90 days may be involved in obtaining a decision on the license.

License Issuance, Fees and Terms

Following processing, a license will be issued to the applicant. The applicant will be informed that they must also comply with all applicable state regulations as well as with regulations of the county of origin or destination.

The license fee is $125.00 and is valid for one year. A fee of $25.00 will also be charged for each import or export shipment and will be charged regardless of whether the importer or exporter is required to have this license.

A completed "Declaration for Importation or Exportation of Fish and Wildlife" clearance form must also be completed and submitted to the FWS inspector at the port-of-entry for approval. This approval is required to obtain a shipment release from the U.S. Customs Service.

Designated Port Exemption Permit

Permit Requirements

The nine designated ports-of-entry for the import or export of fish and wildlife species include Dallas, New Orleans, Miami, Chicago, New York, Seattle, Los Angeles, San Francisco and Honolulu. Ports-of-entry are usually at international airports or seaports. If a different city is preferred as the port-of-entry, a Designated Port Exemption Permit may be obtained.

Permit Application

Information and application forms for a Designated Port Exemption Permit may be obtained from the following FWS office:

U.S. Fish and Wildlife Service
U.S. Department of the Interior
P.O. Box 329
Albuquerque, New Mexico 87103
Tel. (505) 766-2091

Permit Review and Coordination

Upon receipt, the application and any other required documentation would be reviewed and processed. Other government agencies are not usually involved in the processing.

Permit Processing Time Requirements

The FWS is allowed 60 days to process the application. In most cases processing is completed in three weeks.

Permit Issuance, Fees, and Terms

Following processing, the permit will be issued. The permit will identify the designated port-of-entry. The permittee will also be notified which FWS inspector's office will inspect the shipment. The $25.00 permit is valid for two years. A minimum inspection fee of $55.00 per shipment will also be charged. Additional fees will be charged if the shipment must be inspected on weekends, after regular business hours, or if the inspector must travel significant distances.

National Marine Fisheries Service (NMFS)

Agency Role and Responsibilities

The National Marine Fisheries Service (NMFS), under National Oceanic and Atmospheric Administration, U.S. Department of Commerce, is primarily responsible for the management and protection of marine fish, habitat and certain marine animals (16 U.S.C. Section 1361 *et seq*., as amended). To some extent, the NMFS is the marine counterpart to the U.S. Fish and Wildlife Service in regard to fisheries management and protection. Authority Under the Magnuson-Stevens Fishery Conservation and Management Act, the National Marine Fisheries Service (NMFS) has regulatory responsibilities that will affect aquaculture development in the EEZ. The NMFS is responsible for managing commercial fishing operations, which include aquaculture activities [50 C.F.R. § 229.2 (1999)]. For scientific research, the NMFS requires the applicant to apply for a Letter of Acknowledgment and the NMFS will inform the other agencies (the U.S. Coast Guard and state agencies, if necessary) that this activity is occurring in federal waters in the Gulf of Mexico. Permit: The necessary item is a Letter of Acknowledgment by NMFS to conduct research in federal waters. This letter should be addressed to the South Regional Administrator, Dr. William Hogarth, explaining the proposal and including a copy. Mr. Pete Eldridge of NMFS

recommended that a Principle Scientist contact Dr. Roy Crabtree who can help to construct the letter requesting the Letter of Acknowledgment. An Exempted Fishing Permit from NMFS is required to hold juvenile fish in federal waters.

Construction Project Review

As was the case with FWS, the Fish and Wildlife Coordination Act requires federal construction and permitting agencies to coordinate with and consider the comments of the NMFS prior to issuing permits, loans, loan guarantees, or grants for projects that may affect marine fish species (16 U.S.C., Section 661 *et seq*., as amended). Generally, the NMFS reviews construction project applications for any potential impacts to fish and shellfish species and fisheries habitats located in tidal waters and adjacent wetlands. Such reviews also include upstream dams, dikes and other structures that could significantly alter river flows to tidal habitats.

For information concerning NMFS programs or permit reviews, the following office should be contacted:

Habitat Construction Division
National Marine Fisheries Service
4700 Avenue U
Galveston, Texas 77551-5997
Tel. (409) 766-3699

U.S. Coast Guard (USCG)

Agency Role and Responsibilities

Originally under the U.S. Department of Transportation, the USCG is now under the newly formed U.S. Department of Homeland Security. Next to security, one of the U.S. Coast Guard's major roles is maintaining and regulating safe navigation in U.S. navigable waters. The marking of obstructions that may present a hazard to navigation is a specific regulatory program administered by the Coast Guard and was authorized by the Rivers and Harbors Act of 1899. Specific regulations concerning the marking of structures and floating obstructions are described in 33 CFR, Part 66. The USCG deals with aids to navigation.

Authority

The U.S. Coast Guard is responsible for the regulation and enforcement of various activities in the navigable waters of the U.S. and requires that such aquaculture-related structures be marked with lights and signals in order to ensure safe passage of vessels. Installation and maintenance of the markers must be done by the aquaculturist as long as the structures are located in navigable waters. The Coast Guard provides detailed requirements for markings. Permit: The requirements for marking structures are often included as stipulations for permit approval with the Corps of Engineers or EPA. The aquaculturist must ensure markings are done properly but does not need to file an individual application directly with the Coast Guard. Contact For offshore Texas, Louisiana, Mississippi, Alabama and Florida (West of Apalachicola) Rick Harrison Chief of Private Aid to Navigation Eighth Coast Guard District Hale Boggs Federal Bldg. 501 Magazine St. New Orleans, LA 70130-3396 ph: (504) 589-6235 fax: (504) 589-6654.

Regulatory Requirements

Regulation for the Marking of Structures and Floating Obstructions

Any structure, mooring, buoy or dam in or over U.S. navigable waters (as determined by the Coast Guard) must be marked by lights and other signals for the protection of maritime navigation in the manner required by the Coast Guard. The prescribed lights and signals must be installed, maintained and operated at the expense of the owner, or operator, of the obstruction (33 CFR, Part 66, Subpart 66.01). The required lights and signals are referred to as private aids to navigation. This could include piers, water intake pipes, discharge pipes, floating cages and other similar obstructions that may be associated with an aquaculture operation.

Private Aids to Navigation

Requirements

When it is determined that proposed construction in U.S. navigable waters constitutes a potential hazard to navigation, the Coast Guard will notify the owner or operator that a private aid to navigation is required. Generally the Coast Guard becomes aware of proposed obstructions through the required coordination with the U.S. Army Corps of Engineers (COE) in the processing of Section 404 and Section 10 permits for construction in or near U.S. navigable waters. Where navigational aids are required, the requirement will usually be a condition of the COE permit.

The Coast Guard also investigates complaints from mariners regarding unmarked obstructions and may require either the removal or marking of the obstructions if they constitute navigational hazards.

Application for Private Aids to Navigation

In cases where Section 404 or Section 10 permits are being processed by the COE it is not necessary to contact the Coast Guard. The Coast Guard will issue a notice to the permit applicant if private aids are required and forward instructions, requirements and an application form.

Where information is needed from the Coast Guard prior to submission of permit applications to the COE, or for other reasons, assistance may be obtained from the following office:

Commander (OAN)
Eight Coast Guard District
Private Aids Section
Hale Boggs Building
500 Camp Street, Room 1141
New Orleans, Louisiana 70130
Tel. (504) 589-6236

Review and Coordination

Upon receipt by the Coast Guard, the application will be reviewed for compliance with their regulations. Other agencies are not usually involved in reviewing the application relevant to Coast Guard regulations.

Application Processing Time Requirements

Applications are usually processed within 30 days, unless additional information is needed or the application fails to meet Coast Guard requirements.

Application Issuance, Fees, and Terms

Upon approval, a copy of the signed application will be forwarded to the applicant. The signed application will constitute authorization and a requirement to install and maintain the prescribed lights and signals. A "Notice to Mariners" will be issued by the Coast Guard to provide information concerning installation of a new private aid to navigation. No fees are assessed and the authorization is valid as long as there is a need to mark the obstruction.

U.S. Food and Drug Administration (FDA)

Agency Role and Responsibilities

One of the Food and Drug Administration's (FDA) responsibilities is the approval and regulation of drugs that can be used in aquaculture operations (Federal Food, Drug, and Cosmetic Act, 21 U.S.C. 301 *et seq*.).

Drug regulations include the use of drugs as additives to feed as well as drugs used for the treatment of diseases and parasite infestations in aquatic animals to be sold for human consumption. The Texas Department of State Health Services (TDSHS) also has authority over drug additives to feed (it is important to note that drugs do not include pesticides, which are regulated by the EPA).

Regulatory Requirements

Depending upon the drug and the drug concentration, commercial feed mills, as well as individuals who desire to produce medicated feed, may be required to first submit an application and obtain approval from the FDA. Medicated feed mixtures that require a waiting period prior to marketing will usually require FDA approval. In most cases aquaculture operations that purchase commercially prepared feed will not be affected by these regulations. However, larger operations could fall under these regulatory requirements if they produce their own feed mixtures.

Drugs used for the treatment of diseases and parasitic infections also require FDA approval. The process involves two steps. First, the drug must be approved; and second, the use of the drug for aquaculture applications, including dosage, must be approved. It is important that the aquaculturist use only FDA approved drugs and carefully follow the application instructions. In some cases a waiting period will be recommended between treatment and marketing. The waiting period should be carefully observed. Otherwise, the aquaculture products may be declared by the FDA, TDSHS or local health authorities as being unfit for human consumption and confiscated from the market.

Approved Drugs and Medicated Feed Applications

Information on specific drugs approved for aquaculture use and Medicated Feed Application forms may be obtained from one of the following FDA offices:

Food and Drug Administration
3032 Bryan
Dallas, Texas 75204
Tel. (214) 655-5315

or

Division of Food and Drugs
Texas Health Department
1100 West 49th Street
Austin, Texas 78756
Tel. (512) 458-7248

United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS)

Agency Role and Responsibilities

The United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) is recognized as the lead agency for regulating diseases and providing Federal oversight to health programs for livestock. The Agency's authority over aquatic animal health was not well defined until the passage of the *Agriculture, Conservation and Rural Enhancement Act of 2002* (also known as the "Farm Bill of 2002".) USDA's authority to provide animal health services for aquatic animals is found in Subtitle C – Animal Health Protection Act, Sec. 1021-1038. In this act, Congress finds that "(1) the prevention, detection, control, and eradication of diseases and pests of animals are essential to protect: (A) animals health; (B) the health and welfare of the people of the United States; (C) the economic interests of the livestock and related industries of the Unites States; (D) the environment of the United states; and (E) interstate commerce and foreign commerce of the United States in animals and other articles."

To carry out this act, the Secretary of the USDA may prohibit or restrict the importation or entry of any animal, or movement of any animal in interstate commerce if the Secretary determines that that the prohibition or restriction is necessary to prevent the introduction, export, or dissemination within the United States of any pests or diseases of livestock. The definitions contained within this Act include: "LIVESTOCK- The term livestock means all farm-raised animals." The Act gives the Secretary of Agriculture regulatory authority over all aquatic animal pests and diseases that have the potential to affect farmed aquatic animals.

APHIS's authority over aquatic animals appears to overlap with the authorities of the Departments of Commerce and Interior in regard to commercial aquaculture in the Exclusive Economic Zone (EEZ), the culture of wildlife by private companies in near-shore and upland fresh water facilities, and the import of live salmonids from foreign countries as noted in Title 50. As such, and in conjunction with the current development of the National Aquatic Animal Health Plan (NAAHP), a Memorandum of Understanding (MOU) between the three Federal agencies with primary authority for aquatic animal health has been developed to clarify and document the division of regulatory authority over aquatic animal health. It is the intent of the NAAHP that most of the regulatory needs of the States regarding aquatic animal health imports and exports will be met via protocols recommended in the NAAHP and implemented by Federal agencies after going through the Federal rule-making process.

APHIS Certification, Control and Eradication Programs

Historically, many APHIS disease control programs have been industry initiated, and designed to improve the health, quality and marketability of farmed products. Current APHIS programs, after which present and future aquaculture programs can and will be modeled, include:

- The National Poultry Improvement Plan. This plan was developed to control vertically transmitted and hatchery disseminated diseases. It has led to the Certification of freedom from *Salmonella*, *Mycoplasma* and Avian Influenza infections.
- Chronic Wasting Disease (CWD) program. This program is designed to eradicate CWD from farmed and wild cervids. It involves surveillance testing for all farmed cervids, and indemnity, depopulation, disposal and testing for positive/exposed herds and trace animals.
- Swine Pseudorabies and Brucellosis programs. This program involves issues of disease spread by wild swine migrations. Federal agencies collect samples, supply test kits and pay for diagnostics.

Current and proposed aquatic disease eradication programs for Infectious Salmon Anemia (ISA) and Spring Viremia of Carp (SVC) also include the concepts of Federally sponsored surveillance testing, and indemnity, depopulation, disposal and testing for positive/exposed herds and trace animals.

Laboratory Testing and Disease Reporting

The National Veterinary Services Laboratory (NVSL) is operated by APHIS. These laboratories provide diagnostic services for domestic and foreign animal diseases, provide support for disease control and eradication programs and training, provide diagnostic tests, and participate in the approval of laboratories to conduct inspections for certain pathogens. NVSL approves laboratories to conduct testing for export health certification. The role of NVSL in aquatic animal health will likely be expanded with the development of the NAAHP.

The Texas Veterinary Medical Diagnostic Lab (TVMDL) in College Station, Texas is approved by APHIS to conduct testing for the detection of certain major OIE-notifiable shrimp pathogens: White Spot Syndrome Virus (WSSV), Taura Syndrome Virus (TSV), and Yellowhead Virus (YHV) and Infectious Hematopoietic Necrosis Virus (IHHNV) and the APHIS Texas Area-Veterinarian-in Charge (AVIC) is the initial contact for reporting any OIE notifiable disease outbreaks that occur in Texas. Current AVIC contact information:

Dr. Jerry Diemer, AVIC
USDA, APHIS, VS
Thornberry Bldg, Rm 220
903 San Jacinto Blvd.
Austin, TX 78701

As a member country of the Office International of Epizootics (OIE) in Paris, France, and in accordance with the Aquatic Animal Health Code (2003), the United States is required to report aquatic animal diseases that are on the list of OIE notifiable diseases. APHIS is the U.S. agency responsible for reporting the occurrence of OIE notifiable aquatic animal pathogens to the OIE. This reporting occurs through the Deputy Administrator for APHIS in charge of Veterinary Services, also known as the Chief Veterinary Officer, or CVO.

Gulf of Mexico Fisheries Management Council (GMFMC or "Council")

Authority

The Gulf of Mexico Fishery Management Council (GMFMC or "Council") is one of eight regional Fishery Management Councils that were established by the Fishery Conservation and Magnuson Act in 1976 (now called the Magnuson-Stevens Fishery Conservation and Magnuson Act). The Council is responsible for managing fishery resources from where state waters end out to the 200-mile limit of the Gulf of Mexico. According to the NOAA Office of General Counsel, aquaculture farms are subject to the Magnuson Act because harvesting fish from the EEZ by U.S. vessels constitutes "fishing" under the Act. This will give the Council the authority to manage aquaculture in the EEZ and requires it to amend appropriate fishery management plans to accommodate proposed farms. On the regulatory front, the Fisheries Management Councils are becoming involved in offshore permitting for aquaculture. Because permit-granting may involve the granting of exclusive use in a designated area to an aquaculture business, the traditional users of the resource must be incorporated into the regulatory process. The Council will be responsible for permitting the proposed facilities when the amendment is approved by NMFS.

Contact Wayne Swingle, Executive Director, Gulf of Mexico Fishery Management Council, The Commons at Rivergate, 3018 U.S. Highway 301 North, Suite 1000, Tampa, Florida 33619-2272. Tel. (813) 228-2815; toll free Tel. (888) 833-1844; fax (813) 225-7015; e-mail: wayne.swingle@ gulfcouncil.org.

U.S. Department of Agriculture (USDA)

Authority

The National Aquaculture Development Act of 1980 established a coordinating group, the Joint Subcommittee on Aquaculture (JSA), chaired by the U.S. Department of Agriculture. The JSA has been responsible for developing the National Aquaculture Development Plan, which identifies the relative roles of the U.S. Departments of Agriculture, Interior, and Commerce, and establishes a strategy for the development of an aquaculture industry in the United States. Permit: None. The Department of Agriculture provides research and a variety of services, but has not maintained a regulatory role in mariculture. See the following web site for more information: http://ag.ansc.purdue.edu/aquanic/jsa/federal_guide/usda.htm.

Contact Sarah Harris, Southern Regional Aquaculture Center, Delta Research and Extension Center, Mississippi State University. 127 Experiment Station Road, P.O. Box 197. Stoneville, Mississippi 38776 Tel.: (662) 686-3285, fax: (662) 686-3569, Email: sharris@drec.msstate.edu.

U.S. Department of Interior, Minerals Management Service (MMS)

Authority

The Outer Continental Shelf Lands Act established jurisdiction over submerged lands on the outer continental shelf and the Minerals Management Service has authority over lease sites on the shelf. Consult the MMS if the project will be near or attached to an oil or gas platform or if ownership will be transferred. A permit is required for platform removal or transfer of ownership. Contact: Gulf of Mexico OCS Region, 1202 Elmwood Park Blvd., New Orleans, LA 70123-2394. Tel. (504) 736-2894.

Texas General Land Office (GLO)

Agency Role and Responsibilities

The Texas General Land Office (GLO) is responsible for the management and use of state owned public lands. It should be noted that this agency is proprietary and not regulatory. State-owned public lands include the following:

- Public school lands
- Emergent and submerged lands up to the mean high tide line in Texas bays
- Submerged lands extending from mean high tide offshore to three marine leagues or 9 nautical miles (10.35 miles) into the Gulf of Mexico

A lease or easement must first be obtained from the GLO before any activity involving state lands may be undertaken (Chapters 33 and 51 *et seq*., Texas Natural Resources Code).

The majority of state-owned lands that might involve aquaculture activities are coastal submerged lands that begin at the mean high tide line and extend out into the bays and estuaries. There are exceptions to submerged lands managed by the GLO and therefore an ownership determination should be requested from the GLO.

Authority

Texas Natural Resources Code § 51 authorizes surface leasing by the Texas General Land Office (GLO). All lands and waters are held in trust to the Permanent School Fund, and all revenues generated by mineral, land or seabed leases belong to that fund. Texas, unlike most states, claims territorial waters out to ten miles (10.3 miles to be exact or 9 nautical miles or three marine leagues) from shore.

Texas' Boundary

By 1975 the Texas Coastal Management Program had defined the Texas coastal zone as "southwest along the coast from the Sabine to the Rio Grande, seaward into the Gulf of Mexico for a distance of 10.35 miles (9 nautical miles, which was originally 3 leagues under Spanish law), and inland to include 36 counties." This zone is composed of eight geographic areas extending from the inner continental shelf to about forty miles inland. It includes all estuaries and tidally influenced streams and bounding wetlands.

Texas Coastal Management Zone as Defined by the Texas Legislature. (From Texas Coastal Coordination Council)

The total coastal zone of Texas comprises an area of more than 33,000 square miles. The coastal counties have one-third of the state's population, one-third of its economic activity, 40 percent of the national petrochemical industry, 25 percent of the national petroleum-refining capacity, and three of the ten largest seaports; yet they make up only about one-tenth of the total land area of the state. The zone is richly endowed with natural resources. Its mineral production, largely of oil and gas, has a value of nearly $1 billion a year. Another $156 million comes from commercial fisheries. The fertile soils along the coast

produce agricultural products valued at $500 million a year. The beaches and waters attract about three million tourists who spend nearly $1.6 billion per year.

The GLO's Texas Coastal Management Plan includes aquaculture. Section 309 of that management plan has two programmatic objectives: #1. To enhance existing procedures and long range planning processes for considering the siting of public and private marine aquaculture facilities in the coastal zone, and #2. To improve program policies and standards which affect aquaculture activities and uses so as to facilitate siting while maintaining current levels of coastal resource protection.

[NOTE—The author had an opportunity to participate in the update of the aquaculture section of GLO's Management Plan in 2004 and 2005. The draft summary of the aquaculture permitting in the state submitted to the GLO by this author is in Appendix 1.]

GLO Requirements

Applicants interested in leasing Texas land or waters for aquaculture must contact the GLO very early in the planning process. The application consists of two main parts. The first requires the name, address and financial status of the applicant, a description of the proposed location and a statement of the parameters of the project. The second portion involves a due-diligence examination of the first portion by GLO to determine the nature of the lessee, creditworthiness of the lessee, and the soundness and feasibility of the overall aquaculture proposal. GLO then uses the results of that examination to determine the rental fee, which consists of a base fee and a royalty style rent based on the revenue or income of the project.

Contact
Jim Gossett Texas General Land Office Asset Inspections
1700 North Congress Avenue
Austin, Texas 78701-1495. Tel. (512) 463-5139. fax (512) 463-5304
e-mail: james.gossett@glo.state.tx.us.

Lease/Easement

A lease or easement is required from the GLO for any activity that involves the use of state-owned lands. Some examples include dredging of channels or intake basins, levee construction, building of piers or docks, bulkheading, road construction, and pipeline placement.

Lease/Easement Application

Application forms may be obtained from the following divisions:

Real Estate Division
Texas General Land Office
1700 North Congress Avenue
Stephen F. Austin Building
Austin, Texas 78701-1495
Tel. (512) 475-1467

Field Offices

Texas General Land Office
118 S. 5th Street
La Porte, Texas 77571-5048
Tel. (281) 470-1191

Texas General Land Office
111 W. Wilson
Naylor Building, 2nd Floor
Aransas Pass, Texas 78336-2526
Tel. (361) 758-7228

Review and Coordination

Upon receipt of a completed application, the GLO staff will make a determination if the proposed project would in fact involve state lands. With an affirmative finding, a field inspection will be made of the site. A field report will then be made on the project and may include recommendations that certain conditions be placed in the lease or easement contract. Following staff assessment and legal review (and

school land board approval when required), a contract will be forwarded to the applicant for signature. Upon receipt of the signed contract, the Land Commissioner will sign and validate the contract and return an executed copy to the applicant.

Coordination of GLO applications with other federal and state agencies is done on a selective basis depending upon the nature and extent of the proposed project. When deemed appropriate, the GLO will coordinate with agencies such as the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Texas Commission on Environmental Quality, Texas Parks and Wildlife Department, and the Texas Antiquities Committee.

Processing Time Requirements

Usually two to three months is required to obtain an executed lease or easement contract.

Lease/Easement Issuance, Fees, and Terms

Upon validation by the Land Commissioner, the contract will be forwarded to the applicant. Fees usually involve an initial $25.00 or $ 50.00 filing fee plus an annual fee throughout the term of the contract. Annual fees vary depending upon the construction activity and the size and nature of the structure and/or use of state-owned lands. The term and fees of the lease or easement are usually negotiable.

Texas Department of Agriculture (TDA)

Agency Role and Responsibilities

The Texas Department of Agriculture (TDA) is responsible for encouraging the raising of cultured fish, the development of the fish farming industry, and the marketing of aquaculture products (Section 13.003-C, Texas Agriculture Code, as amended by the Fish Farming Act of 1989).

Effective September 1, 1989, the TDA also was made responsible for establishing a comprehensive fish farm program addressing fish farming on owned or leased lands and waters (Section 13.003 Texas Agriculture Code). The objective of the fish farm program is to develop and expand the fish farm industry in order to expand the state's economy and offer alternative farming opportunities. At a minimum, the program must include the following:

- A plan for promoting fish farm products
- Licenses and regulations for fish farming operations
- Licenses and regulations for farm raised fish and shellfish processing plants
- Technical assistance to fish farmers
- Coordinated support to fish farmers from colleges and universities and other governmental entities
- Solicitation of financial support from the federal government for the fish farm industry

The fish farm program was implemented and rules adopted by TDA in January 1990 [Section 12(b), Fish Farming Act, Acts of the 71st Texas Legislature, Regular Session, 1989]. **Note**: Delays occurred due to the omission of funding for implementation of this act, but emergency rules became effective February 1, 1990. Permanent rules become effective May 1, 1990.

Regulatory Requirements

Aquaculture License

License Requirements—Any person engaged in the business of producing, transporting, possessing and selling cultured fish or shellfish raised in private ponds for resale, consumption or stocking purposes must first obtain an Aquaculture License from the TDA. The license does not apply to the business of producing, propagating, transporting, possessing and selling cultured fish for bait purposes (Chapter 134, Texas Agriculture Code).

Authority

The Texas Department of Agriculture (TDA) is charged with issuing aquaculture licenses and is supposed to assist with the promotion of aquaculture in the state. However, the state does not supply this

agency with adequate funds to accomplish all these tasks. It therefore operates mainly on fees collected from licenses, and does a good job considering the shortage of state funding.

Specifically, TDA is statutorily required to encourage the raising of cultured species, development of the aquaculture industry and the marketing of aquaculture products. Texas Agriculture Code § 12 et seq. The Agriculture Code authorizes both TDA and the Texas Parks and Wildlife Department (TPWD) to adopt rules to carry out their respective duties. It also authorizes TDA to establish record keeping requirements for commercial aquaculture facilities. Texas Agriculture Code § 134 et seq.

Permitting

It is suggested that the applicant obtain a TCEQ discharge permit before going to TDA for an Aquaculture License. An Aquaculture License must be obtained from TDA prior to beginning operations. Texas Agriculture Code § 134.011(b)(2). There is a standardized application form that can be obtained from the TDA web site to be submitted with $120.00 to TDA. The same form is used for Fish Farm Vehicle Licenses required by § 134.012. Before an Aquaculture License will be granted by TDA, an applicant must obtain either a permit for wastewater disposal or a Certificate of Exemption from Texas Commission on Environmental Quality (TCEQ). Copies of all applications are sent to TPWD and TCEQ for review within 10 days of receipt by TDA.

Penalties

The penalty for unlawfully fishing or taking fish from an aquaculture facility is the penalty imposed for a third degree felony, and all other statutory violations are Class C, B and A misdemeanors. Texas Agriculture Code § 134.023

License Application

A person may apply for an Aquaculture License by submitting a completed application and the license fee to the following TDA office:

Aquaculture Program
Texas Department of Agriculture
P. O. Box 12847
Austin, Texas 78711
Tel. (877) 542-2474

License Review and Coordination

Upon receipt of the license application and attendant fee, the TDA may consult with the TPWD and/or TDSHS concerning the proposed fish farming operation.

License Processing Time Requirements

Usual processing requires from one to two weeks.

License Issuance, Fees and Terms

When all requirements of the TDA have been satisfied, they will forward a numbered license to the applicant. The current initial fee for this license is $120.00 and is valid for two years after the date of issuance.

The Department will renew an Aquaculture License on submission by the licensee of a completed application and a renewal fee unless the TDA determines that the licensee has violated Chapter 134, Texas Agriculture Code or a rule adopted under that chapter.

The renewal fee for an Aquaculture License is $120.00.

Fish Farm Vehicle License

License Requirements

An aquaculturist in Texas must obtain Fish Farm Vehicle Licenses from TDA for all vehicles used to transport cultured species from a private facility for sale. Texas Agriculture Code §134.012. Licenses must be purchased for each vehicle in operation, including vehicles from which fish are sold by a non-

aquaculturist. The only exemption is for the vehicle owned and operated by the holder of an aquaculture license, and a copy of the aquaculture license must be kept in the vehicle. The cost is $120.00 per vehicle.

License Application
Same procedure as the Aquaculture License.

License Review and Coordination
No other agencies are usually involved.

License Processing Time Requirements
Same time period as the Aquaculture License.

License Issuance, Fees and Terms
Same fee and terms as an Aquaculture License.

Bill of Lading for Certain Vehicles

A vehicle from which no cultured fish sales are made, but that transports cultured fish from a fish farm, shall carry a bill of lading that shows the number and species of cultured fish carried, the name of the owner and the location and license number of the fish farm from which the fish were transported and the destination of the cargo.

Marketing of Cultured Redfish and Speckled Seatrout

A licensed fish farmer engaging in the raising, sale, transportation or possession of cultured redfish or speckled seatrout shall adhere to one or more of the following depending on the circumstances (Section 134.019, Texas Agriculture Code):

- Invoices for Shipments of Redfish or Speckled Seatrout — a fish farmer licensee shall prepare or cause to be prepared a Texas Finfish Import Invoice or an Intrastate Texas Finfish Import Invoice for all shipments of redfish or speckled seatrout shipped to or from or sold at his/her place of business.
- Labeling of Redfish or Speckled Seatrout — each package of dead redfish or speckled seatrout and each container of live redfish or speckled seatrout shall be identified as to its contents following TDA format.
- Packaging Requirements for Importation of Redfish and Speckled Seatrout — all redfish and speckled seatrout entering this state for sale, or being transported intrastate for sale, shall be packaged one species per package.
- Marking of Vehicles — All motor vehicles, trailers or semitrailers transporting fish for commercial purposes shall exhibit the inscription "fish" on the right, left and rear sides of the vehicle. The inscription shall read from left to right and shall be plainly visible at all times while transporting fish. The inscription "fish" shall be attached to or painted on the vehicle, trailer or semitrailer in black Arabic letters of good proportion in contrasting color to the background and be at least eight inches in height.

Texas Parks and Wildlife Department (TPWD)

Agency Role and Responsibilities

The Texas Parks and Wildlife Department (TPWD) is responsible for the conservation, management and protection of the state's fish and wildlife resources. These responsibilities are carried out through various planning, management, research, regulatory and enforcement programs. Of significance to aquaculture operations are TPWD's programs that involve review and comment on COE permit applications for proposed construction projects and the issuance of certain leases, licenses and permits by the department. Several federal permitting agencies are required by federal law to coordinate with and consider the comments of the TPWD prior to issuing construction permits, and TPWD is required to coordinate permitting of aquaculture with TCEQ and TDA. Additional responsibilities of TPWD that may affect aquaculture are: exotic species containment through exotic species permits, hurricane contingency plan requirements for exotics, site selection input, sand, gravel, shell and marl permit, private oyster permit, oyster transplant permit, oyster harvest permit, oyster boat license, brood sourcing permits, as well as other related aquaculture permits such as shrimp hatchery monthly inspections for disease free status certification, shrimp farm inspections for disease free status certification or quarantine, etc. TPWD's mission statement is "To manage and conserve the natural and cultural resources of Texas for the use and enjoyment of present and future generations".

Authority

TPWD is required by the Texas Agriculture Code § 134.020 to adopt rules regulating exotics and enforce them. TPWD regulates exotic fish, shellfish, and aquatic plant species in order to protect indigenous Texas species and aquatic habitats. TPWD is required to make a list of exotics for which a permit will be required, define the zone inside which exotics will be excluded, approve shellfish disease specialists for the disease free certification of exotics, adopt rules to regulate exotics, and issue Exotic Species Permits for the possession, propagation, sale and transportation of exotics under TPWD Code § 66.007. Additionally, TPWD is authorized to inspect aquatic products at the dealer/handler's place of business during normal business hours, and no person may refuse the inspection (TPWD Code § 47.037).

TPWD also has the water quality control enforcement authority for violations affecting aquatic life and wildlife (Water Code § 26.129). Section 66 of the TPWD Code prohibits any person from catching or taking aquatic life from any private waters without consent, TPWD Code § 66.002, and defines the penalties for violations of that prohibition in TPWD Code § 66.012.

Statistical information on the harvest of aquatic products in Texas must be gathered and compiled by TPWD under TPWD Code § 66.019.

Regulatory Requirements

Permitting

The TPWD Code, like the Agriculture Code, requires aquaculturists and those transporting aquatic products to obtain and keep the standard fish farm vehicle/aquaculture licenses (TPWD Code § 66.014). A special license issued by TPWD is required to collect, hold or propagate indigenous fish or aquatic life, when Texas law regulates those activities (TPWD Code § 43.021).

A dealer's license must be obtained by any person transporting aquatic products or bringing them into the state under TPWD Code § 47.018, and aquatic products transportation invoices must be prepared by the shipper and kept with the products under TPWD Code § 47.0181. Wholesale fish dealers not licensed under §134.011 of the Agriculture Code must be licensed by TPWD (TPWD Code § 47.009). The same license requirements are imposed upon retail fish dealers under TPWD Code § 47.011 and upon bait fish dealers under TPWD Code § 47.014.

A permit must be obtained from TPWD for introduction of any aquatic products into public waters, and the Department is charged with establishing the rules and regulations governing those permits (TPWD Code § 66.015). This section exempts native, non game fish, as defined by TPWD, except where threatened or endangered fish are present.

TPWD Rule § 57.111 et seq. outlines TPWD's regulation of exotics. Prior to importing live exotic shellfish, documentation of the inspection and certification of the exotics as disease free must be provided to TPWD, and the importer must receive acknowledgment that such documentation has been received. Monthly certification is required for certain species, and additional examinations and certifications are required before the first discharge of waste in any calendar year.

To obtain an Exotic Species Permit, an applicant must first posses either a valid Aquaculture License from TDA, a TCEQ TPDES permit, or exemption, for operation of a wastewater treatment facility, a TPWD approved research proposal or operate a public aquarium. The application fee is $250.00, and the applicant must complete TPWD's application form and submit an accurate, drawn-to-scale plat of the facility (TPWD Rule § 57.117). Applicants must also meet all the disease free certification requirements in TPWD Rule § 57.114, and facilities located within the exclusion zone must submit and obtain approval of an Emergency Plan to prevent the release or escape of exotics during a natural catastrophe, such as a hurricane or flood. Permits expire every year on December 31.

Contact Texas Parks and Wildlife Department Inland Fisheries, Joedy Gray, 4200 Smith School Road, Austin, Texas 78744. Tel: (512) 389-8037 fax: (512) 389-4388 e-mail: joedy.gray@tpwd.state.tx.us.

Sand, Gravel, Shell and Marl Permit

Permit Requirements

This permit is required prior to disturbance or the removal of materials from state waters including streams, rivers and bay bottoms (Section 86.002, Texas Parks and Wildlife Code).

Permit Application

To obtain a permit, an application form must be submitted to the TPWD. Information required includes a description of the project, the area from which the materials are to be removed, the quantity to be removed, and disposition of the materials.

Information on permit requirements and permit application forms may be obtained by contacting the following office:

Legal Division
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4770

Permit Review and Coordination

Following submission of a completed application, the TPWD will publish a Notice of Hearing in the *Texas Register*. A public hearing on the application is then held at TPWD headquarters in Austin (Sections 57.65-57.67, Title 31, Texas Administrative Code).

Permit Processing Time Requirements

A permit is usually issued within two months unless significant objections are raised.

Permit Issuance, Fees and Term

Issuance of the permit represents authorization to perform the proposed work. Fees are assessed only if the materials are removed. No fees are assessed when materials are removed and returned to state land, such as pipeline installation. Refer to the following table for the current fee schedule and permit terms.

Material to be Removed	Fee Schedule	Permit Terms
Sand and Gravel Permit	$0.20/ton or 8% of selling price	Three years
Permit Application fees $250 – general $500 – individual non revenue $1200 – individual revenue		
Shell or Mudshell Permit	$1.71/cubic yard	One year
Marl	$0.20/ton or 8% of selling price	Three years

Private Oyster Leases

Lease Requirements

Any person may lease up to 100 acres of bay bottom for purposes of culturing oysters (Subchapter A, Chapter 76, Texas Parks and Wildlife Code). Check with TPWD personnel on the status of this leasing program, as moratoriums may still be applicable. For example, Texas SB 272 and HB 884 (submitted by Sen. Seaman) will create a license moratorium for the commercial oyster fishery on Aug. 31, 2005.

Lease Application

An application must be submitted to the TPWD stating the name of the applicant and the location of the land proposed for lease.

Information on the oyster lease program, current status and application instructions may be obtained by contacting the following regional TPWD Fisheries Offices:

Dickinson Marine Lab
1502 FM 517 East
Dickinson, Texas 77539
Tel. (281) 534-0101
Fax (281) 534-0120

Lease Application Review and Coordination

Upon receipt of a lease application, the TPWD staff will make a determination whether the proposed location is suitable for lease and oyster culture. Areas containing natural oyster beds, areas already leased, and areas within 100 yards of the bayshore line may not be leased.

Coordination by the TPWD will take place with the Texas Department of State Health Services regarding water quality suitability for harvesting oysters that will be cultured on the proposed lease location. Leases proposed in waters classified as polluted due to persistent contamination are unlikely to be approved. The Texas General Land Office will review the application for potential conflicts with existing GLO leases or easements. The U.S. Army Corps of Engineers will also review the application for any navigational conflicts. Following a determination that the proposed area is appropriate for leasing, the TPWD will hold a public hearing in the county where the lease will be located. If no significant objections arise during the hearing, the applicant will be required to have the location surveyed and marked by a surveyor.

Application Processing Time Requirements

Usual processing requires from three to six months.

Lease Issuance, Fees and Terms

When all applicable regulations and concerns have been satisfied, the TPWD will issue a lease certificate to the applicant. The certificate will include a legal description of the area to be leased. There is no application fee but the applicant must pay the actual cost of the survey.

Rental fees are assessed once oysters are harvested from the location and sold and are due annually thereafter. The current rental fee is $3.00 per acre, per year.

There are no fixed terms on private oyster leases. However, failure to produce and sell oysters within five years or failure to pay annual fees will result in termination of the lease.

Oyster Transplanting Permit

Permit Requirements

An Oyster Transplanting Permit must be obtained prior to taking oysters from public waters for the purposes of transplanting to a private oyster lease (Subchapter B, Chapter 76, Texas Parks and Wildlife Code).

Permit Application

Private oyster leaseholders may apply for an Oyster Transplanting Permit. The application must state the applicant's name, purpose for taking oysters, quantity of oysters to be taken, and the location where the oysters will be placed.

Information and application instructions may be obtained by contacting the following regional TPWD Fisheries Office:

Dickinson Marine Lab
1502 FM 517 East
Dickinson, Texas 77539
Tel. (281) 534-0101
Fax (281) 534-0120

Permit Review and Coordination

Upon receipt of an application for an Oyster Transplanting Permit, the TPWD will review the application and coordinate with the Texas Department of State Health Services concerning the waters from which the oysters will be taken. If the waters are suitable, the permit will be issued.

Permit Processing Time Requirements

Permits are usually issued within seven to ten days.

Permit Issuance, Fees, and Terms

Upon approval, the Oyster Transplanting Permit will be forwarded to the applicant. No fees are charged. The permit expires upon completion of the transplanting.

Oyster Harvest Permit

Permit Requirements

A permit is required to harvest oysters from private oyster leases (Subchapter B, Chapter 76, Texas Parks and Wildlife Code).

Permit Application

Information and application instructions may be obtained from the following regional TPWD Fisheries office:

Dickinson Marine Lab
1502 FM 517 East
Dickinson, Texas 77539
Tel. (281) 534-0101
Fax (281) 534-0120

Permit Review and Coordination

Prior to issuing an Oyster Harvest Permit, TPWD will coordinate with the Texas Department of State Health Services to determine if the waters from which the oysters will be taken have been approved for harvesting.

Permit Processing Time Requirement

Permits are usually issued within seven to ten days.

Permit Issuance, Fees, and Terms

Upon approval, the permit will be forwarded to the applicant. No fees are charged. Permit expires when the harvest is completed.

Commercial Oyster Boat License

License Requirement

A Commercial Oyster Boat License is required for each boat used for transporting or for taking oysters for pay, sale, barter, exchange, or for any other commercial purpose from state (public) waters by the use of a dredge, tongs or any other mechanical means (Subchapter C, Chapter 76, Texas Parks and Wildlife Code). This license covers the boat and crew for oysters only. The culturing of oysters in state waters, including oyster leaseholders, is also subject to the requirements of this license.

License Application

There is no formal application procedure. However, the boat's U.S. Coast Guard certification of documentation or state registration number must be presented at the time the license is issued. Licenses may be obtained from TPWD offices of by contacting the following division:

Law Enforcement, Field
License Sales
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

License Review and Coordination

Not applicable.

License Processing Time Requirements

The license may be obtained immediately when purchased in person. Purchase by mail requires approximately one week after receipt of the license application.

License Issuance, Fees, and Terms

Licenses may only be issued during the month of August. The fee is $350.00 per boat. Licenses are valid September 1 and expire on August 31 the following year.

Shellfish Culture License

License Requirements

A licensed fish farmer engaged in the business of producing, propagating, transporting, selling or processing for sale shellfish raised on private land must first acquire a Shellfish Culture License [Sections 134.001(4) and 134.011, Texas Agriculture Code and Chapter 51, Texas Parks and Wildlife Code]. Shellfish means aquatic species of crustaceans and mollusks, including oysters, clams, shrimp, prawns and crabs of all varieties. A separate license is required for each tract of land on which shellfish are cultured.

License Application

A Shellfish Culture License application may be obtained directly from the department by forwarding a letter that states the owner's or manager's name, home address, business address and the county where the business is located. This letter should be submitted to the following office:

License Sales
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

License Review and Coordination

Not applicable.

License Processing Time Requirements

License processing time is usually seven to ten days after receipt of a completed application.

Permit Issuance, Fees, and Terms

A numbered license will be issued. The fee is $50.00 and the license term is 12 months, beginning on September 1 and expiring August 31 the following year.

General Exotic Shellfish Culture Permit

Permit Requirements

The holder of a TDA Aquaculture License must also obtain a TPWD General Exotic Shellfish Culture Permit prior to the importation, possession, propagation or transport of exotic shellfish into or from the state (Section 51.009, Texas Parks and Wildlife Code). Exotic shellfish means non-native species of oysters, clams, shrimp, prawns and crabs of all varieties that are brought into the state for culture purposes. It should be noted that this permit would not be issued for shellfish defined as harmful or potentially harmful (see TPWD List of Harmful or Potentially Harmful Species within this manual). Shellfish taken

from the high seas adjacent to the Texas coast are exempt (Section 51.009, Texas Parks and Wildlife Code).

License Application

A letter of application that states the name and address of permittee, the Shellfish Culture License number, the location where exotic shellfish will be held, the species and the source of the exotic shellfish, a description of culture facilities and efforts taken to ensure that the exotic shellfish do not escape into the wild, and the name of any agent(s) who will be handling the shellfish should be forwarded to the following office:

Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-8037

Permit Review and Coordination

The permit application will be reviewed for consistency with department regulations governing permit issuance. Other agencies are not involved.

Permit Processing Time Requirements

Usual processing is seven to ten days after receipt of a completed application. However, if a facility inspection is determined to be necessary, an additional two to three weeks could be required.

Permit Issuance, Fees and Terms

If the application satisfies departmental regulations, a permit will be issued. However, the permit will contain the following stipulations:

- The permittee will be prepared and will destroy the exotic shellfish if, for any reason, it appears that a release of the shellfish to public waters is imminent.
- The permittee will maintain the exotic shellfish in controlled conditions until such time as a sample of the shellfish has been examined and certified as disease free.

There is no fee for the permit. Once issued, the permit is valid for only one shipment of exotic shellfish. Subsequent shipments require a permit amendment for each shipment.

Shellfish Sourcing Permit

Permit Requirements

The holder of a Fish Farming License and a Shellfish Culture License may obtain, from public waters, shellfish broodstock during closed shellfish harvesting seasons by obtaining a Shellfish Sourcing Permit (Section 51.010, Texas Parks and Wildlife Code). Note: This permit is not required when shellfish are taken during open season.

Permit Application

A letter of application that states the name and address of permittee, the Shellfish Culture License number, the numbers and species of shellfish to be collected, areas where shellfish are to be taken, the proposed method of taking and the period when shellfish will be taken should be forwarded to the following office:

Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-8037

Permit Review and Coordination

Upon receipt of the application, it will be reviewed against TPWD regulations. The water quality classification of waters from which the shellfish will be taken is also evaluated. Coordination with the Texas Department of State Health Services may be required.

Permit Processing Time Requirements

Usual processing is seven to ten days after receipt of a completed application.

Permit Issuance, Fees and Terms

Upon issuance, the permit will contain the following stipulations:

- The broodstock collected may not be sold, bartered, or exchanged.
- The permit must be carried by the broodstock collector during collection.
- That the permittee must furnish to law enforcement personnel the name of the collecting vessel, period and location where the collecting will be done.

There is no fee for the permit. The permit expires when the authorized collection is completed.

Red Drum and Speckled Seatrout Sourcing Permit

Permit Requirements

This permit is required for the taking from public waters a limited number of red drum (redfish) and/or speckled seatrout of spawning size for broodstock purposes (Section 66.2012, Texas Parks and Wildlife Code and Section 57.362, Title 31, Texas Administrative Code). Only licensed fish farmers may obtain a permit.

Permit Application

Application for a sourcing permit is made by letter that includes the applicant's name and address, Aquaculture License Number, the species to be collected, the number of each species to be collected, the location of the collection area, the proposed collection method, the time period during which collection will take place, the proposed use of the broodstock, and a description of the culture facilities.

Letters of application should be submitted to the following office:

Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-8037

Permit Review and Coordination

Upon receipt, the application will be reviewed for completeness and consistency with TPWD regulations. A facility inspection by department field staff may be required prior to approval.

Permit Processing Time Requirements

Permits are usually issued within seven to ten days after receipt of a completed application. If a facility inspection is required, an additional two to three weeks may be necessary.

Permit Issuance, Fees, and Terms

Upon issuance, the permit will contain the following stipulations:

- The broodstock collected may not be sold, bartered or exchanged.
- The permit must be carried by the broodstock collector during collection.
- The permittee must furnish to law enforcement personnel the name of the collecting vessel, period and location where the collecting will be done.

There is no fee for the permit. The permit expires when the authorized collection is completed.

Exotic Species Permit

Permit Requirements

An Exotic-Species Permit must be obtained in order to possess, propagate, transport or sell certain allowable exotic species that are considered harmful or potentially harmful to native species (Sections 66.007 and 66.015, Texas Parks and Wildlife Code and Section 134.020, Texas Agriculture Code). All

other exotic species listed on TPWD list that are considered harmful or potentially harmful **cannot** be placed in public waters.

Species for which Exotic Species Permits may be obtained include the following:

- Blue tilapia (*Tilapia aurea*)
- Mozambique tilapia (*Tilapia mossambica*)
- Nile tilapia (*Tilapia nilotica*)
- Hybrids between the above species
- Silver carp (*Hypophthalmichthys molitrix*)
- Black carp (*Mylopharyngodon piceus*, also known as snail carp) (Chapter 57.113, Title 31, Texas Administrative Code)
- Bighead Carp (*Aristichthys/Hypothalmichthys nobilis*)
- Water spinach (*Ipomoea aquatic*)
- Pacific White Shrimp (*Litopenaeus vannamei*)

Qualifications for obtaining an Exotic Species Permit to culture one or more of the above species in private ponds (pond, reservoir, vat, or other structure) include the following criteria:

- Applicant must be a licensed fish farmer.
- The fish farm must be designed to prevent discharges of water containing adult or juvenile exotic species or their eggs from the permitee's property.
- Fish farms that are within the 100-year flood plain must be enclosed within an earthen or concrete dike or levee constructed to exclude all flood waters and in such a manner that no section of the crest of the dike or levee is less than one foot above the 100-year flood elevation. Dike or levee design or construction must be approved before issuance of a permit.
- The applicant has not violated any provision of the exotic species rules during the previous year (Section 57.116, Title 31, Texas Administrative Code).

Permit Application

To be considered for an Exotic Species Permit, the application must do the following:

- Submit a completed Exotic Species Permit Application to TPWD.
- Possess a valid TDA Aquaculture License.
- Demonstrate to the TPWD that the applicant meets the permit qualifications as listed above, and that the aquaculture facility is, or will be, constructed consistent with the required specifications for preventing escapement of the exotic species from the applicant's property.
- Allow inspection of facilities.
- Provide an adequate number of exotic species upon request for identification and analyses.
- Provide documentation upon request to identify any harmful or potentially harmful species for which a permit is sought (Sections 57.116 and 57.117, Title 31, Texas Administrative Code).

Additional exotic species information and application forms may be obtained from the following office:

Inland Fisheries Division
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-8037

Permit Review and Coordination

The complete application will be reviewed against TPWD rules and regulations upon receipt. Usually other agencies are not involved in the review process.

Permit Processing Time Requirements

If the culture facilities are ready for inspection when the application is submitted, a permit can usually be issued within one to two months.

Permit Issuance, Fees and Terms

The non-transferable permit will be issued to the fish farm owner when all applicable regulations have been satisfied. No fees are charged. The permit expires on August 31 each year.

A permit may be renewed by submission of an application and an annual report to the TPWD by the aquaculture farm owner. The application must state whether any material or substantial changes have been made to the fish farm during the prior permit period. The renewal application must be received by the TPWD not more than 60 days (June) or less than 30 days (July) prior to the permit's expiration on August 31.

Upon finding that the applicant has not violated any provision of TPWD's exotic species rules during the previous one-year period, a renewal permit will be issued.

Freshwater Commercial Fishing Boat License

License Requirements

This license is required when a boat equipped with a motor or sails is used in nontidal state waters (freshwater) to catch fish, oysters or other edible aquatic products for pay or for the purpose of sale, barter or exchange (Section 47.005, Texas Parks and Wildlife Code). This includes boats used to harvest aquatic species that are cultured in non-tidal state waters.

License Application

No formal application is required. A license may be obtained from TPWD law enforcement field offices or by contacting the following office:

License Sales
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

License Review and Coordination

Not applicable.

License Processing Time

A license may be obtained immediately if purchased in person. Purchase by mail could take up to one week or possibly longer.

License Issuance, Fees and Terms

Upon payment of the $10.50 fee, the license will be issued for one year. Expiration is August 31 each year.

Saltwater Commercial Fishing Boat License

License Requirements

A Saltwater Commercial Fishing Boat License is required when a boat is used for the catching or assisting in catching edible aquatic life (except for shrimp, oysters and menhaden) from tidal waters for pay or for the purpose of sale, barter or exchange (Section 47.007, Texas Parks and Wildlife Code). This includes boats used to harvest aquatic species that are cultured in tidal waters.

License Application

No application required. Licenses may be obtained from a TPWD law enforcement office or by contacting the following office:

License Sales
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

License Review and Coordination

Not applicable.

License Processing Time Requirements

A license may be obtained immediately if purchased in person. Purchase by mail could take up to one week or longer.

License Issuance, Fees and Terms

The annual license will be issued upon payment of a $10.50 fee. License expires each year on August 31.

Bait Dealer's License

License Requirements

Any person engaged in business as a bait shrimp dealer in a coastal county must first obtain a Bait Shrimp Dealer's License for each bait stand or place of business (Sections 77.043 and 77.045(a), Texas Parks and Wildlife Code). A bait shrimp dealer is defined as "a person who operates an established place of business in a coastal county of the state for compensation or profit for the purpose of handling shrimp caught for use as bait from the inside water of this state...." (Section 77.001(10), Texas Parks and Wildlife Code).This license authorizes the holder to sell, purchase and handle shrimp, minnows, fish and other forms of aquatic life for sale or resale for fish bait purposes in coastal counties only (Section 77.045(a) and (b), Texas Parks and Wildlife Code).

License Application

No formal application is required. However, in order to obtain a license the applicant must have an established place of business for the sale of bait shrimp. Licenses may be purchased from a TPWD law enforcement field office or by contacting the following office:

License Sales

Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

License Review and Coordination

Not applicable.

License Processing Time Requirements

A license may be obtained immediately if purchased in person. Purchase by mail could take up to one week or longer.

License Issuance, Fees, and Terms

The annual license fee is $60.00 for each place of business and expires August 31 each year.

Wholesale Fish Dealer's License

License Requirements

A person who engages in the business of buying for the purpose of selling, canning, preserving, processing or handling for shipments or sale, fish, oysters, shrimp or other commercial edible aquatic products to retail fish dealers, hotels, restaurants, cafes or consumers must purchase a Wholesale Fish Dealer's License (Sections 47.001(3) and 47.009, Texas Parks and Wildlife Code). A licensed TDA aquaculture farmer who buys aquatic products for the above stated purposes is required to purchase this license. However, a licensed TDA aquaculturist who provides services to others (such as custom processing, packaging, labeling, shipping, etc.) for a fee would not be required to purchase the license.

License Application

No formal application is required. Licenses may be obtained from TPWD law enforcement field offices or by contacting the following office:

License Sales

Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

License Review and Coordination

Not applicable.

License Processing Time Requirements

A license may be obtained immediately if purchased in person. Purchase by mail could take up to one week or longer.

License Issuance, Fees and Terms

The license fee is $400.00. The license expires each year on August 31.

Wholesale Fish Truck Dealer's License

License Requirements

A person who engages in the business of selling edible aquatic products from a motor vehicle to retail fish dealers, hotels, restaurants, cafes or consumers must have a Wholesale Fish Truck Dealer's License. In most cases, this will not apply to a licensed fish farmer. However, if the fish farmer engages in the buying and selling of edible aquatic products, the license may be required.

License Application

No formal application is required. Licenses may be obtained from TPWD law enforcement field offices or by contacting the following office:

License Sales
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

License Review and Coordination

Not applicable.

License Processing Time Requirements

A license may be obtained immediately if purchased in person. Purchase by mail could take up to one week or longer.

License Issuance, Fees and Term

The license fee is $250.00 per vehicle. The license expires on August 31 each year.

Retail Fish Dealer's License

License Requirements

A person engaged in the business of buying fresh or frozen edible aquatic products to sell to a consumer, is required to purchase a Retail Fish Dealer's License (Section 47.001(4) and 47.011, Texas Parks and Wildlife Code). A licensed fish farmer who buys cultured or other fish products for sale at retail may be required to purchase this license.

License Application

No formal application is required. Licenses may be obtained from TPWD law enforcement field offices or by contacting the following office:

Licenses Sales
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

License Review and Coordination

Not applicable.

License Processing Time Requirements

A license may be obtained immediately when purchased in person. Purchase by mail will take approximately one week or longer.

License Issuance, Fees and Terms

A license is issued for an annual fee of $30.00. It expires on August 31 each year.

Retail Fish Truck Dealer's License

License Requirement

A Retail Fish Truck Dealer's License is required to sell edible aquatic products from a motor vehicle to consumers (Section 47.013, Texas Parks and Wildlife Code). A licensed fish farmer who buys and sells edible aquatic products from a motor vehicle at retail could fall under this licensing requirement.

License Application

No formal application is required. The license may be purchased from TPWD law enforcement field offices or by contacting the following office:

License Sales
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

License Review and Coordination

Not applicable.

License Processing Time Requirements

A license may be obtained immediately when purchased in person. Purchase by mail takes approximately one week or longer.

License Issuance, Fees and Terms

A license will be issued upon payment of a $50.00 annual license fee. The license expires on August 31 each year.

Alligator Farmer's Permit

Permit Requirements

Any person who wishes to possess live alligators or propagate alligators for the purpose of selling the alligators, hides, meat or other parts of an alligator must first obtain an Alligator Farmer's Permit (Section 65.003, Texas Parks and Wildlife Code and Sections 65.351-65.369, Title 31, Texas Administrative Code).

Permit Application and Facility Requirements

Applications for a permit may be submitted in letter form to the following office:

License Sales
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

The letter should state the applicant's name, address, telephone number, height, weight, hair color, eye color, sex, date of birth and the location of the facility.

A facility inspection must be conducted by TPWD personnel prior to permit issuance to verify compliance with the following alligator facility regulations:

- Facility must provide adequate security to prevent escapement of alligators and entry by wild alligators from outside the facility.

- Facility must have a reliable source of clean, fresh water.
- Access to both dry ground and pooled water within the facility.
- Provision for winter protection.
- Facility must provide for separation of alligators into at least three size groups.
- Records of all changes in alligator stock must be maintained and quarterly reports are required.

License Review and Coordination

Information on permitted alligator farmers is made available to the Texas Department of State Health Services for purposes of regulating the processing of alligator meat sold for human consumption.

Permit Processing Time Requirements

If the facility is ready for inspection at the time the permit application is submitted, a permit is usually processed within three to four weeks.

Permit Issuance, Fees and Terms

Upon facility approval and payment of a $150.00 permit fee, the annual permit will be issued. The permit expires each year on August 31.

Alligator Import Permit

Permit Requirements

An Alligator Import Permit is required to bring live alligators and alligator parts into the state (Section 65.003, Texas Parks and Wildlife Code and Sections 65.351-65.369, Title 31, Texas Administrative Code).

Permit Application

A letter of application should be submitted to the following office:

License Sales
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4822

The letter should state the applicant's name, address, telephone number, height, weight, hair color, eye color, sex and date of birth.

Permit Review and Coordination

Not applicable.

Permit Processing Time Requirements

Permit processing usually requires three to four weeks.

Permit Issuance, Fees and Terms

The annual Alligator Import Permit fee is $15.00 and expires August 31 each year.

Alligator Hide Tag

Tag Requirements

Hides of all alligators harvested must be tagged (Section 65.003, Texas Parks and Wildlife Code and Sections 65.351-65.369, Title 31, Texas Administrative Code).

Tag Application

Alligator farmers may obtain tags upon written request to the TPWD at least 30 days prior to the scheduled harvest. Tags may also be obtained for individual alligators that died unexpectedly, provided a tag is requested prior to hide removal. The number of alligators harvested and hide tagging procedures will be verified by TPWD personnel. Requests for hide tags should be submitted on Form PWD 372 and mailed to the following office:

Alligator Program
Wildlife Division
Texas Parks and Wildlife Department

4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4769

Tag Review and Coordination

Not applicable.

Tag Processing Time Requirements

Two to three weeks are usually required to issue the requested tags.

Tag Issuance, Fees and Terms

Fees for hide tags are $5.00 each. Tags are valid for a specific harvest and any unused tags must be returned to the TPWD.

Alligator Broodstock Regulations

Section 65.003, Texas Parks and Wildlife Code and Sections 65.351-65.369, Title 31, Texas Administrative Code

Authorized Sources

Live alligators and alligator eggs may be purchased from the following sources:

- Licensed alligator farmers in other states
- Licensed alligator farmers in Texas
- Nuisance alligators that are occasionally available through the TPWD
- Tagged hatchlings from a hatchling tag recipient (land owner), or a licensed alligator hunter
- Alligator eggs from an authorized egg collector, or an alligator nest stamp recipient (land owner)

Facility Regulations

Alligator Eggs—Alligator farmers are required to have facilities for housing eggs in an incubator providing constant temperature and humidity conditions. Eggs must be retained in identifiable original clutch groups and the alligator farmer must have a nest stamp for each cultch group (nest).

Hatchling Alligators—Alligator farmers are required to have facilities for housing hatchlings in rearing tanks containing wet and dry areas. The tanks must be of sufficient size and construction to allow all hatchlings to completely submerge in water and completely exit from water and orient in any direction without touching the sides of the tanks.

Information and Technical Assistance

Prospective alligator farmers may obtain additional information about the alligator-farming program, names of licensed alligator farmers, contacts for broodstock, and sources of technical information by contacting the following office:

Alligator Program
Wildlife Division
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744
Tel. (512) 389-4769

TPWD List of Harmful or Potentially Harmful Species

Harmful or Potentially Harmful Exotic Fish

Lampreys Family: Petromyzontidae	All species except *Ichthyomyzon castaneus* and *I. gagei*
Freshwater Stingrays Family: Potamotrygonidae	All species
Arapaima Family: Osteoglossidae	Arapaima gigas
South American Pike, Characoids Family: Characidae	All species of genus *Acestrorhyncus*
African Tiger Fishes Subfamily: Hydrocyninae	All species
Piranhas and Priambebus Subfamily: Serrasalminae	All species
Rhaphiodontid Characoids Subfamily: Rhaphiodontinae *Rhaphiodon* (synonymous with *Cynodon*)	All species of genera *Hydrolycus* and
Dourados Subfamily: Bryconinae	All species of genus *Salminus*
South American Tiger Fishes Family: Erythrinidae	All species
South American Pike Characoids Family: Ctenolucidae	All species of genera *Ctenolucius* and *Luciocharax* (synonymous with *Boulengerella* and *Hydrocinus)*
African Pike Characoids Families: Hepsetidae Ichthyboridae	All species
Knifefishes Family: Gymnotidae	*Gymnotus carapo*
Electric eels Family: Electrophoridae	*Electrophorus electricus*
Carps and Minnows Family: Cyprinidae Leuciscus, Megalobrama, Mylopharyngodon, Scardinius, *tor*	All species of genera: Abramis, Aristichthys, Aspius, Aspiolucius, Blicca, Catla, Cirrhina, Ctenopharyngodon, Elopichthys, Hypophthalmichthys, Parabramis, Pseudaspius, Rutilus, Thynnichthys, Tor and the species *Barbus* (synonymous with *Barbus hexoagoniolepis*)
Walking Catfishes Family: Clariidae	All species
Electric Catfishes Family: Malapteruridae	All species

South American Parasitic Candiru Catfishes Subfamilies: Stegophilinae Vandelliinae	All species
Pike Killifish Family: Poeciliidae	*Belonesox belizanus*
Marine Stonefishes Family: Synanceiidae	All species
South American Pike Cichlids Family: Cichlidae	All species of genera *Crenicichla* and *Batrachops*
Tilapia Family: Cichlidae	All species of genus *Tilapia* (including *Sarotherodon* and *Oreochromis*)
Asian Pikeheads Family: Luciocephalidae	All species
Snakeheads Family: Channidae	All species
Walleyes Family: Percidae	All species of the genus *Stizostedion* except *Stizostedion vitreum* and *S. canadense*
Nile perch Family: Centropomidae	All species of genera *Lates* and *Luciolates*
Drums Family: Sciaenidae	All species of genus *Cynoscion* except *Cynoscion nebulosus, C. nothus,* and *C. arenarius*
Whale Catfishes Family: Cetopsidae	All species
Ruff Family: Percidae	All species of genus *Gymnocephalus*
Air sac Catfishes Family	
Swamp Eels, Rice Eels or One-Gilled Eel Family: Synbranchidae	All species
Anguilliidae	All species except *Anguilla rostrata*

Harmful or Potentially Harmful Exotic Shellfish

Crayfishes Family: Parastacidae	All species of the genus *Astacopsis*
Mittencrabs Family: Grapsidae	All species of genus *Eriocheir*
Giant Ram's-horn Snails Family: Piliidae (synonymous with Ampullariidae)	All species of genus *Marisa*;
Zebra mussel Family: Dreissenidae	All species of genus *Dreissena*

Penaeid Shrimp Family: Penaeidae	All species of genus *Penaeus*, *Litopenaeus*, *Farfantepenaeus*, *Fenneropenaeus*, *Marsupenaeus*, and *Melicertus* except *L. setiferus*, *F. aztecus* and *F. duorarum*.
Oyster Family: Ostreidae	All species except *Crassostrea virginica* and *Ostrea equestris*.
Applesnails Family: Ampullariidae	Channeled Applesnail (*Pomacea canaliculata*).

Harmful or Potentially Harmful Exotic Plants

Giant Duckweed Family: Lemnaceae	*Spirodela oligorhiza*
Salvinia Family: Salviniaceae	All species of genus *Salvinia*
Waterhyacinth Family: Pontederiaceae	*Eichhornia crassipes*
Waterlettuce Family: Araceae	*Pistia stratiotes*
Hydrilla Family: Hydrocharitaceae	*Hydrilla verticillata*
Lagarosiphon Family: Hydrocharitaceae	*Lagarosiphon major*
Eurasian Watermilfoil Family: Haloragaceae	*Myriophyllum spicatum*
Alligatorweed Family: Amaranthaceae	*Alternanthera philoxeroides*
Rooted Waterhyacinth Family: Pontederiaceae	*Eichhornia azurea*
Paperbark Family: Myrtaceae	*Melaleuca quinquenervia*
Torpedograss Family: Gramineae	*Panicum repen*
Water spinach Family: Convolvulaceae	*Ipomoea aquatic*

Note: the TPWD Exotic Species Rules for 2005 can be found in Appendix #5.

Texas Commission on Environmental Quality (TCEQ)

[Formerly Texas Natural Resource Conservation Commission (TNRCC), formerly Texas Water Commission (TWC)]

Agency Role and Responsibilities

One of Texas Commission on Environmental Quality's (TCEQ) responsibilities is the protection of the state's water resources. These responsibilities are carried out through planning, development of water quality standards, issuing discharge permits and enforcement of discharge limitations, regulating water use, and issuing permits for construction activities affecting state waters.

Regulatory Requirements

Section 401 Certification

Certification Requirements

Activities that require a Section 404 permit from the U.S. Army Corps of Engineers (COE) also requires a Section 401 certification from the TCEQ (Section 401, Clean Water Act, as amended). The certification is a determination from the TCEQ that the proposed construction activity should not cause a violation of the state's water quality standards. The 401 certification program is also an important component for protecting our coastal resources under the Texas Coastal Management Program.

Application for 401 Certification

The COE and TCEQ have developed a process whereby, to the greatest extent possible, the COE publishes a joint Public Notice for activities requiring a Section 404 permit. The notice includes a statement that the TCEQ is in the process of evaluating the application under Section 401 of the Federal Clean Water Act. Instructions are provided in the COE application materials that address the information needed by the TCEQ to facilitate a technical review of the water quality aspects of the project. The TCEQ has developed a tiered system of review for all individual Section 404 permit applications based upon project size and the amount of state water affected. The extent of 401 certification review will vary between the different tiers, as well as the type of wetland affected.

Tier I: Generally, for small projects that affect less than three acres of waters in the state, or less than 1500 linear feet of streams, the inclusion of best management practices (BMPs) and other requirements into the project will sufficiently address the likelihood that water quality will remain at the desired level. For those projects, no further 401 review will be necessary if the permittee agrees to include those BMPs and requirements in their project which makes them part of their Section 404 permit. Applicants desiring to utilize BMPs for Tier I projects must include a completed and signed Tier 1 checklist with their application for an individual Section 404 permit. The checklist must incorporate all applicable BMPs for the proposed project, which the applicant has chosen to implement. If a complete checklist is submitted, no further review or certification by the TCEQ is required (unless an exception to Tier 1 applies - see below). Projects that impact certain types of rare or ecologically significant wetlands (for example: pitcher plant bogs, swamps dominated by bald cypress and tupelo gum tree species, the area of Caddo Lake within Texas that is designated by a Ramsar Wetland of International Importance, mangrove marshes and coastal dune swales) are not eligible for inclusion in Tier I and will require individual review, even if they are under the size threshold. When the permit is issued, the BMPs and other provisions of the checklist become part of the permit, and failure to implement any of them is a violation of the permit. Applicants who do not wish to incorporate all provisions of the checklist into their project, unable to, or desire to use alternatives may seek individual 401 review and certification from TCEQ. The TCEQ will periodically review alternative BMPs for inclusion in the checklist.

Tier II: Any project that does not qualify for a Tier 1 review or for which the applicant elects not to incorporate Tier I criteria or prefers to use alternatives will be considered a Tier II project. Tier II

projects are subject to an individual certification review by TCEQ. This review will be done consistent with streamlining practices developed by the TCEQ and U.S. Army Corps of Engineers.

Certification Review and Coordination

Water quality aspects of the project will receive a staff evaluation. Title 31, Texas Administrative Code, Section 279 establishes the administrative/procedural actions of the TCEQ in reaching a Section 401 determination. Comments received from the following sources are considered in determining whether to grant, condition, deny, or waive certification.

- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- Texas Parks and Wildlife Department
- Local governments
- Organizations and associations
- General public

Processing Time Requirements

The size of the project and the potential impact to waters in the state will govern the length of time for review. The TCEQ's tracking 401 Certification Tracking System website can be used to check the status of a 401 Water Quality Certification of an Army Corps of Engineers Permit. The Website is available at:

http://www.tceq.state.tx.us/permitting/water_quality/wq_assessment/401certification/401certification_tracking.html

Certification Issuance, Fees, and Terms

The COE and the applicant will receive written notification of certification or denial. No fees are charged at this time by the TCEQ. It is important that the applicant provide the requested information in a timely fashion to avoid a delay in the 404 permit process. Questions regarding information needed by the TCEQ should be referred to the following office:

Texas Commission on Environmental Quality
Attn: WQA Section - 401 Coordinator (MC 150)
P.O. Box 13087
Austin, Texas 78711-3087
Phone (512) 239-5366
Fax: (512) 239-4420

Wastewater Permitting

Section 26.121 of the Texas Water Code, requires that a discharge permit be obtained prior to the discharge of wastes into or adjacent to the waters in the state. This includes the treatment, storage or disposal of wastewater by land treatment or evaporation which is authorized under a Texas Land Application Permit (TLAP). The federal Clean Water Act, as amended, also requires a National Pollution Discharge Elimination System (NPDES) discharge permit prior to discharge to Waters of the US. On September 14, 1998, the TCEQ received authority from the United States Environmental Protection Agency (EPA) to administer the Texas Pollutant Discharge Elimination System (TPDES) program. It is therefore no longer necessary to apply for separate State and Federal (NPDES) coverage for discharges into waters in the state. The EPA may retain permitting authority for certain facilities on a case-by-case basis.

The TCEQ originally adopted rules in July of 1997 to regulate discharges from aquaculture production facilities through an authorization by rule contained in 30 TAC §321.271, Subchapter O (Subchapter O). The Subchapter O rules delineated the TCEQ permit program requirements for those facilities that meet the defined criteria in the Federal Regulations 40 CFR 122, Appendix C. Under Subchapter O, facilities that meet or exceed the criteria of Appendix C were required to apply for a registration. Facilities that were below the thresholds established in Appendix C were allowed to apply for an exemption. Subchapter O also specified which facilities are required to obtain an individual permit, which are generally commercial shrimp production facilities. However, with the acquisition of the TPDES program all aquaculture facilities

previously registered or exempted by Subchapter O are now required to obtain authorization under an individual or general TPDES permit. Please see Table 1 to determine which type of authorization may be applicable for your facility.

Aquaculture General Permit

The TCEQ was given authority to issue general permits in place of authorizations by rule through legislation, HB 1542 and subsequent legislation HB 1283. As a result of this authority, the commission is seeking to replace the rules in Subchapter O with proposed General Permit No. TXG130000 - Discharges From Concentrated Aquatic Animal Production Facilities (see Appendix #2 for full copy as of August 2005). This proposed general permit was not in effect at the time of this document was drafted. However, those facilities meeting the thresholds for exemption under Federal Regulations 40 CFR 122, Appendix C, may submit an application for an exemption from under Subchapter O in the interim.

The proposed general permit applies to discharges into or adjacent to water in the state by certain concentrated aquatic animal production facilities. Commercial facilities in the coastal zone raising shrimp are not eligible for coverage under a general permit and must obtain an individual permit. Texas Agriculture Code Ann. §134.013 (Vernon's 2004). The general permit specifies which particular concentrated aquatic animal production facilities are eligible for authorization by the general permit and which must be authorized by individual permit. Facilities with lower potential to impact the environment, which are currently registered or exempted from coverage under Subchapter O, should meet the eligibility criteria established in the proposed general permit. The current proposed levels of coverage under the general permit are as follows:

Level I Authorization

Operations meeting the following descriptions and criteria qualify for Level I authorization and are not required to submit a Notice of Intent (NOI) for coverage under the proposed general permit:

(a) Retail bait dealers;
(b) Discharges resulting from the production of crawfish in conjunction with rice farming;
(c) Ponds used as "pay lakes";
(d) Facilities that exclusively utilize closed ponds;
(e) Public and commercial aquariums and aquarium supplies;
(f) Live fish hauling tanks;
(g) Any aquaculture facility that utilizes cages or other enclosures placed within public waters for the propagation or rearing of aquatic species with a harvest weight equal to or less than 20,000 pounds; and
(h) Facilities which temporarily hold and do not feed aquatic species.

Level II Authorization

Aquatic animal production facilities that meet the following criteria and that do not produce shrimp in the coastal zone are eligible to obtain Level II authorization. Submittal of an NOI is required for Level II authorization for coverage under the proposed general permit.

(a) Produces cold water aquatic species in ponds, raceways, or other similar structures which:
    (i) discharges less than 30 days per year;
    (ii) produces less than 20,000 pounds harvest-weight of aquatic species per year; and
    (iii) feeds less than 5,000 pounds of food during the calendar month of maximum feeding.
(b) Produces warm water aquatic species in ponds, raceways, or other similar structures which:
    (i) discharges less than 30 days per year; or
    (ii) produces less than 100,000 pounds harvest-weight of aquatic species per year.
(c) Disposes of wastewater by land application and does not discharge directly to surface water in the state.

Level III Authorization

Concentrated aquatic animal production facilities that meet or exceed the thresholds described below in either (a) or (b), or that consist of a shrimp research facility located inside the coastal zone that meets the

criteria in Part II.A.3.(c), are eligible to obtain Level III authorization. Submittal of an NOI is required for Level III authorization for coverage under the proposed general permit.

(a) Produces cold water aquatic species in ponds, raceways, or other similar structures which:
  (i) discharges at least 30 days per year; and either
  (ii) produces more than 20,000 pounds harvest-weight of aquatic species per year; or
  (iii) feeds more than 5,000 pounds of food during the calendar month of maximum feeding.

(b) Produces warm water aquatic species in ponds, raceways, or other similar structures that:
  (i) discharges at least 30 days per year; and
  (ii) produces more than 100,000 pounds harvest-weight of aquatic species per year.

(c) Shrimp research facility within the coastal zone that:
  (i) discharges less than 60 days per year;
  (ii) discharges at a daily maximum flow rate of less than 5 million gallons per day; and
  (iii) discharges at a total monthly flow volume of less than 12.5 million gallons.

General Permit Application for coverage

Operations meeting the descriptions and criteria that qualify for Level I are not required to submit a Notice of Intent (NOI) in order to be authorized under the proposed general permit. Qualifying operations may complete a notice which will be available through the TCEQ website and utilize this notice as necessary to demonstrate authorization under Level I.

Applicants seeking Level II or III authorization to discharge under this general permit must submit a completed NOI on a form approved by the executive director. Submission of a NOI is an acknowledgment that the conditions of the proposed general permit are applicable to the proposed discharges and that the applicant agrees to comply with the conditions of the general permit. Authorization under the terms and conditions of this general permit begins when the applicant is issued a written approval of the NOI. Following review of the NOI, the Executive Director shall either confirm coverage by providing a notification and an authorization number to the applicant or notify the applicant that coverage under this general permit is denied.

General Permit Fees

A NOI submitted to the executive director will include an application fee of $100.00. Additionally, the executive director will assess an annual water quality fee under Texas Water Code, § 26.0291, in accordance with the following fee rate schedule:

Level I Authorization:	No annual water quality fee will be assessed.
Level II Authorization:	An annual water quality fee of $100 will be assessed.
Level III Authorization:	An annual water quality fee of $250 will be assessed.

Additional information regarding the proposed general permit, TXG130000 - Discharges From Concentrated Aquatic Animal Production Facilities is available from:

Texas Commission on Environmental Quality
Attn: Storm Water & Pretreatment Team (MC 148)
P.O. Box 13087
Austin, Texas 78711-3087
Tel. (512) 239-4433

Individual TPDES Permit

All commercial shrimp production facilities located within the defined coastal zone are required to obtain an individual TPDES permit. Shrimp facilities located within the coastal zone are subject to more stringent requirements because the coastal area of Texas has been identified as an area warranting special consideration. The Gulf Coast is one of the most biologically rich and ecologically diverse regions of the state. It is also subject to increasing pressure from population growth and economic activities. Texas has chosen to address these concerns by developing, and obtaining federal approval for, the Texas Coastal Management Program (CMP). TCEQ rules require that permits for wastewater discharges to coastal waters be consistent with the CMP. While many inland waters are also sensitive and deserving of special

consideration, the commission has determined that impacts to coastal waters from larger aquaculture facilities are best evaluated through the individual TPDES permit process.

Individual TPDES Permit Application

The "Administrative Report for Industrial Wastewater", the "Industrial Wastewater Permit Application Technical Report", and the "Instructions for the Industrial Wastewater Application" are available on line at

http://www.tnrcc.state.tx.us/permitting/waterperm/wwperm/index.html.

Application forms are also available by contacting the Applications Team of the Registration, Review and Reporting Division of the TCEQ at telephone number 512-239-2106.

Prior to submitting a formal application it is recommended that the applicant contact the TCEQ Industrial Permits Team to identify which authorization will be needed for the proposed facility. Requests for information are also available at:

Texas Commission on Environmental Quality
Attn: Industrial Permits Team (MC 148)
P.O. Box 13087
Austin, Texas 78711-3087
Tel. (512) 239-4433

In the case of coastal facilities, a recurring problem exists with the required effluent screening samples. The procedure used by commercial labs for testing some metals is subject to false positives if the sample matrix is saltwater. There is a method that avoids the matrix interference but it is more expensive.

Another significant problem with the individual permit for aquaculture facilities is that there are no effects-based criteria for dissolved solids for aquaculture discharges. Instead, TCEQ imposes an effluent limitation based on the median ISS (inorganic suspended solids) value. The problems arise because TCEQ bases the value on its existing data that may not reflect the level of solids near the discharge. Most of the TCEQ sampling stations are in ship channels or barge canals that usually have lower ISS levels than the near-shore water that typically receive aquaculture effluent. TCEQ has allowed applicants to sample for solids in the vicinity of the facility. This helps avoid compliance issues when operations begin.

Application Review and Coordination

Individual wastewater permit applications receive both administrative and technical review before a permit is drafted. These reviews are performed by various teams in the agency and require extensive coordination. The reviews include an administrative review conducted by the Applications Team of the Registration, Review, & Reporting Section of the TCEQ. Once the application is determined to be administratively complete the applicant will be required to publish a "Receipt of Application and Intent to Obtain a Wastewater Permit" notice in a local newspaper.

The technical review begins with the TCEQ Water Quality Assessment Section. These reviews include biomonitoring review (if applicable), compliance with water quality standards, 303d list evaluations for impaired segments, Total Daily Maximum Load (TMDL), dissolved oxygen modeling recommendations, and a groundwater impact analysis (if applicable), The application is then forwarded to the Wastewater Permitting Section and assigned to a permit writer for technical evaluation and development of a draft permit. Once the draft permit is completed, it is sent to the applicant for comment. Once the applicant's comments are considered, the draft permit is filed with the TCEQ Office of the Chief Clerk. The applicant must then publish a second public notice, the Notice of Application and Preliminary Decision. The Chief Clerk mails the notice package to the applicant with instructions to publish it in a newspaper generally circulated within the county and area where the proposed facility and discharge is located and within each county where persons reside who would be affected by the facility or proposed discharge. At the same time, the notice is also mailed to government agencies having responsibility for, or interests in, water quality (Section 305, Title 31, Texas Administrative Code). The agencies include the following:

- Texas Parks and Wildlife Department
- The Advisory Council on Historical Preservation
- Texas Historical Commission
- Affected States

- Affected landowners named in the permit application (for new permits and permit amendments only)
- The U.S. Army Corps of Engineers
- National Marine Fisheries Service (for discharges to coastal or estuary areas, or territorial seas)
- Any industrial user identified in the permit application of a publicly owned treatment works, and
- Other persons on the State mailing list or who in the judgment of the TCEQ may be affected.

The second public notice period lasts 30 days and marks the end of the public comment period. At the same time the draft permit is sent to the applicant for public notice, a copy of the draft permit is sent to EPA for their review and comment in accordance with the Memorandum of Agreement with EPA. The EPA has 45 days from receipt of the draft permit to prepare comments or submit approval of the draft permit. The TCEQ may engage in negotiations about EPA's comments that may result in changes to the draft permit.

Public Comments and Hearing Requests

During the public comment period, anyone may submit public comments or request a public meeting about the draft permit. The purpose of a public meeting is to provide the opportunity to submit written or oral comments or to ask questions about the application. The TCEQ will hold a public meeting if the executive director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

After the deadline for public comments, the executive director will consider the comments and prepare a response to all relevant and material or significant, public comments. The response to comments, along with the executive director's decision on the application, will be mailed to everyone who submitted public comments or who requested to be on a mailing list for this application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the executive director's decision. A contested case hearing is a legal proceeding similar to a civil trial in a state district court. A contested case hearing will only be granted based on disputed issues of fact that are relevant and material to the Commission's decision on the application. Furthermore, the Commission will only grant a hearing on issues that were raised during the public comment period and not withdrawn. Issues that are not raised in public comments may not be considered during a hearing.

The executive director may issue final approval of the application unless a timely request either for a contested case hearing or for reconsideration of the Executive Director's action is filed. If a timely request for a hearing or for reconsideration is filed, the executive director will not issue final approval of the permit and will forward the application and requests to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. The Commissioners may adopt the proposed permit as drafted, adopt the proposed permit with changes, or deny issuing the permit.

Processing Time Frames

For a new permit application, the Industrial Permits Team has a permitting time frame goal of three hundred thirty (330) days from the date the permit application is determined to be administratively complete. This does not include additional time for public hearing requests.

Permit Issuance, Fees and Terms

The applicant is required to bear the costs of publishing the notice of the application in a newspaper and any public notice costs associated with a public hearing. There are additional fees assessed to a permittee on an annual basis during the term of the permit. Additionally, the applicant is reminded that laboratory costs will vary depending on permit requirements and the selected lab. For facilities discharging brackish or saltwater effluent, sampling costs may be much higher because specific methods must be employed.

An application fee for a new or amended TPDES permit for a typical aquaculture facility is $350 and $315 for a renewal application. An aquaculture-specific annual water quality fee limit is imposed by Texas Water Code § 26.0292, which limits total fees to $5,000 annually. Fees are assessed according to the pollutant load of the facility.

The maximum term of a discharge permit is five years and may be renewed with the submittal of a renewal application.

Memorandum of Understanding with TDA and TPWD

Pursuant to Senate Bill 873, the TCEQ, Texas Parks & Wildlife Department (TPWD), and the Texas Department of Agriculture (TDA) have adopted a Memorandum of Understanding (30 TAC § 7.013) which requires that the agencies work cooperatively in the regulation of aquaculture activities. The TDA is responsible for licensing aquaculture facilities and promoting aquaculture commerce. Prior to the TDA issuing an aquaculture production license or the TPWD issuing an exotic species permit to an applicant, the applicant must provide proof of an exemption from permitting or a discharge authorization issued from the TCEQ. The TPWD is included in the permit application and draft permit comment process to assist in the determination of whether or not the proposed discharges will adversely affect waters in the state.

Under the MOU, the TPWD was tasked with establishing guidelines for the identification of sensitive aquatic habitat within the coastal zone. These sensitive habitat guidelines provide an outline for the Site Assessment Report, which is required for new and expanding commercial shrimp facilities located within the coastal zone. The Site Assessment Report must assess potential impacts on sensitive aquatic habitats, significant impacts related to the construction or operation of the facility and any mitigation actions proposed by the applicant. TCEQ must consider the Site Assessment Report before making a determination on the wastewater discharge permit.

The Industrial Wastewater Permit Application Technical Report has been updated to include Worksheet 8.0 for all aquaculture operations applying for a new, amended, or renewal individual TPDES permit. Additionally, Worksheet 8.0 includes the Site Assessment Report and Sensitive Habitat Requirements for new and expanding commercial shrimp facilities located within the coastal zone. Worksheet 8.0 is available within the Industrial Wastewater Permit Application Technical Report at http://www.tnrcc.state.tx.us/permitting/forms/10055.pdf.

Rules Related to Wastewater Permitting

Portions of Chapters 5, 7, 16, 26, and 27 of the Texas Water Code

Title 30 Texas Administrative Code

Rules related to Application Processing

Chapter 21 - Water Quality Fees

Chapter 39 - Public Notice

Chapter 50 - Action on Applications

Chapter 60 - Compliance History

Chapter 281 - Applications Processing

Chapter 305 - Consolidated Permits - §305.538. Prohibitions for TPDES Permits. §305.539. Chapter 305, Page 9 - Consolidated Permits. Additional Requirements for Shrimp Aquaculture Facilities Within the Coastal Zone. 4 SUBCHAPTER P: EFFLUENT GUIDELINES.

Rules related to Permit Limits and Requirements

Chapter 7 - Memorandum of Understanding

Chapter 210 - Use of Reclaimed Water

Chapter 213 - Edwards Aquifer

Subchapter A: Edwards Aquifer in Medina, Bexar, Comal, Kinney, Uvalde, Hays, Travis, and Williamson Counties

Subchapter B: Application Requirements and Processing Fees for Approval of Plans and Amendments

Chapter 307 - Texas Surface Water Quality Standards

Chapter 309 - Domestic Wastewater Effluent Limitations and Plan Siting

Chapter 311 - Watershed Protection

Subchapter A: Lakes Travis and Austin Water Quality

Subchapter B: Lakes Inks and Buchanan Water Quality

Subchapter C: Water Quality Management in the Clear Lake Watershed

Subchapter D: Water Quality Management Within Lake Houston Watershed

Subchapter E: Colorado River Watershed

Subchapter F: Lakes LBJ and Marble Falls Water Quality

Subchapter G: Lakes Worth, Eagle Mountain, Bridgeport, Cedar Creek, Arlington, Benbrook and Richland-Chambers

Chapter 312 - Sewage Sludge Use and Disposal

Chapter 315 - Pretreatment Regulations for Existing and New Sources of Pollution

Chapter 317 - Design Criteria for Sewerage Systems

Chapter 319 - General Regulations Incorporated into Permits

Chapter 321 - Control of Certain Activities by Rule, Subchapter O, Aquaculture

Chapter 332 - Composting

Chapter 335 - Industrial Solid Waste and Municipal Hazardous Waste

Rules related to Public Meetings, Public Hearings, and Public Comments

Chapter 10 - Commission Meetings

Chapter 40 - Alternative Dispute Resolution Procedure

Chapter 50 - Action on Applications and Other Authorizations

Chapter 55 - Requests for Reconsideration and Contested Case Hearings; Public Comment

Chapter 80 - Contested Case Hearings

Copies of the TCEQ rules may be obtained by contacting TCEQ Agency Publications in the Public Information and Publications Division at (512) 239-0028, or on the internet at: http://www.tnrcc.state.tx.us/oprd/rules/index.html.

Rules Related to Wastewater Permitting

Title 40 Code of Federal Regulations

Part 122: EPA administered permit programs: The national pollutant discharge elimination system.

Part 125: Criteria and standards for the national pollutant discharge elimination system.

Part 136: Guidelines establishing test procedures for the analysis of pollutants.

Parts 400 - 471: Effluent Guidelines and Standards for categorical industries

Part 451: Effluent Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category. Available at http://epa.gov/guide/aquaculture/

Code of Federal Regulations (40 CFR §122.24 and 122.25; (C&D) deal with discharges of aquaculture projects.

Table 1 - Eligibility for TPDES General Permit Coverage

Type of Operation	Authorization
Recycling with no resulting discharge into or adjacent to water state; pumping and hauling to an authorized disposal facility; discharge to a POTW; underground injection in accordance with 30 TAC Chapter 331; or discharge to above ground storage tanks (ASTs) with no resulting discharge into or adjacent to water in the state.	No discharge authorization in the required.
Retail bait dealers; Discharges resulting from the production of crawfish in conjunction with rice farming; Ponds used as "pay lakes"; Facilities that exclusively utilize closed ponds; Public and commercial aquariums and aquarium supplies; Live fish hauling tanks; Any aquaculture facility that utilizes cages or other enclosures placed within public waters for the propagation or rearing of aquatic species with a harvest weight equal to or less than 20,000 pounds; and facilities that temporarily hold and do not feed aquatic species.	Currently: Not included in any current authorization or exempted under 30 TAC § 321, Subchapter O. Applications for exemption under Subchapter O will continue to be allowed until issuance of the proposed general permit. Proposed: Coverage under Level I of the proposed General Permit. No Notice of Intent (NOI) required for coverage.
Produces cold water aquatic species in ponds, raceways, or other similar structures which: discharges less than 30 days per year; produces less than 20,000 pounds harvest-weight of aquatic species per year; and feeds less than 5,000 pounds of food during the calendar month of maximum feeding.	Currently: Exempted under 30 TAC § 321, Subchapter O. Applications for exemption under Subchapter O will continue to be allowed until issuance of the proposed general permit.
Produces warm water aquatic species in ponds, raceways, or other similar structures which: discharges less than 30 days per year; or produces less than 100,000 pounds harvest-weight of aquatic species per year. Disposes of wastewater by land application and does not discharge directly to surface water in the state.	Proposed: Coverage under Level II of the proposed General Permit. A Notice of Intent (NOI) is required for coverage.
Produces cold water aquatic species in ponds, raceways, or other similar structures which: discharges at least 30 days per year; and either produces more than 20,000 pounds harvest-weight of aquatic species per year; or feeds more than 5,000 pounds of food during the calendar month of maximum feeding.	Currently: Previously authorized via registration under 30 TAC § 321, Subchapter O.
Produces warm water aquatic species in ponds, raceways, or other similar structures that: discharges at least 30 days per year; and produces more than 100,000 pounds harvest-weight of aquatic species per year. Shrimp research facility within the coastal zone that: discharges less than 60 days per year; discharges at a daily maximum flow	Proposed: Coverage under Level III of the proposed General Permit. A Notice of Intent (NOI) is required for coverage.

rate of less than 5 million gallons per day; and discharges at a flow volume of less than 12.5 million gallons.	
Any commercial facility producing shrimp species in ponds, raceways, or similar structures within the coastal zone which discharges to surface waters is not eligible for authorization under the proposed general permit and must obtain an individual TPDES permit regardless of production or discharge quantity.	Required to obtain an Individual Texas Pollutant Discharge Elimination System (TPDES) permit.
Commercial shrimp aquaculture facilities located within the coastal zone that conduct collaborative research with a shrimp research facility and discharge to surface waters are considered commercial facilities and must obtain authorization through an individual TPDES permit.	
Any aquaculture facility discharging wastewater to a freshwater receiving water can do so under the proposed general permit only if the difference between the wastewater's total dissolved solids (TDS) and the freshwater receiving water's TDS is less than 500 mg/L. Any aquaculture facility discharging wastewater to an estuarine or marine receiving water can do so under the proposed general permit only if the difference between the wastewater's salinity and the estuarine or marine receiving water's salinity is less than 2 parts per thousand (ppt). If the applicable condition above is not met, the facility must obtain an individual TPDES permit.	
Any aquaculture facility that utilizes cages or other enclosures placed within public waters for the propagation or rearing of aquatic species with a harvest weight greater than 20,000 pounds.	
New sources or new discharges which discharge constituents of concern to impaired waters are not authorized by the proposed general permit unless otherwise allowable under 30 TAC Chapter 305 and applicable state law. Impaired waters are those that do not meet applicable water quality standard(s) and are listed on the Clean Water Act Section 303(d) list. Constituents of concern are those for which the water body is listed as impaired.	
Discharges associated with the processing of aquatic organisms by packing as fresh or frozen product, canning, smoking, salting, drying or otherwise curing, and/or rendering for use as human or animal food are not authorized by the proposed general permit. The discharge of domestic sewage into or adjacent to water in the state is not authorized by the proposed general permit. All domestic sewage shall be either discharged pursuant to an individual permit issued by the TCEQ; routed to an authorized and adequately designed sewage treatment facility or Publicly Owned Treatment Works (POTW); routed to a septic tank/drainfield system permitted by local authorities; or transported to an approved off-site disposal facility.	

Flood Plain Management

Permit Requirements

Construction within the 100-year flood plain of any stream, river or other flood prone area where there is an effort to control, regulate or otherwise change the flood water of the stream is prohibited unless prior approval is obtained from the appropriate city or county, if such city or county is participating in the National Flood Insurance Program (Section 16.236, Texas Water Code). This includes construction, maintenance, or improvements to levees, dams or other improvements with the flood plain.

The 76th Texas Legislature amended the Water Code to authorize cities and counties in the state to adopt ordinances and issue orders necessary to participate in the National Flood Insurance Program (NFIP) by Jan. 1, 2001. As part of this program the TCEQ provides guidance, support, and training to the floodplain administrators of Texas. The local Flood Plain Administrator should be contacted for information on permitting requirements. A list of flood plain administrators is available at the following web site: http://www.tnrcc.state.tx.us/permitting/waterperm/wrpa/fpa.pdf.

Requests for information and the names of local flood plain administrators may also be obtained from:

Texas Commission on Environmental Quality
Compact Commissions and Flood Plain Management (MC 154)
P.O. Box 13087
Austin, Texas 78711-3087
Tel. (512) 239-4691

Water Use Permit

Permit Requirements

The TCEQ has regulatory authority over the diversion, impoundment and/or use of all state waters. The use of brackish or marine waters for land based aquaculture operations is exempt from the Water Use Permit requirements (Section 11.1421, Texas Water Code). However, a notice must be submitted to the TCEQ prior to taking such water for aquaculture purposes. The aquaculturist must also submit a report every year that states the amount of water that has been diverted during the past year. The TCEQ has the authority to limit or stop water use during droughts or other emergencies.

The use of state waters, other than brackish or marine, is prohibited without first obtaining a permit from the TCEQ. However, an individual may, without obtaining a permit, construct a dam on a non-navigable stream to impound up to 200-acre feet for domestic and livestock purposes. Aquaculture is considered an industrial use. Conversion of existing or creation of new impoundments for aquaculture would therefore require a Water Use Permit (Sections 11.121 and 11.143, Texas Water Code).

In addition to the requirement for a Water Use Permit, unappropriated (state) water must be available in the water supply from which the water is to be taken. In certain areas of the state, all state water has been appropriated. In these limited situations it would be necessary to purchase water rights from an existing water rights holder. The purchase of such water rights may require TCEQ approval.

Notice or Permit Application

Forms for submitting a notice of proposed use of brackish or marine waters for aquaculture operations are available from the TCEQ. Information requested on the form includes the following:

- Applicant's name and address (owner and operator)
- Source of brackish or marine waters
- Quantity of water to be used annually
- Location map of project
- Annual report requirement

Water Use Permit Applications require the following general types of information:

- Applicant's name and address (owner and operator)

- Source of water supply
- Amount and purpose of water use
- Rate and method of diversion
- Location of diversion point
- Return of surplus water
- Plan for conservation (efficient use) of water

Requests for information, forms for the use of brackish or marine waters, or other Water Use Permit applications may be obtained from the following office or from the TCEQ website at http://www.tnrcc.state.tx.us/permitting/waterperm/wrpa/permits.html.

Texas Commission on Environmental Quality
Water Rights Permitting & Availability Section (MC 160)
P.O. Box 13087
Austin, Texas 78711-3087
Tel. (512) 239-4691

Permit Review and Coordination

Water Use Permit applications are subject to public notice and review and comment from government agencies and individuals including the following:

- All holders of Water Use Permits and/or water rights from the water supply source
- Navigation districts within the river basin
- Texas Parks and Wildlife Department
- Other interested agencies and individuals

In addition, the applicant is required to publish notice in a newspaper having county-wide circulation within which the water supply is located.

Processing Time Requirement

The Water Rights Permitting Team has a target of processing uncontested applications in 300 days. More complex applications or those that are contested could take significantly longer. The processing time may be reduced if the application is complete when the permitting team receives it. The Water Rights Permitting Team provides guidance to potential applicants by encouraging applicants to have a pre-application meeting with permitting and technical review staff. This ensures a more complete application and gives the applicant an idea of potential problems or areas of concern regarding their application. Applicants are also provided with an information packet including checklists and instructions for completing the application.

Permit Issuance, Fees and Terms

Fees include a $100.00 application fee plus a $1.25 recording fee for each page of the application. The applicant also bears the cost of public notices in a county-wide newspaper. One-time use fees must accompany the application and are assessed for water used or stored. These fees include the following:

- Storage fee: $0.50 per acre foot
- Use fee: $1.00 per acre foot diverted

Water Use Permits may or may not have an expiration date. The TCEQ may periodically review the permit as related to the water actually being used versus the authorized use.

See Appendix 2 for TCEQ General Permit to Discharge Wastes with Detail and Schedule of Fees.

Texas Department of State Health Services (TDSHS)

Agency Role and Responsibilities

The Texas Department of Health (TDH) became part of the Texas Department of State Health Services (TDSHS) on September 1, 2004. For more information, visit www.dshs.state.tx.us. TDSHS is responsible for the protection of the public health, including the regulation of food, drugs and cosmetics that may ultimately affect consumers. Their mission statement is as follows: "The mission of the Seafood and Aquatic Life Group is to protect the consumer of oysters, clams, mussels and scallops and crab meat from disease or other health hazards transmissible by these products produced in or imported into Texas. It is also to protect the recreational fishers from disease or contaminants found in fish and other aquatic species caught in Texas' lakes, rivers, bays or nearshore State waters. We carry out this mission by classification of shellfish growing areas, certification of molluscan shellfish shippers and crab meat processors, and testing tissue samples from fish and seafood harvesting areas." The Seafood and Aquatic Life Group has their own web page at http://www.tdh.state.tx.us/bfds/ssd/default.htm.

The TDSHS responsibilities are carried out by various licensing, registration, labeling, certification, inspection and regulatory programs. Legal authority for carrying out these programs is provided by Texas Health and Safety Code, subchapters A, B and C and the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 *et seq*.).

The Food and Drug and the Shellfish Sanitation Control Divisions, within the TDSHS, are primarily responsible for programs that affect aquaculture operations in Texas. These programs provide for the regulation of aquatic species that are raised in private or public waters and include water quality, production, harvesting, processing, transporting, storing, handling and packaging of cultured aquatic products to be sold for human consumption. The TDSHS also has regulatory authority over drugs that can be used in aquaculture operations.

Authority

The Texas Department of State Health Services (TDSHS) is authorized to regulate molluscan shellfish, including oysters, clams, mussels and scallops under the Texas Aquatic Life Act, Texas Health and Safety Code § 436.001 et seq. TDSHS's regulatory authority extends to ensure the shellfish are harvested from approved waters. TDSHS is responsible for licensing and inspecting seafood processors and distributors, and has adopted the federal regulations governing seafood processors, Title 21 of the Code of Federal Regulations, part 123. The Foods Group may become involved when unauthorized antibiotics or other adulterants are used on cultured products.

Regulatory Requirements

Permitting

Anyone taking, selling, offering for sale, or holding for sale molluscan shellfish from a restricted or conditionally restricted area, as defined by TDSHS, must obtain a permit from TPWD and have those activities supervised by TPWD. TDSHS's regulatory role is primarily that of an inspector charged with determining the suitability of an area for the taking or holding of molluscan shellfish. Areas are to be classified according to the categories in the National Shellfish Sanitation Program Manual of Operations as an approved, conditionally approved, restricted, conditionally restricted or prohibited area. TDH Code § 436.101. The director must also designate growing areas as closed or open areas.

Sanitary surveys of the areas from which oysters are harvested are to be conducted by TDSHS, and the meat of the oysters must also be sampled at the earliest time following the designation as a closed area. The oyster program must also be consistent with the National Shellfish Sanitation Program. TDH Code § 436.104.

Classification of Public Waters for the Taking of Aquatic Life

Based on water quality surveys, the TDSHS may declare a public water body, or a portion thereof, to be a prohibited area for purposes of harvesting any aquatic life (except oysters, clams and mussels) for human consumption (Subchapter A, Chapter 436, Texas Health and Safety Code). Designation of an area as prohibited for the taking of aquatic life may be permanent, temporary or long term, depending upon the results of TDSHS water quality surveys.

Aquaculture operations located in public waters, or operations using public waters as a water supply source, could be prohibited from marketing for human consumption aquatic products cultured in waters that are declared to be prohibited.

Classification of Public Waters for the Taking of Shellfish

Shellfish (oysters, clams and mussels) held or marketed must come from approved growing waters. Approval is based on a water pollution survey. The survey is an extensive sampling process that involves taking 30 sets of samples (if not conducted prior), and 15 sets of samples within a designated water area (if samples have been previously sampled) over a representative period of wet and dry weather conditions over a three-year period.

Polluted Waters

Water bodies, or portions thereof, within state jurisdiction that do not meet requirements must be closed to the taking of shellfish, including oysters, clams and mussels (Subchapter B, Chapter 436, Texas Health and Safety Code).

Classification of waters fall into the following categories:

- Approved
- Conditionally approved
    - Restricted
    - Conditionally restricted
    - Prohibited

Restricted/conditionally restricted/prohibited areas are defined as the following:

- Areas that have been surveyed and found to be subject to unpredictable pollution events or bacteriological water sample results.
- Areas that have been surveyed and failed to meet other standards and requirements such as heavy metal or virus contamination for the harvesting and direct marketing of shellfish.
- Areas that have not been surveyed and as a result, the water quality is unknown.

Shellfish may be transplanted or gathered for purification (depuration) from restricted or conditionally restricted areas during periods established by TDSHS, and subject to permitting by TPWD (Subchapter A, Texas Health and Safety Code). Shellfish taken from prohibited areas may not be sold for human consumption and includes those areas that have not been surveyed.

Private oyster lease holders and shellfish culture facilities that are located in public waters declared as restricted, conditionally restricted, prohibited, or utilize such public waters as a water supply source, would be prohibited from harvesting and directly marketing shellfish for human consumption.

Conditionally Approved Areas

Conditionally approved areas meet the criteria for harvesting and direct marketing except when certain conditions occur. The conditions that result in a designation of conditionally approved are predictable and usually directly related to rainfall intensity and/or river levels which can impact the water body's drainage area. During the period of time these waters are designated as closed, harvesting is not allowed only by permit for purposes of transplanting or controlled purification (Subchapter A, Texas Health and Safety Code). When water quality testing indicates that conditions have returned to normal and the shellfish are suitable for human consumption, shellfish harvesting may be resumed. Shellfish culture operations located

within, or using water from, conditionally approved water areas may be periodically prohibited from harvesting shellfish unless they are subjected to a purification (depuration) process prior to marketing.

Approved Waters

Approved water areas are those areas that have been surveyed by TDSHS and specifically approved as meeting growing area criteria under all conditions, except under unusual situations. Shellfish may be harvested for direct marketing from approved areas.

Transplanting and Gathering for Depuration

Transplanting from restricted or conditionally restricted waters to approved or conditionally approved waters or to a depuration plant (facility) may occur under certain conditions as follows:

Transplanting—Shellfish may be transplanted from restricted or conditionally restricted areas to approved harvesting areas, provided that special permits are issued for transplanting which is first obtained from the TPWD. Upon completion of transplantation operations, the transplanter shall notify the Commissioner of (1) the bushels or barrels of shell-stock transplanted, (2) the origin of the shell-stock, (3) the reef or lease upon which the shell-stock were transplanted, (4) the date the transplanting operations were completed. No transplanted shellfish may be harvested for marketing. All boats and equipment used to transplant shellfish shall be thoroughly cleaned and sanitized prior to undertaking any subsequent shellfish harvesting. The transplanted molluscan shellfish must remain on the designated oyster lease for fourteen (14) consecutive days in water quality that meets the NSSP Approved classification, if the transplant area is placed in the closed status during this period, the release date shall be extended to allow oysters to reside for at least fourteen (14) consecutive days in water quality that meets the open status of the NSSP Approved classification.

Transplant Permit

A Transplant Permit must be obtained from the Texas Parks and Wildlife Department.

TDSHS Notification

Information on the quantity of shellfish transplanted, origin of shellfish, where placed and the date the transplant permit expired must be provided to the TDSHS. Transplanting to a depuration facility has similar, but more detailed, reporting requirements. In addition, the waters from which shellfish may be gathered for delivery to a depuration facility are more stringently regulated and the gathering and transportation must be supervised.

Harvest Permit

A Harvest Permit must be obtained from the Texas Parks and Wildlife Department. No shellfish may be harvested for marketing in less than 15 days following the date of expiration or cancellation of the Transplant Permit. Marketing of shellfish from a depuration facility does not require a harvest permit. The TDSHS has specific regulations governing depuration facilities (Sections 241.85 - 241-100, Texas Molluscan Shellfish Rules, TDH).

Processing of Cultured Aquatic Products

The TDSHS has regulatory authority over the handling, processing facility design, facility operations, processing procedures, packaging, labeling and shipping of all cultured aquatic products for human consumption (Texas Health and Safety Code and the Federal Food, Drug, and Cosmetic Act, Title 21 U.S.C. 301 *et seq*.).

Certificate of Compliance

Certificate Requirements

Any person who processes or packages shellfish for sale as food after they have been harvested is classified as a shellfish dealer or shipper and must first obtain a certificate of compliance from the TDSHS. During the harvest operation, shellfish are placed in bags or other approved containers. Any activity in which the shellfish are removed from the original containers and placed in other containers would fall under the definition of processing or packaging and thus would require a Certificate of Compliance.

Certificate Application

In order to obtain a Certificate of Compliance, an application must be submitted to the Shellfish Sanitation Control Division (now called Seafood and Aquatic Life Group) of the TDSHS. Detailed floor plans and operating procedures of the existing or proposed facility for processing and/or shipping shellfish must also be submitted for review. Following a review of the application for consistency with TDSHS rules (Texas Molluscan Shellfish Rules), an inspection of the facility by TDSHS personnel will be conducted. When all regulations have been satisfied, a numbered Certificate of Compliance will be issued to the facility. The certificate will specifically state the activities that the certificate holder is authorized to undertake.

Information and application forms for a Certificate of Compliance may be obtained from the following office:

Texas Department of State Health Services
ATTN: Seafood and Aquatic Life Group
1100 West 49th Street
Austin, Texas 78756-3199
Tel. (512) 834-6757 ext. 2517
Seafood and Aquatic Life Group
Telephone toll free (800) 685-0361, Tel. (512) 834-6757, Fax (512) 834-6762

Certificate Review and Coordination

The application for a Certificate of Compliance may also be reviewed by the Texas Department of Agriculture and the Texas Parks and Wildlife Department for compliance with their respective regulations. For example, a Cultured Fish Processing Plant License would be required by the TDA prior to facility operations.

Certificate Processing Time Requirements

If the facility is designed and constructed in compliance with TDSHS guidelines, a certificate can usually be issued within seven days of the plant inspection.

Certificate Issuance, Fees, and Terms

A numbered certificate will be issued to a specific facility. No fees are charged.

Certificates of compliance may be issued anytime during the year. However, all certificates expire on August 31 each year and a new application must be submitted to continue operations.

Crabmeat Plant License

License Requirements

A Crabmeat Plant License is required of any person who engages in the processing and packing of crabmeat for sale for human consumption (Section 241.01, Texas Crabmeat Rules, TDH). The TDSHS rules also cover plant design, construction and operations. Crabmeat plants are classified into the two following major categories for licensing purposes:

- Picking and packing plants
- Picking, packing and pasteurizing plants

TDSHS issues shellfish certificates and licenses for the processing of crabmeat. TDH Code § 436.111. Applications are first filed with TDSHS, and then the director or an authorized agent inspects the property for conformity with TDSHS rules. TDH Code § 436.113. Certificates expire on August 31 of each year, and licenses on the last day of February each year. TDH Code § 436.113.

Contact Raymond Burditt or Gary Hedieman**,** Texas Department of State Health Services**,** Seafood and Aquatic Life Group Tel: (512) 834-6757 ext. 2517 or 2503 Fax: (512) 834- 6762. Email: Raymond.Burditt@dshs.state.tx.us or Gary.Heideman@dshs.state.tx.us.

License Application

An application must be submitted to the TDSHS. A detailed floor plan and a complete description of the operating procedures of the plant, including flow of the products must accompany the application.

Information, rules, application forms and instructions may be obtained from the following office:

Texas Department of State Health Services
Seafood and Aquatic Life Group
1100 West 49th Street
Austin, Texas 78756
Tel. (512) 834-6757

License Review and Coordination

Upon receipt of the required application information, a complete review will be conducted by the TDSHS. An inspection of the plant is required prior to license issuance. Coordination with the Texas Department of Agriculture, the Texas Parks and Wildlife Department, and other government agencies may take place to provide for compliance with their respective regulatory programs.

License Processing Time Requirements

If the plant is designed and constructed consistent with TDSHS guidelines, a license is usually issued within seven working days of the plant inspection.

License Issuance, Fees and Terms

Upon approval, a numbered license will be issued for a specific plant and represents authorization to operate. No fees are charged. The license expires on the last day of February each year and a new application must be submitted prior to license expiration to continue plant operation.

Food Manufacturer Registration

Registration Requirements

With the exceptions of shellfish (oysters, clams and mussels) and picked crabmeat, anyone wishing to process aquatic species for sale for human consumption must first be licensed as a food manufacturer with the TDSHS (Texas Health and Safety Code).

In addition, Section 431.222, Texas Health and Safety Code, requires that a food manufacturer, food wholesaler, or warehouse operator in this state must apply for and obtain from the department each year a license for each place of business that the food manufacturer, food wholesaler, or warehouse operator that operates in this state. .

Manufacture means the process of combining or purifying food and packaging food for sale to the consumer at wholesale or retail, and includes repackaging, labeling, or re-labeling of any food (Section 431.222, Health and Safety Code). All food manufacturers in Texas must comply with minimum standards of construction and operation in order to be eligible for registration. Minimum standards are contained in the following:

- Texas Health and Safety Code and the Federal Food, Drug, and Cosmetic, Act Title21# U.S.C. 301 et seq.)
- Current Good Manufacturing Practice in Manufacturing, Processing, Packing, or Holding Human Food, (Code of Federal Regulations, Title 21, Part 110, Sections 110, 3-110.110)

Registration Application

Information, rules and registration forms may be obtained from the following office:

Texas Department of State Health Services
Food and Drug Licensing Group
1100 West 49th Street
Austin, Texas 78756-3182
Tel. (512) 834-6626

A pre-registration inspection of the food manufacturing facility may be conducted.

Registration Review and Coordination

Not Applicable.

Registration Processing Time Requirements

If the processing facility is constructed consistent with TDSHS guidelines and the operating procedures comply with minimum standards and Good Manufacturing Practices (GMP)

Registration, Fees, and Terms

When all requirements are satisfied and the appropriate fee paid, a license will be issued to the specific facility. Fees are based on the gross annual dollar volume of the establishment and range from a low of $25.00 for a gross annual volume of less than $10,000 up to a maximum of $750.00 for an establishment with $10 million or more in volume.

Licenses expire one year from the date of issuance and are renewable by submitting an updated form and the appropriate fee.

Processing Guidelines

Guidelines for processing and requirements for processing facility design and operations have been prepared by the TDSHS for shellfish, crabs, catfish and alligators. Guidelines for other specific species will be prepared by TDSHS as the need arises. The Manufactured Foods Group has adopted by reference, the good manufacturing process (GMP's) regulations which apply to all food manufacturing.

Information on shellfish and crab guidelines may be obtained from the following office:

Texas Department of State Health Services
Seafood and Aquatic Life Group
1100 West 49th Street
Austin, Texas 78756
Tel. (512) 834-6757

Information on catfish and alligator guidelines and the GMP's may be obtained from the following office:

Texas Department of State Health Services
Manufactured Foods Group
1100 West 49th Street
Austin, Texas 78756
Tel. (512) 834-6670

Regulation of Drugs

Both the TDSHS and the Federal Food and Drug Administration (FDA) have regulatory authority over the use of drugs in aquaculture operations. Drugs marketed for aquaculture applications must be approved by the FDA. This includes the specific drug, the dosage rate, and the specific disease or parasite for which the drug may be used as a treatment.

The TDSHS has the authority to enforce FDA regulations, including the confiscation and/or removal from the market of cultured aquatic species that have been rendered unfit for human consumption due to adulteration with unapproved drugs. It is important that the aquaculturist use only approved drugs and follows the manufacturer’s directions. In some cases it may be necessary to delay marketing of the cultured species for a certain period of time following the use of drugs. These “withdrawal periods” should not be violated. Drugs with withdrawal periods are retained in the body tissue of cultured species and pose a threat to consumers if consumed before the proper time.

Information on drugs currently authorized for use in aquaculture operations may be obtained by contacting the following office:

Texas Department of State Health Services
Manufactured Foods Group
1100 West 49th Street
Austin, Texas 78756
Tel. (512) 834-6670

Texas Animal Health Commission (TAHC)

Agency Role and Responsibilities

The Texas Animal Health Commission (TAHC) is responsible for the protection of the public and the state's domestic livestock industry from communicable diseases. This responsibility is carried out through inspection and certification of livestock within the state as well as animals that are imported into the state.

Regulatory Requirements

Certification of Veterinary Inspection

The TAHC requires that live animals shipped into the state be free of disease. The Texas Parks and Wildlife Department has primary responsibility for regulating the importation of aquatic animal, fish and shellfish species. Consistent with TAHC regulations, the Texas Parks and Wildlife Department (TPWD) generally requires a "disease free" certification as a condition to a permit for the importation of aquatic species into the state.

The "disease free" determination is called a Certificate of Veterinary Inspection. The certificate is issued by a veterinarian or qualified testing laboratory. Usually the certification is obtained prior to importation. However, in certain cases the animals may be brought into the state and held under controlled conditions while all, or a representative sample, of the aquatic animals are being tested for diseases.

Certification Application

No application is necessary. Arrangements may be made with a veterinarian or test laboratory to perform the inspection(s).

Certification Coordination and Review

Not Applicable.

Certification Processing Time Requirements

Processing time requirements will range from immediate issuance to several days if laboratory tests are required.

Certification Issuance, Fees and Terms

Upon issuance, copies of the certification are distributed as follows:

- One copy to owner or importer
- One copy to the TAHC
- One copy to the Animal Health Agency in the state in which the animals are located
- One copy is retained by the inspecting veterinarian or laboratory

Fees will depend on the number of animals to be inspected and the tests conducted. There is no term for the certification. It is simply a statement that the animals were inspected and found to be free of disease at the time of the inspection.

Texas State Historic Preservation Office and Texas Antiquities Committee (TAC)

Agency Role and Responsibilities

The State Historic Preservation Officer (SHPO), acting on behalf of the Texas Historical Commission, and the Texas Antiquities Committee (TAC) are jointly responsible for the protection and preservation of historical and archaeological resources within the state. (National Historic Preservation Act of 1966-SHPO, Section 191.131(b), Texas National Resources Code-TAC). These responsibilities are carried out primarily through review of loans, grants and construction permit applications that propose to undertake land-disturbing activities and potentially impact historical or archaeological resources. Both the SHPO and the TAC have the authority to issue or deny permits for the disturbance of known, or discovered, historic or

archaeological resources. Scientific investigations may also be required as a condition of the permit, loan, grant, or in the event of discoveries during construction.

The SHPO has review authority over federal permits, loans and grant applications for construction on public as well as private lands. The TAC's authority also covers lands owned by the state and political subdivisions of the state.

Application Review Requirements

Applicants for federal or state construction permits are not required to submit separate applications to the SHPO or the TAC. However, the permitting agencies are required to provide an opportunity for review and comment on permit applications and must consider the comments received from the SHPO and the TAC. The National Historic Preservation Act of 1966 directs federal agencies to coordinate with the SHPO. State laws and agency rules require state agency coordination with both the SHPO and the TAC.

The following is a list of federal and state agencies having permitting authority over aquaculture operations that will usually coordinate permit applications with the SHPO and the TAC:

Agency	Permit Application
U.S. Corps of Engineers	Section 404/10 Permits
U.S. Environmental Protection Agency	NPDES Permits
Texas Parks and Wildlife Department	Sand, Shell, Gravel and Marl Permits
Soil Conservation Service	Flood Control Projects
Texas General Land Office	Lease and Easement Applications
Texas Commission on Environmental Quality	Discharge Permits, Water Diversion
Permits and Reclamation Engineer Permits	

In addition, agencies administering programs that provide financial support for construction projects through loans, loan guarantees or grants must also solicit comments from the SHPO and the TAC.

Information concerning the potential presence of significant historical or archaeological resources on or under a prospective aquaculture site may be obtained by contacting the following office:

Texas Antiquities Committee
P.O. Box 12276
Capitol Station
Austin, Texas 78711
Tel. (512) 463-6098

Application Review Process

Upon receipt of a project application from a permitting agency, the project location will be reviewed against known or suspected locations of historic or archaeological resources. If it appears that such resources could be destroyed by the proposed activity, a scientific survey may be required prior to construction. In cases where there are no known or suspected historic or archaeological resources in the project vicinity, the SHPO and/or TAC may or may not comment on the application.

Review Time Requirements

Reviews are usually completed within four to five weeks and do not usually delay permit issuance.

Permit Issuance and Fees

The SHPO and TAC have the authority to issue a number of permits. Most of these, however, are issued to scientists and researchers for study purposes. In the unlikely event that potentially significant artifacts are discovered during construction activities, a preliminary investigation of the discovery will be conducted. If the investigation reveals potentially significant resources, the applicant will be required to conduct a detailed survey of the area and a permit for the survey will be issued. Work will be postponed at the specific location during the survey. The survey will be conducted at the applicant's expense.

If the presence of significant historical or archaeological resources is confirmed by the survey, the applicant will be faced with three options:

- Withdraw the application
- Mitigate unavoidable damages
- Relocate or modify a portion of the project to avoid causing damage

Depending upon the situation, relocating or modifying a portion of the project may be the practical and timely alternative.

Local Governments

The permit applications from most federal and state permitting agencies ask for information concerning the status of permits required by local political subdivisions. The aquaculturist's failure to identify and obtain necessary permits and approvals from appropriate local jurisdictions may result in a project delay.

While federal and state agencies are aware of some of the local permitting requirements and will advise the permit applicant, the ultimate responsibility lies with the applicant. It is important, therefore, that the applicant or a representative meet with local officials to describe the project and identify local permitting requirements and regulations. Most of this coordination should be done during the site characterization and evaluation process and prior to development of detailed project design and construction plans.

The following are examples of the types of aquaculture project activities in which local government authorities could require a local permit, assess fees or impose regulations on the project:

Activity	Local/Regional Authorities
Water supply	City, water district, river authority, underground water control districts
Wastewater and solid waste disposal	Publicly owned water treatment facilities (cities or municipal utility districts), drainage districts, city or county landfill regulations, county septic tank regulations
Land use	City zoning ordinances
Construction	City or county flood-plain administrator, flood control or levee districts, city construction codes, county construction requirements as a condition of septic tank permits or use of county rights-of-way, city requirements within "extra-territorial jurisdiction," local health authorities
Electrical service	City, river authority, electric power company, rural electric cooperative, municipal utility district

Offshore Aquaculture Permitting

According to Joe Hendrix of Sea Fish Mariculture in Houston, Texas, 457 cages, measuring 105 feet in diameter, carrying 1.26 pounds of fish in each cubic feet of the cage could produce 194 million pounds of fish annually requiring a sea bottom area of only 2,000 acres. Of course one would not want to put the fish in a concentrated area, but would spread them out over the Gulf. The Texas aquaculture industry has great potential in the future helping the U.S. offset its large fish and shellfish trade deficit ($7.4 billion estimated by USDA in 2005). The U.S. needs the aquaculture industry. According to USDA, the U.S. will import $11 billion of fish and shellfish and will export $3.6 billion worth of fish and shellfish in 2005, leaving a $7.4 billion seafood trade deficit. With the rising consumption of seafood worldwide, partly because of the health benefits, per capita consumption of seafood continues to increase. Wild fisheries cannot meet the rising demand. According to USDA the total annual value of U.S. Aquaculture is about $6 billion and the U.S. industry supports at least 181,000 full-time jobs. Aquaculture continues to be the fastest growing sector of U.S. agriculture.

The potential for offshore aquaculture in the Gulf of Mexico offers the US a way to offset its huge seafood trade deficit, and produce its own fish. HOWEVER, there are still some very large obstacles to overcome.

Many of the state and federal regulatory agencies covered thus far in this manual would be involved in permitting offshore aquaculture, depending upon if the proposed project was in state or federal waters. There have been several attempts made thus far offshore in Texas and in the Gulf of Mexico off shore in other Gulf States, but none have been sustainable or were not able to obtain the proper permits. The federal and state regulatory agencies have rules and regulations concerning aquaculture that keep this industry from expanding offshore. To look into more detail about one specific example of an offshore project in Texas see Appendix 4.

According to Kristen Fletcher and Erinn Neyrey at the Sea Grant Law Center the legal and regulatory environment surrounding the offshore aquaculture industry is cited consistently as one of the major hurdles to its development in the United States. In 1978, the National Research Council found that the procedures required obtaining permits and licenses for offshore aquaculture "have been a severe deterrent" to the development of the industry. Upon passage of the National Aquaculture Act in 1980, the U.S. Congress noted the "diffused legal jurisdiction" and "lack of supportive Government policies" when it codified the national policy of encouraging the development of aquaculture in the United States.

The National Aquaculture Act (NAA) established a national policy of encouraging development of aquaculture in the United States. The NAA called for the creation of a National Aquaculture Development Plan to identify species with significant commercial potential and include research and development, technical assistance, and training programs as necessary. The NAA also established an interagency Coordinating Group to increase the effectiveness and productivity of federal aquaculture programs and to assess the industry and report to Congress. Finally, the act created a National Aquaculture Information Center and called for a review of regulatory constraints that may have a negative impact on the industry. Twenty years later, however, regulatory constraints are still present.

Under the NAA, the Department of Agriculture is the lead federal agency for aquaculture. For ocean aquaculture, however, the Corps of Engineers has a primary review responsibility through its permit decision under the Rivers and Harbors Act and its public interest review. The Corps must balance between all reasonably expected benefits and detriments to the public interest, including environmental, economic, aesthetic, navigation, property rights, and international interests. The Environmental Protection Agency has authority to permit those activities that discharge into waters of the United States under the Clean Water Act. In addition, the National Marine Fisheries Service and Fish and Wildlife Service have review and commenting responsibilities; and the National Marine Fisheries Service must authorize the activity in many cases. The Coast Guard has authority over navigational hazards, and regional fishery management councils have review under the Magnuson Act. While the interaction between agencies through procedures such as commenting and review lends itself to a comprehensive permitting and monitoring program for the future, federal permitting procedures for offshore aquaculture remain disjointed. Recognizing this deficiency,

the Department of Commerce issued an Aquaculture Policy calling for collaboration to "develop an efficient and transparent permitting process for aquaculture."

In addition to the complications that arise with the multitude of permits necessary for placing an active aquaculture cage in federal or state waters in the United States, the inability to acquire leases in these waters also limits the potential for offshore aquaculture. While aquaculture leasing in coastal waters is somewhat common, the property rights conveyed via a lease remain questionable. Important questions need to be addressed concerning leasing statutes.

During the last twenty years since the passage of the Act, the aquaculture industry has seen few actual improvements in the structure of permitting and licensing. Multiple federal and state agencies have jurisdiction over aquaculture because it affects traditionally governed areas such as water supply, the use of navigable waters, food production, and environmental protection. Such agencies have excelled at regulating and permitting land-based aquaculture regimes, refining the licensing procedures and regulations with aquaculture industry development. In contrast, the offshore aquaculture regulatory structure offers significant hurdles for its development.

Findings about these legal and regulatory hurdles are not new. There have been numerous calls for improvements during the last decade. Individuals interested in developing sustainable offshore aquaculture face challenges in the form of a fragmented and often inconsistent permitting process among the federal, state, and local agencies and questions regarding leasing, siting, and property rights. Many of these issues must be resolved before a sustainable industry can be developed.

The Sea Grant Gulf of Mexico Offshore Aquaculture Consortium, a university-based research consortium in offshore aquaculture, was created to establish a platform for research on aquaculture engineering, environmental and marine policy issues governing aquaculture in the Gulf of Mexico. Investigators at the Sea Grant Legal Program found that the jurisdiction of federal agencies overlapped and often leaves agency personnel and aquaculture investors confused as to permitting and regulatory processes. The Consortium research goals included an evaluation and potential restructuring of the current federal system for regulating and permitting offshore aquaculture. Investigators planned to look at the use of marine zoning to create specific sites for aquaculture leases in the EEZ. Researchers wanted to conduct a review of global aquaculture modes of siting and leasing of coastal and offshore cages and the historical background of such a framework. The idea of such a review was to provide the most feasible method of siting, appropriate to all user groups, and to provide essential background to develop the legal framework for an Experimental Marine Aquaculture Zone. This research was going to provide templates for restructuring aquaculture authority and for the creation of a marine zone in order to initiate dialogue between agencies and remove the legal and regulatory hurdles impeding the development of offshore aquaculture. The Consortium has not been active in 2005. However, NOAA did obtain approximately US$6 million from Congress to look into streamlining aquaculture permitting in the US EEZ. Michael Rubino, Manager of NOAA Aquaculture Program has been working toward that end. Elements of that program are: Provides framework for marine aquaculture; Safeguards the environment, benefits multiple stakeholders; Addresses environmental and economic challenges; Builds on social drivers; Encourages learning by doing; and Develops/broadcasts BMPs. NOAA's program focus is: To develop regulatory framework and permit requirements (coastal and EEZ); To analyze environmental and economic issues; To promote R&D partnerships: develop technology and BMPs; To conduct outreach through Sea Grant; Focus on Enhancement and on the International aspect of offshore aquaculture.

Any improvement to streamline offshore aquaculture permitting by NOAA would be seen as great progress. Multiple federal and state agencies have jurisdiction over aquaculture because it affects traditionally governed areas such as water supply, the use of navigable waters, food production, environmental protection and homeland security. Such agencies have excelled at regulating and permitting land-based aquaculture regimes, refining the licensing procedures and regulations with aquaculture industry development. In contrast, the offshore aquaculture regulatory structure offers significant hurdles for its development.

Most recently, the Hawaii Department of Land and Natural Resources agreed to lease a 28-acre patch of ocean for the commercial production of fish in offshore sea cages. The 15-year lease between the state and Kailua-based Cates International Inc. — the first of its kind in the nation — allows for up to four 80-foot cages, each in the shape of two cones joined together and 50 feet across, to be anchored to the ocean floor two miles off 'Ewa Beach for the production of moi, also known as Pacific threadfin. While the lease has

not been finalized at present, Cates is expected to lease the ocean floor substrate, a column of water above it, and corresponding surface area, with a ten-year option to extend the lease. Rent will likely be based on a percentage of gross revenues to be determined by state officials and appraisal.

The decision to grant an offshore aquaculture lease was a first for the state, which has, up until now, only granted easements in its waters. If successful, the state can expect an increase in lease applicants, leading to the need for comprehensive planning for the placement of cages. At this stage, the state has declined to formally carve out areas of its coastal waters for aquaculture development. In order to advance an offshore aquaculture industry that will leave minimal marks on the marine environment, the state may need to turn to a planning process that is commonly used on land.

:Slide from Fletcher and Neyrey, 2004.

Relevant Federal and State Code Sections for Offshore Aquaculture (*from Fletcher and Weston, 2004*)

Agriculture and Food Act of 1980 - 5 U.S.C. §5315, et seq.

Clean Water Act - 33 U.S.C. § 1251

Coastal Zone Management Act, 1990 and 1996 Amendments - 16 U.S.C. § 1451

Columbia River Basin Fishery Development Program - 16 U.S.C. § 835

Commercial Fisheries Research and Development Act - 16 U.S.C. §§ 742(c), 779

Endangered Species Act - 16 U.S.C. § 1531

Fish and Wildlife Act of 1956 - 15 U.S.C. § 715c - 3; 16 U.S.C. § 742a

Fish and Wildlife Coordination Act - 16 U.S.C. § 661

Interjurisdictional Fisheries Act - 16 U.S.C. §§ 742c, 779, 4001

Magnuson-Stevens Fishery Conservation and Management Act - 16 U.S.C. § 1801

Marine Mammal Protection Act - 16 U.S.C. § 1361

Marine Protection, Research and Sanctuaries Act - 16 U.S.C. § 1401

National Sea Grant College Program Act - 33 U.S.C. § 1121

National Environmental Policies Act - 42 U.S.C. § 4321

National Aquaculture Act of 1980 - 16 U.S.C. § 2801

Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 - 16 U.S.C. § 4701

Outer Continental Shelf Lands Act - 16 U.S.C. § 1456

Rivers & Harbors Act of 1899 - 33 U.S.C. § 401

Saltonstall-Kennedy Act - 15 U.S.C. § 713c Title XI,

Merchant Marine Act of 1936 - 46 U.S.C. § 221

Water Resources Development Act - 16 U.S.C. § 460d

The National Offshore Aquaculture Act of 2005

On June 8, 2005 Senate Commerce Committee Co-Chairs, Senators Ted Stevens (R–Alaska) and Daniel Inouye (D–Hawaii), introduced S. 1195, the National Offshore Aquaculture Act of 2005. The National Oceanic & Atmospheric Administration (NOAA) developed the legislation to provide a regulatory framework for the development of offshore aquaculture. NOAA representatives hope that Congress will pass the bill this year or next.

The proposed bill provides the Department of Commerce clear authority to regulate offshore aquaculture. If passed the bill will empower the Department of Commerce to assist the private sector in obtaining necessary Federal agency approval for establishing an offshore aquaculture facility. The Department of Commerce has primary responsibility for the management and conservation of living marine resources in the EEZ and, as such, will ensure that offshore aquaculture enterprises operate in an environmentally sustainable manner that is compatible with existing uses.

Highlights of The National Offshore Aquaculture Act of 2005

The bill would:

- Grant the Secretary of Commerce Authority to Issue Offshore Aquaculture Permits
  - Provides for a streamlined permitting process; still requires other permits
  - Products will not be subject to "fishing definitions" that restrict size, season and harvest method
  - Ensure that operators do not interfere with wild stock conservation and management
- Provide Environmental and Other Safeguards, Including:
  - Environmental requirements, monitoring, enforcement
  - Authority to suspend, modify, revoke permits
  - Bonds or other financial guarantees
  - Consultations with regional Fishery Management Councils, states, tribes, and federal agencies
  - A requirement for consistency with state plans
- Support Development of Offshore Aquaculture
  - Through R&D industry partnerships
  - Collection of biological, social, production and economic data

Legislation

- Currently, there is no clear mechanism for the permitting of marine (offshore) aquaculture in the federal Exclusive Economic Zone (EEZ). This regulatory uncertainty is widely acknowledged as the major barrier to the development of offshore aquaculture in the United States.
- Industry is looking to the federal government to set up a workable framework that gives them permission to operate—as well as clear rules about environmental safeguards and balancing of multiple uses.
- *The National Offshore Aquaculture Act* will call for environmental and other safeguards, including environmental requirements, monitoring and enforcement. Issue-specific concerns about offshore aquaculture will be addressed in the regulatory design process once Congress enacts the proposed legislation.
- The regulatory design process will include a strong role for states, fishery management councils, industry, conservation organizations and other interested stakeholders.

Positive Impact on Coastal Communities

- Coastal fishing communities in New Hampshire, Mississippi, Alabama, Louisiana, Texas, Puerto Rico and Hawaii in particular are already engaged in open ocean aquaculture (shellfish and finfish) or are planning pilot and commercial projects. These projects have shown that, by following best management practices, including good siting, aquaculture's environmental effects are relatively minor.

Environment

- Best management practices to address escapes, fish waste and other environmental issues are in place in many commercial operations and are being further tested and refined for open ocean operations at pilot sites.
- Much of the research on open ocean aquaculture funded by Sea Grant in the last five years has been focused on the environmental issues associated with this type of aquaculture, such as escapes. As a result, the U.S. has developed cutting-edge technology and developed best managed practices to address many of the issues.
- From a technology standpoint, NOAA has good information on the effects of open ocean aquaculture based on initial research efforts in New Hampshire, Hawaii and Puerto Rico. For instance, all three projects have water quality monitoring systems in place and, so far, the results have shown impacts to be minimal or non-existent.

The 27-page bill can be downloaded from Internet site:
http://nommune.com/archives/2005/6/8/another-noaa-national-offshore-aquaculture-act/.

Offshore Aquaculture Jurisdiction in Federal Waters

U.S. Department of Agriculture - Head agency for National Aquaculture Plan and Efforts

National Marine Fisheries Service - Authorization for a managed species, exempted fishing permit

U.S. Environmental Protection Agency - NPDES Permit, Ocean Dumping Permit

U.S. Fish and Wildlife Service - Commenting only

U.S. Army Corps of Engineers - Navigation impairment, wetlands

U.S. Coast Guard - Structure Marking requirements

Gulf of Mexico Fishery Management Council - EFH Consultation/Commenting

State Coastal Zone Management Program - Coastal Zone Consistency

Appendices

Appendix 1.

Additional information for the Texas General Land Office (GLO) section: The author was asked by GLO to participate in the update of the aquaculture section of GLO's Management Plan in 2004 and 2005. The draft summary of the 'aquaculture permitting in the state, environmental concerns, conflicts and future threats' submitted to the GLO by this author is as follows:

"The Texas Department of Agriculture (TDA) has the authority to regulate aquaculture facilities through licenses, fees, and marketing assistance programs such at the "Go Texan Program"; the Texas Parks and Wildlife Department (TPWD) controls all exotic species; and the Texas Commission on Environmental Quality (TCEQ) regulates aquaculture discharges. The rules and regulations for aquaculture are continuously updated. TCEQ passed a general aquaculture rule in 2002. Within the Texas coastal zones, all shrimp production facilities must be authorized by individual permit. The US Environmental Protection Agency (EPA) passed new aquaculture regulations in 2004, and the TCEQ changed their TPDES applications accordingly. Non-shrimp facilities or research facilities that discharge less than 30 days annually and produce small quantities of food are exempt from individual permit requirements consistent with NPDES requirements. However, such facilities must notify the TCEQ and are subject to case-by-case review. In 2004 complaints from two Texas A&M University research facilities in the Corpus Christi area cite that they have to come up with extra research grants yearly just to pay TCEQ discharge fees. They do not qualify for the exemption because they discharge small quantities of water more than 30 days a year, and have requested TCEQ for regulatory relief.

In 1997 the Texas State Legislature requested TDA, TCEQ and TPWD to develop a Memorandum of Understanding for the coordination of the agencies on aquaculture regulatory matters, which was implemented in 1999. The agencies have since successfully coordinated aquaculture regulatory efforts. The TPWD assesses the suitability of a site for discharge and provides recommendations to the TCEQ during the permitting process. For facilities requiring permits, chemotherapeutic drugs are limited to those either currently approved or authorized within an FDA Investigational New Animal Drug Study (INAD). Additionally, rules adopted by the regulatory agencies have been successful in the response to disease outbreaks in pond-raised shrimp. TPWD biologists can quarantine diseased shrimp and stop discharges on farms until the threat to native shrimp has passed. Additional rules require operators to immediately notify TPWD regarding any mortalities of farm raised shrimp; requires hatchery operators to have their shrimp certified monthly during operations as disease free by a department-approved disease specialist (Texas Veterinary Medical Diagnostic Lab); and require operators to show they possess or have applied for the appropriate TCEQ discharge permit. All farms have cooperated with the agencies and progress has been made in controlling diseases and has accomplished wiser use of Texas' natural resources by cleaning up discharges. However, no rules have been established to protect the farmed shrimp from feral or native shrimp populations, known to be carriers of Baculovirus and White Spot-like virus. Additionally, there have been no rules established to keep frozen imported shrimp used for bait or native frozen bait shrimp (both found to contain active shrimp viruses in the past) from being sold as bait for use in Texas rivers or on the Texas coast. The above two, among others, have been cited as potential vectors for virus disease transfers.

Imported shrimp on retail supermarket shelves are also a potential threat to both the wild shrimp fishery and the state's shrimp aquaculture industry. This potential threat was identified by shrimp pathologists a number of years ago, but nothing has been done by regulatory agencies to eliminate the threat. Imported shrimp on the retail supermarket selves in the US were sampled and found to contain shrimp viruses. Also, frozen imported shrimp sold for bait and used in rivers and in coastal waters have the potential to carry viruses, and some of the bait tested has been confirmed to have the viruses. Even the native shrimp caught and sold for bait may carry viruses. Freezing does nothing to inactivate the viruses. Shrimp processing plants that process frozen imported shrimp sometimes have solid wastes and some of those solid wastes (shrimp parts), potentially containing viruses, are taken to composting facilities or landfills. If the wastes are not treated properly, they pose a threat. The Taura Syndrome Virus (TSV) hit South Texas shrimp

farms in 1995 and again in 2004. The virus that hit in 2004 was found to be an Asian strain of TSV. One suspected vector for this virus outbreak was frozen imported shrimp from Asia.

Briefly describe environmental concerns. Also, describe any use conflicts and future threats.

Environmental effects of shrimp trawls on sea floor bottoms and overfishing is still a concern, and is presently being addressed by the regulatory authorities in limited fishery (licenses buy-back) proposals. However, environmental concerns of the Texas aquaculture industry have decreased due to prompt action by regulatory agencies. First, discharges from aquaculture production facilities had the potential to discharge total suspended solids (TSS). Prior to regulations and permitting of certain shrimp farms in the coastal zone, there were incidents when uncontrolled TSS discharges caused turbidity and sedimentation in localized areas. The potential for TSS adverse impacts has been greatly reduced by the establishment of TSS effluent limitations into permits. In turn, the limitations have resulted in advances in wastewater management at all coastal aquaculture facilities and very effectively decreased the volume of discharges. Among the advances were 1) re-circulation and reuse of wastewater and 2) constructed wetlands for sedimentation and polishing. For example, flow through systems on shrimp farms in 1994 used 4,500 gallons of water to produce each pound of shrimp. With the new technologies in place now the farms use less than 300 gallons of water to produce each pound of shrimp, and most of that water is used to fill the pond and offset evaporation. Second, there were two accidental releases of exotic Pacific White Shrimp to Texas waters in the 1990s. A TPWD requirement that 3 screens with appropriate mess size be placed on the farm effluents has effectively prevented any further releases. The potential ecological impacts of this introduction are unknown, but after 25 years of releases of *L. vannamei* in other areas of the world there have been no notable impacts. Thirdly, the presence of two viral diseases: Taura Syndrome Virus (TSV) and White Spot Syndrome Virus (WSSV), potentially pose a threat to farm raised shrimp and to some extent native shrimp stocks. Fortunately, most shrimp viruses do not transfer well from one species to the other. Having a different species in the ponds from what is in the wild has proven to act as a barrier to the spread of shrimp viruses, and the farms having put biosecure measures in place has also prevented WSSV from coming in from wild shrimp, which are known carriers. The native shrimp populations carry viruses (*Baculovirus* and WSSV), which potentially threaten shrimp culture operations on the coast. Use conflicts in addition to those described above are primarily market functions. Imports of shrimp to the U.S. are severely affecting the livelihoods of both the shrimp fishery and the shrimp aquaculture industry. Shrimp imports increased 76% from 1954 to 1993, and the two industries were able to adjust. However, since the year 2000, there has been a 73% increase of shrimp imports, and there has been a 47 percent increase since 2003. In 2004 the US imported 1.25 billion pounds of shrimp. The average price was $2.23/lb, down $0.27/lb from 2003. The further development and expansion of aquaculture in Bangladesh, Brazil, Central America, China, India, Thailand and Viet Nam has substantially increased imports of shrimp to the US. These imports have an impact on prices paid to Texas shrimpers and to Texas shrimp farmers. As supply increases from imports, market forces drive the price of all shrimp lower. Antibiotic concerns in shrimp from Asia closed the European shrimp market in 2002 and 2003 and much of that shrimp was sent to the US market instead. The antibiotic problem has been eliminated and the European market is open again, but the economic viability of Texas shrimpers and Texas shrimp farmers continues to be affected in part by the amount of total shrimp available in worldwide markets.

When it was petitioned and proven that the flood of imported shrimp (both wild caught and farm raised) negatively affected US shrimp prices, USDA Foreign Ag. Services Trade Adjustment Assistance Program approved benefits for US shrimpers and US shrimp farmers for the production years of 2002 and 2003. A $0.16/lb allowance was paid for the production year 2002, up to a maximum of $10,000 each producer, and $0.27/lb for 2003, with $10K maximum. In 2004, more than $4.5 million in benefits went to the Texas shrimp harvest industry for the production year 2002, but with the eligibility rules as they are, the program did not assist Texas shrimp farmers because few qualified. Other government programs have not been helpful. The US Dept. of Commerce's shrimp tariffs imposed on 6 countries (Brazil, China, Ecuador, India, Thailand and Viet Nam) found guilty of dumping shrimp on the US market have not been effective in raising prices of shrimp since the countries found guilty of dumping were quickly replaced by other countries producing and importing shrimp to meet the US demand. Shrimp from some of the six countries found guilty has been going to other countries not on the list and is being re-boxed, repackaged and/or renamed, to end up in the US market. The Asian Tsunami did not slow the flow of shrimp imports to the

US. The US has consistently harvested around 200 million pounds of shrimp per year from the wild and 50 million pounds of shrimp tails are harvested each year in Texas (43 million pounds from the Gulf of Mexico and 7 million pounds from Texas bays). This entire industry is threatened, as well as the Texas shrimp aquaculture industry. With more and more shrimpers and shrimp farmers in Texas going out of business, production from both industries is expected to fall, and no doubt, the US demand will be replaced by imports.

Outbreaks of TSV (South Texas) and WSSV (Hawaii) among farmed *L. vannamei* stocks, and more importantly WSSV was also reported in native setiferus stocks off Mississippi in Gulf waters in 2004, have renewed concerns regarding potential routes of entry of these and other shrimp viral pathogens into the U.S. Texas has a significant shrimp farming industry and a commercial shrimp fishery that have been adversely affected over the past three years due to low shrimp market prices and declining catches of wild shrimp. With the overall industry already in economic jeopardy and various farmers and commercial shrimpers either closing down or converting shrimp ponds over to fish, catastrophic losses due to virus introduction could be fatal to many of these businesses. Three known virus sources of concern are: shrimp processing plant wastes (solids and liquid wastewater effluent), commodity imported shrimp sold over supermarket counters and used for bait, or frozen bait shrimp (both imported and domestic). It has been known for over a decade that frozen imported commodity shrimp often contain infectious viral pathogens (WSSV, IHHNV, TSV, YHV have been found). The presence of WSSV, the most economically devastating of the currently known 20+ shrimp viral diseases, has been documented at least three times in Gulf of Mexico wild shrimp and twice in Atlantic shrimp stocks off of S. Carolina. The threat of virus contaminated processing plant wastes and bait shrimp together with recommendations concerning their elimination have been discussed at multiple national meetings by federal agencies and academics, but not acted upon. With the outbreaks of TSV and WSSV in the U.S. last year, we feel that this matter urgently needs to be addressed by the shrimp industry for its own protection and long term survival."

Note: not all information provided to GLO was used in its report.

Appendix 2

TCEQ General Permit to Discharge Wastes with Detail and Schedule of Fees

Texas Commission on Environmental Quality
P.O. BOX 13087
Austin, TX 78711-3087

General Permit to Discharge Wastes

Under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

This is a new general permit issued pursuant to Section 26.040 of the Texas Water Code and Section 402 of the Clean Water Act. Concentrated aquatic animal production facilities and certain related activities located in the state of Texas may discharge waste into or adjacent to water in the state only according to effluent limitations, monitoring requirements and other conditions set forth in this general permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this general permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route. This includes property belonging to but not limited to any individual, partnership, corporation or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This general permit and the authorization contained herein shall expire at midnight five years after the date of issuance.

ISSUED AND EFFECTIVE DATE:

_____

For the Commission

Table of Contents

Part I. Definitions

The following words and terms shall have the following meanings for the purposes of this permit, unless the context clearly indicates otherwise.

1. Concentrated aquatic animal production facilities - An establishment engaged in the propagation and/or rearing of aquatic species which meets the criteria for Level III authorization established in this general permit, criteria based on 40 CFR Part 122 Appendix C. These facilities utilize ponds, lakes, fabricated tanks and raceways, or utilize cages or other enclosures placed within public waters, or other similar structures, for the propagation or rearing of aquatic species. Multiple ponds that are individually owned, managed, or leased may be considered as a single aquaculture facility if they are located within a contiguous tract of land, utilize a common water source, or utilize a common discharge canal/route. For the purposes of this general permit, a concentrated aquatic animal production facility does not include: public and private reservoirs constructed and utilized primarily for water supply, flood control, domestic purposes, livestock watering, recreation, or similar uses.
2. Aquatic animal production facilities - An establishment engaged in the propagation and/or rearing of aquatic species which meets the criteria for Level II authorization established in this general permit, and that does not meet or exceed the criteria in 40 CFR Part 122 Appendix C. These facilities utilize ponds, lakes, fabricated tanks and raceways, or utilize cages or other enclosures placed within public waters, or other similar structures, for the propagation or rearing of aquatic species. Multiple ponds that are individually owned, managed, or leased may be considered as a single aquaculture facility if they are located within a contiguous tract of land, utilize a common water source, or utilize a common discharge canal/route. For the purposes of this general permit, an aquatic animal production facility does not include: public and private reservoirs constructed and utilized primarily for water supply, flood control, domestic purposes, livestock watering, recreation, or similar uses.
3. Aquatic species - Fish, crustaceans, mollusks, or any other organisms, excluding aquatic plants, occurring within either fresh or marine waters.
4. Best management practices (BMP) - Schedule of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to water in the state. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, drainage from raw material storage, or the abatement of nuisance odors and conditions. BMPs are those measures that are reasonable and necessary to achieve a performance standard that protects and maintains air and water quality standards as well as existing and potential uses of groundwater.
5. Closed ponds - Ponds (or lakes) without a mechanism to manipulate water levels (except for emergency spillways and other similar non-mechanical structures) or those ponds that are operated such that drawdowns are not allowed. If the use of groundwater wells or the diversion of surface water results in dry-weather discharges, such ponds are not defined as closed ponds.
6. Coastal zone - That area along the Texas coast of the Gulf of Mexico as depicted in this definition and also as depicted in Figure 1 (from **31 TAC § 503.7**). The boundary includes areas within the following Texas counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson, and Orange.
    a. The inland boundary. The inland boundary encompasses the following areas: The boundary begins at the International Toll Bridge in Brownsville, thence northward along U.S. Highway 77 to the junction of Paredes Lines Road (FM Road 1847) in Brownsville, thence northward along FM Road 1847 to the junction of FM Road 106 east of Rio Hondo, thence westward along FM Road 106 to the junction of FM Road 508 in Rio Hondo, thence northward along FM Road 508 to the junction of FM Road 1420, thence northward along FM Road 1420 to the junction of State Highway 186 east of Raymondville, thence westward along State Highway 186 to the junction of U.S. Highway 77 near Raymondville, thence northward along U.S. Highway 77 to the junction of FM Road 774 in Refugio, thence eastward along FM Road 774 to the junction of State Highway 35 south of Tivoli, thence northward along State Highway 35

to the junction of State Highway 185 between Bloomington and Seadrift, thence northwestward along State Highway 185 to the junction of FM Road 616 in Bloomington, thence northeastward along FM Road 616 to the junction of State Highway 35 east of Blessing, thence southward along the State Highway 35 to the junction of FM Road 521 north of Palacios, thence northeastward along FM Road 521 to the junction of State Highway 36 south of Brazoria, thence northward along State Highway 36 to the junction of State Highway 332 in Brazoria, thence eastward along State Highway 332 to the junction of FM Road 2004 in Lake Jackson, thence northeastward along FM Road 2004 to the junction of Interstate Highway 45 between Dickinson and La Marque, thence northwestward along Interstate Highway 45 to the junction of Interstate Highway 610 in Houston, thence east and northward along Interstate Highway 610 to the junction of Interstate Highway 10 in Houston, thence eastward along Interstate Highway 10 to the Louisiana State line.

b. Tidal portion of the boundary. The boundary runs at a distance of 100 yards inland from the mean high tide line along each of the following tidal river and stream segments from the points where they intersect the roadway boundary described below:
   i. on the Arroyo Colorado, to a point 100 meters (110 yards) downstream of Cemetery Road south of Port Harlingen in Cameron County;
   ii. on the Nueces River, to Calallen Dam 1.7 kilometers (1.1 miles) upstream of U.S. Highway 77 in Nueces/San Patricio County;
   iii. on the Guadalupe River, to the Guadalupe-Blanco River Authority Salt Water Barrier 0.7 kilometers (0.4 mile) downstream of the confluence of the San Antonio River in Calhoun and Refugio Counties;
   iv. on the Lavaca River, to a point 8.6 kilometers (5.3 miles) downstream of U.S. Highway 59 in Jackson County;
   v. on the Navidad River, to Palmetto Bend Dam in Jackson County;
   vi. on Tres Palacios Creek, to a point 0.6 kilometer (1.0 mile) upstream of the confluence of Wilson Creek in Matagorda County;
   vii. on the Colorado River, to a point 2.1 kilometers (1.3 miles) downstream of the Missouri-Pacific Railroad in Matagorda County;
   viii. on the San Bernard River, to a point 3.2 kilometers (2.0 miles) upstream of State Highway 35 in Brazoria County;
   ix. on Chocolate Bayou, to a point 4.2 kilometers (2.6 miles) downstream of State Highway 35 in Brazoria County;
   x. on Clear Creek, to a point 100 meters (110 yards) upstream of FM Road 528 in Galveston/Harris County;
   xi. on Buffalo Bayou, to a point 400 meters (440 yards) upstream of Shepherd Drive in Harris County;
   xii. on the San Jacinto River, to Lake Houston Dam in Harris County;
   xiii. on Cedar Bayou, to a point 2.2 kilometers (1.4 miles) upstream of Interstate Highway 10 in Chambers/Harris County;
   xiv. on the Trinity River, to the border between Chambers and Liberty Counties;
   xv. on the Neches River, to a point 11.3 kilometers (7.0 miles) upstream of Interstate Highway 10 in Orange County; and
   xvi. on the Sabine River, to Morgan Bluff in Orange County.

c. Wetlands portion of boundary. Except for the part of the boundary adjacent to the Trinity and Neches rivers, the boundary includes wetlands lying within one mile inland of the mean high tide lines of the tidal river and stream segments identified below:

   i. Adjacent to the Trinity River, the boundary includes wetlands within the area located between the mean high tide line on the western shoreline of the river and Farm-to-Market Road 565 and Farm-to-Market Road 1409, and wetlands within the area located between

the mean high tide line on the eastern shoreline of that portion of the river and Farm-to-Market Road 563.

ii. Adjacent to the Neches River, the boundary includes wetlands within one mile of the mean high tide line on the western shoreline of the river, and wetlands within the area located between the mean high tide line on the eastern shoreline of that portion of the river and Farm-to-Market Road 105.

d. The boundary with the State of Louisiana. The boundary with the State of Louisiana begins in Orange County at Morgan's Bluff, the northernmost extent of tidal influence, along the adjudicated boundary between the State of Texas and the State of Louisiana, as established by the United States Supreme Court in Texas v. Louisiana, 410 U.S. 702 (1973); thence it continues in a southerly direction along the adjudicated boundary out into the Gulf of Mexico until it intersects the seaward boundary.

e. The seaward boundary. The seaward boundary is that line marking the seaward limit of Texas title and ownership under the Submerged Lands Act (43 United States Code, §1301 et seq), as recognized by the United States Supreme Court in United States v. Louisiana et al., 364 U.S. 502 (1960).

f. The boundary with the Republic of Mexico. The boundary with the Republic of Mexico begins at a point three marine leagues into the Gulf of Mexico where the line marking the seaward limit of Texas title and ownership under the Submerged Lands Act (43 United States Code, §§1301 et seq) intersects the international boundary between the United States and the Republic of Mexico, as established pursuant to the Treaty of Guadalupe-Hidalgo (February 2, 1848) between the United States and the Republic of Mexico; thence it continues in a westerly direction along the international border with the Republic of Mexico until it meets the International Toll Bridge in Brownsville.

g. The excluded federal lands. The excluded federal lands are those lands owned, leased, held in trust by, or whose use is otherwise by law subject solely to the discretion of the federal government, its officers or agents.

7. Cold water aquatic species - Fish in the family *Salmonidae* (trout and salmon).

8. Commercial aquaculture facility - An aquaculture facility designed primarily for the production of cultured species for the purposes of sale, barter, or exchange.

9. Daily average flow - The arithmetic average of all determinations of the daily discharge within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily discharge, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.

10. Daily maximum concentration - The maximum concentration measured on a single day within a period of one calendar month.

11. Domestic sewage - Waterborne human waste and waste from domestic activities such as washing, bathing, and food preparation.

12. Edwards Aquifer - As defined under TCEQ Rules at 30 TAC § 213.3 (relating to the Edwards Aquifer), that portion of an arcuate belt of porous, water-bearing, predominantly carbonate rocks known as the Edwards and Associated Limestones in the Balcones Fault Zone trending from west to east to northeast in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties; and composed of the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person Formation, Kainer Formation, Edwards Formation, and Georgetown Formation. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

13. Edwards Aquifer Recharge Zone - Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a

potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as that area designated as such on official maps located in the offices of the Texas Commission on Environmental Quality and the appropriate underground water conservation district(s).

14. Grab sample - An individual sample collected in less than 15 minutes.
15. General Permit - A permit issued under the provisions of 30 TAC Chapter 205, authorizing the discharge of waste into or adjacent to water in the state for one or more categories of waste discharge within a geographical area of the state or the entire state as provided by the Texas Water Code (TWC) § 26.040.
16. Inactive facility - A facility which is not yet operational or where operation has been suspended.
17. mg/l - Abbreviation for milligrams per liter.
18. Notice of Change (NOC) - A written submission to the Executive Director from a permittee authorized under a general permit, providing information on changes to information previously provided to the commission, or any changes with respect to the nature or operations of the regulated entity or the characteristics of the discharge.
19. Notice of Intent (NOI) - A written submission to the Executive Director from an applicant requesting coverage under the terms of a general permit.
20. Notice of Termination (NOT) - A written submission to the Executive Director from a permittee authorized under a general permit requesting termination of coverage.
21. Operator - The person responsible for the overall operation of a facility.
22. Owner - The person who owns a facility or part of a facility.
23. Pond bottom sludges - Accumulations of silt, soils, and other matter in the bottom of ponds.
24. Process controls - Structures, technologies, and practices utilized to control the rate, volume, or quality of a discharge.
25. Production pond - Earthen ponds, raceways, fabricated tanks, or similar structures utilized in conjunction with the propagation or rearing of aquatic species.
26. Production - Weight of aquatic species as measured following harvest and prior to processing.
27. Publicly owned treatment works (POTW) - A treatment works owned and operated by a state or municipality which includes any device or systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment. This term also means the municipality that has jurisdiction over indirect discharges to and discharges from such a treatment works.
28. Shrimp research facilities - Facilities whose primary purpose is inquiry or experimentation to develop scientific research of shrimp aquaculture methods, disease control, waste control, wastewater treatment technology, and similar subjects. For the purposes of this permit, to be considered as a shrimp research facility, the annual revenues from the sale of any shrimp resulting from the research activities must not exceed the cost of conducting those research activities.
29. Tailwater control - Diked or bermed area, pond or other similar structure placed down-gradient of an irrigation site and designed to prevent off-site runoff or runoff to waters in the state.
30. Texas Land Application Permit (TLAP) - A permit issued by the TCEQ for disposal of wastewater by land application which does not authorize a discharge of pollutants directly into surface water in the state.
31. Texas Pollutant Discharge Elimination System (TPDES) Permit - A permit that has been issued under TWC §26.027.
32. Warm water aquatic species - All aquatic species except those in the family *Salmonidae* (trout and salmon).
33. Water in the state - Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico

inside the territorial limits of the state and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

34. Waste management unit - Any structure used for containment, detainment, or treatment of wastewater; including canals utilized to transport wastewater from the production pond to a settling pond or discharge point; not including production ponds used for the grow-out of aquatic species.
35. Wastewater - Water that is a result of the following aquaculture operations:
    a. propagation, rearing, or transportation of aquatic species;
    b. washdown, cleaning, and flushing of fabricated tanks, raceways, ponds, other containment structures, or process equipment.
    c. washing, treating, or any other direct contact with aquatic species.
36. 25-Year, 24-Hour rainfall event - The maximum rainfall event with a probable recurrence interval of once in 25 years (four percent probability of occurrence in a given year), with a duration of 24 hours, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments, or equivalent information developed therefrom.

Part II. Permit Applicability and Coverage

Section A. Discharges Covered

This general permit covers discharges into or adjacent to water in the state by certain concentrated aquatic animal production facilities, aquatic animal production facilities, and other activities related to the propagation or rearing of aquatic species through the use of ponds, lakes, fabricated tanks and raceways, or other similar structures. The permit specifies which facilities may be authorized under this general permit and those which must be authorized by individual permit.

Eligibility for Authorization by General Permit

1. Level I Authorization

   Operations meeting the following descriptions and criteria qualify for Level I authorization and are not required to submit a NOI for coverage under this general permit:

   (a) Retail bait dealers;
   (b) Discharges resulting from the production of crawfish in conjunction with rice farming;
   (c) Ponds used as "pay lakes";
   (d) Facilities that exclusively utilize closed ponds;
   (e) Public and commercial aquariums and aquarium supplies;
   (f) Live fish hauling tanks;
   (g) Any aquaculture facility that utilizes cages or other enclosures placed within public waters for the propagation or rearing of aquatic species with a harvest weight equal to or less than 20,000 pounds; and
   (h) Facilities which temporarily hold and do not feed aquatic species.

2. Level II Authorization

   Aquatic animal production facilities that meet the following criteria and that do not produce shrimp in the coastal zone, are eligible to obtain Level II authorization under this general permit. Submittal of an NOI is required for Level II authorization for coverage under this general permit.

   (a) Produces cold water aquatic species in ponds, raceways, or other similar structures which:
      (i) discharges less than 30 days per year;
      (ii) produces less than 20,000 pounds harvest-weight of aquatic species per year; and
      (iii) feeds less than 5,000 pounds of food during the calendar month of maximum feeding.
   (b) Produces warm water aquatic species in ponds, raceways, or other similar structures which:

(i) discharges less than 30 days per year; or

(ii) produces less than 100,000 pounds harvest-weight of aquatic species per year.

(c) Disposes of wastewater by land application and does not discharge directly to surface water in the state.

3. Level III Authorization

Concentrated aquatic animal production facilities that meet or exceed the thresholds described below in either (a) or (b), or that consist of a shrimp research facility located inside the coastal zone that meets the criteria in Part II.A.3.(c)., are eligible to obtain Level III authorization under this general permit. Submittal of an NOI is required for Level III authorization for coverage under this general permit.

(a) Produces cold water aquatic species in ponds, raceways, or other similar structures which:

(i) discharges at least 30 days per year; and either

(ii) produces more than 20,000 pounds harvest-weight of aquatic species per year; or

(iii) feeds more than 5,000 pounds of food during the calendar month of maximum feeding.

(b) Produces warm water aquatic species in ponds, raceways, or other similar structures that:

(i) discharges at least 30 days per year; and

(ii) produces more than 100,000 pounds harvest-weight of aquatic species per year.

(c) Shrimp research facility within the coastal zone that:

(i) discharges less than 60 days per year;

(ii) discharges at a daily maximum flow rate of less than 5 million gallons per day; and

(iii) discharges at a total monthly flow volume of less than 12.5 million gallons.

Section B. Limitations on Coverage

1. Facilities Requiring Coverage Under an Individual Texas Pollutant Discharge Elimination System (TPDES) Permit:

(a) Any commercial facility producing shrimp species in ponds, raceways, or similar structures within the coastal zone which discharges to surface waters is not eligible for authorization under this general permit and must obtain an individual TPDES permit regardless of production or discharge quantity.

(b) Commercial shrimp aquaculture facilities located within the coastal zone that conduct collaborative research with a shrimp research facility and discharge to surface waters are considered commercial facilities and must obtain authorization through an individual TPDES permit.

(c) Operators of aquaculture facilities who would otherwise be eligible to obtain authorization under this general permit, but who either are unable or choose not to implement all required applicable conditions of this general permit must apply for an individual TPDES permit.

(d) Any aquaculture facility discharging wastewater to a freshwater receiving water can do so under this general permit only if the difference between the wastewater's total dissolved solids (TDS) and the freshwater receiving water's TDS is less than 500 mg/L. Any aquaculture facility discharging wastewater to an estuarine or marine receiving water can do so under this general permit only if the difference between the wastewater's salinity and the estuarine or marine receiving water's salinity is less than 2 parts per thousand (ppt). If the applicable condition above is not met, the facility must obtain an individual TPDES permit.

(e) Any aquaculture facility that utilizes cages or other enclosures placed within public waters for the propagation or rearing of aquatic species with a harvest weight greater than 20,000 pounds.

2. Discharges into or adjacent to water in the state shall not be authorized by this general permit where prohibited by:

(a) 30 TAC, § 311 (relating to Watershed Protection); or

(b) 30 TAC, § 213 (relating to Edwards Aquifer); or

(c) Any other applicable state and federal rules or laws.

3. New sources or new discharges which discharge constituents of concern to impaired waters are not authorized by this permit unless otherwise allowable under 30 TAC Chapter 305 and applicable state law. Impaired waters are those that do not meet applicable water quality standard(s) and are listed on the Clean Water Act Section 303(d) list. Constituents of concern are those for which the water body is listed as impaired.
4. Discharges associated with the processing of aquatic organisms by packing as fresh or frozen product, canning, smoking, salting, drying or otherwise curing, and/or rendering for use as human or animal food are not authorized by this general permit.
5. The discharge of domestic sewage into or adjacent to water in the state is not authorized by this general permit. All domestic sewage shall be either discharged pursuant to an individual permit issued by the TCEQ; routed to an authorized and adequately designed sewage treatment facility or Publicly Owned Treatment Works (POTW); routed to a septic tank/drainfield system permitted by local authorities; or transported to an approved off-site disposal facility.
6. Facilities that dispose of wastewater by any of the following practices are not required to obtain coverage under this general permit:
   (a) recycling with no resulting discharge into or adjacent to water in the state;
   (b) pumping and hauling to an authorized disposal facility;
   (c) discharge to a POTW;
   (d) underground injection in accordance with 30 TAC Chapter 331; or
   (e) discharge to above ground storage tanks (ASTs) with no resulting discharge into or adjacent to water in the state.
7. The executive director shall deny an application for authorization under this permit, and may require that an application for a TPDES individual permit, be submitted, if it is determined that the discharge does not maintain existing uses of receiving waters. Additionally, the executive director may cancel, revoke, or suspend authorization to discharge under this general permit based on a finding of historical and significant noncompliance. Denial of a Notice of Intent (NOI) or suspension of a permittee's authorization under this general permit or suspension of a permittee's authorization under this general permit shall be conducted in accordance with the commission rules under 30 TAC Chapter 205 (relating to General Permits for Waste Discharges).

Section C. Application for Coverage

1. Operations meeting the descriptions and criteria that qualify for Level I are not required to submit a NOI in order to be authorized under this general permit. Qualifying operations may, however, complete Attachment 1 and utilize this notice as necessary to demonstrate authorization under this permit.
2. Unless specifically exempted from the notice requirements under Level I Authorization, applicants seeking Level II or III authorization to discharge under this general permit must submit a completed NOI on a form approved by the executive director. The NOI shall include at a minimum the legal name and address of the owner and operator, the facility name and address, specific description of its location, (including the street address, if applicable, and county), the type of facility and discharge, the name of the receiving water, and the estimated volume of the discharge (expressed as gallons per day).
3. Submission of a NOI is an acknowledgment that the conditions of this general permit are applicable to the proposed discharges and that the applicant agrees to comply with the conditions of the general permit. Authorization under the terms and conditions of this general permit begins when the applicant is issued a written approval of the NOI. Following review of the NOI, the Executive Director shall either confirm coverage by providing a notification and an authorization number to the applicant or notify the applicant that coverage under this general permit is denied.
4. Coverage under this general permit is not transferable. If the owner or operator of the regulated entity changes, the present owner must submit a Notice of Termination (NOT) and the new owner must submit a NOI. The NOT and NOI must be submitted concurrently no fewer than 10 days before the transfer occurs. Any change in a permittee's Charter Number, as registered with the Texas Secretary

of State, is considered a change in ownership of the company and would require the new operator to apply for permit coverage as stated above. If the NOT and NOI are submitted as required under this provision, there will be no lapse in authorization for this facility.

5. If the owner or operator becomes aware that it failed to submit any relevant facts, or submitted incorrect information, in a NOI, the correct information must be provided to the executive director in a Notice of Change (NOC) within 14 days after discovery. If relevant information provided in the NOI changes (for example, phone number or P.O. Box number) a NOC must be submitted within 14 days of the change.
6. Operators of aquaculture facilities authorized under this general permit that intend or plan to expand facilities, production, number of discharge days, or other factors exist that would affect the level of authorization required under the terms of this permit, must either obtain the necessary and relevant authorization under this general permit, or obtain authorization under a separate individual or general TPDES permit prior to initiating those changes.
7. All NOIs, NOTs, and NOCs shall meet the requirements of 30 TAC § 305.44(a) (relating to Signatories to Applications).

Section D. Termination of Coverage

A permittee shall terminate coverage under this general permit through the submittal of a Notice of Termination (NOT), on a form approved by the executive director, when the operator of the facility changes, the discharge becomes authorized under an individual permit, the use of the property changes and is no longer subject to regulation under this general permit, or the discharge becomes unnecessary, is delayed, or is completed. Authorization to discharge terminates at midnight on the day that an NOT is postmarked for delivery to the TCEQ.

Section E. Authorization Under an Individual TPDES or TLAP Permit

1. When an individual permit is issued to a permittee currently authorized under this general permit, the permittee shall submit a NOT to the executive director. The authorization under this general permit will be terminated upon receipt of the NOT.
2. Discharges from facilities currently authorized by an individual TPDES or TLAP permit may only be authorized under this TPDES general permit if the following conditions are met:
   (a) the discharges meet the applicability and eligibility requirements for coverage under this general permit;
   (b) the current individual permit does not contain numeric effluent limitations which are more stringent than the numeric effluent limitations in this general permit or the current individual permit does not contain numeric effluent limitations that are not included in this general permit for the discharge (unless the discharges that resulted in the limitations have ceased and any contamination that resulted from these discharges has been removed or remediated);
   (c) the executive director has determined that continued coverage under an individual permit is not required based on consideration of a total maximum daily loading (TMDL) model, anti-backsliding policy, history of substantive non-compliance, or other site-specific considerations; and
   (d) a previous application or permit for the discharges has not been denied, terminated, or revoked by the executive director as a result of enforcement or water quality related concerns. The executive director may provide a waiver to this provision based on new circumstances at the facility or if the operations of the facility have since passed to a new operator.

Section F. Permit Expiration

1. This general permit is effective from the date of issuance for a term of five years, unless otherwise amended, revoked, or cancelled by the commission prior to that date. Authorizations for discharge under the provisions of this general permit may be issued until the expiration date of the permit. This general permit may be amended, revoked, or cancelled by the commission after notice and comment as provided by 30 TAC §§ 205.3 and 205.5.

2. If the commission publishes notice of a proposed reissuance of this general permit before its expiration date, the conditions of this general permit will remain in effect for the discharges that are currently authorized. This existing permit will not expire until the date on which the commission takes final action on the proposed permit reissuance. However, no new NOIs will be accepted for authorization under the existing general permit after the expiration date.
3. Upon issuance of the renewed or amended general permit, all facilities, including those covered under the expired general permit, shall submit an NOI in accordance with the requirements of the new permit, obtain authorization under a separate TPDES individual or general permit, or obtain coverage under a TLAP.
4. According to 30 TAC § 205.5 (d) (relating to Permit Duration, Amendment, and Renewal), if the commission has made a determination that the general permit will not be renewed at least 90 days before the expiration date, permittees authorized under this general permit shall submit an application for an individual permit before the expiration date. If the application for an individual permit is submitted before the general permit expiration date, authorization under this expiring general permit remains in effect until the issuance or denial of an individual permit.

Part III. Permit Requirements

Section A. Effluent Limitations

Facilities regulated under this general permit under Level II or Level III authorization are subject to the following numeric effluent limitations and monitoring frequencies.

1. Numeric effluent limitations applicable to all Level II and Level III authorized facilities:

Parameter	Daily Average Limitation	Daily Maximum Limitation	Sample Type	Monitoring Frequency[1]
Flow (MGD)	Report	Report	Estimate/Meter	1/day
Total Suspended Solids	N/A	90 mg/l	Grab	1/month
Inorganic Suspended Solids	N/A	Report (mg/l)	Grab	1/month

Parameter	Daily Average Limitation	Daily Maximum Limitation	Sample Type	Monitoring Frequency[1]
Total Residual Chlorine	N/A	0.1 mg/l	Grab	1/day [2]
pH (Standard Units)	6.0 minimum	9.0 maximum	Grab	1/week

[1]Monitoring frequency for Level II Authorization shall be once per six months except for flow monitoring which shall be conducted daily.
[2]Monitoring for total residual chlorine is required only when the effluent being discharged has been chlorinated.

2. Numeric effluent limitations applicable to all Level II and Level III authorized facilities discharging to perennial streams with a head water flow greater than 2.5 cubic feet per second (cfs) and to all other water bodies:

Parameter	Daily Average Limitation	Daily Maximum Limitation	Sample Type	Monitoring Frequency[1]
Dissolved Oxygen	5.0 mg/l minimum	N/A	Composite[2]	1/week
$CBOD_5$	N/A	250 lbs/day	Grab	1/month
Ammonia Nitrogen	N/A	2.0 mg/l	Grab	1/month

[1]Monitoring frequency for Level II Authorization shall be once per six months except for flow monitoring which shall be conducted daily.
[2]Four grab samples shall be collected and analyzed individually. The results of those analyses shall be averaged for reporting purposes. The first sample shall be taken within 30 minutes of initial discharge. Subsequent samples shall be taken at intervals of no less than two hours and no more than four hours apart with a minimum of four samples or until discharge is discontinued. At least one of the four samples shall be collected between 6:00 a.m. and 9:00 a.m. if discharge occurs within this time period.

3. Numeric effluent limitations applicable to all Level II and Level III authorized facilities discharging to perennial streams with a head-water flow less than 2.5 cfs:

Parameter	Daily Average Limitation	Daily Maximum Limitation	Sample Type	Monitoring Frequency[1]
Dissolved Oxygen	6.0 mg/l minimum	N/A	Composite[2]	1/week
$CBOD_5$	N/A	64 lbs/day	Grab	1/month
Ammonia Nitrogen	N/A	2.0 mg/l	Grab	1/month

[1]Monitoring frequency for Level II Authorization shall be once per six months except for flow monitoring which shall be conducted daily.
[2]Four grab samples shall be collected and analyzed individually. The results of those analyses shall be averaged for reporting purposes. The first sample shall be taken within 30 minutes of initial discharge. Subsequent samples shall be taken at intervals of no less than two hours and no more than four hours apart with a minimum of four samples or until discharge is discontinued. At least one of the four samples shall be collected between 6:00 a.m. and 9:00 a.m. if discharge occurs within this time period.

Section B. General Requirements

1. Any new facility required to obtain authorization under this general permit or an individual permit may not commence construction of any waste management unit without first receiving either authorization in accordance with this general permit, an individual TPDES permit, or authorization for the construction. Any facility with current authorization is not required to obtain additional authorization to construct any new waste management units.
2. There shall be no discharge of floating solids, no discharge of visible oil, nor shall the discharge cause any nuisance conditions affecting the public along the discharge route. The discharge shall not exhibit foaming of a persistent nature.
3. Drugs, Medications and Chemicals.
   (a) Drugs, medications and chemicals approved by the United States Environmental Protection Agency (EPA) or the United States Food and Drug Administration (FDA) for aquaculture use may be used in water that will be discharged. Treatment shall be limited to those aquatic species and to those purposes for which approval was granted. Treatment shall be used only as necessary, and only as directed on the product label. The water shall be diluted, held for a specific time, or neutralized prior to discharge as directed on the product label or as necessary to comply with 30 TAC Chapter 307 (relating to Texas Surface Water Quality Standards) or as needed to be below the concentration level used for a long-term static treatment, whichever is the lowest concentration. Records of all drugs, medications, and chemicals utilized for treatment shall be maintained on a monthly basis at the facility and shall be readily available for inspection by authorized representatives of the executive director for at least three years. Records shall include treatment concentrations, discharge volumes and dates, and a product label or Material Safety Data Sheet (MSDS) for each drug, medication, or chemical utilized.
   (b) Notification, outlined below, shall be provided to the TCEQ's Storm Water and Pretreatment Team, of the use of any investigational new animal drug (INAD) or any extralabel drug, as defined at 40 CFR 451.3 General Definitions, where such a use may lead to a discharge of the drug. Reporting is not required for an INAD or extralabel drug use that has been previously approved by FDA for a different species or disease if the INAD or extralabel use is at or below the approved dosage and involves similar conditions of use.
      (i) The permittee must provide a written report of an INAD's impending use within 7 days of agreeing or signing up to participate in an INAD study. The written report must identify the INAD to be used, method of use, the dosage, and the disease or condition the INAD is intended to treat.
      (ii) For INADs and extralabel drug uses, the permittee must provide an oral report as soon as possible, preferably in advance of use, but no later than 7 days after initiating use of that drug. The oral report must identify the drugs used, method of application, and the reason for using that drug.
      (iii) For INADs and extralabel drug uses, the permittee must provide a written report within 30 days after initiating use of that drug. The written report must identify the drug used and include: the reason for treatment, date(s) and time(s) of the addition (including duration), method of application; and the amount added.
   (c) Notification of the use of compounds that have undergone review by the FDA and have been determined to be drugs of low regulatory priority shall be provided using the requirements outlined for INADs and extralabel drugs in Part III. Section B.3.(b).
4. Any discharger authorized under this general permit engaged in the propagation and/or rearing of shrimp which exhibit one or more manifestations of disease, as defined in 31 TAC § 57.111 or § 69.75 shall immediately report the observations to the TCEQ's regional office and Wastewater Permitting Section (MC-148), and to the Texas Parks and Wildlife Department (TPWD), and shall comply with all the requirements of 31 TAC § 57.114 or § 69.77 as well as other actions deemed appropriate by the TPWD. The TPWD shall be notified immediately of the diagnosis. Any actions which are deemed as necessary by the discharger to prevent transmission of the disease to aquatic life endemic to water in the state shall be implemented as soon as possible. The executive director

may additionally require cessation of the discharge of effluent from infected portions of the facility as necessary to protect aquatic life in the receiving stream from potential adverse effects.

5. Facilities in possession of fish or shellfish shall notify the TCEQ regional office and Wastewater Permitting Section (MC-148) immediately upon a finding that the facility meets the quarantine conditions imposed by TPWD regulations. There shall be no discharge during the quarantine period, except in accordance with an Emergency Plan approved by the TPWD and following approval of the executive director. The executive director shall lift the prohibition on discharge to allow for implementation of the facility's Emergency Plan, in accordance with a permit from the TPWD, following the lifting of the quarantine condition by TPWD.
6. In the event a facility appears in imminent danger of overflow, flooding, or similar conditions that could either result in the release of exotic species that are regulated by the TPWD or that would result in the violation of a quarantine condition imposed by the commission or TPWD, the permittee may discharge effluent in excess of the permitted flow rates, but only to the extent necessary to comply with an Emergency Plan that is approved by the TPWD.
   (a) Effluent limitations, discharge flow limitations, and other effluent monitoring requirements of this permit shall be set aside during this activity.
   (b) Dischargers shall notify the appropriate TCEQ regional office at least 48 hours prior to initiating any action under an Emergency Plan in response to an emergency event whenever possible, such as landfall of a hurricane, and shall notify the regional office as soon as practicable following initiation of the Emergency Plan.
   (c) The discharger shall control discharges relating to initiation of the Emergency Plan in the most environmentally sound manner that is practicable. Within 30 days following initiation of the Emergency Plan, the discharger shall submit a written report to the appropriate TCEQ regional office that includes the following information:
      (i) the cause for initiation of the plan;
      (ii) actions taken to avoid or negate impacts of the discharge to the receiving stream;
      (iii) volumes of wastewater discharged;
      (iv) the dates that discharges occurred; and
      (v) general summary of receiving stream conditions at the time of the discharge.
   (d) It is the discharger's responsibility to demonstrate that the discharges were necessary and that conditions required initiation of the Emergency Plan.
7. Facilities authorized under this general permit shall be operated in such a manner as to prevent the creation of a nuisance or a condition of air pollution as mandated by Chapters 341 and 382 of the Texas Health and Safety Code.
8. All discharges shall comply with 30 TAC § 319.22 (relating to Quality Levels-Inland Waters) or shall comply with 30 TAC § 319.23 (relating to Quality Levels-Tidal Waters).
9. Dead aquatic species must be removed from fish hauling tanks and properly disposed of. Dead aquatic species may not be discharged into or adjacent to water in the state.

Section C. Groundwater Protection

1. All ponds whether constructed of earthen or other impervious material shall be designed, constructed, and operated so as to prevent groundwater contamination and to protect water in the State, pertaining to groundwater, as found in Chapter 26 of the Texas Water Code.
2. Soils used in the construction of a pond's embankment walls shall be free of foreign material such as brush, trees, and large rocks. All soil embankment walls shall be protected by a vegetative cover to the extent possible or other stabilizing material other than trees and shrubs to prevent erosion. Erosion stops and water seals shall be installed on all piping penetrating the embankments.
3. Waste management ponds and waste management units must be located a minimum horizontal distance from water wells, in accordance with 16 TAC Chapter 76 (relating to Water Well Drillers and Water Well Pump Installers). Where 16 TAC Chapter 76 does not apply, the distance to a water well shall be a minimum of 500 feet.

Section D. Waste Utilization and Disposal by Land Application of Wastewater and Pond Bottom Sludges.

1. Management of solid waste.
   (a) Facilities which generate industrial solid wastes, as defined in 30 TAC, § 335.1, shall comply with the provisions of 30 TAC Chapter 335 (relating to Industrial Solid Waste and Municipal Hazardous Waste). Solid wastes to which the requirements of 30 TAC Chapter 335 do not apply shall be disposed of in accordance with the Texas Health and Safety Code, Chapter 361.
   (b) The facility shall maintain management records for all sludge (or other waste) removed for disposal. Records must include the following, at a minimum:
      (i) volume of waste disposed of off-site;
      (ii) origin and general composition of waste;
      (iii) date(s) of disposal;
      (iv) identity of hauler or transporter;
      (v) location and total acreage of disposal site; and
      (vi) method of final disposal.

      The above records shall be maintained on a monthly basis and be available at the facility site for inspection by authorized representatives of the Texas Commission on Environmental Quality for at least five years.
   (c) All solid waste stockpiled or retained on-site shall be isolated from all run-on of storm water by dikes, terraces, berms, ditches, or other similar structures. The dike, terrace, berm, ditch, or similar structures shall be maintained so as to prevent run-on of the volume of rainfall generated by a 25-year, 24-hour storm event.
   (d) Adequate solid waste storage capacity shall be provided and be based upon waste production.
   (e) Removal of pond bottom sludges (or other solids) from production ponds or wastewater management or treatment ponds shall be conducted during favorable wind conditions that carry odors away from nearby receptors such as residences, businesses, and public buildings. At no time shall emissions from any activity create a nuisance.
   (f) When applying waste to land, a buffer area must be utilized around water wells to prevent the possibility of waste transport to groundwater via the well or well casing. Wastewater may not be applied closer than 100 feet from any private water well (utilized for domestic or irrigation use) and 500 feet from a water supply well.
2. Irrigation Requirements
   (a) Irrigation practices shall be designed and managed to prevent contamination of ground or surface waters and to prevent the occurrence of nuisance conditions. Tail water control facilities shall be provided, where necessary, to prevent the discharge of any wastewater that might drain from irrigated lands to water in the state and to reduce or minimize ponding or puddling of wastewater on the site. The hydraulic loading rate shall be designed based on crop needs in accordance with 30 TAC § 309.20 and applied in a manner to prevent excessive nitrogen application.
   (b) When applying wastewater to land, a buffer area must be utilized around water wells to prevent waste transport to groundwater via the well or well casing. Wastewater may not be applied closer than 100 feet from any private water well (utilized for domestic or irrigation use) and 500 feet from a water supply well.
   (c) The permittee shall maintain an operating log which records the volume of wastewater used for irrigation each day, the time at which each wastewater application period commences and terminates, and the actual surface area irrigated each day. The operating log shall be retained on site for a minimum period of five years for inspection by authorized representatives of the TCEQ.
   (d) No wastewater may be applied within 24 hours after a measured rainfall of 0.5 inches or greater, or to any zone containing standing water.

(e) The permittee shall maintain a perennial crop of vegetative cover over the irrigated area. The irrigated fields shall be mowed at least once each year or as necessary to prevent nuisance conditions, and all resulting hay shall be removed from the fields. Fertilizers or other nutrient sources may be used if necessary to maintain healthy vegetation on the irrigated fields.

(f) The permittee shall provide adequate maintenance of the irrigation system to ensure that the system is in good working condition.

(g) Storm water drainage shall be prevented from entering any irrigation holding ponds and prevented from running onto any irrigation tract.

(h) Level II facilities authorized under Part II. Section A.2.(c) which dispose of wastewater by irrigation and do not discharge directly to water in the state shall meet the following criteria:

(i) The facility shall comply with all irrigation requirements in Part III. Section D.2. of this permit.

(ii) The irrigation holding ponds shall provide for adequate storage to prevent overflow. The storage requirements of the irrigation holding ponds shall be based on a design rainfall year with return frequency of at least 25 years (the expected 25 year - one year rainfall, alternately the highest annual rainfall during the last 25 years of record may be used) and a normal monthly distribution, the application rate and cycle, the effluent available on a monthly basis, and evaporation losses in accordance with 30 TAC § 309.20.

(iii) There shall be no discharge of wastewater to surface water in the state.

(i) Level II facilities authorized under Part II. Section A.2.(c) which dispose of wastewater by evaporation ponds shall meet the following criteria:

(i) Evaporation ponds shall be sized to prohibit overflow. Evaporation ponds shall be sized using:

(1) The worst year for net evaporation (for a minimum period of record of 25 years) or other appropriate data (i.e. worst precipitation and worst pan/lake evaporation). The calculation should include the volume of effluent routed to the evaporation pond on a monthly basis for an entire year.

(2) The average net evaporation (for the entire period of record) or other appropriate data (i.e. average precipitation and average pan/lake evaporation). When two consecutive average years are reviewed, there should be no accumulation of water in the evaporation system. The calculation should include the volume of effluent routed to the evaporation pond on a monthly basis for an entire year.

(ii) Evaporation ponds shall be operated to maintain a minimum freeboard of two feet.

(iii) There shall be no discharge of wastewater to surface water in the state.

Section E. Required Best Management Practices (BMPs) and Specific Requirements for Discharge.

The following BMPs are required and shall be utilized to abate the discharge of suspended solids and other pollutants.

1. Dewatering of ponds shall be accomplished by discharge of the uppermost portion of the water column, when possible, to avoid discharge of disturbed bottom sediments.
2. The reuse of pond wastewater should occur to the maximum extent possible. Pond wastewater shall be recirculated or reused wherever appropriate and cost effective.
3. Dead aquatic species shall be routinely removed from ponds and properly disposed of as is required to prevent contamination of waters in the state and to prevent a nuisance or public health hazard.
4. Discharges shall be controlled such that flow rates minimize any increase in turbidity of the receiving stream due to erosion or suspension of sediments.
5. Discharges shall not cause substantial and persistent changes from ambient conditions of turbidity and color.
6. Earthen levees and dikes shall be protected by a vegetative cover to the extent possible or other stabilizing material other than trees and shrubs to prevent erosion. Vegetation, when utilized, shall be maintained at all times through mowing, watering, and/or other suitable maintenance practices.
7. Removal of accumulated solids from raceways and fabricated tanks must be conducted in a manner to prevent exceedance of the effluent limitations located in Part III. Section A. of this permit.

Part IV. Discharge Monitoring and Reporting Requirements

Section A. Sampling Requirements

1. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
2. The sampling point to be used to determine compliance with the monitoring conditions of this general permit must be downstream of any treatment unit used and prior to commingling with the receiving waters.
3. All samples must be collected according to the latest edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by the American Public Health Association, the American Waterworks Association, and the Water Pollution Control Federation), the Environmental Protection Agency's, "Methods for Chemical Analysis of Water and Wastes" (1979), or the Environmental Protection Agency's, "Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents" (1973).
4. Sample containers, holding times, preservation methods, and the methods of analyses for effluent samples shall meet the requirements in 40 Code of Federal Regulations Part 136 (as amended), or shall be in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater" referenced above.

Section B. Reporting Requirements

1. Monitoring results shall be provided at the intervals specified in the permit on an approved Discharge Monitoring Report (DMR) (EPA Form 3320-1). Effluent sampling shall be conducted in accordance wi8th the monitoring frequencies specified in this general permit. DMRs shall be submitted on a monthly basis to the TCEQ's Enforcement Division (MC 224). The DMR for any given month shall be due by the 20th day of the following month for each discharge that is described by this permit whether or not a discharge is made for the month.
2. The records of all monitoring activities shall be maintained at the facility and shall be readily available for inspection by authorized representatives of the TCEQ for a minimum period of five years.

   Records of monitoring activities shall include:

   (a) date, time and place of sample or measurement;
   (b) identity of individual who collected the sample or made the measurement;
   (c) date of analysis;
   (d) identity of the individual and laboratory who performed the analysis;
   (e) the technique or method of analysis; and
   (f) the results of the analysis or measurement.
3. Noncompliance Notification
   (a) According to 30 TAC § 305.125(9) any noncompliance that may endanger human health or safety, or the environment, shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by electronic facsimile transmission to the TCEQ regional office within 24 hours of becoming aware of the noncompliance. A written report shall be provided by the permittee to the TCEQ regional office and to the TCEQ Enforcement Division (MC-224) within five working days of becoming aware of the noncompliance. The written report shall contain:
      (i) a description of the noncompliance and its cause;
      (ii) the potential danger to human health or safety, or the environment;
      (iii) the period of noncompliance, including exact dates and times;
      (iv) if the noncompliance has not been corrected, the anticipated time it is expected to continue;
      (v) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

(b) Any noncompliance other than those specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible.

Part V. Standard Permit Conditions

1. The discharger has a duty to comply with all conditions in this general permit. Failure to comply with any permit condition is a violation of the permit and statutes under which it was issued and is grounds for enforcement action, for terminating coverage under this general permit, or for requiring a discharger to apply for and obtain an individual TPDES permit or TLAP.
2. It is not a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of the general permit.
3. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) installed or used by the discharger to achieve compliance with the permit conditions. Proper operation and maintenance also includes adequate laboratory and process controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the general permit.
4. The discharger shall furnish any information, at the request of the executive director, upon request, that is necessary to determine whether cause exists for revoking, suspending, or terminating authorization under this general permit. The requested information must be provided within a reasonable time frame and in no case later than 30 days from the date of the request.
5. The discharger shall give notice to the executive director before physical alterations or additions to the permitted facility if such alterations or additions would result in a violation of permit requirements.
6. Inspection and entry shall be allowed under Chapters 26-28 of the Texas Water Code, Health and Safety Code §§ 361.032-361.033 and 361.037, and Title 40 of the Code of Federal Regulations (CFR) § 122.41(i). The statement in Texas Water Code § 26.014 that commission entry of a facility shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection is not grounds for denial or restriction of entry to any part of the facility, but merely describes the commission's duty to observe appropriate rules and regulations during an inspection.
7. Any noncompliance other than that specified in this general permit, or any required information not submitted or submitted incorrectly, shall be reported to the executive director as promptly as possible.
8. All reports and other information requested by the executive director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports)
9. Authorization under this general permit may be suspended or revoked for reasons stated in 30 TAC § 205.4 (relating to Authorizations and Notices of Intent). The filing of a notification by the discharger of planned changes or anticipated noncompliance does not stay any permit condition.
10. Where the discharger becomes aware that it failed to submit any relevant facts in a NOI, or submitted incorrect information in a NOI or in any report to the executive director, it shall promptly submit such facts or information.
11. The discharger is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§ 26.136, 26.212, and 26.213 for violations including but not limited to the following:
    (a) negligently or knowingly violating CWA, §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under CWA, § 402, or any requirement imposed in a pretreatment program approved under CWA, §§ 402(a)(3) or 402(b)(8);
    (b) falsifying, tampering with, or knowingly rendering inaccurate any monitoring device or method required to be maintained under a permit; or

(c) knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance.

12. Authorization under this general permit does not convey property or water rights of any sort and does not grant any exclusive privilege.
13. The discharger shall retain all records related to the application, monitoring or certification for a period of five years.

Part VI. Executive Director Denial or Suspension of Authorization

1. The executive director may deny a NOI to discharge under this general permit based on the potential or actual adverse impact. A determination of potential adverse impact may arise from consideration of such factors as proposed flow rate, production rate, or nature of the receiving stream. The executive director shall also consider any sensitive aquatic habitat in the coastal zone identified in the general guidelines developed by TPWD. In making a determination of potential adverse impacts, the executive director may also consider other factors, as necessary.
2. Denial of a NOI or suspension of a discharger's authorization under this general permit shall also be conducted in accordance with commission rules under 30 TAC Chapter 205 (relating to General Permits for Waste Discharges), that were in place at the time the NOI was submitted for coverage.

Part VII. Enforcement

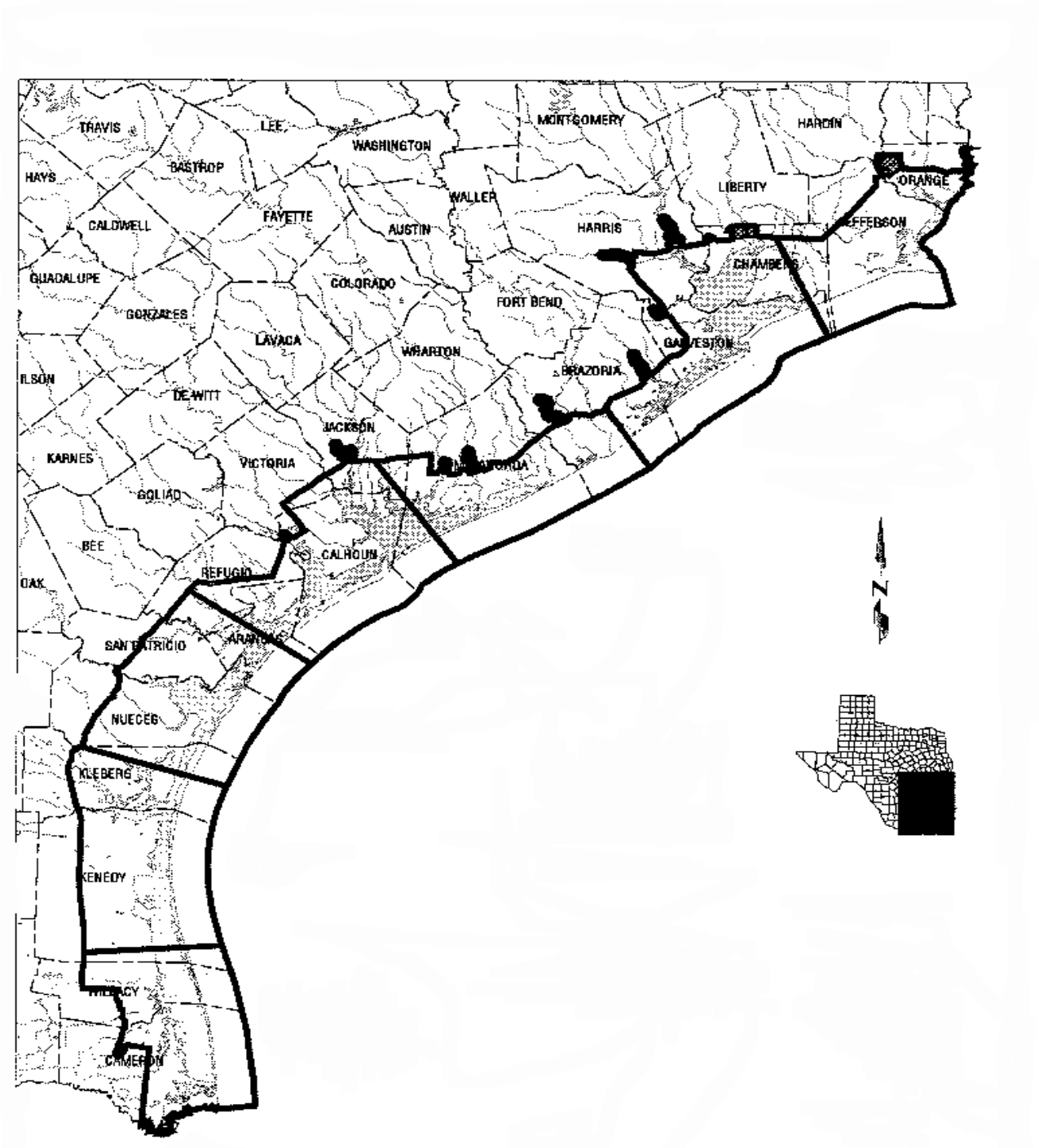
If any discharger or facility regulated by this general permit fails to comply with the terms of this general permit, the executive director may take enforcement action as provided by Texas Water Code, § 26.136 and in accordance with commission rules relating to enforcement actions.

Part VIII. Fees

A NOI submitted to the executive director will include an application fee of $100.00. Additionally, the executive director will assess an annual water quality fee under Texas Water Code, § 26.0291, in accordance with the following fee rate schedule:

1. Level I Authorization
   No annual water quality fee will be assessed.
2. Level II Authorization
   An annual water quality fee of $100 will be assessed.
3. Level III Authorization
   An annual water quality fee of $250 will be assessed.

FIGURE 1 - COASTAL ZONE



NOTICE Of AUTHORIZATION
By GENERAL PERMIT

Texas Commission on Environmental Quality (TCEQ)
Texas Pollutant Discharge Elimination System (TPDES)
GENERAL PERMIT TXG130000

This operation qualifies for, and is authorized under, Part II.A.1 of Texas Pollutant Discharge Elimination System (TPDES) general permit TXG130000, a general permit authorizing discharges from aquaculture and aquaculture-related activities. This operation qualifies under the following description and criteria:

- ~ Retail bait dealer.
- ~ Crawfish production in conjunction with rice farming.
- ~ Ponds used as "pay lakes".
- ~ Facility that exclusively utilizes closed ponds.
- ~ Public or commercial aquarium and aquarium supplies.
- ~ Live fish hauler.
- ~ An aquaculture facility that utilizes cages or other enclosures placed within public waters for the propagation or rearing of aquatic species with a harvest weight equal to or less than 20,000 pounds.
- ~ A facility that only temporarily holds and does not feed aquatic species.

Contact Name and Phone Number	Site Address, or Description of the Location

I _____ (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part II.A.1. of TPDES General Permit TXG130000 and agree to comply with the terms of this permit. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title Date

FEES:

Note: There are changes pending for Water Rights permit fees. Details from the Water Supply Division will be forthcoming. Until those changes are known the current fee structure is in place:

Chapter 21: Water Quality Fees §§21.1 - 21.4 Effective October 6, 2002 §21.1. Purpose and Scope. (a) It is the purpose of this chapter to implement the Water Quality Fee Program. (b) An annual fee will be assessed against wastewater permit holders authorized to treat or discharge wastewater into or adjacent to the waters in the state under Texas Water Code (TWC), Chapter 26, and against each person holding a right acquired under authority of TWC, Chapter 11, and the rules of the commission to impound, divert, or use state water, except for those exemptions specified in §21.3(c) of this chapter (relating to Fee Assessment). Only one fee is assessed for each permit. (c) The fees to be assessed under this chapter do not apply to general permits. (d) The fee shall be in proportion to the level of authorization for use of state water or for the treatment or discharge of wastewater. (e) All resulting revenue shall be deposited in the Water Resources Management Account for the purpose of supplementing other revenue appropriated by the legislature to pay the expenses of the commission in the following programs: (1) Water quality administration, including, but not limited to, inspection of wastewater treatment facilities and enforcement of the provisions of TWC, Chapter 26, the rules and orders of the commission related to wastewater discharges and waste treatment facilities, and the provisions of commission permits governing wastewater discharges and wastewater treatment facilities; (2) The Texas Clean Rivers Program, under TWC, §26.0135, which monitors and assesses water quality conditions that support water quality management decisions necessary to maintain and improve the quality of the state's water resources (as defined in TWC, §26.001(5)); and (3) Any other water resource management programs reasonably related to the activities of the persons required to pay a fee under TWC, §26.0291. Adopted September 13, 2002 Effective October 6, 2002.

1. Aquaculture - The commercial propagation and/or rearing of aquatic species utilizing ponds, lakes, fabricated tanks and raceways, or other similar structures. (2) Flow - The total by volume of all wastewater discharges authorized under a permit issued in accordance with Texas Water Code (TWC), Chapter 26, expressed in order of preference, as an average flow per day, an annual average, a maximum flow per day, or an annual maximum, exclusive of variable or occasional storm water discharges. Generally, the flow amount used to calculate fees is the sum of the volumes of discharge for all outfalls of a facility, but excludes internal outfalls. However, for those facilities for which permit limitations on the volumes of discharge apply only to internal outfalls, the flow amount used to calculate fees is the sum of the volumes of discharge for all internal outfalls of the facility, exclusive of variable or occasional storm water discharges. (3) Flow type - (A) Contaminated - Sanitary wastewater, process wastewater flows, or any mixed wastewaters containing more than 10% process wastewaters, or flows containing more than one million gallons per day process wastewater regardless of the percent of total comprised of process wastewater. (B) Uncontaminated - Non-contact cooling water or mixed flows containing not more than one million gallons per day of process wastewater, with the overall mixture being at least 90% non-contact cooling water. (4) Inactive permit - A permit which authorizes a waste treatment facility which is not yet operational or where operation has been suspended, and where the commission has designated the permit as inactive. (5) Land application (retention) permit - A permit that does not authorize the discharge of wastewater into surface waters in the state, including, but not limited to, permits for systems with evaporation ponds or irrigation systems. (6) Major permit - A permit designated as a major permit, by either EPA or the commission and subject to provisions of the National Pollutant Discharge Elimination System or Texas Pollutant Discharge Elimination System's permit authority. (7) Parameter - A variable that defines a set of physical properties whose values determine the pollution potential for a waste discharge. (8) Report only permit - A permit which authorizes the variable or occasional discharge of wastewaters with a requirement that the volume of discharge be reported, but without any limitation on the volume of discharge. (9) State water - The water of the ordinary flow, underflow, and tides of every flowing river, natural stream, and lake, and of every bay or arm of the Gulf of Mexico, and the storm water, floodwater, and rainwater of every river, natural stream, and watercourse in the state. State water also includes water which is imported from any source outside the boundaries of the state for use in the state and which is transported through the beds and banks

of any navigable stream within the state or by utilizing any facilities owned or operated by the state. Additionally, state water injected into the ground for aquifer storage and recovery project remains state water. State water does not include percolating groundwater, nor does it include diffuse surface rainfall runoff, groundwater seepage, or spring water before it reaches a watercourse. (10) Storm water authorization - Some individual permits authorize the variable or occasional discharge of accumulated storm water and storm water runoff, but without any specific limitation on the volume of discharge. Storm water discharge may be the only discharge authorized in a permit, or it may be included in addition to other parameters. (11) Toxicity rating - A graduated rating, with Groups I - VI, assigned to an industrial permit based on the source(s) of wastewater, the standard industrial classification of the facility, and the specific type of operation. (12) Traditional pollutants - Certain parameters typically found in wastewater permits, specifically oxygen demand (biochemical oxygen demand (BOD), chemical oxygen demand (COD), total organic carbon (TOC)), total suspended solids (TSS), and ammonia (NH3). (13) Uses of state water - Types of use of surface water authorized by water rights under TWC, Chapter 11. (A) Agricultural use - Any use or activity involving agriculture, including irrigation. The definition of "agriculture use" is the same as in TWC, §11.002(12), as follows: (i) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers; (ii) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower; (iii) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value; (iv) raising or keeping equine animals, wildlife management; and (v) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purposes of participating in any governmental program or normal crop or livestock rotation procedure. (B) Consumptive use - The use of state water for domestic and municipal, industrial, agricultural, or mining purposes, consistent with the meaning of these uses for which water may be appropriated under TWC, Chapter 11. (C) Hydropower use - The use of water for hydroelectric and hydromechanical power and for other mechanical devices of like nature. (D) Industrial use - The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, including, without limitation, commercial feedlot operations, commercial fish and shellfish production, and the development of power by means other than hydroelectric. (E) Irrigation use - The use of state water for the irrigation of crops, trees, and pastureland including, but not limited to golf courses and parks that do not receive water through a municipal distribution system. This use is now part of the definition of agriculture use in TWC, §11.002(12). (F) Mariculture use - The propagation and rearing of aquatic species, including shrimp, other crustaceans, finfish, mollusks, and other similar creatures in a controlled environment using brackish or marine water. This use is exempt from the need for a water right. (G) Mining use - The use of state water for mining processes including hydraulic use, drilling, washing sand and gravel, and oil field repressuring. (H) Municipal - The use of potable water within a community or municipality and its environs for domestic, recreational, commercial, or industrial purposes or for the watering of golf courses, parks and parkways, or the use of reclaimed water in lieu of potable water for the preceding purposes or the application of municipal sewage effluent on land, pursuant to a TWC, Chapter 26, permit where: (i) the application site is land owned or leased by the Chapter 26 permit holder; or (ii) the application site is within an area for which the commission has adopted a no-discharge rule. (I) Non-consumptive uses - The use of state water for those purposes not otherwise designated as consumptive uses under this section, including hydroelectric power, navigation, non-consumptive recreation, and other beneficial uses, consistent with the meaning of these uses and for which water may be appropriated under TWC, Chapter 11. (J) Other use - Any beneficial use of state water not otherwise defined herein. (K) Recharge - The use of a surface source of state water for injection into an aquifer, or for increasing the amount of natural recharge to an underground aquifer. (L) Recreational use - The use of water impounded in or diverted or released from a reservoir or watercourse for fishing, swimming, water skiing, boating, hunting, and other forms of water recreation, including aquatic and wildlife enjoyment, and aesthetic land enhancement of a subdivision, golf course, or similar development. (14) Wastewater permit - An order issued by the commission in accordance with the procedures prescribed by TWC, Chapter 26, establishing the treatment which shall be given to wastes being discharged into or adjacent to any water in the

state to preserve and enhance the quality of the water and specifying the conditions under which the discharge may be made, and including those permits issued under the authority of TWC, Chapter 26, and other statutory provisions (such as the Texas Health and Safety Code, Chapter 361) for the treatment or discharge of wastewater. For the purpose of this subchapter, the term "permit" shall include any other authorization for the treatment or discharge of wastewater, including permits by rule and registrations and similar authorizations other than general permits. (A) Individual permit - A wastewater permit, as defined in TWC, §26.001, including registrations and permits by rule, issued by the commission or the executive director to a specific person or persons in accordance with the procedures prescribed in TWC, Chapter 26 (other than TWC, §26.040). (B) General permit -- A wastewater permit issued under the provisions of §205.1 of this title (relating to Definitions) authorizing the discharge of waste into or adjacent to water in the state for one or more categories of waste discharge within a geographical area of the state or the entire state as provided by TWC, §26.040. (15) Water right -- A right acquired under authority of TWC, Chapter 11 and the rules of the commission to impound, divert, store, convey, or use state water. (b) Abbreviations. The following abbreviations apply to this chapter. (1) (lb/day) - Pounds per day. (2) mgd – Million gallons per day. (3) mg/l - Milligrams per liter. For fee calculations, mg/l are converted to pounds per day (lb/day) using mg/l multiplied by flow volume in mgd, and multiplied by 8.34 equals lb/day. (4) SIC - Standard Industrial Classification assigned to a facility generating wastewater. Adopted September 13, 2002 Effective October 6, 2002 §21.3. Fee Assessment: (a) The fee calculation is based on the authorized limits contained in wastewater permits and water rights as of September 1 each year, without regard to the actual amount or quality of effluent discharged or the actual amount of water used. (b) Assessment for wastewater permits. (1) An annual fee is assessed against each person holding a wastewater permit. A separate fee is assessed for each wastewater permit. (2) The maximum fee which may be assessed any permit is $75,000, except that the maximum for an aquaculture permit is $5,000. The minimum fee for an active permit is $800. The minimum fee for an inactive permit is $400. (3) In assessing a fee under this chapter, the commission considers the following factors: (A) flow volume, and type; (B) traditional pollutants; (C) toxicity rating; (D) storm water discharge; (E) major designation; (F) active or inactive status; (G) discharge or retention; (H) the designated uses and ranking classification of waters affected by waste discharges; and (I) the costs of administering the following commission programs: (i) water quality administration, including inspection of waste treatment facilities and enforcement of the provisions of Texas Water Code (TWC), Chapter 26, the rules and orders of the commission, and the provisions of commission permits governing waste discharges and waste treatment facilities; (ii) the Texas Clean Rivers Program, under TWC, §26.0135, which monitors and assesses water quality conditions that support water quality management decisions necessary to maintain and improve the quality of the state's water resources (as defined in TWC, §26.001 (5)). (4) For the purpose of fee calculation, chemical oxygen demand (COD) and total organic carbon (TOC) are converted to biochemical oxygen demand (BOD) values and the highest value is used for fee calculation. The conversion rate for TOC is three pounds of TOC is equal to one pound of BOD (3:1). The conversion rate for COD is eight pounds of COD is equal to one pound of BOD (8:1). (5) Fee rate schedule. Except as provided in paragraph (6) of this subsection, the fee shall be determined as the sum of the following factors: (A) contaminated flow, $700 per mgd; (B) uncontaminated flow, $10 per mgd; (C) traditional pollutants, $15 per pound per day; (D) toxic rating for industrial discharges: (i) Group I, $200; (ii) Group II, $700; (iii) Group III, $1,050; (iv) Group IV, $1,575; (v) Group V, $3,150; and (vi) Group VI, $6,300; (E) major permit designation, $2,000; and (F) storm water authorization, $500. (6) For the types of permits listed in this paragraph, these additional guidelines will apply in determining the fee assessment. (A) Land application (retention) permits. The fee assessed a land application permit shall be 50% of that calculated under paragraph (5) of this subsection. However, in no event shall the fee for an active land application permit be less than $800 per year. (B) Inactive permits. The fee assessed an inactive permit shall be 50% of that calculated under paragraph (5) of this subsection. In the event an inactive permit is for a land application operation, the fee assessed shall be 25% of that calculated under paragraph (5) of this subsection. However, in no event shall the fee for an inactive permit be less than $400 per year. (C) Storm water only permits. The fee for an active permit that authorizes discharge of storm water only, with no other wastewater, is $500. (D) Aquaculture permits. (i) In

determining the flow volume to be used in fee calculation for an aquaculture production facility under paragraph (5) of this subsection, the flow for the facility shall be the facility's permitted annual average flow, or the facility's projected annual average flow if the permit does not have an annual average flow limitation. (ii) If the facility's permit does not have an annual average flow limitation, the facility's projected annual average flow for the upcoming period from September 1 to August 31 shall be submitted to the executive director by June 30 preceding the fee year and shall be signed and certified as required by §305.44 of this title (relating to Signatories to Applications), and that amount will be used for fee calculation. (iii) The annual fee for aquaculture production facilities shall not exceed $5,000. (7) A multiplier may be applied to adjust the total fee per permit, which would also adjust the total assessment for all permits under the Water Quality Fee Program. At the time of initial implementation, the multiplier is set at 1.0, with no impact on the fees. (c) Assessment for water rights. (1) An annual fee is assessed against each person holding a water right, except for those exemptions specified in this section. A separate fee is assessed for each water right. These fees do not apply to water uses, including domestic and livestock use, which are exempt from the need for authorization from the commission under TWC, Chapter 11. (2) This fee will apply to all municipal or industrial water rights, or portions thereof, not directly associated with a facility or operation which is assessed a fee under subsection (b) of this section, and to all other types of water rights except agriculture water rights and certain hydroelectric water rights described in paragraph (6) of this subsection. (3) The fee for each water right authorizing diversion of more than 250 acre-feet per year for consumptive use shall be $.22 per acre-foot up to 20,000 acre-feet, and $.08 per acre-foot thereafter. (4) An authorization to impound water will be assessed a fee only when there is no associated consumptive use authorized, and then the fee will be calculated at the nonconsumptive rate described in paragraph (5) of this subsection. (5) Except for water rights for hydropower purposes, the fee shall be $.021 per acre-foot for water rights for non-consumptive use above 2,500 acre-feet per year, up to 50,000 acre-feet, and $.0007 per acre-foot thereafter. (6) The fee for water rights for hydropower purposes shall be $.04 per acre-foot per year up to 100,000 acre-feet, and $.004 per acre-foot thereafter. This fee shall not be assessed against a holder of a non-priority hydroelectric right who owns or operates privately owned facilities that collectively have a capacity of less than two megawatts. (7) Water which is authorized in a water right for consumptive use, but which is designated by a provision in the water right as unavailable for use, may be exempted from the assessment of a fee under paragraph (3) of this subsection. Adopted September 13, 2002 Effective October 6, 2002 §21.4. Fee Period, Adjustment, and Payment. (a) The annual water quality fee assessment is for the period from September 1 through August 31, and is based on the authorized permit or water right limits as of September 1 each year, as stated in §21.3(a) of this title (relating to Fee Assessment). (b) New or amended wastewater permits and water rights granted after September 1 will be billed for the new or amended authorization in the annual assessment for the fee year subsequent to the fee year in which the new authorization was granted. (c) Cancellation or revocation, whether by voluntary action on the part of the holder of a wastewater permit or a water right, or as a result of proceedings initiated by the commission, will not constitute grounds for a change in the amount of a water quality fee previously assessed, or for a refund of fees previously paid. (d) Transfer of ownership of a wastewater permit or a water right will not constitute grounds for a change in the amount of a water quality fee previously assessed, or for a refund of fees previously paid. The commission shall not process a transfer request until all annual fees owed the commission by the applicant, or for the permitted facility, are paid in full. Any wastewater permit holder or water right holder to whom a permit is transferred shall be liable for payment of any associated outstanding fees and penalties owed the commission. (e) Annual water quality fees are payable within 30 days of the billing date each year. Fees shall be paid by check, certified check, electronic funds transfer, or money order payable to the Texas Commission on Environmental Quality (to be effective September 1, 2002). (f) Water quality fees are payable regardless of whether the permitted wastewater facility actually is constructed or in operation, or whether any authorized water right facility has been constructed or diversion of state water made. (g) Owners or operators of a facility failing to make payment of the fees imposed under this chapter when due shall be assessed penalties and interest in accordance with Chapter 12 of this title (relating to Payment of Fees). In addition, failure to make payment in accordance with this chapter constitutes a violation subject to

enforcement pursuant to the provisions of Texas Water Code, §26.123. Adopted September 13, 2002. Effective October 6, 2002."

The last 24 pages consisted of TCEQ's General Aquaculture Permit and schedule of fees.

Appendix 3

Letter from Texas Commission on Environmental Quality concerning its Small Business and Local Government Assistance (SBLGA) Program

April 4, 2005

From: TCEQ

Subject: A Free and Confidential Site Visit

The Texas Commission on Environmental Quality's (TCEQ) Small Business and Local Government Assistance (SBLGA) program offers a free and confidential service that allows participants to have an environmental consultant evaluate their site to ensure environmental compliance.

Through the C2 Partnership, small business owners and local governments who take advantage of site visits can earn a **one-year exemption from routine investigations.** In addition to the TCEQ, the U.S. Environmental Protection Agency (EPA), the City of Dallas, the City of Fort Worth, the City of Houston, the City of El Paso, Harris County Pollution Control, and Galveston County Health District also recognize this partnership.

Feel free to contact Carrie Stefanelli at 512-239-2213 or contact our hotline at 800-447-2827 if you require additional information.

Sincerely,

Tamra-Shae Oatman, Manager

Small Business and Local Government Assistance

Appendix 4

Details of a Specific Example of an Offshore Project in Texas

To give a specific example of an offshore aquaculture project in Texas, the Gulf Marine Institute of Technology (GMIT) will be used. GMIT is a 501(c)(3) nonprofit research institute that acquired an oil production platform off the Texas coast from Sea Gull Marine and surface rights from Tenneco. GMIT acquired a 115 ft powered barge with 7.5-ton crane and service vessel- 27 ft Silverton water taxi. The permitted site consists of 500 acres, a main platform with 2 decks, each 40 m X 24 m, and the main deck is 25 meters above water. Water depth on the platform legs is 24 meters. They have two 250 kW diesel generators on the platform, sleeping quarters for 18, a galley and office. There are 3 satellite platforms with 2 decks on each platform measuring 14 m X 18 m.

The first attempt by GMIT in Texas was made on a different platform in federal waters 12 miles off Galveston. The problem in federal waters was that the U.S. Department of Interior, Minerals Management Service (MMS), with offices in New Orleans, La., would not release the original owner of an oil platform from the liability in Texas. The Outer Continental Shelf Lands Act established jurisdiction over submerged lands on the outer continental shelf and the Minerals Management Service has authority over lease sites on the shelf. Consult the MMS if the project will be near or attached to an oil or gas platform or if ownership will be transferred. A permit for platform removal approval or transfer of ownership may be necessary. If the mariculture company proposing to do a project (real life example, Gulf Marine Institute of Technology (GMIT), Gulf Breeze, Fla.) failed, for example, MMS would still require the original owner (real life example, Mitchell Energies Platform, 12 miles off Galveston, Texas in federal waters) to pay for dismantling the rig. Even though GMIT offered to obtain an irrevocable bond to insure the platform's removal, MMS still would not release Mitchell; therefore the transfer failed.

GMIT then moved into state waters, almost 10 miles off Port O'Connor, Texas and acquired a platform from Sea Gull Marine and surface lease from Tenneco. GMIT was given approximately $1.8 million to take responsibility of the platform. GMIT obtained a $2.6 million irrevocable bond to insure the platform's removal for $139,000; upgraded two donated boats to service the platform; and spent considerable money on attorneys' fees and court fees. When permitting failed in Texas waters, GMIT sued the Texas General Land Office (GLO) and the Texas State Attorney General's Office handled the case for the State of Texas. GMIT won the court case in Matagorda County, but the state appealed. GMIT won in the appeal case in district court in Corpus Christi, but the state appealed again and the case went before the State Supreme Court. GMIT won that settlement, which caused the Matagorda District Court to rule in favor of GMIT on Aug. 4, 2005. See the Court judgment attached below dated Aug. 4, 2005. GMIT had to sell its barge to pay some of the bills and has a suit pending for damages against the state of Texas. The Judge was still reviewing the request for damages as of Oct. 14, 2005 according to Ericsson.

During the state permitting effort GMIT obtained the following permits:

Texas General Land Office (GLO), Surface Lease from Tenneco #860161 (Sept 98).

US Corp of Engineers permit #11830 (9) issued 6/99.

Approval received from Texas Coastal Coordination Council (Dewhurst-Calnan, 4/99).

TNRCC (Now TCEQ) Discharge permit #04095 (10/2000).

Texas Dept. of Agriculture, aquaculture permit #293420 (11/2000).

GMIT obtained a $2.6 million irrevocable bond for GLO on Block 526-L, Matagorda County, off Port O'Connor.

As relates to the GLO lease issue, the Thirteenth District Court of Texas, Corpus Christi ruled on July 12, 2001 in GMIT's favor concluding the following: "because of the actions of Mauro and Dewhurst during and after the execution of the assignment (surface lease from Tenneco to GMIT), the forfeiture provision was waived and the State is stopped from terminating the assignment/lease by virtue of the two wells having been plugged and abandoned." The court ruling went on to say, "Dewhurst erroneously believes that the Assignment is not a contract and that his negotiations with GMIT were to form an entirely new contract.

The Assignment is the contract which GMIT and Mauro agreed to amend to make it more compatible with the proposed mariculture operations, but they just did not memorialize the amendment before Mauro left office." Finally, the court ruled, "As a consequence, now Dewhurst cannot insist on the forfeiture provision and GMIT is entitled to a declaratory judgment: (1) declaring that the forfeiture provision in the lease cannot be enforced by Dewhurst or the State for the reasons above set forth, and (2) declaring that a reasonable construction of the lease term is that it did not end at the time the two wells were plugged and abandoned by agreement but shall continue for 50 years beginning on August 27, 1986, or until GMIT ceases its mariculture operations thereon." This is strong and conclusive language that the GLO surface lease for the platform is valid to GMIT for mariculture purposes for another 31 years. The only thing left on this issue was to finalize the legal paperwork with the State. The lease issue appeared to be over, however, the State appealed again and the Supreme Court ruled in favor of GMIT. GMIT won the appeal to the Supreme Court that recently resulted in the Matagorda court judge granting GMIT clear title to the platforms and balance of the 50-year land lease now converted for mariculture purposes.

According to GMIT, new ACOE, EPA and TCEQ permits are in the process of being issued for a new 5-year period at the platform site. GMIT has built a prototype marine nursery system in Gulf Breeze, Florida and operated the system with cobia and tilapia before hurricane Ivan. Since the destruction of their greenhouse facility, they have disassembled the nursery and they are hoping to move it onto the main platform when new funding is obtained.

According to John Ericsson, Managing Director, Gulf Marine Institute of Technology, “so far we have been politically shot and left for dead by Dewhurst while supported by the State Attorney office, hit directly by 2 hurricanes—Ivan and Dennis, told that the platforms belonged to the state of Texas, that the EPA did not have jurisdiction over the platform site by the TCEQ—while the EPA still says the TCEQ has no authority over the site. The ACOE originally said we could not get a Section 10 permit. We have won all these important battles for the development of offshore mariculture permitting with and without platforms in Texas and Alabama. Florida may be next? We have 5 Bridgestone sea cage systems, one AKVA automatic feeding system for 20 sea cages, a marine nursery system ready for deployment and the ambition to make this industry called "mariculture" a success despite spending over $5.0 million dollars and 16 years fussing with the state and federal bureaucracy run by people who know little about this offshore business.”

Cause No. 00-J-0292-C

GULF MARINE INSTITUTE	§	IN THE DISTRICT COURT OF
	§	
vs.	§	MATAGORDA COUNTY, TEXAS
	§	
JERRY PATTERSON	§	130th JUDICIAL DISTRICT COURT

JUDGMENT

On January 3, 2005, the parties appeared and announced ready for trial. Plaintiff is Gulf Marine Institute of Technology, Inc. and Plaintiff/Intervenor is Bio-Marine Technologies, Inc. (collectively, "GMIT"). Defendant is Jerry Patterson, in his official capacity as Commissioner of the Texas General Land Office ("Commissioner").

The Court determined it had jurisdiction over the case and the parties. Kaye Rollins, official court reporter, made a record of the proceedings.

On agreed motion by all parties, the Court bifurcated the trial into first, a liability phase and then, if necessary, a damages phase. GMIT waived on the record all claims made, except for (1) a declaratory judgment for a valid, existing contract, and (2) a compensable taking under Tex. Const. art 1, § 17. The parties waived jury trial and submitted all fact and legal questions to the Court. The Court heard evidence and argument and makes the following determination:

It is ORDERED and the Court hereby declares that GMIT has a valid contract for the use of the property that is the subject of this litigation for mariculture research facility and for related operations and that the lease continues for 50 years after August 27, 1986, or until GMIT ceases such mariculture operations.

It is further ORDERED that GMIT take nothing on its claims against Commissioner for declaratory judgment, takings under Tex. Const. art 1, § 17.

It is further ORDERED that a trial by jury on damages, if any, incurred by Plaintiff and Intervenor shall be heard on September 26, 2005 at 9:00 p.m.

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All other relief presented and requested by either party in this first phase of the bifurcated trial is DENIED.

Signed: Aug. 4, 2005.

Judge Presiding

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Other entities are discouraged when they see the permitting problems that GMIT has incurred offshore in both federal and state waters. This illustrates why there are still large obstacles to overcome before offshore aquaculture can grow in Texas.

Appendix 5

TPWD Exotic Species Rules for 2005

NATURAL RESOURCES AND CONSERVATION

PART 2 TEXAS PARKS AND WILDLIFE DEPARTMENT

CHAPTER 57 FISHERIES

SUBCHAPTER A HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS

SHELLFISH

RULE §57.111 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Aquaculture or fish farming--The business of producing and selling cultured species raised in private facilities.

(2) Certified Inspector--An employee of the Texas Parks and Wildlife Department or the Texas A&M Sea Grant College Program who has satisfactorily completed a department approved course in clinical analysis of shellfish.

(3) Cultured species--Aquatic plants or wildlife resources raised under conditions where at least a portion of their life cycle is controlled by an aquaculturist.

(4) Clinical Analysis Checklist--An inspection form provided by the department specifying sampling protocols and listing certain characteristics that may constitute manifestations of disease.

(5) Department--The Texas Parks and Wildlife Department or a designated employee of the department.

(6) Director--The executive director of the Texas Parks and Wildlife Department.

(7) Disease--Contagious pathogens or injurious parasites that may be a threat to the health of natural populations of aquatic organisms.

(8) Disease-Free--A status, based on the results of an examination conducted by a department approved shellfish disease specialist that certifies a group of aquatic organisms as being free of disease.

(9) Exotic species--A nonindigenous plant or wildlife resource not normally found in public water of this state.

(10) Fish farm--The property including all drainage ditches and private facilities from which cultured species are produced, held, propagated, transported, or sold.

(11) Fish farm complex--A group of two or more separately owned fish farms located at a common site and sharing privately owned water diversion or drainage structures.

(12) Fish farmer--Any person holding a valid license to engage in aquaculture or fish farming under Agriculture Code, Chapter 134.

(13) Grass carp--The species *Ctenopharyngodon idella*.

(14) Harmful or potentially harmful exotic fish--

(A) Lampreys Family: Petromyzontidae--all species except *Ichthyomyzon castaneus* and *I. gagei;*

(B) Freshwater Stingrays Family: Potamotrygonidae--all species;

(C) Arapaima Family: Osteoglossidae--*Arapaima gigas*;

(D South American Pike Characoids Family: Characidae--all species of genus Acestrorhyncus;

(E) African Tiger Fishes Subfamily: Hydrocyninae--all species;

(F) Piranhas and Priambebus Subfamily: Serrasalminae--all species;

(G) Rhaphiodontid Characoids Subfamily: Rhaphiodontinae--all species of genera *Hydrolycus* and *Rhaphiodon* (synonymous with *Cynodon*);

(H) Dourados Subfamily: Bryconinae--all species of genus *Salminus*;

(I) South American Tiger Fishes Family: Erythrinidae--all species;

(J) South American Pike Characoids Family: Ctenolucidae--all species of genera *Ctenolucius* and *Luciocharax* (synonymous with *Boulengerella* and *Hydrocinus*);

(K) African Pike Characoids Families: Hepsetidae, Ichthyboridae--all species;

(L) Electric Eels Family: Electrophoridae--*Electrophorus electricus*;

(M) Carps and Minnows Family: Cyprinidae--all species and hybrids of species of genera: *Abramis, Aristichthys, Aspius, Aspiolucius, Blicca, Catla, Cirrhina, Ctenopharyngodon, Elopichthys, Hypophthalmichthys, Leuciscus, Megalobrama, Mylopharyngodon, Parabramis, Pseudaspius, Rutilus, Scardinius, Thynnichthys, Tor*, and the species *Barbus tor* (synonymous with *Barbus hexoagoniolepis*);

(N) Walking Catfishes Family: Clariidae--all species;

(O) Electric Catfishes Family: Malapteruridae--all species;

(P) South American Parasitic Candiru Catfishes Subfamilies: Stegophilinae, Vandelliinae--all species;

(Q) Pike Killifish Family: Poeciliidae--*Belonesox belizanus*;

(R) Marine Stonefishes Family: Synanceiidae--all species;

(S) Tilapia Family: Cichlidae--all species of genus Tilapia (including *Sarotherodon* and *Oreochromis*);

(T) Asian Pikeheads Family: Luciocephalidae--all species;

(U) Snakeheads Family: Channidae--all species;

(V) Walleyes Family: Percidae--all species of the genus *Stizostedion* except *Stizostedion vitreum* and *S. canadense*;

(W) Nile Perch Family: Centropomidae--all species of genera *Lates* and *Luciolates*;

(X) Drums Family: Sciaenidae--all species of genus *Cynoscion* except *Cynoscion nebulosus*, *C. nothus*, and *C. arenarius*;

(Y) Whale Catfishes Family: Cetopsidae--all species;

(Z) Ruff Family: Percidae--all species of genus *Gymnocephalus*;

(AA) Air sac Catfishes Family;

(BB) Swamp Eels, Rice Eels or One-Gilled Eel Family: Synbranchidae--all species;

(CC) Anguilliidae--all species except *Anguilla rostrata*;

(DD) Heteropneustidae--All species of genus *Heteropneustes*.

(15) Harmful or potentially harmful exotic shellfish--

(A) Crayfishes Family: Parastacidae--all species of the genus *Astacopsis*;

(B) Mittencrabs Family: Grapsidae--all species of genus *Eriocheir*;

(C) Giant Ram's-horn Snails Family: Piliidae (synonymous with Ampullariidae)--all species of genus *Marisa*;

(D) Zebra Mussels Family: Dreissenidae--all species of genus *Dreissena*;

(E) Penaeid Shrimp Family: Penaeidae--all species of genus *Penaeus, Litopenaeus, Farfantepenaeus, Fenneropenaeus, Marsupenaeus,* and *Melicertus except L. setiferus, F. aztecus* and *F. duorarum*.

(F) Oyster Family: Ostreidae--all species except *Crassostrea virginica* and *Ostrea equestris*.

(G) Applesnails Family: Ampullariidae--Channeled Applesnail (*Pomacea canaliculata*).

(16) Harmful or potentially harmful exotic plants--

(A) Giant Duckweed Family: Lemnaceae--*Spirodela oligorhiza*;

(B) Salvinia Family: Salviniaceae--all species of genus *Salvinia*;

(C) Waterhyacinth Family: Pontederiaceae--*Eichhornia crassipes*;

(D) Waterlettuce Family: Araceae--*Pistia stratiotes*;

(E) Hydrilla Family: Hydrocharitaceae--*Hydrilla verticillata*;

(F) Lagarosiphon Family: Hydrocharitaceae--*Lagarosiphon major*;

(G) Eurasian Watermilfoil Family: Haloragaceae--*Myriophyllum spicatum*;

(H) Alligatorweed Family: Amaranthaceae--*Alternanthera philoxeroides*;

(I) Rooted Waterhyacinth Family: Pontederiaceae--*Eichhornia azurea*;

(J) Paperbark Family: Myrtaceae--*Melaleuca quinquenervia*;

(K) Torpedograss Family: Gramineae--*Panicum repens*;

(L) Water spinach Family: Convolvulaceae--*Ipomoea aquatic*.

(17) Harmful or potentially harmful exotic species exclusion zone--That area south of SH 21, from its intersection with the Texas/Louisiana border, approximately five miles due east of Milam, Texas, not including that area of Brazos County south of SH 21, to San Marcos; thence south of IH 35 to Laredo.

(18) Immediately--Without delay; with no intervening span of time.

(19) Manifestations of disease--Manifestations of disease include, but are not limited to, one or more of the following: heavy or unusual predator activity, empty guts, emaciation, rostral deformity, digestive gland atrophy or necrosis, gross pathology of shell or underlying skin typical of viral infection, fragile or atypically soft shell, gill fouling, or gill discoloration.

(20) Nauplius or nauplii--A larval crustacean having no trunk segmentation and only three pairs of appendages.

(21) Operator--The person responsible for the overall operation of a wastewater treatment facility.

(22) Place of business--A permanent structure on land where aquatic products or orders for aquatic products are received or where aquatic products are sold or purchased.

(23) Postlarva--A juvenile crustacean having acquired a full complement of functional appendages.

(24) Private facility--A pond, tank, cage, or other structure capable of holding cultured species in confinement wholly within or on private land or water, or within or on permitted public land or water.

(25) Private facility effluent--Any and all water which has been used in aquaculture activities.

(26) Private pond--A pond, tank, lake, or other structure capable of holding cultured species in confinement wholly within or on private land.

(27) Public aquarium--An American Association of Zoological Parks and Aquariums accredited facility for the care and exhibition of aquatic plants and animals.

(28) Public waters--Bays, estuaries, and water of the Gulf of Mexico within the jurisdiction of the state, and the rivers, streams, creeks, bayous, reservoirs, lakes, and portions of those waters where public access is available without discrimination.

(29) Quarantine condition--Confinement of exotic shellfish such that neither the shellfish nor the water in which they are or were maintained comes into contact with other fish or shellfish.

(30) Triploid grass or black carp--A grass carp (*Ctenopharyngodon idella*) or black carp (*Mylophryngodon piceus*) which has been certified by the United States Fish and Wildlife Service as having 72 chromosomes and as being functionally sterile.

(31) Waste--Waste shall have the same meaning as in Chapter 26, §26.001(6) of the Texas Water Code.

(32) Water in the state--Water in the state shall have the same meaning as in Chapter 26, §26.001(5) of the Texas Water Code.

(33) Wastewater treatment facility--All contiguous land and fixtures, structures or appurtenances used for treating wastewater pursuant to a valid permit issued by the Texas Commission on Environmental Quality.

Source Note**:** The provisions of this §57.111 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective December 29, 1997, 22 TexReg 12535; amended to be effective June 21, 1998, 23

TexReg 6507; amended to be effective July 19, 2000, 25 TexReg 6772; amended to be effective April 30, 2001, 26 TexReg 3219; amended to be effective June 29, 2005, 30 TexReg 3728

Texas Administrative Code

TITLE 31	NATURAL RESOURCES AND CONSERVATION
PART 2	TEXAS PARKS AND WILDLIFE DEPARTMENT
CHAPTER 57	FISHERIES
SUBCHAPTER A	HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS
	SHELLFISH
RULE §57.112	General Rules

(a) Scientific reclassification or change in nomenclature of taxa at any level in taxonomic hierarchy will not, in and of itself, result in redefinition of a harmful or potentially harmful exotic species.

(b) Except as provided in §57.113 of this title (relating to Exceptions), it is an offense for any person to release into public waters, import, sell, purchase, transport, propagate, or possess any species, hybrid of a species, subspecies, eggs, seeds, or any part of any species defined as a harmful or potentially harmful exotic fish, shellfish, or aquatic plant.

(c) Violation of any provision of a permit issued under these rules is a violation of these rules.

Source Note: The provisions of this §57.112 adopted to be effective January 2, 1997, 21 TexReg 12414.

Texas Administrative Code

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SUBCHAPTER A	HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS
	SHELLFISH
RULE §57.113	Exceptions

(a) A person who holds a valid Exotic Species Permit issued by the department may possess, propagate, sell and transport to the permittee's private facilities exotic harmful or potentially harmful fish, shellfish and aquatic plants only as authorized in the permit provided the harmful or potentially harmful exotic species are to be used exclusively:

(1) as experimental organisms in a department approved research program; or

(2) for exhibit in a public aquarium approved for display of harmful or potentially harmful exotic fish, shellfish and aquatic plants.

(b) A person may possess exotic harmful or potentially harmful fish or shellfish, exclusive of grass carp, without a permit, if the intestines of the fish or shellfish have been removed, or in the case of oysters, if the oysters have been shucked or otherwise removed from their shells.

(c) A person may possess grass carp harvested from public waters that have not been permitted for triploid grass carp, without a permit, if the intestines have been removed.

(d) A fish farmer who holds a valid exotic species permit issued by the department may possess, propagate, transport or sell triploid grass carp (*Ctenopharyngodon idella*), silver carp (*Hypophthalmicthys molitrix*), triploid black carp (*Mylophryngogon piceus*, also commonly known as snail carp), bighead carp (*Aristichthys/Hypophthalmicthys nobilis*), blue tilapia (*Tilapia aurea*), Mozambique tilapia (*Tilapia mossambica*), Nile tilapia (*Tilapia nilotica*), water spinach (*Ipomoea aquatica*), or hybrids between the three tilapia species, unless otherwise provided by conditions of the permit or these rules.

(e) A fish farmer who holds a valid exotic species permit issued by the department may possess, propagate, transport, or sell Pacific white shrimp (*Litopenaeus vannamei*) provided the exotic shellfish meet disease free certification requirements listed in §57.114 of this title (relating to Health Certification of Exotic Shellfish) and as provided by conditions of the permit and these rules.

(f) An operator of a wastewater treatment facility in possession of a valid exotic species permit issued by the department may possess and transport permitted exotic species to their facility only for the purpose of wastewater treatment.

(g) A person may possess Mozambique tilapia in a private pond subject to compliance with §57.116(d) of this title (relating to Exotic Species Transport Invoice).

(h) The holder of a valid triploid grass carp permit issued by the department may possess triploid grass carp as provided by conditions of the permit and these rules.

(i) A licensed retail or wholesale fish dealer is not required to have an exotic species permit to purchase or possess:

(1) Live individuals of species or hybrids of species listed in subsection (d) of this section held in the place of business, unless the retail or wholesale fish dealer propagates one or more of these species. However, such a dealer may sell or deliver these species to another person only if the intestines or head of the fish are removed; or

(2) Live Pacific white shrimp (*Litopenaeus vannamei*) held in the place of business if the place of business is not located within the Harmful or Potentially Harmful Exotic Species Exclusion Zone. However, such a dealer may only sell or deliver this species to another person if the shrimp are dead and packaged on ice or frozen.

(j) The department is authorized to stock triploid grass carp into public waters in situations where the department has determined that there is a legitimate need, and when stocking will not affect threatened or endangered species, coastal wetlands, or specific management objectives for other important species.

(k) A fish farmer who holds a valid exotic species permit issued by the department may possess, propagate, transport and sell Pacific blue shrimp (*Litopenaeus stylirostris*) provided the exotic shellfish are cultured under quarantine conditions in private facilities located outside the harmful or potentially harmful exotic species exclusion zone, and meet disease free certification requirements listed in §57.114 of this title (relating to Health Certification of Exotic Shellfish) and as provided by conditions of the permit and these rules.

(l) An operator of a mechanical plant harvester in possession of a valid exotic species permit issued by the department may remove and dispose of prohibited plant species from public or private waters only by means authorized in the permit.

(m) Any person may possess Water spinach (*Ipomoea aquatica*) for personal consumption.

Source Note: The provisions of this §57.113 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective December 29, 1997, 22 TexReg 12535; amended to be effective June 21, 1998, 23 TexReg 6507; amended to be effective July 19, 2000, 25 TexReg 6772; amended to be effective April 30, 2001, 26 TexReg 3219; amended to be effective June 29, 2005, 30 TexReg 3728

Texas Administrative Code

TITLE 31 NATURAL RESOURCES AND CONSERVATION

PART 2 TEXAS PARKS AND WILDLIFE DEPARTMENT

CHAPTER 57 FISHERIES

SUBCHAPTER A HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS

SHELLFISH

RULE §57.114 Health Certificate of Exotic Shellfish

a) All disease free certification of exotic shellfish must be conducted by a shellfish disease specialist approved by the department.

(b) Any person importing live exotic shellfish from facilities outside the state must prior to importation:

(1) provide documentation to the department that the shellfish to be imported have been inspected and certified as disease-free by a department-approved shellfish disease specialist; and

(2) receive acknowledgment from the department that the requirements of paragraph (1) of this subsection have been met.

(c) Any person in possession of exotic shellfish for the purpose of production of postlarvae must provide to the department monthly certification that nauplii and postlarvae have been examined and are certified to be disease-free. If certification cannot be provided, the exotic shellfish must be maintained in quarantine condition until the department acknowledges in writing that the stock is disease-free or specifies in writing condition(s) under which the quarantine can be removed.

(d) Any person in possession of exotic shellfish stocks who observes one or more of the manifestations of disease appearing on the clinical analysis checklist provided by the department shall:

(1) immediately quarantine the entire facility, immediately notify the department and immediately request an inspection from a department approved examiner; or

(2) immediately quarantine the entire facility, immediately notify the department and immediately submit samples of the affected shellfish to a department approved shellfish disease specialist for analysis. Results of such analyses shall be forwarded to the department immediately upon receipt.

(e) Upon receiving a request from a permit holder under subsection (d)(1) of this section, the department approved examiner shall inspect the private facility, complete the clinical analysis checklist provided by the department, and submit copies of the checklist to the department and the permit holder.

(f) Before harvesting ponds or discharging any waste for the first time in any calendar year into or adjacent to water in the state, the permittee shall:

(1) have a department approved examiner inspect the facility and examine samples of the shellfish from the pond or other structure containing exotic shellfish no more than 14 days prior to the first discharge or harvest and shall submit the results of the examination to the department on the department approved clinical analysis checklist; or

(2) submit samples of the shellfish from the pond or other structure containing exotic shellfish to a department approved shellfish disease specialist for analysis no more than 14 days prior to the first discharge or harvest and submit the results of such analyses to the department immediately upon receipt.

(g) If the results of an inspection performed under subsection (f)(1) of this section indicate the presence of one or more manifestations of disease, the permittee shall immediately place the entire facility under quarantine and immediately submit samples of the shellfish from the affected portion(s) of the facility to a department approved shellfish disease specialist for

analysis. Results of such analyses shall be forwarded to the department immediately upon receipt.

(h) If the results of analyses performed under subsection (f)(2) of this section indicate the presence of disease, the permittee shall immediately place the entire facility under quarantine.

(i) A private facility quarantined under subsections (d), (g) or (h) of this section shall remain under quarantine condition until the department removes the quarantine in writing or authorizes in writing other actions deemed appropriate by the department based on the required analyses.

(j) If the results of inspections or testing performed under subsection (f) of this section indicate the absence of any manifestations of disease, the permittee may begin discharging from the facility.

Source Note: The provisions of this §57.114 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective December 29, 1997, 22 TexReg 12535; amended to be effective June 21, 1998, 23 TexReg 6507; amended to be effective June 29, 2005, 30 TexReg 3728.

Texas Administrative Code

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CHAPTER 57	FISHERIES
SUBCHAPTER A	HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS
	SHELLFISH
RULE §57.115	Transportation of Live Exotic Species(a)Transport of live harmful or potentially harmful exotic species is prohibited except by:

(1) a fish farmer in possession of a valid Exotic Species Permit and an exotic Species Transport Invoice;

(2) a commercial shipper acting for the permit holder in possession of an Exotic Species Transport Invoice;

(3) persons holding exotic species pursuant to limitations of §57.113 of this title (relating to Exceptions).

(b) A fish farmer transporting live triploid grass or black carp must have sales invoices which account for all triploid grass or black carp being transported and a copy of the United States Fish and Wildlife Service certification declaring that the carp being transported have been certified as being triploid in addition to meeting requirements of Chapter 134 of the Agriculture Code.

Source Note: The provisions of this §57.115 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective April 30, 2001, 26 TexReg 3219.

Texas Administrative Code

TITLE 31	NATURAL RESOURCES AND CONSERVATION
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SUBCHAPTER A	HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS
	SHELLFISH
RULE §57.116	Exotic Species Transport Invoice

(a) An exotic species transport invoice shall contain all the following information correctly stated and legibly written: invoice number; date of shipment; name, address, and phone number of the shipper; name, address, and phone number of the receiver; fish farmer's Aquaculture license number and exotic species permit number, if applicable; number and total weight of each

harmful or potentially harmful exotic species; a check mark indicating interstate import, interstate export, or intrastate type of shipment. A completed invoice shall accompany each shipment of harmful or potentially harmful exotic species sold or transferred, and shall be sequentially numbered during the permit period; no invoice number shall be used more than once during any one permit period by the permittee.

(b) The exotic species transport invoice shall be provided by the permittee; one copy shall be retained by the permittee for a period of at least one year following shipping date and one copy shall be forwarded to the department's Exotic Species Program Leader.

(c) The permittee is responsible for supplying completed copies of the exotic species transport invoice to out-of-state dealers from which the permittee has purchased and or received harmful or potentially harmful exotic species, or to whom harmful or potentially harmful exotic species are transferred so that shipment will be properly marked and numbered upon delivery to the permittee in Texas.

(d) Owners, or their agents, of private ponds stocked with Mozambique tilapia or triploid grass carp by an Exotic Species Permit holder shall retain a copy of the Exotic Species Transport Invoice for a period of one year after the stocking date or as long as the tilapia or triploid grass carp are in the water, whichever is longer.

Source Note: The provisions of this §57.116 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective July 19, 2000, 25 TexReg 6772; amended to be effective April 30, 2001, 26 TexReg 3219.

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CHAPTER 57	FISHERIES
SUBCHAPTER A	HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS
	SHELLFISH
RULE §57.117	Exotic Species Permit: Fee and Application Requirements

(a) To be considered for an Exotic Species Permit, the applicant shall:

(1) meet one or more of the following criteria:

(A) possess a valid Aquaculture License;

(B) possess a valid permit from the Texas Commission on Environmental Quality authorizing operation of a wastewater treatment facility;

(C) possess a department approved research proposal involving use of harmful or potentially harmful exotic fish, shellfish or aquatic plants; or

(D) operate a public aquarium approved for display of harmful or potentially harmful exotic fish, shellfish or aquatic plants;

(2) complete and submit an initial exotic species permit application on a form provided by the department;

(3) submit an accurate-to-scale plat of the facility specifically including, but not limited to, location of:

(A) all private facilities and owner's name and physical address including a designation on the plat of all private facilities which will be used for possession of harmful or potentially harmful exotic species;

(B) all structures which drain private facilities;

(C) all points at which private facility effluent is discharged from the private facilities or the fish farm;

(D) all structures designed to prevent escapement of harmful or potentially harmful species from the fish farm;

(E) any vats, raceways, or other structures to be used in holding harmful or potentially harmful exotic species;

(4) demonstrate to the department that an existing fish farm, private facility or wastewater treatment facility meets requirements of §57.129 of this title (relating to Exotic Species Permit: Private Facility Criteria);

(5) remit to the department all applicable fees.

(b) Applicants for an exotic species permit for culture of harmful or potentially harmful exotic shellfish must meet all exotic species permit application requirements and requirements for disease free certification as listed in §57.114 of this title (relating to Health Certification of Exotic Shellfish).

(c) An applicant for an exotic species permit shall provide upon request from the department documentation necessary to identify any harmful or potentially harmful exotic species and confirm the source of origin for the species for which a permit is sought.

(d) An applicant for an Exotic Species Permit whose facility is located within the harmful or potentially harmful exotic species exclusion zone as defined in §57.111 of this title (relating to Definitions) must submit an Emergency Plan to the department for review and approval. The plan shall include measures sufficient to prevent release or escapement of permitted harmful or potentially harmful exotic species into public water during a natural catastrophe (such as a hurricane or flood).

Source Note: The provisions of this §57.117 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective April 30, 2001, 26 TexReg 3219; amended to be effective June 29, 2005, 30 TexReg 3728

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	SHELLFISH
RULE §57.118	Exotic Species Permit Issuance

(a) The department may issue an Exotic Species Permit only to:

(1) a fish farmer and only for species listed in §57.113 of this title (relating to Exceptions);

(2) a wastewater treatment facility operator;

(3) department approved research programs; or

(4) a public aquarium for display purposes only.

(b) The department may issue an exotic species permit upon a finding by the department that:

(1) all application requirements as set out in §57.117 of this title (relating to Exotic Species Permit: Fee and Application Requirements) have been met;

(2) the fish farm operated by the applicant and named in the permit meets or will meet the design criteria listed in §57.129 of this title (relating to Exotic Species Permit: Private Facility Criteria);

(3) the applicant has complied with all provisions of the Parks and Wildlife Code, §66.007, §66.015, and these rules during the one-year period preceding the date of application.

(c) Permits issued for fish farms, private facilities or wastewater treatment facilities under construction shall not authorize possession of harmful or potentially harmful exotic fish, shellfish or aquatic plants until such time as the department has certified that the fish farm, private facilities or wastewater treatment facility as-built meets the requirements in §57.129 of this title (relating to Exotic Species Permit: Private Facility Criteria).

Source Note: The provisions of this §57.118 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective July 19, 2000, 25 TexReg 6772; amended to be effective April 30, 2001, 26 TexReg 3219

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SUBCHAPTER A	HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS
	SHELLFISH
RULE §57.119	Exotic Species Permit: Requirements for Permits

(a) A copy of the Exotic Species Permit shall be:

(1) made available for inspection upon request of authorized department personnel; and

(2) prominently displayed on the premises of the fish farm, private facilities or wastewater treatment facility named in the permit.

(b) Permittee must provide access to all facilities covered by the application to authorized department personnel during any hours in which operations pursuant to the exotic species permit are ongoing.

(c) If a permittee discontinues fish farming, research activities or public aquarium display involving harmful or potentially harmful exotic species or discontinues wastewater treatment, the permittee shall:

(1) immediately and lawfully sell, transfer or destroy all remaining individuals of that species in possession; and

(2) notify the department's Exotic Species Program Leader at least 14 days prior to cessation of operation.

(d) Upon a request, a permittee shall provide an adequate number of fish, shellfish, or aquatic plants to authorized department employees for identification and analyses.

(e) In the event that the fish farm, private facilities or a wastewater treatment facility of a permit holder appears in imminent danger of overflow, flooding, or release of harmful or potentially harmful exotic fish, shellfish or aquatic plants into public water, the permittee shall:

(1) immediately notify the department;

(2) immediately begin implementation of the department approved Emergency Plan.

(f) Except in case of an emergency, a holder of an exotic species permit authorizing possession of *Litoenaeus vannamei* must notify the department at least 72 hours prior to, but not more than seven days prior to any harvesting of permitted shellfish. In an emergency beyond the control of the permittee, notification of harvest must be made as early as practicable prior to beginning of harvest operations.

(g) A holder of an exotic species permit authorizing possession of harmful or potentially harmful exotic species may sell or transfer ownership of live individuals only to the holder of a valid exotic species permit specifically authorizing possession of transferred species.

(h) Upon discovery of release or escapement of harmful or potentially harmful exotic fish or shellfish from any private facilities authorized in an exotic species permit, the permittee must immediately halt discharge of all private facility effluent from the fish farm. If the permittee's private facility is located within a fish farm complex, upon discovery or release or escapement of harmful or potentially harmful fish or shellfish, the permittee must immediately halt discharge of all private facility effluent.

(i) A holder of an exotic species permit must notify the department's Exotic Species Program Leader in the event of escapement or release of harmful or potentially harmful exotic fish or shellfish, within two hours of discovery.

(j) All devices required in the exotic species permit for prevention of discharge of harmful or potentially harmful exotic fish, shellfish, or aquatic plants must be in place and properly maintained prior to and at all times such species are in possession.

(k) All private facility effluent discharged from a fish farm holding exotic harmful or potentially harmful species must be routed through all devices for prevention of discharge of exotic species as required in the permit.

(l) A permittee must notify the department's Exotic Species Program Leader in the event of change of ownership of the fish farm named in that permittee's exotic species permit. Notification must be made immediately.

(m) Permits are not transferable from site to site.

Source Note: The provisions of this §57.119 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective July 19, 2000, 25 TexReg 6772

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	SHELLFISH
RULE §57.120	Exotic Species Permit: Expiration and Renewal

(a) Exotic Species Permits required by these rules expire on December 31 of the year issued.

(b) The department may renew an Exotic Species Permit upon finding that:

(1) the applicant has met application requirements in §57.117 of this title (relating to Exotic Species Permit: Fee and Application Requirements);

(2) the facility will meet all applicable facility design criteria listed in §57.129 of this title (relating to Exotic Species Permit: Private Facility Criteria);

(3) the applicant has complied with all provisions of the Parks and Wildlife Code, §66.007, §66.015, and these rules during the one-year period preceding the date of agency action on the application for renewal; and

(4) the applicant has submitted a renewal application and all required annual reports to the department as required in §57.123(a) and (b) of this title (relating to Exotic Species Permit Reports).

Source Note: The provisions of this §57.120 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective April 30, 2001, 26 TexReg 3219

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	SHELLFISH
RULE §57.121	Exotic Species Permit-Amendment

(a) Exotic species permits may be amended upon a finding by the department that:

(1) the applicant has complied with all provisions of the Parks and Wildlife Code, §66.007, §66.015, all conditions in permit, and these rules during the one-year period preceding the date of application;

(2) the applicant has met all applicable application requirements under §57.117 of this title (relating to Exotic Species Permit--Fee Application Requirements); and

(3) the facilities as altered will meet the private facility criteria in §57.129 of this title (relating to Exotic Species Permit).

(b) Exotic species permits must be amended to reflect any:

(1) addition or deletion of species of harmful or potentially harmful exotic fish, shellfish, or aquatic plants held pursuant to the permit;

(2) intended redistribution of harmful or potentially harmful fish, shellfish, and aquatic plants into private facilities not authorized in the permit;

(3) change in methods of preventing discharge of harmful or potentially harmful exotic fish, shellfish, and aquatic plants;

(4) change in discharge of private facility effluent from fish farms or wastewater treatment facilities; and

(5) change in existing design criteria listed in §57.129 of this title (relating to Exotic Species Permit--Private Facility Criteria).

(c) Applicants seeking amendment of exotic species permits, including those issued prior to January 23, 1992, must meet all application requirements listed in §57.117 of this title (relating to Exotic Species Permit--Fee and Application Requirements) and facility design criteria listed in §57.129 of this title (relating to Exotic Species Permit--Private Facility Criteria).

Source Note: The provisions of this §57.121 adopted to be effective January 2, 1997, 21 TexReg 12414.

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SUBCHAPTER A	HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS
	SHELLFISH
RULE §57.122	Appeal

An opportunity for hearing shall be provided to the applicant or permit holder for any denial of an exotic species permit or a triploid grass carp permit or where the terms of issuance are different from those requested by the applicant.

(1) Requests for hearings shall be made in writing to the department no more than 30 days from receipt of the denial notification.

(2) All hearings shall be conducted in accordance with the rules of practice and procedure of the Texas Parks and Wildlife Department and the Administrative Procedure Act.

Source Note: The provisions of this §57.122 adopted to be effective January 2, 1997, 21 TexReg 12414.

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	SHELLFISH
RULE §57.123	Exotic Species Permit Reports

(a) The Exotic Species Permit holder shall submit an annual report that accounts for importation, possession, transport, sale, transfer or other disposition of any harmful or potentially harmful exotic species handled by the permittee. This report shall be submitted on forms provided by the department with the application and shall be due January 10 of each year.

(b) An Exotic Species Permit holder who has imported, possessed, transported, transferred or sold triploid grass carp shall provide a copy of each exotic species transport invoice issued and a copy of each triploid grass carp certification received by the permittee for triploid grass carp purchased during the past year with their annual report.

Source Note: The provisions of this §57.123 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective July 19, 2000, 25 TexReg 6772

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	SHELLFISH
RULE §57.124	Triploid Grass Carp; Sale, Purchase

(a) Triploid grass carp may be sold only by a holder of an exotic species permit authorizing possession of triploid grass carp, and only to:

(1) a person in possession of a valid exotic species permit authorizing possession of triploid grass carp; or

(2) a person in possession of a valid triploid grass carp permit, and only in an amount less than or equal to that number specified in the permit.

(b) A person who holds a valid triploid grass carp permit may purchase triploid grass carp only from a Texas fish farmer in possession of a valid exotic species permit authorizing possession of triploid grass carp, and only in an amount less than or equal to that number specified in the triploid grass carp permit.

(c) A holder of an exotic species permit may obtain triploid grass carp only from:

(1) the holder of a valid exotic species permit authorizing possession of triploid grass carp; or

(2) a lawful source outside of the state.

(d) A fish farmer in possession of an exotic species permit must notify the department not less than 72 hours prior to taking possession of any and all shipments of triploid grass carp received from any source. Notification must include:

(1) number of triploid grass carp being purchased;

(2) source of triploid grass carp;

(3) final destination of triploid grass carp;

(4) name of certifying authority who conducted triploid grass carp certification; and

(5) name, address and fish farmer's Aquaculture license number (if applicable) of both shipper and receiver.

Source Note: The provisions of this §57.124 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective April 30, 2001, 26 TexReg 3219

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	SHELLFISH
RULE §57.125	Triploid Grass Carp Permit; Application, Fee

(a) The department may issue a triploid grass carp permit to private individuals for stocking of triploid grass carp in private waters.

(b) To be considered for a triploid grass carp permit, the applicant shall:

(1) complete an initial triploid grass carp permit application on a form provided by the department;

(2) submit this application to the department not less than 30 days prior to the proposed stocking date; and

(3) remit to the department the sum of the cost of the triploid grass carp permit application fee and the triploid grass carp user fee.

(c) The department shall charge a triploid grass carp permit application fee in the amount of the sum of a $15 application flat fee plus $2.00 for each triploid grass carp requested on the triploid grass carp permit application form. In the case of permit denial, the triploid grass carp permit application flat fee is not refundable. The $15 flat fee will be waived in the case of applications to stock triploid grass carp in public water.

(d) An applicant for a triploid grass carp permit or a permittee shall allow inspection of their facilities and ponds or lakes by authorized employees of the department during normal business hours.

Source Note: The provisions of this §57.125 adopted to be effective January 2, 1997, 21 TexReg 12414.

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	SHELLFISH
RULE §57.126	Triploid Grass Carp Permit; Terms of Issuance

(a) The department may issue a triploid grass carp permit upon a finding that:

(1) applicant has completed and submitted to the department a triploid grass carp permit application;

(2) applicant has remitted to the department all pertinent fees;

(3) all information provided in the triploid grass carp permit application is true and correct;

(4) applicant has not been finally convicted, within the last year, for violation of the Parks and

Wildlife Code, §66.007, §66.015, or these rules;

(5) issuance of a triploid grass carp permit is consistent with department fisheries or wildlife management activities;

(6) issuance of a triploid grass carp permit is consistent with the Parks and Wildlife Commission's environmental policy;

(7) issuance of a triploid grass carp permit and subsequent stocking does not conflict with specific management objectives of the department; and

(8) issuance of a triploid grass carp permit and subsequent stocking will not detrimentally affect threatened or endangered species populations, or their habitat; and

(9) issuance of a triploid grass carp permit and subsequent stocking will not detrimentally affect coastal wetland and estuarine ecosystems.

(b) A permittee shall allow, upon request, the take of a reasonable number of grass carp from the permittee's body of water by department personnel for determination of triploid status.

(c) In determining the number of triploid grass carp authorized for possession under a triploid grass carp permit the department shall consider the surface area of the pond or lake named in the permit application, and as appropriate, the percentage of the surface area infested by aquatic vegetation.

Source Note: The provisions of this §57.126 adopted to be effective January 2, 1997, 21 TexReg 12414.

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	SHELLFISH
RULE §57.127	Triploid Grass Carp Permit; Denial

The department may deny a triploid grass carp permit upon a finding that the applicant fails to satisfy any of the required criteria for issuance of a permit listed in §57.124 of this title (relating to Triploid Grass Carp; Sale, Purchase).

Source Note: The provisions of this §57.127 adopted to be effective January 2, 1997, 21 TexReg 12414.

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	SHELLFISH
RULE §57.128	Exotic Species Permits, Triploid Grass Carp Permits; Revocation

The department may revoke an exotic species permit or a triploid grass carp permit upon a finding that the permittee has violated any provision in these rules or rules promulgated under the Parks and Wildlife Code, §66.015, or any conditions of the permit during the valid permit period.

Source Note: The provisions of this §57.128 adopted to be effective January 2, 1997, 21 TexReg 12414.

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RULE §57.129 Exotic Species Permit: Private Facility Criteria

(a) The fish farm or wastewater treatment facility must be designed to prevent discharge of water containing adult or juvenile harmful or potentially harmful exotic species, their eggs, seeds or other reproductive parts from the permittee's property.

(b) Fish farms holding harmful or potentially harmful exotic fish or shellfish shall have at least three appropriately designed and constructed permanent screens placed between any point in the fish farm where harmful or potentially harmful exotic fish or shellfish are intended to be in water on the fish farm and the point where private facility effluent first leaves the fish farm.

(1) Screen mesh shall be of an appropriate size for each stage of exotic fish or shellfish growth and development.

(2) One screen must be permanently affixed in front of the final discharge pipe in the harvest structure and remain in place while the pond is in use. This screen and backing material must be of sufficient strength to withstand a water level differential of the height of the discharge area.

(3) At those facilities which discharge into public waters, one screen must be secured over the terminal end of the discharge pipe at all times. This screen must be secured in such a fashion as to prevent escape of permitted species. A second, additional screen must be secured over the terminal end of the discharge pipe during all harvest activities.

(4) Screens must be designed and constructed such that screens can be maintained and cleaned without reducing the level of protection against release of harmful or potentially harmful exotic fish or shellfish. The department may approve alternate methods of preventing discharge of harmful or potentially harmful exotic fish or shellfish upon a finding that those methods are at least as effective in preventing discharge of adult or juvenile harmful or potentially harmful exotic species, their eggs, or other reproductive parts from the permittee's property. The point of discharge of all mechanical harvesting devices must be double screened to prevent escapement of harmful or potentially harmful fish or shellfish.

(c) Fish farms which are to contain species or hybrids of species listed in §57.113 of this title (relating to Exceptions) and wastewater treatment facilities containing permitted exotic species which are within the 100-year flood plain, referred to as Zone A on the National Flood Insurance Program Flood Insurance Rate Map, must be enclosed within an earthen or concrete dike or levee constructed in such a manner to exclude all flood waters and such that no section of the crest of the dike or levee is less than one foot above the 100-year flood elevation. Dike design or construction must be approved by the department before issuance of a permit.

(d) Fish farms containing harmful or potentially harmful exotic shellfish shall be capable of segregating stocks of shellfish which have not been certified as free of disease from other stocks of shellfish on that fish farm.

(e) A fish farm containing harmful or potentially harmful exotic fish or shellfish must have in place security measures designed to prevent unrestricted or uncontrolled access to any private facilities containing harmful or potentially harmful exotic fish or shellfish. Security measures must prevent unauthorized removal of such species from the fish farm.

(f) For fish farms that are part of a fish farm complex, the following additional facility standards shall apply.

(1) Each permittee shall maintain in the common drainage at least one screen for preventing the movement of harmful or potentially harmful exotic fish or shellfish between the point where private facility effluent from the permittee's fish farm enters the common drainage and each point where an adjacent fish farmer's private facility effluent enters the common drainage. The adequacy of design and construction of such screens or other structures shall be determined by the department as provided in subsection (a)(1) of this section.

(2) Each permittee within the complex must have authority to stop the discharge of private facility effluent from the complex in the event of escapement or release of such fish or shellfish from that permittee's fish farm.

Source Note: The provisions of this §57.129 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective April 30, 2001, 26 TexReg 3219

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	SHELLFISH
RULE §57.130	Exotic Species Interstate Transport Permit

(a) Transport of live harmful or potentially harmful exotic species originating from a point of origin outside the state of Texas and being transported through Texas to a destination outside of the state of Texas is prohibited except by the holder of an Exotic Species Permit or an Exotic Species Interstate Transport Permit.

(b) Anyone transporting live harmful or potentially harmful exotic species must provide documentation accounting, collectively, for all exotic species being transported.

Source Note: The provisions of this §57.130 adopted to be effective January 2, 1997, 21 TexReg 12414.

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	SHELLFISH
RULE §57.131	Exotic Species Interstate Transport Permit: Application and Issuance

(a) The department shall charge a nonrefundable Exotic Species Interstate Transport Permit application fee of either:

(1) $25 for individual permits; or

(2) $100 for an annual permit.

(b) To apply for an Exotic Species Interstate Transport Permit an applicant shall:

(1) complete and submit an Exotic Species Interstate Transport Permit application on a form provided by the department;

(2) remit to the department's Exotic Species Program Leader all applicable fees.

(c) An applicant for an Exotic Species Interstate Transport Permit shall provide documentation upon request from the department necessary to identify any harmful or potentially harmful exotic species and source of origin of the species for which the permit is sought.

(d) The department may issue an Exotic Species Interstate Transport Permit upon a finding that all provisions of subsections (a)-(c) of this section have been met.

Source Note: The provisions of this §57.131 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective July 19, 2000, 25 TexReg 6772

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SHELLFISH

RULE §57.132 Exotic Species Interstate Transport Permit: Permittee Requirements

(a) A copy of the Exotic Species Interstate Transport Permit shall be made available for inspection immediately upon request of authorized department personnel.

(b) Permittee must provide access to shipments of exotic species to authorized department personnel during the effective date of the permit.

(c) Permittee must notify the department's Exotic Species Program Leader in writing or by facsimile transmission at least 72 hours prior to transport of live harmful or potentially harmful exotic species indicating transport date, intended transportation route, and name and physical address of recipient.

(d) While transporting harmful or potentially harmful exotic species within the state of Texas, a holder of an Exotic Species Interstate Transport Permit must notify the department's Exotic Species Program Leader in the event of escapement or release of harmful or potentially harmful exotic species within two hours of release.

(e) Except as provided by the terms and conditions of the Exotic Species Interstate Transport Permit, offloading or transfer of shipments of harmful or potentially harmful exotic species in the state of Texas is prohibited.

Source Note: The provisions of this §57.132 adopted to be effective January 2, 1997, 21 TexReg 12414; amended to be effective July 19, 2000, 25 TexReg 6772

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SHELLFISH

RULE §57.133 Exotic Species Interstate Transport Permit: Expiration and Renewal

(a) Exotic Species Interstate Transport Permits expire as stated on the permit.

(b) A separate Exotic Species Interstate Transport Permit must be issued for each vehicle, trailer or other such transporting unit when transporting live harmful or potentially harmful species through the state.

Source Note: The provisions of this §57.133 adopted to be effective January 2, 1997, 21 TexReg 12414.

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SHELLFISH

RULE §57.134 Wastewater Discharge Authority

(a) An applicant for an initial exotic species permit must provide the following:

(1) written documentation demonstrating that the applicant possesses the appropriate valid wastewater discharge authorization or has received an exemption from the Texas

Commission on Environmental Quality if the fish farm, fish farm complex or private facility is designed such that a discharge of waste into or adjacent to water in the state will, or is likely to occur; or

(2) adequate documentation to demonstrate that the facility is designed and will be operated in a manner such that no discharge of waste into or adjacent to water in the state will, or is likely to occur.

(b) An applicant for an amendment or a renewal of an exotic species permit must provide the following:

(1) written documentation demonstrating that the applicant possesses or has timely applied for and is diligently pursuing the appropriate wastewater discharge authorization or exemption from the Texas Commission on Environmental Quality in accordance with 30 TAC Chapter 321, Subchapter O, if the fish farm, fish farm complex or private facility is designed such that a discharge of waste into or adjacent to water in the state will, or is likely to occur; or

(2) adequate documentation to demonstrate that the facility is designed and will be operated in a manner such that no discharge of waste into or adjacent to water in the state will, or is likely to occur.

(c) An exotic species permittee whose wastewater discharge authorization or exemption is revoked, suspended or annulled by the Texas Commission on Environmental Quality will be treated as an applicant for an initial permit under subsection (a) of this section.

Source Note: The provisions of this §57.134 adopted to be effective December 29, 1997, 22 TexReg 12535; amended to be effective June 29, 2005, 30 TexReg 3728

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RULE §57.135	Memorandum of Understanding between the Texas Parks and Wildlife Department, the Texas Commission on Environmental Quality, and the Texas Department of Agriculture

The provisions of 30 TAC §7.103 (relating to Memorandum of Understanding (MOU) between the Texas Commission on Environmental Quality (Commission), the Texas Parks and Wildlife Department (TPWD), and the Texas Department of Agriculture (TDA), which were adopted by the Commission to take effect January 9, 2001, are adopted by reference.

Source Note: The provisions of this §57.135 adopted to be effective December 29, 1997, 22 TexReg 12535; amended to be effective July 26, 2001, 26 TexReg 5422; amended to be effective June 29, 2005, 30 TexReg 3728

Texas Administrative Code

TITLE 31	NATURAL RESOURCES AND CONSERVATION
PART 2	TEXAS PARKS AND WILDLIFE DEPARTMENT
CHAPTER 57	FISHERIES
SUBCHAPTER A	HARMFUL OR POTENTIALLY HARMFUL EXOTIC FISH, AND AQUATIC PLANTS
	SHELLFISH
RULE §57.136	Penalties

The penalties for violation of this subchapter are prescribed by Parks and Wildlife Code, §66.012.

Source Note: The provisions of this §57.136 adopted to be effective December 29, 1997, 22 TexReg 12535.

Glossary

The following definitions are presented to aid the user of this guide to understand the interpreted use of certain terms used by the agencies more easily. It should be noted that while certain terms are identical in spelling, their definitions may differ to some degree depending upon the use of the term by different agencies.

APHIS	Animal and Plant Health Inspection System, under USDA.
aquaculture	"The propagation and rearing of aquatic organisms in controlled or selected environments for any commercial, recreational or public purpose." - NOAA Aquaculture Policy, 1998
aquatic plant	all plants whose seeds germinate in either the water phase or the substrate of a body of water and which must spend part of their life cycle in water (TPWD).
CAAP	"concentrated aquatic animal production"
certificate of compliance	a numbered certificate issued by the Commissioner of the Texas Department of State Health Services only after an inspection of the plant operation has revealed that their rules and regulations are in compliance.
CG	U.S. Coast Guard
COE	U.S. Army Corps of Engineers
cultured fish	farm raised fish or shellfish (TPWD, TDA).
culture	the business of producing, propagating, transporting, possessing and selling fish raised in a private pond (TPWD).
depuration	the removal of contamination by any approved artificially controlled means from live shell-stock (TDSHS).
EPA	U.S. Environmental Protection Agency
exotic fish species	a non-indigenous fish or shellfish species that is not normally found in the waters of the state (TDA).
exotic species	a non-indigenous species of fish, shellfish, or aquatic plant not usually found in public waters (TPWD).
FDA	U.S. Food and Drug Administration
fish farmer	any person engaged in fish farming (TPWD, TDA).
fish farming	the business of producing, propagating, transporting, possessing and selling cultured fish raised in a private pond; but does not include the business of producing, propagating, transplanting, possessing and selling cultured fish propagated for bait purposes (TPWD, TDA).
fish farm	the property including private ponds from which fish or shellfish are produced, propagated, transported or sold (TPWD).
FWS	U.S. Fish and Wildlife Service
GLO	Texas General Land Office
indigenous	refers to a species of fish, shellfish or aquatic plant usually found in public waters of the state.
mariculture	the cultivation of plants and animals in salt water.

native fish	all fish documented by the Texas Parks and Wildlife Department to live, spawn or reproduce in Texas public waters and whose first documented occurrence in Texas public waters was not the result of direct or indirect importation by people (TPWD).
NMFS	National Marine Fisheries Service
NPDES	National Pollution Discharge Elimination System
non-indigenous	refers to a species of fish, shellfish or aquatic plant not usually found in public waters of the state.
offshore aquaculture	aquaculture conducted in the Gulf of Mexico and not in bays and estuaries
owner	an aquaculturist licensed by the Texas Department of Agriculture (TDA).
private pond	a pond, reservoir, vat, or other structure capable of holding cultured fish in confinement wholly within or on the enclosed land of an owner, lessor or lessee (TDA).
private pond	a pond, reservoir, vat or other structure capable of holding cultured species of fish, shellfish or aquatic plants in confinement wholly within or on the enclosed land of an owner, lessor or lessee (TPWD).
public waters	bays, estuaries and water of the Gulf of Mexico within the jurisdiction of the state, and the rivers, streams, creeks, bayous, reservoirs, lakes and portions of those waters where public access is available without discrimination (TPWD).
sanitary survey	the evaluation of all factors having an effect on the sanitary quality of a shellfish growing area, including sources of pollution, the effects of wind, tides and currents in the distribution and dilution of the polluting materials and the bacteriological quality of the water (TDSHS).
SCS	U.S. Soil Conservation Service
shellfish	all edible species of oysters, clams or mussels, either shucked or in the shells, fresh or frozen; does not include crabs, shrimp or lobsters (TDSHS).
shellfish	aquatic species of crustaceans and mollusks, including oysters, clams, shrimp, prawns and crabs of all varieties (TPWD).
shell-stock	shellfish that remain in their shells (TDSHS).
SHPO	Texas State Historical Preservation Officer
structure	any structure, work or improvement constructed on, affixed to, or worked on state-owned lands including fixed or floating piers, wharfs, docks, jetties, groins, breakwaters, artificial reefs, fences, posts, retaining walls, levees, ramps, cabins, houses, shelters, landfills, excavations, land canals, channels, roads and pipelines (GLO).
submerged lands	any land extending from the boundary between the land of the state and the littoral owners seaward to the low water mark on any saltwater lake, bay, inlet, estuary or inland water within the tidewater limits and any land lying beneath the body of water (GLO).
TAC	Texas Antiquities Committee
TAHC	Texas Animal Health Commission
TDA	Texas Department of Agriculture
TDH	Texas Department of Health

TDSHS	Texas Department of State Health Services
TPDES	Texas Pollution Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
transplanting	the moving of shellfish from one growing area to another (TDSHS).
TCEQ	Texas Commission on Environmental Quality
USDA	United States Department of Agriculture
wetlands	areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (EPA, COE).
wetlands	areas that have a predominance of hydric soils and that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; except lands in Alaska identified as having a high potential for agricultural development and a predominance of permafrost soils (SCS).
wetlands	lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes:
•	At least periodically, the land supports predominantly hydrophytes.
•	The substrate is predominantly undrained hydric soil.
•	The substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (FWS).

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