

Species Produced: Tilapia, hybrid striped bass, striped bass, largemouth bass and other species of sport fish, hard clams, crawfish and crab shedding.

Production Methods: Ponds, closed systems, flow-through tanks, and bottom culture.

Responsible Agency: Delaware Department of Natural Resources and Environmental Control (DNREC), 89 Kings Highway, P.O. Box 1401, Dover, DE 19903 *Telephone: 302-739-4403; Fax: 302-739-6242*, The Division of Water Resources has responsibility for regulating discharges to tidal and non-tidal surface waters, and groundwater. The Division of Air and Waste Management regulates solid waste disposal. Individuals developing aquaculture facilities are encouraged to consult with the Department early in the planning process to determine any applicable permit requirements.

Water Classification: Surface waters are classified by segments as Tidal (marine) and Non-Tidal. They are also classified by use into several categories, including: public water supply; industrial water supply; primary and secondary contact recreation; fish, aquatic life and wildlife; cold water fish (put and take); agricultural water supply; harvestable shellfish waters; and ERES waters (Waters of Exceptional Recreational or Ecological Significance).

Groundwater categories include public water supply and recharge protection. Solid wastes are subdivided into hazardous and non-hazardous. Categories of solid wastes include municipal, industrial, construction and demolition, and agricultural.

Copies of Current Standards: Delaware Department of Natural Resources and Environmental Control (DNREC), 89 Kings Highway, P.O. Box 1401, Dover, DE 19903 *Telephone: 302-739-4403; Fax: 302-739-6242*. There is a fee for copies of the groundwater standards. Text files of surface water and solid waste standards can also be downloaded from the DNREC On-Line Information System (see Other Information).

Waste Classification: *Effluent* — Industrial Waste; *Settleable Solids* and *Mortalities* — Agricultural Waste.

Effluent Standards: Based upon the use of best available technology (BAT) and quality of the receiving waters.

NPDES Permit: *Criteria*—40 CFR Part 122.24 (See State Discharge Permit); *Fee* — See State

Discharge Permit; *Individual Permit Authority* — Yes, 4/74; *General Permit Authority* — Yes, 10/92

State Discharge Permit: All discharges to waters of the state are regulated under the state NPDES program. Applications are reviewed on an individual basis (see General Discharge Permit). The fee charged for an individual NPDES permit is based upon the type of activity, effluent composition and volume. Aquiculture effluents are considered to be in the same category as industrial wastewater and would require a “minor industrial permit” with an annual fee of \$2,250.00.

Mixing Zone: Determined individually based upon whether or not a complete mix of effluent with receiving water is expected to occur, taking into account critical flows, outfall configuration and receiving water characteristics (refer to Section 6.1, Delaware SQWS). No mixing zones for aquiculture have been requested.

Land Application: A wastewater facilities construction permit is required to construct, install or use a settling basin or other treatment device to control the discharge of solids from an aquiculture facility. Spray irrigation and/or application of sludge requires an Agricultural Utilization Permit from the DNREC. Composting of mortalities is encouraged as an alternative to disposal at an approved landfill.

General Discharge Permit: Delaware is developing a general permit that will cover discharges from land-based aquiculture facilities. No fee has been established for this general permit.

Other Information: The *Delaware Farmer's Guide to Environmental Programs* is a joint initiative of the DNREC and the Delaware Department of Agriculture (DDA). The guide is designed to provide introductory information about state laws and regulatory programs that may affect farming operations. Copies are available from the DNREC and the DDA, 2320 S. DuPont Hwy., Dover, DE 19901, *Telephone: 302-739-4811*. The Department maintains the “DNREC On-Line Information System”, a free computer database of information about Delaware’s natural resources, DNREC and the state’s environmental regulations and programs. The System can be reached, via modem, at 302-739-3693 and operates at baud rates from 1200 to 9600 bps. Communications software should be set for “N-8-1” (no parity, 8 data bits, 1 stop bit). For best results, select ANSI-BBS terminal emulation.