

TITLE 7

Conservation

Natural Resources

CHAPTER 72. SUBAQUEOUS LANDS

§ 7201 Purposes.

Subaqueous lands within the boundaries of Delaware constitute an important resource of the State and require protection against uses or changes which may impair the public interest in the use of tidal or nontidal waters. The purposes of this chapter are to empower the Secretary to deal with or to dispose of interest in public subaqueous lands and to place reasonable limits on the use and development of private subaqueous lands, in order to protect the public interest by employing orderly procedures for granting interests in public subaqueous land and for issuing permits for uses of or changes in private subaqueous lands. To this end, this chapter empowers the Secretary to adopt rules and regulations to effectuate the purposes of the chapter, to apply to the courts for aid in enforcing this statute and the rules and regulations adopted pursuant hereto, and to convey interests in subaqueous lands belonging to the State.

65 Del. Laws, c. 508, § 2; 68 Del. Laws, c. 76, § 1; 72 Del. Laws, c. 474, § 3.;

§ 7202 Definitions.

- (a) "Department" means the Department of Natural Resources and Environmental Control.
- (b) "Maintenance" means the actions required to return a channel, bridge, culvert, stormwater basin or water control structure to its full operational condition or to prevent a decline in its utility. These actions shall not change the purpose, scope or capacity of the channel, bridge, culvert, stormwater basin or water control structure.
- (c) "Ordinary high water mark" means, for nontidal waters, the line at which the presence and action of water are so continuous in all ordinary years so as to leave a distinct mark on a bank either by erosion or destruction of terrestrial (nonaquatic) vegetation, or that can be determined by other physical or biological means.
- (d) "Reconstruction" means the rebuilding of a channel, bridge, culvert, stormwater basin or water control structure that requires significant renovation or repair of their major structural features. This rebuilding shall be characterized by a replacement or major restorative effort similar to the degree required in the original design and construction of the channel, bridge, culvert, stormwater basin or water control structure. This rebuilding shall not change the purpose, scope or capacity of the channel, bridge, culvert, stormwater basin or water control structure.
- (e) "Retrofitting" means a change in design, construction or materials to an existing bridge, culvert, stormwater basin or water control structure in order to incorporate later improvements or to reflect new standards, criteria or needs not considered in the original design and construction.
- (f) "Secretary" means the Secretary of the Department of Natural Resources and Environmental Control.
- (g) "Subaqueous lands" means submerged lands and tidelands.
- (h) "Submerged lands" means:
 - (1) Lands lying below the line of mean low tide in the beds of all tidal waters within the boundaries of the State;
 - (2) Lands lying below the plane of the ordinary high water mark of nontidal rivers, streams, lakes, ponds, bays and inlets within the boundaries of the State as established by law; and
 - (3) Specific manmade lakes or ponds as designated by the Secretary.
- (i) "Tidelands" means lands lying between the line of mean high water and the line of mean low water.

65 Del. Laws, c. 508, § 2; 68 Del. Laws, c. 76, § 2; 68 Del. Laws, c. 268, § 1; 72 Del. Laws, c. 474, § 1.;

§ 7203 Jurisdiction.

- (a) The Secretary shall have jurisdiction over any project involving ungranted subaqueous lands owned by the State, and shall have jurisdiction and authority to convey a fee simple of lesser interest or to grant an easement with respect to all projects involving these lands. All jurisdiction and authority remaining in the State as to subaqueous lands for which leases have been made or may be made is invested in the Secretary.
- (b) Owners of private subaqueous lands must obtain a permit from the Department before making any use of such lands which may contribute to the pollution of public waters, infringe upon the rights of the public, infringe upon the rights of other private owners or make connection with public subaqueous lands.

65 Del. Laws, c. 508, § 2; 68 Del. Laws, c. 76, § 3.;

§ 7204 Ejectment of trespassers.

The Department may eject from any subaqueous lands owned by the State any person, firm or corporation trespassing upon any such lands, including the fixed mooring of floating structures, through appropriate action in the courts of this State.

65 Del. Laws, c. 508, § 2.;

§ 7205 Permits required.

(a) No person shall deposit material upon or remove or extract materials from, or construct, modify, repair or reconstruct, or occupy any structure or facility upon submerged lands or tidelands without first having obtained a permit, lease or letter of approval from the Department. Such permit, lease or letter of approval, if granted, may include reasonable conditions required in the judgment of the Department to protect the interests of the public. The Department may adopt regulations setting fees for such permits. If it is determined that granting the permit, lease or approval will result in loss to the public of a substantial resource, the permittee may be required to take measures which will offset or mitigate the loss. This section shall not apply to any repairs or structural replacements which are above the mean low tide and which do not increase any dimensions or change the use of the structure.

(b) The Secretary shall annually prepare a schedule of fees for permits issued pursuant to this section and submit the same as part of the Department's annual operating budget proposal.

(c) The Secretary may waive any provision of the regulations adopted pursuant to this chapter when warranted under the following circumstances:

(1) Life-threatening emergencies.

(2) Actions required for public safety for which sufficient time is not available to follow the regulations.

(3) When imminent or catastrophic damage or loss of major infrastructure is likely if all provisions of the regulations are adhered to.

(4) Where the authority of the Department under this chapter overlaps with another statute, including but not limited to shellfish grounds (Chapter 19 of this title), wetlands (Chapter 66 of this title) or beach preservation (Chapter 68 of this title) provided that the following criteria are met:

a. If, in the opinion of the Secretary, equal environmental impact review and regulation of the activity would be provided by either statute; and

b. Waiver of these regulations would not be contrary to the purposes of this chapter.

(d) The Secretary may issue an after-the-fact permit, lease, letter of approval or waiver in those cases where an activity has occurred without first obtaining the required permit, lease, letter of approval or waiver. The determination of whether or not to issue an after-the-fact permit, lease, letter of approval or waiver shall be consistent with the purposes and provisions of this chapter. The applicant receiving the after-the-fact permit, lease, letter of approval, or waiver will be responsible for paying any associated processing fee and lease fee and the Secretary may assess a penalty in accordance with § 6005 of this title.

65 Del. Laws, c. 508, § 2; 68 Del. Laws, c. 86, § 9; 78 Del. Laws, c. 183, § 3; 79 Del. Laws, c. 147, § 3.;

§ 7206 Easements and transfers of title.

(a) Pursuant to this chapter, the Secretary shall have exclusive jurisdiction and authority over all projects to convey a fee simple or lesser interest or to grant easements with respect to subaqueous lands belonging to the State. All jurisdiction and authority to convey a fee simple or lesser interest or to grant easements over subaqueous lands as to which grants have been made or may be made is vested in the Secretary. All leases for shellfish grounds shall be made pursuant to Chapter 19 of this title.

(b) All members of the General Assembly shall be given 2 weeks' notice of intent to convey any interest in subaqueous lands.

65 Del. Laws, c. 508, § 2; 68 Del. Laws, c. 76, § 4.;

§ 7207 Application.

(a) Each applicant for a lease, permit or grant, pursuant to this chapter, shall file with the Secretary a request stating in detail the type of lease, permit or grant desired, showing the location of the area and containing specifications for any proposed construction.

(b) The Secretary may require such additional information as will enable him or her to consider the application properly. He or she may require an environmental assessment to be provided if he or she determines that the proposed use or activity may have a substantial adverse effect upon the environment.

(c) The Secretary may request of any state agency a report or recommendation concerning any application before the Department.

(d) Upon receipt of an application in proper form, the Secretary shall advertise in a daily newspaper of statewide circulation and in a newspaper of general circulation in the county in which the activity is proposed:

(1) The fact that the application has been received;

(2) A brief description of the nature of the application; and

(3) A statement that a public hearing may be requested by any interested person who offers a meritorious objection to the application.

(e) If the Secretary decides that an objection is not meritorious, he or she shall then provide a written response so stating his or her reasons.

65 Del. Laws, c. 508, § 2; 70 Del. Laws, c. 186, § 1.;

§ 7208 Hearing.

(a) A public hearing shall be held:

(1) If a grant or lease for a period of time in excess of 20 years is sought; or

(2) If the Secretary determines that a public hearing is in the public interest; or

(3) If a written meritorious objection to the application is received within 20 days of the advertisement of the public notice for the application. A public hearing request shall be deemed meritorious if it exhibits a familiarity with the application and provides a reasoned statement of the action's probable impact.

(b) Notice of the public hearing shall be sent to the applicant, to immediately adjacent property owners and to any interested person who requests it, and such notice shall be published in the same manner as the application.

(c) The Secretary shall make a written statement of reasons to be placed with the application if a public hearing is not held.

65 Del. Laws, c. 508, § 2; 69 Del. Laws, c. 50, § 1; 72 Del. Laws, c. 474, § 2.;

§ 7209 Published notice.

(a) The published notice shall contain a general description of the location of the property and a statement of the nature of the lease, permit or grant sought to be acquired.

(b) If the advertisement is also used to provide notice of a public hearing, it shall also give the time, date and place of the hearing, which shall occur not less than 20 days following the publication of the advertisement.

65 Del. Laws, c. 508, § 2.;

§ 7210 Appeals to Environmental Appeals Board.

Any person whose interest is substantially affected by any action of the Secretary or of the Department taken pursuant to this chapter, may appeal to the Environmental Appeals Board as established by § 6007 of this title within 20 days after the announcement of the decision. Such appeal shall be governed by §§ 6008 and 6009 of this title. There shall be no appeal of a decision by the Secretary to deny a permit on any matter involving state-owned subaqueous lands.

65 Del. Laws, c. 508, § 2; 68 Del. Laws, c. 76, § 5.;

§ 7211 Costs, deposits and fees.

(a) All costs for the proceedings under this chapter shall be assessed against the applicant.

(b) The Secretary may require a deposit at the time of the application or at any other time to insure the payment of the costs.

(c) All costs and deposits and all fees collected under this chapter are hereby appropriated to the Department to carry out the purposes of this chapter.

65 Del. Laws, c. 508, § 2.;

§ 7212 Rules; delegation.

The Secretary may after public hearing, adopt, amend, modify or repeal rules or regulations to effectuate the policy and purposes of this chapter. The Secretary may delegate his or her powers or duties under this chapter, except the power to convey or to lease or grant easements in subaqueous lands.

65 Del. Laws, c. 508, § 2; 70 Del. Laws, c. 186, § 1.;

§ 7213 Existing rights.

This chapter shall not change the law of this State relating to existing property, riparian or other rights of this State or other persons in submerged, tidelands or filled lands.

65 Del. Laws, c. 508, § 2.;

§ 7214 Violations; enforcement; civil and criminal penalties.

(a) Whoever violates this chapter or any rule or regulation duly promulgated, or any condition of a permit issued pursuant to § 7205 of this title, or any order of the Secretary, shall be subject to enforcement in accordance with § 6005 or § 6013, or both, of this title.

(b)-(d) [Repealed.]

65 Del. Laws, c. 508, § 2; 79 Del. Laws, c. 147, § 3; 80 Del. Laws, c. 391, § 2.;

§ 7215 Cease and desist order.

The Secretary shall have the power to issue an order to any person violating any rule or regulation or permit condition or lease condition or provision of this chapter to cease and desist from such violation. Any cease and desist order issued pursuant to this section shall expire:

(1) After 30 days of its issuance;

(2) Upon withdrawal of said order by the Secretary; or

(3) When the order is superseded by an injunction, whichever occurs first.

65 Del. Laws, c. 508, § 2.;

§ 7216 Interference with Department personnel.

No person shall obstruct, hinder, delay or interfere with, by force or otherwise, the performance by Department personnel of any duty under this chapter, or any rule or regulation or order or permit or decision, promulgated or issued thereunder.

65 Del. Laws, c. 508, § 2.;

§ 7217 Special exemptions.

(a) This chapter shall not apply to any work performed by any state, county, municipal government or conservation district, or their designated contractor, when that work occurs in nontidal submerged lands in the Delaware Atlantic Coastal Plain Province with a contributing drainage area of less than 800 acres.

(b) This chapter shall not apply to maintenance, reconstruction or retrofitting work performed by or with the assistance of any state, county, municipal government or conservation district when that work occurs in any nontidal submerged lands. Such maintenance, reconstruction or retrofitting work shall comply with the standards and specifications associated with best management practices in the Delaware Erosion and Sediment Control Handbook, 1989 or as revised (68 Del. Laws, c. 268, § 2).

(c) This chapter shall not apply to any work in agricultural drainage ditches created from nonsubaqueous lands that are designed according to reasonable drainage standards, when performed by or with the assistance of any state, county, municipal government or conservation district.

(d) This chapter shall not apply to ponds constructed in uplands when those ponds are constructed by or with the assistance of any state, county, municipal government or conservation district.

(e) This chapter shall not apply to stormwater ponds that are permitted in accordance with Chapter 40 of this title or to farm ponds or other ponds whose only source of hydrology is groundwater.

(f) The lease provisions of this chapter shall not apply to any wastewater conveyance or treatment works system owned or operated by the State or any county or municipal government with the State.

(g) This chapter shall not apply to subaqueous archaeological resources and unmarked human burials and human skeletal remains, which are regulated by the Department of State, Division of Historical and Cultural Affairs pursuant to Chapters 53 and 54 of this title.

68 Del. Laws, c. 268, § 2; 72 Del. Laws, c. 474, § 4; 75 Del. Laws, c. 153, § 12.;

7500 Wetlands and Subaqueous Lands

7504 Regulations Governing the Use of Subaqueous Lands

Authority

These regulations governing the use of subaqueous lands are promulgated in accordance with the provisions of 7 Del.C. §7212.

Purposes

Subaqueous lands within the boundaries of Delaware constitute an important resource of the State and require protection against uses or changes which may impair the public interest in the use of tidal or navigable waters. The purposes of this Ch. are to empower the Secretary to deal with or to dispose of interest in public subaqueous lands, and to place reasonable limits on the use and development of private subaqueous lands, in order to protect the public interest by employing orderly procedures for granting interests in public subaqueous land, and for issuing permits for uses of or changes in private subaqueous lands. To this end 7 Del.C. §7212 empowers the Secretary to adopt rules and regulations to effectuate the purposes of the chapter, to apply to the courts for aid in enforcing this statute and the rules and regulations adopted pursuant thereto, and to convey interests in subaqueous lands belonging to the State.

1.0 Definitions

The following words or phrase shall have the following definitions unless the context clearly indicates otherwise.

"Activity" includes, but is not limited to, any human induced action, such as dredging, draining, filling, grading, bulkheading, mining, drilling, extraction of materials or excavation or construction of any kind, including, but not limited to, construction of a boat ramp or slip, breakwater, residences, bridge, bulkhead, culvert, dam, derrick, dock, groin, jetty, lagoon, gabion, rip-rap, launching facility, marina, mooring facility, pier, seawall, walkway or wharf.

"Anchoring" means the holding of a vessel solely by means of an anchor which is dropped to underwater lands and which is carried aboard the vessel.

"Anchorage/Moorage" means a designated and permitted area reserved for the anchoring or mooring of vessels.

"Approved Upland Residential Unit(s)" means the residential units given final approval by a local government zoning agency for one parcel of land riparian to the adjacent or affected waterbody.

"Boat Docking Facility" means a place where a vessel or vessels may be secured to a fixed or floating structure, or moorage or mooring onto the shoreline or shoreline structure (including marginal docks), either temporarily or indefinitely.

"Commercial" means any activity undertaken for profit, for which a fee will be charged, directly or indirectly, or which results in the generation of revenue.

"Commercial Project" means any boat docking facility or anchorage, other than a single-boat pier, dock or anchorage intended to serve a single family dwelling.

"Convenience Structure" means any structure which provides access to a watercourse, including but not limited to, a boat ramp or slip, derrick, dock, dolphin, piling, launching facility, marina, mooring facility, pier, walkway or wharf; whether permanent or temporary, floating or fixed.

"Critical Habitat" includes areas classified by the Department and serving an essential role in the maintenance of sensitive species. Areas may include unique aquatic or terrestrial ecosystems that support rare endangered or threatened plants and animals. Rare, endangered or threatened species are defined by both state and/or federal listings.

"Cumulative Impacts" means the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges or activities. Although the impact of a particular discharge or activity may be a minor change in itself, the cumulative effect may

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

impair the water resources and interfere with the productivity, water quality, or public use of existing aquatic ecosystems.

"Department" means the Department of Natural Resources and Environmental Control.

"Dredging" means the removal or displacement, by artificial activities, of mud, soil, sand, gravel, shells or other material from subaqueous lands.

"Facility" means all related land, structures, services, appurtenances and improvements associated with an activity regulated under 7 Del.C. Ch. 72.

"Filled Lands" includes tidelands and submerged lands reclaimed artificially through raising such lands above the highest probable elevation of the tides to form dry land by placement of a fill or deposit of earth, rock, sand or other solid materials.

"Filling" means depositing materials from any source onto tidelands, submerged lands, wetlands or upland, whether for the purpose of creating new uplands or for any other purpose, including the disposal of dredged materials.

"Floating Platform" means any floating structure which has no means of propulsion or is not designed as a boating vessel.

"Governor" means the Governor of the State of Delaware.

"Lease" means an agreement for exclusive possession of lands for a determinate period.

"Marginal Dock" means a fixed or floating structure placed immediately contiguous and parallel to or including an established seawall, bulkhead, or revetment, used for the purpose of berthing vessels either temporarily or indefinitely.

"Marina" means a boat docking facility, as defined in the Department's Marina Regulations.

"Mean High Water" or **"Mean High Tide"** (a tidal datum) means the point on a bank, tide flat, beach or shore, up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation (non-aquatic), physical markings or characteristics, known vegetation lines, and maybe further identified by tidal gauge data, or any other suitable means delineating the mean height reached by a rising tide.

"Mean Low Water" or **"Mean Low Tide"** (a tidal datum) means the average lowest point on a bank, tide flat, beach or shore, found during normal tide conditions. This may be determined by physical or biological characteristics, interpolation from mean high water based on knowledge of tidal range for an area or tide gauge information, if corrected to account for local conditions.

"Mooring" means the holding of a vessel by means of a mooring buoy or similar device which is fastened to a stationary underwater device that is not carried aboard the vessel as regular equipment.

"Navigable Water" means a river, stream, lake, bay, inlet, or other waterway capable of having been or being used for transport of useful commerce, including waterways which become navigable as the result of alteration such as dredging. "Transport of useful commerce" shall include the transportation of goods or persons by water including, but not limited to, recreational transport, such as canoeing, rafting, sailing, tubing, water-skiing, motor boating or windsurfing.

"Ordinary High Water Line" means for nontidal waters, the line where the presence and action of the water are so continuous in all ordinary years so as to mark upon the soil of the bed, or character distinct from that of the banks, with respect to vegetation, as well as with respect to the nature of the soil itself.

"Person" means any individual, minor, partnership, corporation, joint venture, estate, trust, syndicate, fiduciary, firm and other association and combination whether public or private, including quasi-public corporations, political subdivisions, and governmental agencies, instrumentalities, and other entities.

"Pier" means a structure in, on, or over subaqueous lands which is used by the public primarily for fishing, crabbing, swimming, or viewing. A pier shall not include vessel berthing use unless specifically designated as such.

"Preemptive Area" means the area of public subaqueous lands from which the traditional public uses have been, or would be, excluded to any extent by an activity, structure, or vessel.

"Private Subaqueous Lands" means any subaqueous lands which are not public subaqueous lands.

"Public Interest" means demonstrable environmental, social, and economic benefits which would accrue to the public at large as a result of a proposed action, and which would exceed all demonstrable environmental, social, and economic costs of the proposed action. In determining the public interest in a request for use, sale, lease, or transfer of interest in subaqueous lands, the Department shall consider the ultimate project and purpose to be served by said use, sale, permit, lease, or transfer of lands or materials.

"Public Subaqueous Lands" means those subaqueous lands owned by the State of Delaware, including subaqueous lands which were altered or created from non-subaqueous lands by excavation or other means or through loss by natural processes or acts of God.

"Resident Vessel" means a live-aboard vessel docked or moored at an anchorage, marina, or other boat docking, facility for a period exceeding a total of two consecutive weeks in a single year.

"Riparian Habitat" means a habitat that is strongly influenced by water and which occurs in, or adjacent to, a waterbody (i.e. rivers, streams, ponds, lakes, bays, ocean, wetlands, etc.).

"Secondary Effects" are effects on an aquatic ecosystem that are associated with a discharge or activity, but do not directly result from the discharge or activity.

"Secretary" means the Secretary of the Department of Natural Resources and Environmental Control.

"Shoreline Erosion Control Structure or Measure" means any activity or structure which provides for stabilization of the shore or bank of a watercourse including, but not limited to, a bulkhead, breakwater, gabion, groin, jetty, rip-rap revetments, seawall, vegetation, and/or grading of banks.

"State" means the State of Delaware.

"Structure" includes, but is not limited to, any boat ramp, slip, building, breakwater, bridge, bulkhead, culvert, dam, derrick, dock, gabion, groin, jetty, residence, launching facility, marina, mooring facility, pier, seawall, walkway, or wharf.

"Subaqueous Lands" means submerged lands and tidelands.

"Submerged Lands" means land lying below the line of mean low tide in the beds of all tidal waters within the boundaries of the State, together with the beds (channel ward of ordinary high water in non-tidal waters) of navigable rivers, streams, lakes, bays, inlets, ponds, or other waterways within the boundaries of the State.

"Tidal Waters" means any waters affected by tide.

"Tidelands" means lands lying between the line of mean high water and the line of mean low water.

"Vessel" means and includes every description of watercraft, boat, houseboat, or other contrivance capable of navigating the waters of the State.

"Water-Dependent Activity" means an activity which can only be conducted on, in, over, or adjacent to water, and where the use of the water or subaqueous lands is a primary and integral part of the activity or use.

"Wetlands" means those lands defined as "Wetlands" in 7 Del.C. Ch. 66.

2.0 Administrative Principles

2.1 Jurisdiction. These Regulations are adopted pursuant to 7 Del.C. §7212.

2.2 Scope of Regulations

2.2.1 Applicability

2.2.1.1 The extent of jurisdictional authority over public or private subaqueous lands includes any activity in a navigable stream or waterbody, which have a hydrologic connection to natural waterbodies.

2.2.1.2 These Regulations shall apply to all activities upon or affecting public and private subaqueous lands within the State of Delaware.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 2.2.1.3 These Regulations shall apply to all applications received on or after the effective date of these Regulations. Applications submitted before the effective date of these Regulations shall be governed by the regulations titled "Regulations Governing the Use of Public Subaqueous Lands," adopted July 14, 1969 and revised July 30, 1985.
- 2.2.1.4 These Regulations shall not alter any right or obligation arising from any lease, easement, license, grant or other legally binding agreement from or between the State of Delaware and any person which is in effect prior to the effective date of these Regulations.
- 2.2.1.5 To the extent that any activity is commenced prior to the effective date of these Regulations, any previous regulation or law which applied to such activity prior to the effective date of these Regulations shall remain in force.
- 2.2.1.6 Any expansion, modification, renewal, repair, or rebuilding of any structure affecting subaqueous lands, which occurs after the effective date of these Regulations, shall be subject to these Regulations.
- 2.2.1.7 Any change or modification of a permitted or grandfathered activity affecting subaqueous lands, which occurs after the effective date of these Regulations, shall be subject to these Regulations.
- 2.2.2 Subaqueous Lands
- 2.2.2.1 The areas where these Regulations apply are shown on the U.S. Geological Survey 7.5 Minutes Series (Topographic) Quadrangle Charts for the various quadrangles making up the State of Delaware. Such jurisdiction shall be presumed correct subject to written rebutment by the public or the Department based on a determination made in the field, using established criteria and procedures adopted by the Department in accordance with the Regulations. These criteria shall be developed using biological and physical indicators which include, but are not limited to, the presence of a defined channel, banks, aquatic fauna and flora, and other field indicators of instream habitat.
- 2.2.2.2 Final determination of the location of mean high water shall be determined in the field by the Department, using biological and physical indicators. Where the bank or shore at any particular site is of such character that it is impossible or difficult to ascertain where the point of mean high water is, recourse may be had to other places on the bank or shore of the same stream, lake, etc. to determine whether a given stage of water is above or below the mean high water mark. Similarly, the ordinary high water mark along the banks of a navigable bay, lake, pond, river, stream, or other waterway shall be taken as the boundary between the subaqueous lands and the non-subaqueous lands.
- 2.2.2.3 These Regulations acknowledge the applicability of the Public Trust Doctrine to all navigable waters. Any applicant asserting private ownership of subaqueous lands must demonstrate said ownership.
- 2.3 Activities on Private Subaqueous Lands: Types of Projects Requiring a Permit
- 2.3.1 Owners of private subaqueous lands shall obtain a permit from the Department, pursuant to this regulation, before undertaking any activity on such lands which, as determined by the Department, may contribute to the pollution of public waters, have an adverse impact or destroy aquatic habitats, infringe upon the rights of the public use of the waterway or the public, infringe upon the rights of other private owners, or make connection with public subaqueous lands, including but not limited to, the activities specified in subsection C of this section.
- 2.3.2 No person shall deposit material upon, remove, or extract materials from, or construct, modify, repair, reconstruct, except as specified in subsection 1.08(B) any structure or facility upon or over private subaqueous lands without first having obtained a permit or letter of authorization from the Department.
- 2.3.3 Permits or Letters of Authorization
- 2.3.3.1 The following types of activities in, on, over, or under private subaqueous lands require a permit or letter of authorization from the Department:

- 2.3.3.1.1 Construction of a convenience structure or boat docking facility.
 - 2.3.3.1.2 Construction of a shoreline erosion control structure or measure.
 - 2.3.3.1.3 Dredging, filling, excavating, or extracting of materials.
 - 2.3.3.1.4 Excavation, creation, or alteration of any channel, lagoon, turning basin, pond, embayment, or other navigable waterway on private subaqueous lands which will make connection with public subaqueous lands.
 - 2.3.3.1.5 Dredging of existing channels, ditches, dockages, lagoons, and other navigable waterways to maintain or restore the approved depth and width (letter of authorization).
 - 2.3.3.1.6 Excavation of land which makes connection to subaqueous lands.
 - 2.3.3.1.7 The laying of any pipeline, electric transmission line, telephone line, or any other utility structure in, on, over, or under the beds of private subaqueous lands.
 - 2.3.3.1.8 Installation of temporary or permanent mooring buoys or private marker buoys.
 - 2.3.3.1.9 Establishment of an anchorage for the use of a mooring for more than two (2) boats or for appurtenant onshore services.
 - 2.3.3.1.10 Anchoring or mooring a floating platform over private subaqueous lands for a period of twenty-four (24) consecutive hours or more.
 - 2.3.3.1.11 Anchoring or mooring any vessel or platform over private subaqueous lands for a revenue generating purpose.
 - 2.3.3.1.12 Repair and replacement of existing serviceable structures over private subaqueous lands (letter of authorization), except no permit or letter is required for repairs or structural replacements which are above the mean low tide and which do not increase any dimensions or change the use of the structure.
- 2.4 Use of Public Subaqueous Lands: Types of Projects Requiring Approval
- 2.4.1 The Secretary may convey a fee simple title or any lesser interest for a commercial or noncommercial project. Once public subaqueous lands become private subaqueous lands, they are subject to regulation as private subaqueous lands pursuant to these Regulations.
 - 2.4.2 The following types of activities on public subaqueous lands require a lease, permit, or letter of authorization from the Department:
 - 2.4.2.1 Construction or use of any structure on, in, under, or over public subaqueous lands, including but not limited to, any convenience structures, shoreline erosion control structure or measure, or boat docking facility.
 - 2.4.2.2 Dredging, filling, excavating, or extracting of materials.
 - 2.4.2.3 Continuous anchoring or mooring of a commercial vessel used in a commercial activity on or over public subaqueous lands for thirty (30) or more consecutive calendar days or for thirty (30) or more calendar days during any consecutive three (3) months.
 - 2.4.2.4 The laying of any pipeline, electric transmission line, or telephone line in, on, over, or under the beds of public subaqueous lands.
 - 2.4.2.5 Installation of temporary or permanent mooring buoys or private marker buoys.
 - 2.4.2.6 Establishment of an anchorage for mooring more than two (2) boats or which serves as a permanent place for resident vessels.
 - 2.4.2.7 Anchoring or mooring a floating platform over public subaqueous lands and for a period of twenty-four (24) consecutive hours or more.
 - 2.4.2.8 Maintenance dredging of existing or new channels, ditches, dockages, lagoon and other waterways to maintain or restore the approach depth and width (letter of authorization).
 - 2.4.2.9 Anchoring or mooring any vessel or platform over public subaqueous lands for revenue generating purposes.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 2.4.2.10 Repair and replacement of existing serviceable structures over private subaqueous lands (letter of authorization), except no permit or letter is required for repairs or structural replacements which are above the mean low tide and which do not increase any dimensions or change the use of the structure.
- 2.4.2.11 New dredging activities of channels, ditches, dockages or other waterways.
- 2.5 Statewide Activity Approvals. The Department may adopt statewide activity approvals for certain specified activities with limiting dimensions and criteria which are considered to have minimal impacts on subaqueous lands, water quality, habitats, etc. The qualification of a project for a statewide activity approval may require no review or will invoke an abbreviated review process for a decision by the Department.
- 2.6 Prohibitions. Certain types of projects are deemed inappropriate for consideration and shall not be considered or approved for private or public subaqueous lands under these Regulations:
- 2.6.1 Houseboats. No non-motorized vessel or floating platform whose function or use is primarily that of a residence shall be authorized under these Regulations to moor, anchor, dock over or otherwise occupy subaqueous lands. 2.6 Prohibitions. Certain types of projects are deemed inappropriate for consideration and shall not be considered or approved for private or public subaqueous lands under these Regulations:
- 2.6.2 Gazebos. No gazebos shall be constructed on a dock, pier, wharf, or other convenience or shoreline erosion control structure which otherwise utilize subaqueous lands, whether the structure is enclosed or open.
- 2.6.3 Overwater Structures. Restaurants, decks, residences, or appurtenances that extend over subaqueous lands, but which are not dependent upon water access for their primary purpose, shall not be authorized by these Regulations.
- 2.6.4 Mooring Buoys. Installation of mooring buoys or private marker buoys, which unduly impedes or preempts public access to subaqueous lands or interfere with navigation, shall not be permitted.
- 2.6.5 Convenience Structures. No convenience structure shall be constructed or used in a manner which creates a safety or navigation hazard, public nuisance, or unduly restricts public use or access to subaqueous lands. Such structures shall be relocated or removed by the person who installed, replaced or owns the structure.
- 2.6.6 Dockominiums. No real property consisting of a pier, dock, boat slip or anchorage over public subaqueous lands shall be declared as a unit in a common interest community. The section shall not prohibit classification of such structures as common amenities of a condominium or planned community.
- 2.6.7 Developments.
- 2.6.7.1 In residential developments in which the development allows individual boat docks, the combined number of individual boat docks and centralized slips (such as in a marina) shall not exceed the total number of waterfront lots in the development. This subsection shall not apply to an application for an individual boat dock at a waterfront lot filed by the individual if an individual has purchased such lot prior to the effective date of these Regulations. In residential developments in which the development prohibits individual boat docks, the number of centralized slips shall be limited only by any applicable requirements of the State of Delaware Marina Regulations.
- 2.6.7.2 The construction of boat launching ramps may be authorized within residential developments for the use of any resident within the development regardless of whether or not residents with waterfront property have, or may apply for, individual boat docks.
- 2.6.7.3 No resident of a development which prohibits individual boat docks shall permanently beach, moor, or anchor any vessel at any location in the development other than the development's approved marina.
- 2.6.7.4 No individual boat dock application shall be accepted prior to the legal subdivision and sale of individual lots on, or adjacent to, the proposed structure.

- 2.7 Other Projects. No other project which may potentially impact the public interest in the use of tidal or navigable waters, contribute to water pollution, infringe upon the rights of the public, infringe on the rights of private owners, or make connection with public subaqueous lands, shall be undertaken on public or private subaqueous lands unless approval has been obtained from the Department.
- 2.8 Exemptions
- 2.7.1 Anchoring. A waterfront property owner, other than one within a development which provides a marina or anchorage for residents' use, may anchor or moor, not more than two (2) personally owned vessels in the waters adjacent to and within the perpendicular seaward extension of the property boundaries of the waterfront property, provided that the preemptive mooring area does not extend more than ten percent of the width of the waterbody at high tide, is not in a navigational channel, and does not pose a navigational hazard.
- 2.8.2 Written Notification of Exempted Repairs and Replacements. Repairs or structural replacements which are above the mean low tide and which do not increase any dimensions or change the use of the structure are exempt from the permit or letter of authorization requirements contained herein. The user shall notify the Department in writing in advance of utilization of the exemption. For purposes of this subsection, the notice shall include the location of the structure, a description of the use of the structure, and provide its dimensions.
- 2.8.3 Shellfishing. The use of shellfish grounds for shellfishing and the authorized use, deployment, and marking of fishing equipment and gear, is regulated under the authority of 7 **Del.C.** Ch. 9, 11, 18, 19, 21, 23, 24, 25 and 27.
- 2.8.4 Drainage Ditches. Artificially created channels excavated from non-subaqueous lands and designed according to reasonable drainage standards do not require approval under these Regulations.
- 2.9 Waivers. The Department may waive any provision of these regulations when warranted under the following circumstances:
- 2.9.1 Life-threatening emergencies.
- 2.9.2 Actions are required for public safety for which sufficient time is not available to follow the Regulations.
- 2.9.3 Where the authority of the Department under 7 **Del.C.** Ch. 72 overlaps with another statute, including but not limited to Shellfish Grounds, 7 **Del.C.** Ch. 19; Beach Preservation, 7 **Del.C.** Ch. 68; or Wetlands, 7 **Del.C.** Ch. 66, provided that the following criteria are met:
- 2.9.3.1 If, in the opinion of the Secretary, equal environmental impact review and regulation of the activity would be provided by either statute; and
- 2.9.3.2 Waiver of these regulations would not be contrary to the purposes of 7 **Del.C.** Ch. 72.
- 2.9.4 For facilities or activities which require a permit pursuant to the Department Marina Regulations, the Department will waive the provisions of Sections 3.O1.B and 3.O1.C of these Regulations.
- 2.9.5 The failure of the Department to enforce any of the provisions of these Regulations, however, shall not constitute a waiver by the Department of any such provisions.
- 2.10 Revocation. The Secretary may revoke any lease or permit for failure to comply with these Regulations or the terms and conditions of the lease or permit. The Secretary may, upon expiration or cancellation of a lease, direct the lessee to remove all structures and equipment from the leased area within 180 days. If the lessee fails to remove the structures and equipment thereon within the 180 day period, the Department shall, at its option and after 10 days from receipt of written notice by certified mail to the lessee, have the structures and equipment removed at the expense of the lessee.
- 2.11 Penalties. Violations of these regulations shall be punishable in accordance with 7 **Del.C.** §7214.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 2.12 Other Regulatory Agencies. Compliance with these Regulations does not relieve any person from complying with the laws, rules, regulations, and requirements imposed on the same lands, uses, structures, facilities or other appurtenances by local, State and Federal government agencies or other divisions within the Department.
- 2.13 Public Information. All material submitted in connection with any application shall be deemed public records subject to disclosure subject to 29 Del.C. Ch. 100 unless designated by the applicant and accepted by the Department as covered by one or more of the exceptions enumerated in 29 Del.C. §10002(d).
- 2.14 Severability. If any part of these Regulations or the application of any part thereof are held invalid or unconstitutional, the application of such part to other persons or circumstances, and the remainder of these Regulations, shall not be affected thereby and shall be deemed valid and effective.
- 2.15 Appeals. Any person whose interest is substantially affected by any action of the Secretary taken pursuant to these Regulations may appeal to the Environmental Appeals Board as per 7 Del.C. §7210. There shall be no appeal of a decision by the Secretary to deny a permit on any matter involving State-owned subaqueous lands.
- 2.16 Effective Date of These Regulations. These Regulations shall take effect upon final adoption.

3.0 Procedures for Application**3.1 General****3.1.1 Requirements for Every Application**

- 3.1.1.1 A person seeking a case or permit shall submit to the Secretary a written request, using the appropriate forms available from the Department, stating in detail the type of grant, lease or permit desired, showing the location of the area and containing specifications for any proposed activity.
- 3.1.1.2 The application for every type of activity shall provide the information requested in the appropriate application form. No application shall be considered complete or acted upon until the application is deemed complete by the Department. Providing false or inaccurate information shall be grounds for denial or revocation of a permit or lease and shall be grounds for a civil or criminal penalty.

3.1.2 Required Attachments to the Application. The applicant shall attach the following to the application:

- 3.1.2.1 A map showing the location and boundaries of the proposed project in relation to the adjoining property and to the nearest existing street or road intersection, and the specific location of all proposed activities.
- 3.1.2.2 A neat, scaled drawing of the proposed activities on 8-1/2" x 11" paper which shows:
 - 3.1.2.2.1 that the design conforms to generally accepted engineering principles,
 - 3.1.2.2.2 accurate dimensions of the proposed activity (e.g., cubic yards of dredging or fill, square feet of dock, pier, jetty, or preemptive area, linear feet of bulkheading, utilities, etc.),
 - 3.1.2.2.3 all existing structures,
 - 3.1.2.2.4 exact location of property corners and property lines, wetlands and aquatic habitats.
- 3.1.2.3 If the design does not conform to generally accepted engineering principles, the Secretary may require that the design be prepared, signed, and scaled by a professional engineer registered in the State of Delaware.
- 3.1.2.4 A certified copy of the deed and survey plot plan (to indicate property lines and corners) to the land, and written permission from the owner if other than the applicant for the project. The Department may request such additional information as will enable it to determine ownership of or authority to use the property.
- 3.1.2.5 Evidence of zoning approval for the project. The Department may defer consideration of the application if it determines that substantive questions

regarding the validity of the County's or municipality's actions are raised in an appeal of that action.

3.1.2.6 The application fee and any deposit required.

3.1.2.7 Performance bond as required.

3.1.2.8 Additional information as required by the Department.

3.1.3 Current Application. The applicant shall maintain the application in a current state and notify the Department immediately of any changes in the information provided.

3.2 Additional Information. The Department may request such additional information as will enable it to consider the application properly. The Department may require the applicant to provide an environmental assessment if it determines that the proposed activity may have a substantial adverse effect on the environment. Any requested additional information not provided to the Department within a reasonable time may be grounds to declare the permit incomplete or deny the permit.

3.3 The Department may request of any State agency a report or recommendation concerning any application before it which affects that agency or for which that agency has particular information or expertise. The Department may consider the report in ruling on the application.

3.4 Burden on Applicant. The burden shall be on the applicant to satisfy the Department that the requirements of these Regulations have been met; and if the granting of the permits, lease or approval will result in loss to the public of a substantial resource, that the loss has been offset or mitigated.

4.0 Criteria of Permits Leases and Letters of Authorization

4.1 Evaluation Considerations. Each application shall be reviewed based on the consideration of the performance specifications, standards and other criteria listed in this section for the type of activity proposed.

4.2 An application may be denied if the activity could cause harm to the environment, either singly or in combination with other activities or existing conditions, which cannot be mitigated sufficiently.

4.3 For shoreline erosion control structures or measures and for water-dependent activities, each activity shall be reviewed on basis of need for the type of structure proposed.

4.4 For repair and replacement projects of serviceable structures, serviceability must be proven to the satisfaction of the Department. A serviceable structure includes existing structures which are intact and functioning for the original intended design purpose. For structures which are no longer intact due to a specific and catastrophic water event or activity, camera-dated photographs or aerial photography must clearly indicate the serviceability of said structure (as defined by the criteria above) within six (6) months prior to the date of application.

4.5 With regard to an evaluation of the overall public benefits from the proposed activity or structure, the following criteria may be used to determine whether or not to issue a permit, easement, lease, fee simple interest, or other instrument, with or without mitigating measures and conditions.

4.6 Public Use Impact. The Department shall consider the public interest in any proposed activity which might affect the use of subaqueous lands. These considerations include, but are not limited to, the following:

4.6.1 The value to the State or the public in retaining any interest in subaqueous lands which the applicant seeks to acquire, including the potential economic value of the interest.

4.6.2 The value to the State or the public in conveying any interest in subaqueous lands which the applicant seeks to acquire.

4.6.3 The potential effect on the public with respect to commerce, navigation, recreation, aesthetic enjoyment, natural resources, and other uses of the subaqueous lands.

4.6.4 The extent to which any disruption of the public use of such lands is temporary or permanent.

4.6.5 The extent to which the applicant's primary objectives and purposes can be realized without the use of such lands (avoidance).

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 4.6.6 The extent to which the applicant's primary purpose and objectives can be realized by alternatives, i.e. minimize the scope or extent of an activity or project and its adverse impact.
- 4.6.7 Given the inability for avoidance or alternatives, the extent to which the applicant can employ mitigation measures to offset any losses incurred by the public.
- 4.6.8 The extent to which the public at large would benefit from the activity or project and the extent to which it would suffer detriment.
- 4.6.9 The extent to which the primary purpose of a project is water-dependent.
- 4.7 Environmental Considerations
 - 4.7.1 The Department shall consider the impact on the environment, including but not limited to, the following:
 - 4.7.1.1 Any impairment of water quality, either temporary or permanent, which may reasonably be expected to cause violation of the State Surface Water Quality Standards. This impairment may include violation of criteria or degradation of existing uses.
 - 4.7.1.2 Any effect on shellfishing, finfishing, or other recreational activities, and existing or designated water uses.
 - 4.7.1.3 Any harm to aquatic or tidal vegetation, benthic organisms or other flora and fauna and their habitats.
 - 4.7.1.4 Any loss of natural aquatic habitat.'
 - 4.7.1.5 Any impairment of air quality, either temporarily or permanently, including noise, odors, and hazardous chemicals.
 - 4.7.1.6 The extent to which the proposed project may adversely impact natural surface and groundwater hydrology and sediment transport functions.
 - 4.7.2 For major commercial activities, or for other activities which may have a substantial environmental impact, the Department may require an environmental impact assessment. In all cases, a general assessment of potential impacts listed in 4.7 must be provided by the applicant.
 - 4.7.3 The Department shall consider whether the activity under review could have the potential to cause any adverse environmental impacts, taken in conjunction with the existing situation and with other activities under construction or review. To assess the cumulative and secondary impacts, the Department may require the applicant to provide the following information:
 - 4.7.3.1 Determination of cumulative effects on the aquatic ecosystem, natural surface and groundwater hydrology.
 - 4.7.3.2 Determination of secondary effects on the aquatic ecosystem, natural surface and groundwater hydrology.
 - 4.7.4 The Department shall consider whether any significant impacts or potential harm could be offset or mitigated by appropriate actions or changes to the proposed activity by the applicant. If so, the required mitigating measures may be included as conditions of the permit or lease.
 - 4.7.5 Other Considerations. The Department shall also consider the following to determine whether to approve the application:
 - 4.7.5.1 The degree to which the project represents an encroachment on or otherwise interferes with public lands, waterways or surrounding private interests.
 - 4.7.5.2 The degree to which the project incorporates sound engineering principles and appropriate materials of construction.
 - 4.7.5.3 The degree to which the proposed project fits in with the surrounding structures, facilities, and uses of the subaqueous lands and uplands.
 - 4.7.5.4 Whether the proposed activity complies with the State of Delaware's Surface Water Quality Standards both during construction and during subsequent operation or maintenance.

4.7.5.5 The degree to which the proposed project may adversely affect shellfish beds or finfish activity in the area.

4.8 Requirements for all Structures

4.8.1 Structures shall be constructed in a manner that allows for continued growth and nourishment of aquatic and wetland vegetation under or near the structure wherever possible, and allows for adequate water circulation and water quality to support plants and animals.

4.8.2 Structures shall be constructed, installed, and used in a manner that minimizes pollution or the causing of harm to aquatic and tidal plants, fish and wildlife.

4.8.3 Structures shall utilize the best available materials and technologies and shall be constructed in a manner that will prevent or minimize leaching or runoff of harmful chemicals or other substances which may cause water pollution or harm to aquatic plants and wildlife.

4.8.4 Structures shall not interfere with navigation, public, or other rights.

4.9 Boat Docking Facilities

4.9.1 All new and existing marinas must comply with the requirements of the Department Marina Regulations.

4.9.2 General Siting Considerations: Siting of boat docking facilities shall be evaluated on site-specific conditions including, but not limited to, location of navigational channel, proximity of existing structures, aquatic habitats, and width and orientation of waterbody. The following criteria will be weighed and balanced when evaluating the siting of boat docking facilities.

4.9.2.1 Structures should be sheltered or protected from storm-driven currents, waves, and ice in an area with low or moderate normal currents and littoral drift.

4.9.2.2 Structures should be constructed to avoid dredging or filling, with minimal impact on aquatic vegetation and wetlands, and without dead-end or poorly flushed lagoons.

4.9.2.3 Structures should be located away from critical habitats, historic, or archaeological areas.

4.9.2.4 Structures should be located away from hazardous facilities or designated recreational swimming areas.

4.9.2.5 Where adequate depths exist for water-dependent structures, no dock, mooring, piling, or other structure or mooring area shall extend channelward more than 10 percent of the width of the waterbody at that location (from mean low water). In no case shall a structure extend more than 20 percent of the width of the waterbody, nor shall it extend seaward more than 250 feet, except under exceptional circumstances necessary to provide access for needed commerce.

4.9.2.6 Docks, mooring, pilings, or other structures should be located a minimum of ten (10) feet from a navigation channel.

4.9.2.7 Docks and piers should extend out from the shoreline far enough so as to eliminate need for dredging and filling, and provide sufficient height to allow light to penetrate to vegetation underneath and alongside.

4.9.2.8 Slips, lagoons, basins, and access channels should be no deeper than the parent waterbody (i.e. no sill), and the depth should slope upward toward the landward extent from the parent waterbody. Exception may be allowed only by individual review of the potential environmental impacts and approval granted by the Secretary of the Department.

4.9.2.9 Berms and grasslands should be made a part of the boat docking facility design wherever feasible and possible, particularly for buffer zones between the facility and any wetlands. As much of the land surface as possible should be vegetated or covered with porous materials to decrease stormwater runoff.

4.9.2.10 All convenience structures shall be set back a minimum of ten (10) feet from adjacent property lines. Exceptions may be allowed only if a written letter of no objection is obtained from the adjacent property owner, and the Department is

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- satisfied that no navigation hazard or other adverse environmental impact may result.
- 4.9.2.11 New docking facilities should not extend beyond existing structures in the immediate vicinity unless absolutely necessary to obtain navigable water depths for a water-dependent activity.
 - 4.9.2.12 Docking facilities should extend out from the shoreline no further than to a depth necessary for docking a boat capable of navigating the waterway.
 - 4.9.2.13 Dredging to obtain navigable water depths in conjunction with private residential boat docking facilities should be avoided.
- 4.9.3 Structures shall not be constructed using creosote treated lumber.
 - 4.9.4 For subdivided, recorded parcels of real property, applications for construction of a boat docking and/or launching facility must satisfy the minimum area requirements of a lot for residential construction, to include applicable setback and utility construction requirements (based on county, state and municipal standards), prior to consideration for approval for a subaqueous lands lease/permit. Community or common area parcels within an approved subdivision must satisfy the requirements defined by the Marina Regulations for a marina, based on the maximum number of potential users within the subdivision.
 - 4.9.5 Properties which were legally subdivided and recorded prior to the adoption of Subaqueous Lands law (July 14, 1969) are exempted from the minimum size requirements for a docking facility as specified by 4.94 of these regulations. All structures exempted by this condition must satisfy all other siting, design, and review criteria of these Regulations.
 - 4.9.6 Minimum frontage adjacent to subaqueous lands for a docking facility for any parcel will be forty (40) feet. Any proposed structure must satisfy all setback requirements as defined by state, federal or county regulation or guidelines.
 - 4.9.7 Applications for the construction of a boat docking/launching facility within a recorded easement/right-of-way, linking non-waterfront properties to the shoreline, must be submitted with a written letter of no objection by the owner of the property containing said conveyance. Location and siting of the structure must satisfy all setback and frontage requirements, as defined by the Department. Applications will not be accepted for private/community structures within approved public easements or right-of-ways.
- 4.10 Installation and Use of Shoreline Erosion Control Measures
 - 4.10.1 Requirements
 - 4.10.1.1 Structural shoreline erosion control measures shall not be permitted in those areas where minimal demonstrable erosion is evident, as determined by the Department.
 - 4.10.1.2 Efforts shall be made to utilize shoreline erosion control methods that best provide for the conservation of aquatic nearshore habitat, maintain water quality, and avoid other adverse environmental effects. These include, but are not limited to, vegetation, revetments, and gabions. Structural erosion control measures may be allowed where it can be shown, through a review of site conditions and generally accepted engineering standards, that nonstructural measures would be ineffective in controlling erosion. When engineering feasibility and effectiveness considerations are equal, the shoreline erosion control method utilized shall be the one with the least adverse environmental impact.
 - 4.10.1.3 Nonstructural measures are preferred for shoreline stabilization work in:
 - 4.10.1.3.1 Low wave energy areas where no significant shoreline erosion occurs or wetlands occur. In this case, the allowable activity or measure should be limited to, the introduction or management of suitable vegetation.
 - 4.10.1.3.2 Eroding areas where combinations of structural/nonstructural measures would be a practicable and effective method of erosion control. In this case, the allowable activities include:

- 4.10.1.3.2.1 The properly, designed and constructed regrading and contouring of the shoreline followed by planting and management of suitable vegetative stabilizing cover.
- 4.10.1.3.2.2 A combination of low profile stone groins and suitable vegetative stabilizing cover.
- 4.10.1.3.2.3 Properly designed and constructed low-profile rip-rap revetments, marsh-toe sills, or other non-vertical structures which may be used in conjunction with vegetative stabilizing cover.
- 4.10.1.4 Vertical-walled structures shall be allowed only where a non-vertical structure, designed to equal standards, would be ineffective to control erosion, where deleterious environmental effects associated with the construction of vertical structures would be less than the impacts on the adjacent environment during construction of a non-vertical structure, where functionally, no practical alternatives exist for certain water-dependent facilities or activities, or where generally accepted engineering practices would preclude the use of non-vertical walled structures.
- 4.10.1.5 All structural shoreline erosion control measures shall be designed to conform to generally accepted engineering principles. If the designed measure does not conform to accepted engineering principles, the Department may require a design to be prepared, signed, and sealed by a professional engineer registered in Delaware.
- 4.10.1.6 Structural erosion control measures shall address and satisfy the following elements:
 - 4.10.1.6.1 Protection of aquatic biota, wetlands, and nearshore shallow water habitat.
 - 4.10.1.6.2 Protection of water quality, flushing, and naturally occurring littoral drift and flow.
 - 4.10.1.6.3 For vertical walls, protection against "toe scour" by adequately designed toe depth and, in high energy environments, rip-rap at the toe of the structure for existing tidal and wave conditions.
 - 4.10.1.6.4 Adequate flow and circulation necessary to support the functional value of adjacent wetlands or aquatic habitat.
 - 4.10.1.6.5 Materials and methods of construction shall be sufficient to withstand the stresses to which they will be subjected, from wind, waves, tides, currents, ice, and debris.
 - 4.10.1.6.7 Avoidance or minimization of increased erosion of adjacent or downdrift shorelines.
- 4.10.2 Additional Requirements
 - 4.10.2.1 Erosion control measures shall be installed and used only for the purposes of shoreline stabilization; any structure which serves or could serve to increase the property of an applicant shall be regulated by the provisions of 4.11 below.
 - 4.10.2.2 Bulkheads must be aligned, where possible, with any adjacent bulkheads and shall be designed to prevent the possibility of trapping floating debris or impairing water circulation.
 - 4.10.2.3 Each shoreline erosion control structure shall be designed to the extent possible to minimize adverse environmental impacts. If the Department determines that the granting of a permit for a shoreline erosion control structure will result in loss to the public of a substantial resource, the permittee may be required to take measures which will offset or mitigate the loss.
 - 4.10.2.4 No permanent structure (building, house, patio, porch, deck, or other such structure) shall be constructed on a bulkhead or any portion of the anchoring system or any adjacent area that would interfere with future repair and/or replacement of the bulkhead.
- 4.11 Activities Involving Dredging, Filling, Excavating or Extracting Materials
 - 4.11.1 Objectives. Projects shall be designed to meet the following objectives:

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 4.11.1.1 Conform to the pertinent objectives, classification system, environmental considerations, and criteria of the "Inland Bays Dredging Study, Volumes I and II," dated April 1986, as adopted by the Department on July 18, 1986.
- 4.11.1.2 Maintain the navigability of channels.
- 4.11.1.3 Maintain or improve the environmental quality of the State's water resources, subaqueous lands and wetlands.
- 4.11.2 General Evaluation Consideration. The Department shall consider the following additional factors in reviewing a dredging, filling, excavating, or extracting application:
 - 4.11.2.1 Any environmental impacts at and surrounding the dredging site(s).
 - 4.11.2.2 Any environmental effects of the disposal of the dredged materials at and surrounding the disposal or fill site(s), before or after mitigation, during and following the disposal of fill activities and particularly impacts on water quality as described below in 4.11.3.
 - 4.11.2.3 Any economic and noneconomic benefits of the project compared to the costs of the project, both direct and secondary.
 - 4.11.2.4 Consistency of the project with regional growth and local land use plans.
- 4.11.3 Water Quality on Dredging Projects. The applicant may be required to submit information to the Department to facilitate its evaluation of water quality impacts, as may be required to ensure compliance with State Surface Water Quality Standards. The following concerns for protecting water quality shall be specifically considered by the Department in evaluating applications for dredging projects:
 - 4.11.3.1 All dredging is to be conducted in a manner consistent with sound conservation and water pollution control practices. Spoil and fill areas are to be properly diked to contain the dredged material and prevent its entrance into any surface water. Specific requirements for spoils retention may be specified by the Department in the approval, permit or license.
 - 4.11.3.2 All material excavated shall be transported, deposited, confined, and graded to drain within the disposal areas approved by the Department. Any material that is deposited elsewhere than in approved areas shall be removed by the applicant and deposited where directed at the applicant's expense, and any required mitigation shall also be at the applicant's expense.
 - 4.11.3.3 Materials excavated by hydraulic dredge shall be transported by pipeline directly to the approved disposal area. All pipelines shall be kept in good condition at all times and any leaks or breaks shall be immediately repaired.
 - 4.11.3.4 Materials excavated and not deposited directly into an approved disposal area shall be placed in scows or other vessels and transported to either an approved enclosed basin, dumped, and then rehandled by hydraulic dredge to an approved disposal area, or to a mooring where scows or other vessels shall be unloaded by pumping directly to an approved disposal area.
 - 4.11.3.5 When scows or other vessels are unloading without dumping, they shall have their contents pumped directly into an approved disposal area by a means sufficient to preclude any loss of material into the body of water.
 - 4.11.3.6 In approved disposal areas, the applicant may construct any temporary structures or use any means necessary to control the dredge effluent, except borrowing from the outer slopes of existing embankments and/or hydraulic placing of perimeter embankments. For bermed disposal sites, a minimum freeboard of two (2) feet, measured vertically from the retained materials and water to the top of the adjacent confining embankment, shall be maintained at all times.
 - 4.11.3.7 The applicant shall not obstruct drainage or tidal flushing on existent wetlands or upland areas adjacent thereto. The applicant shall leave free, clear, and unobstructed outfalls of sewers, drainage ditches, and other similar structures affected by the disposal operations. The dredged materials shall be distributed within the disposal area in a reasonably uniform manner to permit full drainage without ponding during and after fill operations.

- 4.11.3.8 The dredging operation must be suspended if water quality conditions deteriorate in the vicinity of dredging or the spoil disposal site. Minimum water quality standards may be included as an element of the permit and shall be monitored by the applicant. Violation of these conditions shall be cause for immediate suspension of activity and notification of the Department. Dredging shall not be resumed until water quality conditions have improved and the Department has authorized the resumption.
- 4.11.4 Prohibited Dredging Project. The following types of dredging projects are prohibited.
- 4.11.4.1 Dredging of biologically productive areas, such as nursery areas, shellfish beds, and submerged aquatic vegetation, if such dredging will have a significant or lasting impact on the biological productivity of the area.
- 4.11.4.2 Dredging of new dead-end lagoons, new basins and new channels, which have a length to width ratio greater than 3:1 and for which the applicant cannot prove, by clear and convincing evidence, that such dredging would not violate State Surface Water Quality Standards. This subsection shall not apply to marina projects governed by the Marina Regulations.
- 4.11.4.3 Dredging channels, lagoons, or canals deeper than the existing controlling depth of the connecting or controlling waterway, unless otherwise approved under 4.9.2.8 of these Regulations.
- 4.11.4.4 Dredging channels, cleaning marinas, or other subaqueous areas by using propeller wash from boats.
- 4.11.5 Removal of Public Subaqueous Lands. No person shall remove any material from public subaqueous lands without Department approval and receipt by the Department of full payment of the fee for the amount of material estimated to be removed. The Department reserves the right to determine the amount of material to be removed in dredging and/or filling projects.
- 4.12 Creation of Lands
- 4.12.1 Creation. No person shall fill, reclaim, or alter public subaqueous lands without the Department approval and receipt by the Department of full payment of a lease fee for the estimated area of land created or affected. The land created shall remain State property and may be leased to the applicant under terms and conditions to be set by the Department, unless otherwise conveyed as noted below in paragraph B. Lease fees may be waived for shoreline erosion control projects which have demonstrated water quality or habitat benefits associated with their use.
- 4.12.2 Sale of Created Lands. The Secretary may convey a fee simple title or any other interest in public lands created by filling, reclamation, or alteration of public subaqueous lands, in whole or in part, in lieu of leasing said lands pursuant to the provisions of Paragraph A above, as a precondition of granting a permit for such project. The sale price shall be determined by the Department on the basis of the fair market value after filling, reclamation, or alteration.
- 4.12.3 Secretary Approval of the Sale or Lease of Created Lands. The Secretary reserves the right to deny any application for the lease or sale of created lands pursuant to 4.12.1 and 4.12.2 above if he deems such lease or sale-not to be in the public interest.
- 4.13 Installation and Use of Pipeline and Other Conduits
- 4.13.1 Types of Projects: No person shall install or use a pipeline or other conduit, on or in subaqueous lands, without a lease or permit from the Department. Approval of the Department is required for pipeline including, but not limited to:
- 4.13.1.1 Telephone lines.
- 4.13.1.2 Lines for the transmission of electricity.
- 4.13.1.3 Pipelines for the transport of any liquid or gas.
- 4.13.1.4 Any other type of conduits or utility.
- 4.13.2 Construction and Materials. The construction methods and materials for pipelines and other conduits shall, at a minimum, be in accordance with the applicable state and federal

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

regulations governing the installation and operation of pipelines, and shall conform to generally accepted engineering practices for said activities.

5.0 Fees

- 5.1 **Application Fees.** Every application, except those from a state or federal government agency or political subdivision of the State of Delaware, shall be accompanied by the nonrefundable application fee established by the General Assembly. This fee shall cover the costs of handling and evaluating the application, and other expenses of administering the subaqueous lands program.
- 5.2 **Lease Fees.** Lease fees shall be established by the General Assembly for all commercial and noncommercial projects over public subaqueous lands. The lease and fee requirements of these Regulations shall be applicable to all activities and structures, including previously leased lands, where no fee was required. Lease fees shall apply to any lease that has expired until such time as the structure is removed pursuant to a denial or revocation, or until such time as a new lease has been issued.
- 5.3 **Hearing Fees**
 - 5.3.1 **Costs.** The costs of public hearings, as described below, shall be charged to the applicant. These costs may include the costs of publication of the notice of the hearing, charge for the hearing room, if any, costs for recording, transcription, and copying the proceedings, and other costs directly related to the hearing. No charge will be made for the salaries and expenses of the public officials involved in the hearing.
 - 5.3.2 **Deposit.** The Secretary may require a deposit in addition to the application fee at the time of application, or at any other time, to ensure payment of the applicable fees.

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Clean Water Act Section 401: State Certification of Water Quality

(a) Compliance with applicable requirements; application; procedures; license suspension

(1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title. In the case of any such activity for which there is not an applicable effluent limitation or other limitation under sections 301(b) and 302 of this title, and there is not an applicable standard under sections 306 and 307 of this title, the State shall so certify, except that any such certification shall not be deemed to satisfy section 511(c) of this title. Such State or interstate agency shall establish procedures for public notice in the case of all applications for certification by it and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications. In any case where a State or interstate agency has no authority to give such a certification, such certification shall be from the Administrator. If the State, interstate agency, or Administrator, as the case may be, fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be.

(2) Upon receipt of such application and certification the licensing or permitting agency shall immediately notify the Administrator of such application and certification. Whenever such a discharge may affect, as determined by the Administrator, the quality of the waters of any other State, the Administrator within thirty days of the date of notice of application for such Federal license or permit shall so notify such other State, the licensing or permitting agency, and the applicant. If, within sixty days after receipt of such notification, such other State determines that such discharge will affect the quality of its waters so as to violate any water quality requirements in such State, and within such sixty-day period notifies the Administrator and the licensing or permitting agency in writing of its objection to the issuance of such license or permit and requests a public hearing on such objection, the licensing or permitting agency shall hold such a hearing. The Administrator shall at such hearing submit his evaluation and recommendations with respect to any such objection to the licensing or permitting agency. Such agency, based upon the recommendations of such State, the Administrator, and upon any additional evidence, if any, presented to the agency at the hearing, shall condition such license or permit in such manner as may be necessary to insure compliance with applicable water quality requirements. If the imposition of conditions cannot insure such compliance such agency shall not issue such license or permit.

(3) The certification obtained pursuant to paragraph (1) of this subsection with respect to the construction of any facility shall fulfill the requirements of this subsection with respect to certification in connection with any other Federal license or permit required for the operation of such facility unless, after notice to the certifying State, agency, or Administrator, as the case may be, which shall be given by the Federal agency to whom application is made for such operating license or permit, the State, or if appropriate, the interstate agency or the Administrator, notifies such agency within sixty days after receipt of such notice that there is no longer reasonable assurance that there will be compliance with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title because of changes since the construction license or permit certification was issued in (A) the construction or operation of the facility, (B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements. This paragraph shall be inapplicable in any case where the applicant for such operating license or permit has failed to provide the certifying State, or, if appropriate, the interstate agency or the Administrator, with notice of any proposed changes in the construction or operation of the facility with respect to which a construction license or permit has been granted, which changes may result in violation of section 301, 302, 303, 306, or 307 of this title.

(4) Prior to the initial operation of any federally licensed or permitted facility or activity which may result in any discharge into the navigable waters and with respect to which a certification has been obtained pursuant to paragraph (1) of this subsection, which facility or activity is not subject to a Federal operating license or permit, the licensee or permittee shall provide an opportunity for such certifying State, or, if appropriate, the interstate agency or the Administrator to review the manner in which the facility or activity shall be operated or conducted for the purposes of assuring that applicable effluent limitations or other limitations or other applicable water quality requirements will not be violated. Upon notification by the certifying State, or if appropriate, the interstate agency or the Administrator that the operation of any such federally licensed or permitted facility or activity will violate applicable effluent limitations or other limitations or other water quality requirements such Federal agency may, after public hearing, suspend such license or permit. If such license or permit is suspended, it shall remain suspended until notification is received from the certifying State, agency, or Administrator, as the case may be, that there is reasonable assurance that such facility or activity will not violate the applicable provisions of section 301, 302, 303, 306, or 307 of this title.

(5) Any Federal license or permit with respect to which a certification has been obtained under paragraph (1) of this subsection may be suspended or revoked by the Federal agency issuing such license or permit upon the entering of a judgment under this chapter that such facility or activity has been operated in violation of the applicable provisions of section 301, 302, 303, 306, or 307 of this title.

(6) Except with respect to a permit issued under section 402 of this title, in any case where actual construction of a facility has been lawfully commenced prior to April 3, 1970, no certification shall be required under this subsection for a license or permit issued after April 3, 1970, to operate such facility, except that any such license or permit issued without certification shall terminate April 3, 1973, unless prior to such termination date the person having such license or permit submits to the Federal agency which issued such license or permit a certification and otherwise meets the requirements of this section.

(b) Compliance with other provisions of law setting applicable water quality requirements

Nothing in this section shall be construed to limit the authority of any department or agency pursuant to any other provision of law to require compliance with any applicable water quality requirements. The Administrator shall, upon the request of any Federal department or agency, or State or interstate agency, or applicant, provide, for the purpose of this section, any relevant information on applicable effluent limitations, or

other limitations, standards, regulations, or requirements, or water quality criteria, and shall, when requested by any such department or agency or State or interstate agency, or applicant, comment on any methods to comply with such limitations, standards, regulations, requirements, or criteria.

(e) Authority of Secretary of the Army to permit use of spoil disposal areas by Federal licensees or permittees

In order to implement the provisions of this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized, if he deems it to be in the public interest, to permit the use of spoil disposal areas under his jurisdiction by Federal licensees or permittees, and to make an appropriate charge for such use. Moneys received from such licensees or permittees shall be deposited in the Treasury as miscellaneous receipts.

(d) Limitations and monitoring requirements of certification

Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this title, standard of performance under section 306 of this title, or prohibition, effluent standard, or pretreatment standard under section 307 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

LAST UPDATED ON MAY 1, 2019

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DIVISION OF WATERSHED STEWARDSHIP

7401 Surface Water Quality Standards

1.0 Intent

- 1.1 It is the policy of the Department to maintain within its jurisdiction surface waters of the State of satisfactory quality consistent with public health and public recreation purposes, the propagation and protection of fish and aquatic life, and other beneficial uses of the water.
- 1.2 Where conflicts develop between stated surface water uses, stream criteria, or discharge criteria, designated uses for each segment shall be paramount in determining the required stream criteria, which, in turn, shall be the basis of specific discharge limits or other necessary controls.
- 1.3 Where existing facilities operating under a permit from this Department are required to reduce pollution concentrations or loadings due to the implementation of these surface water quality standards, a reasonable schedule for compliance may be granted in accordance with standards or requirements established in applicable statutes and regulations.
- 1.4 The Department intends to develop an agency-wide program to assess, manage, and communicate human health cancer risks from the major categories of environmental pollution under its jurisdiction. As a result of this activity, it may be necessary to adjust the upper bound worst case risk management level stated in subsection 4.6.3.3.2.1.

14 DE Reg. 1392 (06/01/11)

2.0 Definitions

The following words and terms, when used in this regulation, shall have the following meaning unless the context clearly indicates otherwise:

"Acute" means involving a stimulus severe enough to rapidly induce an adverse response; in toxicity tests, an adverse response observed in 96 hours or less is typically considered acute. An acute effect is not always measured in terms of lethality; it can measure a variety of short term adverse effects.

"Additive Effect" means the total effect of a mixture of pollutants which is equal to the arithmetic sum of the effects of the individual pollutants in the mixture.

"Agriculture" means the use of land and water in the production of food, fiber and timber products.

"Antagonistic Effect" means the total effect of a mixture of pollutants which is less than the arithmetic sum of the effects of the individual pollutants in the mixture.

"Average" means, unless otherwise noted, the arithmetic mean of a representative group of samples for a specified parameter. Representativeness shall be determined through application of appropriate statistical techniques to data collected at times of critical ambient conditions, as determined on a parameter-by-parameter basis.

"Best Management Practice (BMP)" are methods, measures or practices that are determined by the Department to be reasonable and cost-effective means for a person to meet certain, generally nonpoint source, pollution control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during or after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters.

"Best Scientific Judgment" means findings, conclusions, or recommended actions which result from the application of logical reasoning and appropriate scientific principles and practices to available and relevant information on a particular situation.

"Bioavailability" means a measure of the physicochemical access of a pollutant to an organism.

"Biodegradation" means the biological decomposition of natural or synthetic organic materials by microorganisms.

"Carcinogen" means a substance that increases the risk of benign or malignant neoplasms (tumors) in humans or other animals. Carcinogens regulated through these Standards include but may not be limited to those toxic substances classified as Group A or Group B carcinogens as defined in 51 FR 185 (9/24/86).

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL

DELAWARE ADMINISTRATIVE CODE

“Chronic” means involving a stimulus that produces an adverse response that lingers or continues for a relatively long period of time, often one-tenth of the life span or more. Chronic should be considered a relative term depending on the life span of the organism. A chronic effect can be lethality, growth or reproductive impairment, or other longer term adverse effect.

“Clean Water Act” means 33 U.S.C. 1251 et. seq., as amended.

“Cold Water Fish Use” means protection of fish species (such as from the family Salmonidae) and other flora and fauna indigenous to a cold water habitat.

“Complete Mix” means the concentration of a discharged pollutant varies by no more than 5% over the cross-sectional area of the receiving water at the point of discharge.

“Conservation Plan” means a conservation plan is a record of land user decisions affecting land use and conservation treatment of natural resources including soil, water, air, plant, and animal resources. It is comprised of resource management systems which are groups of interrelated conservation practices (BMPs) and management measures formulated to protect, restore, or improve the resource base. Conservation plans are usually developed with the assistance of conservation districts using district BMP standards (ref: Field Office Technical Guide, USDA Soil Conservation Service).

“Control Structure” means a dam, weir or other structure placed by man to regulate stream flow and/or create an impoundment.

“Critical Flow” means a statistically determined minimum flow, which has a defined duration and recurrence interval.

“Degradation” means any adverse change in water quality or existing uses.

“Department” means the Delaware Department of Natural Resources and Environmental Control.

“Designated Uses” means those uses specified in water quality standards for each water body or segment whether or not they are being attained.

“Diadromous” describes fish which migrate to and from marine water and freshwater for the purpose of spawning.

“Discharge Length Scale” means the square root of the cross-sectional area of any discharge outlet.

“Dispersion” means a physical mixing process which results in the scattering of particles or dissolved materials in the water column.

“Early Life Stages” means life stages for fish which include all embryonic and larval stages, and all juvenile forms to 30 days following hatching.

“Ephemeral” describes a stream which contains flowing water only for short periods following precipitation events.

“Excavated Waters” means waters of the State which are wholly human-created. Such waters shall include but not be limited to upland basins with surface outlets, drainage and tax ditches which are ephemeral, and dug ponds.

“Existing Use” means those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.

“Fish, Aquatic Life And Wildlife” means all animal and plant life found in Delaware, either indigenous or migratory, regardless of life stage or economic importance.

“Foam” means frothy, generally stable, whitish mass of bubbles formed on or in the water upon agitation of the water.

“Fresh Water” means waters of the State which contain natural levels of salinity of 5 parts per thousand or less.

“Fresh Water Flow” means that flow which represents the amount of water passing a measurement point in a non-tidal system.

“Harvestable Shellfish Waters” means waters from which shellfish may be taken and consumed; such waters are approved for shellfish harvesting by the Shellfish & Recreational Waters Branch, Watershed Assessment and Management Section, Division of Watershed Stewardship, Department of Natural Resources and Environmental Control.

“Hydrolysis” means a reaction of a chemical with water which results in the cleavage of a chemical bond.

“Indigenous” means native, or naturally growing, existing, or produced.

“Industrial Water Supply” means any water that is protected for use for industrial purposes, including non-contact cooling water.

- "Intake Water"** means water used by a facility from surface water, groundwater, commercial, or other sources.
- "Intermittent"** describes a stream which contains flowing water for extended periods during a year, but does not carry flow at all times.
- "Lethal Concentration (LC)"** means the point estimate of the toxicant concentration that would be lethal to a given percentage of test organisms during a specific period.
- "Marine Water"** means waters of the State which contain natural levels of salinity in excess of 5 parts per thousand.
- "Migratory Fish Spawning and Nursery Designated Use"** means in the Nanticoke River from the upstream-most limits of the City of Seaford to the Maryland State Line and the Broad Creek from the upstream-most limits of the Town of Laurel to the confluence with the Nanticoke River, the survival, growth and propagation of balanced indigenous populations of ecologically, recreationally and commercially important anadromous, semi-anadromous and tidal-fresh resident fish inhabiting spawning and nursery grounds from February 1 through May 31.
- "Minimum Analytical Level"** means the lowest concentration of a substance that can be quantified within specified limits of interlaboratory precision and accuracy under routine laboratory operating conditions in the matrix of concern.
- "Natural Conditions"** means water quality characteristics found or expected in the absence of human-induced pollution due to point or nonpoint sources.
- "Net Advective Flow"** is that flow which represents the difference between the amount of water passing a point in a tidal system on a flood tide and the subsequent ebb tide. It is approximately equal to the freshwater input to the system upstream of that point.
- "Normal Corrosion"** means an electrochemical reaction that results in the dissolution or removal of metal from a solid metal surface. For specific applications considered by the Department, normal corrosion rates shall be as published by the National Association of Corrosion Engineers (Reference: Corrosion Data Survey - Metals Section, National Association of Corrosion Engineers, 1985, as updated from time to time) or, for applications not specifically addressed in the above reference, such other reliable data.
- "Normal Erosion"** means the progressive loss of original material from a solid surface due to mechanical interaction between that surface and a fluid, a multi-component fluid or an impinging liquid or solid particle. (Reference: Standard Practice for Liquid Impingement Erosion Testing, ASTM Designation G73-82, 1987; or other authoritative source for materials or conditions not covered by the referenced standard).
- "NPDES"** means National Pollutant Discharge Elimination System as provided in the Clean Water Act.
- "Nuisance Condition"** means any condition that, as a result of pollutant addition to a stream, causes unreasonable interference with the designated uses of the waters or the uses of the adjoining land areas.
- "Nuisance Species"** mean any species of fish, other animal, or plant living in or near the water, the presence of which causes unreasonable interference with the designated uses of the waters or the uses of adjoining land areas. Nuisance species include but are not limited to filamentous and blue-green algae.
- "Nutrient"** means any element or compound essential as a raw material for organism growth and development, including but not limited to nitrogen and phosphorus.
- "One-hour Average"** means the arithmetic average of the samples collected during a continuous one-hour period.
- "Open-water Fish And Shellfish Designated Use"** means in the Nanticoke River from the upstream-most limits of the City of Seaford to the Maryland State Line and the Broad Creek from the upstream-most limits of the Town of Laurel to the confluence with the Nanticoke River, the survival, growth and propagation of balanced indigenous populations of ecologically, recreationally and commercially important fish and shellfish inhabiting open water habitats year round.
- "Overenrichment"** means excessive addition of nutrients to a water body, resulting in deterioration of designated uses of the waters.
- "Perennial"** describes a freshwater stream which contains flowing water at all times.
- "Person"** means any individual, trust, firm, joint stock company, federal agency, partnership, corporation (including a government corporation), association, state, municipality, commission, political subdivision of a state, or any interstate body.
- "Photolysis"** means a light-catalyzed degradation reaction that occurs when light strikes certain chemicals.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL

DELAWARE ADMINISTRATIVE CODE

"Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, hydrocarbons, oil and product chemicals, and industrial, municipal, and agricultural waste discharged into water.

"Practicable" means available and capable of being done after taking into consideration cost and existing technology, as well as logistics in light of overall facility operations or project purposes.

"Primary Contact Recreation" means any water-based form of recreation, the practice of which has a high probability for total body immersion or ingestion of water (examples include but are not limited to swimming and water skiing).

"Propagation" means reproduction of fish, aquatic life and wildlife within their natural environment.

"Public Water Supply" means any waters of the State designated as public water supply in Section 3.0.

"Regulatory Mixing Zone" means a designated, mathematically defined portion of a receiving water body, in close proximity to a discharge, in which initial dilution, dispersion, and reaction of discharged pollutants occur. See Section 6.0 for details on use of term.

"Risk Management Level" means that level above which an assessed risk is unacceptable from a public health perspective.

"Scientifically Reasonable Request" means any request that is based upon material, substantial, and relevant information and would be accepted as reasonable by most persons trained and competent in the subject of the request.

"Scum" describes a thin layer of impurities which forms on the surface of waters of the State.

"Secondary Contact Recreation" means a water-based form of recreation, the practice of which has a low probability for total body immersion or ingestion of water (examples include but are not limited to wading, boating, and fishing).

"Sedimentation" means the movement of solid particles and adsorbed chemicals toward the bottom of the water column under the influence of gravity.

"Shallow-water Bay Grass Designated Use" means in the Nanticoke River from the upstream-most limits of the City of Seaford to the Maryland State Line and the Broad Creek from the upstream-most limits of the Town of Laurel to the confluence with the Nanticoke River, the survival, growth and propagation of rooted, underwater bay grasses necessary for the propagation and growth of balanced indigenous populations of ecologically, recreationally and commercially important fish and shellfish inhabiting vegetated shallow-water habitats April 1 through October 31.

"Shellfish" means any species of fresh, brackish or salt water mollusk that is commonly considered to be edible. Typical edible mollusks include but are not limited to clams, mussels, oysters, scallops, and whelks.

"Stream Basin" means a specified drainage area from which (in most cases) all waters exit through a single outlet.

"Surface Water" means water occurring generally on the surface of the earth.

"Synergistic Effect" means the total effect of a mixture of pollutants which is greater than the arithmetic sum of the effects of the individual pollutants in the mixture.

"Systemic Toxicant" means a toxic substance that has the ability to cause health effects within the body at sites distant from the entry point due to its absorption and distribution. Systemic toxicants are believed to have threshold concentrations or levels below which no health effects occur.

"Tidal" means surface waters characterized by periodic rise and fall due to gravitational interactions between the sun, moon, and earth.

"Toxicity" means the ability to cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), or physical deformities in organisms or their offspring.

"Toxicity Test" is the means to determine the toxicity of a chemical or effluent using living organisms. A toxicity test measures the degree of response of an exposed test organism to a specific chemical or effluent.

"Toxic Substance" means any substance or combination of substances including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, may cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), or physical deformities in such organisms or their offspring.

"True Daily Mean" is the mean value for a parameter which accurately accounts for diurnal variations over one 24-hour period.

"Use Attainability Analysis" means a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological, and economic factors as described in subsections 9.1.1.1 through 9.1.1.8.

"Volatilization" means the loss of a chemical from the water column due to mass exchange across the air-water interface.

"Water Distribution Piping and Appurtenances" means pipes and piping systems, along with integral components thereof, which are used to convey water from one point to another.

"Water Pollution" means man-made or human-induced alteration of the chemical, physical, biological or radiological integrity of surface waters of the State.

"Water Quality" means the physical, chemical, and biological characteristics of water with respect to its suitability for a particular use. For the purposes of these Standards, water quality shall be assessed in terms of chemical composition, biological integrity, and physical habitat.

"Water-Quality Based" generally refers to requirements for pollution control that are in excess of technology-based minimum requirements, including but not limited to those listed in Sections 301(b) and 306 of the Clean Water Act. Such controls are designed to reduce pollutants to a level that will allow water quality standards to be attained where said standards would not be attained through application of the technology-based controls.

"Water Quality Criterion" means an element of water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular designated use.

"Water Quality Standard" means a rule or limit defined herein which consists of a designated use or uses for waters of the State and water quality criteria for such waters based upon such designated uses.

"Waters of the State" means:

All surface waters of the State including but not limited to:

Waters which are subject to the ebb and flow of the tide, including but not limited to estuaries, bays, and the Atlantic Ocean;

All interstate waters, including interstate wetlands;

All other waters of the State, such as lakes, rivers, streams (including intermittent and ephemeral streams), drainage ditches, tax ditches, creeks, mudflats, sandflats, wetlands, sloughs, or natural or impounded ponds;

All impoundments of waters otherwise defined as waters of the State under this definition;

Wetlands adjacent to waters (other than waters that are themselves wetlands) identified above;

Waste and stormwater treatment systems, including but not limited to treatment ponds or lagoons designed to meet the requirements of the Clean Water Act (other than cooling ponds which otherwise meet the requirements of subsection (l) of this definition) are not waters of the State.

Waters of exceptional recreational or ecological significance (ERES): Waters which are important, unique, or sensitive from a recreational and/or ecological perspective, but which may or may not have excellent water quality. Such waters shall normally have regional significance with respect to recreational use (fishing, swimming and boating), or have significant or widespread riverine, riparian, or wetland natural areas.

"Wetland Dominated Tidal River Designated Use" applies to the Murderkill River from the Route 1 Bridge to the confluence with Delaware Bay which supports the survival, growth and propagation of balanced indigenous populations of fish inhabiting the river and adapted to intermittent low dissolved oxygen caused by natural processes during the period May 16 through September 30.

"Wetlands" means wetlands are those areas that are inundated or saturated by surface or ground water 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.

18 DE Reg. 312 (10/01/14)

21 DE Reg. 241 (09/01/17)

3.0 Stream Basins & Designated Uses

The designated uses applicable to the various stream basins represent the categories of beneficial use of waters of the

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

state which must be maintained and protected through application of appropriate criteria.

Basins and waterbodies as illustrated in Figure 1		Public Water Supply Source	Industrial Water Supply	Primary Contact Recreation	Secondary Contact Recreation	Fish, Aquatic Life & Wildlife**	Cold Water Fish (Put-and-Take)	Agricultural Water Supply	ERES Waters*	Harvestable Shellfish Waters
#	Name									
1	Naamans Creek	-	x	x	x	x	-	(a)	-	-
2	Shellpot Creek	-	x	x	x	x	-	(a)	-	-
3	Brandywine Creek	(a)	x	x	x	x	(b)	(a)	(h)	-
4	Red Clay Creek	x	x	x	x	x	(e)	x	q	-
5	White Clay Creek	(a)	x	x	x	x	(f)	(a)	(g)	-
6	Christina River	(a)	x	x	x	x	(c)	(a)	-	-
7	Delaware River	-	-	x	x	x	-	(a)	-	-
8	Army Creek	-	-	x	x	x	-	(a)	-	-
9	Red Lion Creek	(a)(i)	x	x	x	x	-	(a)	-	-
10	Dragon Run Creek	(a)	x	x	x	x	-	(a)	-	-
11	Chesapeake & Delaware Canal East	-	x	x	x	x	-	-	-	-
12	Appoquinimink River	-	x	x	x	x	-	(a)	-	-
13	Blackbird Creek	-	x	x	x	x	-	(a)	-	-
14	Delaware Bay	-	x	x	x	x	-	(a)		
15	Smyrna River	-	x	x	x	x	-	(a)	-	-
16	Leipsic River	-	x	x	x	x	-	(a)	-	-
17	Little Creek	-	x	x	x	x	-	(a)	-	-
18	St. Jones River	-	x	x	x	x	-	(a)	-	-
19	Murderkill River	-	x	x	x	x (r)	-	(a)	-	-
20	Mispillion River	-	x	x	x	x	-	(a)		
21	Cedar Creek	-	x	x	x	x	-	(a)	(d)	-
22	Broadkill River (k)	-	x	x	x	x	-	(a)	-	-
23	Elk Creek	-	x	x	x	x	-	x	-	-
24	Perch Creek	-	x	x	x	x	-	x	-	-
25	Chesapeake & Delaware Canal West	-	x	x	x	x	-	-	-	-
26	Bohemia Creek	-	x	x	x	x	-	x	-	-
27	Sassafras River	-	x	x	x	x	-	x	-	-
28	Chester River	-	x	x	x	x	-	x	-	-
29	Choptank River	-	x	x	x	x	-	x	-	-
30	Marshyhope Creek	-	x	x	x	x	-	x	x	-
31	Nanticoke River	-	x	x	x	x (p)	-	(a)	x	-
32	Gum Branch	-	x	x	x	x	-	(a)	x	-

**TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE**

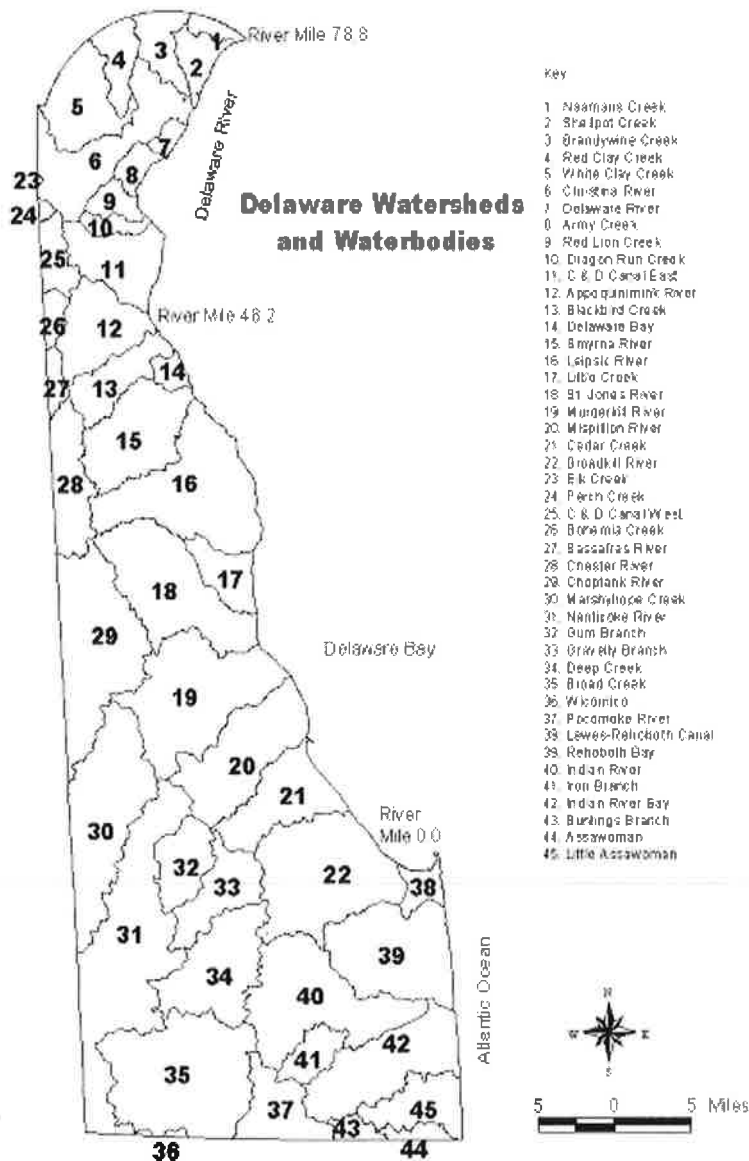
33	Gravelly Branch	-	x	x	x	x	-	(a)	x	-
34	Deep Creek	-	x	x	x	x	-	(a)	x	-
35	Broad Creek	-	x	x	x	x (p)	-	(a)	x	-
36	Wicomico	-	x	x	x	x	-	(a)	x	-
37	Pocomoke River	-	x	x	x	x	-	x	-	-
38	Lewes & Rehoboth Canal	-	x	x	x	x	-	-	-	-
39	Rehoboth Bay	-	x	x	x	x	-	(a)	x	(j)
40	Indian River	-	x	x	x	x	-	(a)	(d)	-
41	Iron Branch	-	x	x	x	x	-	(a)	(d)	-
42	Indian River Bay	-	x	x	x	x	-	(a)	x	(j)
43	Buntings Branch	-	-	x	x	x	-	x	-	-
44	Assawoman	-	-	x	x	x	-	(a)	x-	-
45	Little Assawoman Bay	-	x	x	x	x	-	(a)	x	-
	Delaware Bay (waterbody) (l), (n)	-	x	x	x	x	-	-	(m)	(j)
	Delaware River (Waterbody) (l),(o)	-	x	x	x	x	-	-	-	-
	Atlantic Ocean (waterbody)	-	x	x	x	x	-	-	(m)	

- (a) Designated use for freshwater segments only.
- (b) Designated use from March 15 to June 30 on:
 1. Beaver Run from PA/DE line to Brandywine.
 2. Wilson Run Route 92 through Brandywine Creek State Park.
- (c) Designated use from March 15 to June 30 on:
 1. Christina River from MD/DE line through Rittenhouse Park.
- (d) Designated use for marine water segments only.
- (e) Designated use year round on:
 1. Red Clay Creek from PA/DE line to the concrete bridge above Yorklyn
- (f) Designated use year round on:
 1. White Clay Creek from the PA/DE line to the dam at Curtis Paper.
 Designated use from March 15 to June 30 on:
 2. Mill Creek from Brackenville Road to Route 7.
 3. Pike Creek from Route 72 to Henderson Road.
- (g) Designated use from PA/DE line to the dam at Curtis Paper.
- (h) Designated use from PA/DE line to Wilmington city line.
- (i) Goal use - not currently attained.
- (j) Parts of these waters are APPROVED shellfish harvesting areas. Information on areas where shellfish may be taken should be obtained from the Shellfish & Recreational Waters Branch, Watershed Assessment Section, Division of Watershed Stewardship, Department of Natural Resources and Environmental Control.
- (k) Includes Primehook Creek watershed.
- (l) Includes assorted minor watersheds not explicitly associated with any other designated stream basin.
- (m) The specific portions of the Atlantic Ocean and the Delaware Bay for which the ERES designation shall apply shall be delineated in the Pollution Control Strategy developed for each of those waterbodies. The ERES designation for the Atlantic Ocean and the Delaware Bay does not include water explicitly associated with any other designated stream basis (e.g., Delaware Bay does not include St. Jones River).
- (n) The Delaware Bay extends from River Mile 0.0 to 48.2 as shown on Figure 1.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- (o) The Delaware River extends from River Mile 48.2 to 78.8 as shown in Figure 1.
 - (p) The Nanticoke River from the upstream-most limits of the City of Seaford to the Maryland State Line and the Broad Creek from the upstream-most limits of the Town of Laurel to the confluence with the Nanticoke River have special criteria in subsection 4.5 that are protective of open water fish and shellfish, shallow-water bay grass and migratory fish spawning and nursery designated uses consistent with the Maryland portion of the tidal Nanticoke River and as described in the U.S. Environmental Protection Agency document Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries (EPA 903-R-03-002). Attainment of the water quality criteria that apply to these waters will be determined following the guidelines documented within the same document and any future published addendums or modifications to that original publication.
 - (q) ERES designation is for Burrows Run from the Pennsylvania Line to the confluence with Red Clay Creek
 - (r) The Murderkill River from the Route 1 Bridge to the confluence with Delaware Bay has special dissolved oxygen criteria in subsection 4.5 that are protective of the wetland dominated tidal river designated use.
- x his designated water use to be protected throughout entire stream basin
- water uses not designated in the stream basin
- * waters of exceptional recreational or ecological significance
- ** includes shellfish propagation

Figure 1 Delaware Watersheds and Waterbodies



Basin Boundaries to be used in determination of standards applicability are on file with the DNREC Division of Watershed Stewardship.

18 DE Reg. 312 (10/01/14)

21 DE Reg. 241 (09/01/17)

4.0 Criteria To Protect Designated Uses

4.1 All surface waters of the State (except as detailed in Sections 7.0 and 8.0) shall meet the following minimum criteria:

4.1.1 Waters shall be free from substances that are attributable to wastes of industrial, municipal, agricultural or other human-induced origin. Examples include but are not limited to the following:

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 4.1.1.1 Floating debris, oil, grease, scum, foam, or other materials on the water surface that may create a nuisance condition, or that may in any way interfere with attainment and maintenance of designated uses of the water,
 - 4.1.1.2 Settleable solids, sediments, sludge deposits, or suspended particles that may coat or cover submerged surfaces and create a nuisance condition, or that may in any way interfere with attainment and maintenance of designated uses of the water,
 - 4.1.1.3 Any pollutants, including those of a thermal, toxic, corrosive, bacteriological, radiological, or other nature, that may interfere with attainment and maintenance of designated uses of the water, may impart undesirable odors, tastes, or colors to the water or to aquatic life found therein, may endanger public health, or may result in dominance of nuisance species.
- 4.2 Narrative Criteria for Waters With the Public Water Supply Designated Use
- 4.2.1 Streams with a designated use of public water supply shall provide waters of acceptable quality for use for drinking, culinary or food processing purposes after application of approved treatment equivalent to coagulation, filtration, and disinfection (with additional treatment as necessary to remove naturally occurring impurities). The untreated waters are subject to the following limitations:
 - 4.2.1.1 Waters shall be free from substances (except natural impurities) that, alone or in combination with other substances, result in:
 - 4.2.1.1.1 Unacceptable levels of taste or odor in the treated water;
 - 4.2.1.1.2 Significant disruption of the treatment processes at the treatment facility; or
 - 4.2.1.1.3 Concentrations of toxic substances in the treated water that may be harmful to human health. The requirements of subsection 4.6.3 shall apply.
- 4.3 Certain waters of the State are subject to natural variations in salinity such that those waters meet the definition of fresh at some times and marine at other times. For such waters, the more stringent of fresh or marine water quality criteria or standards as detailed throughout this document shall apply at all times unless otherwise specified by the Department.
- 4.4 Coordination with Delaware River Basin Commission:
For waters of the Delaware River and Delaware Bay, duly adopted Delaware River Basin Commission (DRBC) Water Quality Regulations shall be the applicable criteria. If the DRBC has not developed an applicable regulatory standard or criteria for these waters, and Delaware has, Delaware's criteria shall be applicable.
- 4.5 The following criteria shall apply outside approved regulatory mixing zones unless otherwise specified:
- 4.5.1 Temperature, measured as Fahrenheit Degrees
 - 4.5.1.1 Fresh Waters
 - 4.5.1.1.1 Maximum increase above natural conditions shall be 5°F.
 - 4.5.1.1.2 No human-induced increase of the true daily mean temperature above 82 °F shall be allowed.
 - 4.5.1.1.3 No human-induced increase of the daily maximum temperature above 86°F shall be allowed.
 - 4.5.1.2 Marine Waters
 - 4.5.1.2.1 Maximum increase above natural conditions shall be 4 °F from October through May. Temperature rise during June through September shall be limited by the following conditions:
 - 4.5.1.2.2 No human-induced increase of the true daily mean temperature above 84 °F shall be allowed; and
 - 4.5.1.2.3 No human-induced increase of the daily maximum temperature above 87°F shall be allowed.
 - 4.5.1.3 Cold Water Fisheries (Put and Take)
 - 4.5.1.3.1 Maximum increase above natural conditions shall be 5 °F.
 - 4.5.1.3.2 No human-induced increase of the true daily mean temperature above 75 °F, shall be allowed
 - 4.5.1.4 In all waters of the state, the Department may mandate additional limitations on a site-specific or seasonal basis in order to provide incremental protection for early life stages of fish.
- 4.5.2 Dissolved Oxygen, measured as milligrams per liter (mg/L)
 - 4.5.2.1 Fresh Waters
 - 4.5.2.1.1 Daily average shall not be less than 5.5 mg/L.

- 4.5.2.1.2 Instantaneous minimum shall not be less than 4.0 mg/L
- 4.5.2.2 Marine Waters
 - 4.5.2.2.1 Daily average shall not be less than 5.0 mg/L.
 - 4.5.2.2.2 Instantaneous Minimum shall not be less than 4.0 mg/L
- 4.5.2.3 Cold Water Fisheries (Put and Take)
 - 4.5.2.3.1 Daily average shall not be less than 6.5 mg/L during the applicable period.
 - 4.5.2.3.2 Instantaneous Minimum shall not be less than 5.0 mg/L during the applicable period.
- 4.5.2.4 The Nanticoke River from the upstream-most limits of the City of Seaford to the Maryland State Line and Broad Creek from the upstream-most limits of the Town of Laurel to the confluence with the Nanticoke River
 - At water temperatures greater than 84 degrees Fahrenheit, instantaneous minimum shall not be less than 4.3 mg/L
 - 4.5.2.4.1 For the period February 1- May 31:
 - 4.5.2.4.1.1 7-Day mean shall not be less than 6.0 mg/L
 - 4.5.2.4.1.2 Instantaneous minimum shall not be less than 5.0 mg/L
 - 4.5.2.4.2 For June 1- January 31
 - 4.5.2.4.2.1 30 Day mean shall not be less than 5.5 mg/L
 - 4.5.2.4.2.2 7-Day mean shall not be less than 4.0 mg/L
 - 4.5.2.4.2.3 Instantaneous minimum shall not be less than 3.2 mg/L
- 4.5.2.5 The Murderkill River from the Route 1 Bridge to the Confluence with the Delaware Bay
 - 4.5.2.5.1 For the period from May 16 through September 30:
 - 4.5.2.5.1.1 Daily average shall not be less than 3.0 mg/L
 - 4.5.2.5.1.2 One Hour Minimum: one hour average shall not be less than 1.0 mg/L
 - 4.5.2.5.2 For the period October 1 through May 15, applicable criteria for all waters of the State shall apply.
- 4.5.2.6 All Waters
 - 4.5.2.6.1 In cases where natural conditions prevent attainment of these criteria, allowable reduction in dissolved oxygen levels as a result of human activities shall be determined through application of the requirements of Sections 5.0 and 9.0 of these Standards.
 - 4.5.2.6.2 The Department may mandate additional limitations on a site specific or seasonal basis in order to provide incremental protection for early stages of fish.
- 4.5.3 pH, measured in standard units, in all waters of the state
 - 4.5.3.1 Shall be between 6.5 and 8.5 unless outside this range due solely to natural conditions. Where within this range, maximum human-induced change from background shall be 0.5 Standard Units; pH which results from human-induced change must remain within this range.
 - 4.5.3.2 Where pH is below 6.5 or above 8.5 due solely to natural conditions, it shall not be lowered (where below 6.5) or raised (where above 8.5) more than 0.3 Standard Units due to human-induced changes.
- 4.5.4 Alkalinity, measured as mg/L as CaCO₃, in all waters of the State shall not be less than 20 mg/L unless due solely to natural conditions. If less than 20 mg/L due solely to natural conditions, no reduction due to human-induced changes is allowed.
- 4.5.5 Turbidity Measured as Nephelometric or Formazin Turbidity Units, in all waters of the State shall not exceed natural levels by more than 10 units.
- 4.5.6 Water Clarity in the Nanticoke River from the upstream-most limits of the City of Seaford to the Maryland State Line and Broad Creek from the upstream-most limits of the Town of Laurel to the confluence with the Nanticoke River:
 - During the period of April 1 to October 31 the minimum seasonal averaged secchi depth shall be 1.0 m.
 - 4.5.6.1 Chlorophyll-a criteria for the Nanticoke River from the upstream-most limits of the City of Seaford to the Maryland State Line and Broad Creek from the upstream-most limits of the Town of Laurel to the confluence with the Nanticoke River:

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL

DELAWARE ADMINISTRATIVE CODE

Concentrations of chlorophyll-a in free-floating microscopic aquatic plants (algae) shall not exceed levels that result in ecologically undesirable consequences - such as reduced water clarity, low dissolved oxygen, food supply imbalances, proliferation of species deemed potentially harmful to aquatic life or humans or aesthetically objectionable conditions or otherwise render tidal waters unsuitable for designated uses.

4.5.7 Bacterial Water Quality Criteria

4.5.7.1 Primary and Secondary Contact Recreation Waters:

The following criteria shall apply:

Waterbody Type	Single-Sample Value (Enterococcus Colonies/100 ml)	Geometric Mean (Enterococcus Colonies/100 ml)	Statistical Threshold Value
Primary Contact Recreation Fresh Waters	185	100	
Primary Contact Recreation Marine Waters	104	35	
Secondary Contact Recreation Fresh Waters	925	500	
Secondary Contact Recreation Marine Waters	520	175	
Marine Coastal Recreation Waters from the Delaware Bay to the Maryland State Line		The Geometric Mean of samples collected over a 30 day period shall not exceed 35.	The statistical threshold value of samples collected over a 30 day period shall not exceed 130 in more than 10 percent of the samples collected.

The purpose of these criteria is to provide the Department with a basis to assess water quality trends and pollution control needs with regard to primary and secondary contact recreation in waters of the State and to meet Federal Beaches Environmental Assessment and Coastal Health (BEACH) Act Requirements. The criteria apply to enterococcus bacteria determined by the Department to be of non-wildlife origin based on best scientific judgment using available information. Swimming in waters affected by runoff during runoff periods may present an elevated risk of gastrointestinal illness and is not recommended.

4.5.7.2 Harvestable Shellfish waters:

The total coliform median MPN of the water shall not exceed 70/100 mL, nor shall more than 10% of the samples have an MPN in excess of 330/100 mL for a 3 decimal dilution test (or 230/100 mL where the 5 tube decimal test is used). These criteria shall be verified through sampling of those portions of the shellfish area most probably exposed to fecal contamination for those tidal and climatic conditions most likely to result in contamination of the shellfish area.

4.5.8 Nutrients

Nutrient overenrichment is recognized as a significant problem in some surface waters of the State.

4.5.8.1 It shall be the policy of this Department to minimize nutrient input to surface waters from point and human induced non-point sources.

DELAWARE ADMINISTRATIVE CODE

- 4.5.8.2 The types of, and need for, nutrient controls shall be established on a site-specific basis. Nutrient controls may include, but shall not be limited to, discharge limitations or institution of best management practices.
- 4.5.8.3 For lakes and ponds, controls shall be designed to eliminate overenrichment.
- 4.5.8.4 For tidal portions of the stream basins of Indian River, Rehoboth Bay, and Little Assawoman Bay, controls needed to attain submerged aquatic vegetation growth season (approximately March 1 to October 31) average levels for dissolved inorganic nitrogen of 0.14 mg/L as N, for dissolved inorganic phosphorus of 0.01 mg/L as P, and for total suspended solids of 20 mg/L shall be instituted.
- 4.5.8.5 The specific measures to be employed by existing NPDES facilities to meet the aforementioned criteria shall be as specified in subsection 5.6.3.4 of these standards.
- 4.5.9 Toxic Substances
- 4.5.9.1 Applicability: Criteria set forth in this section apply to all surface waters of the State, except as provided in Section 6.0, Regulatory Mixing Zones, Section 7.0, Critical Flows, and Section 8.0, Criteria for Low Flow Waters.
- 4.5.9.2 General Provisions:
- 4.5.9.2.1 Waters of the State shall not exhibit acute toxicity to fish, aquatic life, and wildlife, except in special cases applying to regulatory mixing zones as provided in Section 6.0.
- 4.5.9.2.2 Waters of the State shall not exhibit chronic toxicity to fish, aquatic life, and wildlife, except in regulatory mixing zones as provided in Section 6.0, at flows less than critical flows as provided in Section 7.0, or in low flow waters as provided in Section 8.0.
- 4.5.9.2.3 Waters of the State shall be maintained to prevent adverse toxic effects on human health resulting from ingestion of chemically contaminated aquatic organisms and drinking water.
- 4.5.9.2.4 The Department may consider synergistic, antagonistic, and additive impacts of combinations of toxicants to fish, aquatic life, and wildlife, and human health in assessing aggregate environmental impacts and mandating point and nonpoint source controls.
- 4.5.9.3 Specific Numerical Criteria:
- 4.5.9.3.1 Aquatic Life Criteria:
- 4.5.9.3.1.1 Aquatic Life Criteria for Aluminum, Iron, and Selenium in Table 1 are expressed on a total recoverable basis. Criteria for Cyanide in Table 1 are expressed as free cyanide at the lowest pH occurring in the receiving water, or cyanide amenable to chlorination. Criteria for all other metals in Table 1 are expressed on a total dissolved basis. For toxic substances where the relationship of toxicity is defined as a function of pH or hardness, numerical criteria are presented as an equation based on this relationship. Appropriate pH or hardness values for such criteria shall be determined on a case-by-case basis by the Department.
- 4.5.9.3.1.2 Specific numerical acute criteria as presented in Table 1 are applied as one-hour average concentrations not to be exceeded more than once in any three-year period. Specific numerical chronic criteria as presented Table 1 are applied as four-day average concentrations not to be exceeded more than once in any three-year period.
- 4.5.9.3.1.3 For toxic substances for which specific numerical criteria are not listed in Table 1, concentrations shall not exceed those which are chronically toxic (as determined from appropriate chronic toxicity data or calculated as 0.1 of LC50 values) to representative, sensitive aquatic organisms, except as provided in Section 6.0, Regulatory Mixing Zones, Section 7.0, Critical Flows, or Section 8.0, Criteria for Low Flow Waters. Concentrations so determined shall be applied as four-day average concentrations not to be exceeded more than once in any three-year period.
- 4.5.9.3.2 Human Health Criteria
- 4.5.9.3.2.1 Water quality criteria appearing in Table 2 for pollutants identified as carcinogens have been established at an upper bound worst case risk management level of one excess cancer in a population of one million (1×10^{-6}) over a 70 year lifetime. Criteria listed under the columns header "Fish and Water Ingestion" apply only to surface waters of the State designated as Public Water Supply Sources in Section 3.0 of these Standards. Criteria listed under columns headed "Fish Ingestion Only" apply to all surface waters of the State not designated as Public Water Supply Sources in Section 3.0 of these Standards.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL DELAWARE ADMINISTRATIVE CODE

7500 Wetlands and Subaqueous Lands

7501 Marina Regulations

1.0 General Conditions

The Delaware Department of Natural Resources and Environmental Control (DNREC) is responsible for protecting, preserving, and enhancing the environmental quality of the water, air, and land of the State. The Department recognizes that water quality protection and improvement is an important goal, particularly in water bodies subject to development pressure with its attendant anthropogenic impacts. This Regulation is intended to deal with such impacts by addressing the potential sources of pollution that may result from the physical presence, construction, or operation of marinas.

The Department's intent in adopting these Regulations is three-fold. First, to apply strict environmental controls over the siting, design, construction and operation of new marinas. The controls shall be most strict in this case because new construction offers the greatest opportunity for proper environmental planning and management.

Second, to allow upgrading of existing facilities in ways which can benefit the environment by imposing reasonable restrictions which would effectively discourage or prevent environmentally detrimental impacts. In this case, it is recognized that physical constraints at existing sites may present insurmountable limitations over the scope of feasible improvements that can occur.

Third, to provide for safe and environmentally sound operation of existing and future marinas through prevention of pollution by good housekeeping procedures.

2.0 Purpose and Scope

- 2.1 Purpose. The provisions of these Regulations shall establish minimum requirements for the siting, design, construction, and operation of marinas to serve the needs of boaters, while properly managing the State's natural resources, and protecting public health. For the purposes of this Regulation, marinas shall be those facilities on or adjacent to the water which provide for mooring, berthing, or storage of vessels, and which include any or all of the related ancillary structures and functions of marinas such as docks, piers, vessel storage areas, boat ramps, anchorages, breakwaters, channels, moorings, basins, vessel repair services, vessel sales, sales of supplies which are normally associated with boating, such as vessel fuel sales, bait and tackle sales, vessel rentals, and parking areas for users of the marina. Marinas can be categorized as recreational operations which are not operated for profit and include planned community marinas, water sports clubs and co-ops, commercial facilities which are operated for profit, or public facilities operated by governmental agencies.

Within the commercial, recreational, and public marina categories, there are general types of marinas that are commonly found in Delaware waters. (Also see Definitions, Section 3.0). These include: full service marinas, vessel repair/maintenance yards, fishing facilities (including charter boat operations), residential or planned community marinas, water sports club marinas, anchorages or mooring fields, and boat ramps.

- 2.2 Applicability. These Marina Regulations shall apply to:
- 2.2.1 Any commercial, public, recreational, or private marina that is on or adjacent to the water and: 1) contains five or more slips, or 2) provides berthing for one or more headboats.
 - 2.2.2 Any vessel maintenance or repair yard that is on or adjacent to the water.
 - 2.2.3 All public or commercial boat ramps.
 - 2.2.4 Recreational boat ramps with five or more slips, or associated upland ancillary facilities such as fueling or vessel maintenance facilities.
- 2.3 Exemptions. These Marina Regulations shall not apply to:
- 2.3.1 Private slips or ramps. Private slips or ramps are exempt from the requirements of this Regulation, except any combination thereof that qualifies as a marina, as described in the Applicability section, above.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 2.3.2 Recreational Boat Ramps: Recreational ramps are exempt if they are for the exclusive use of the owner(s), residents, or members and are thus designated, unless additional facilities are provided which qualify the ramp as a marina, as described in Section 2.d, above.
- 2.4 Authority. Authority for these Regulations is in accordance with 7 Del.C., Ch. 60, *Water and Air Resources Act*, 7 Del.C., Ch. 72, *The Subaqueous Lands Act*, 7 Del.C., Ch. 66, *The Wetlands Act* and 7 Del.C. Ch. 19, *Shellfish*.
- 2.5 General standards, prohibitions and provisions
- 2.5.1 No person shall construct, install, modify, rehabilitate, or replace a marina unless such person has a valid permit issued by the Department pursuant to these Regulations.
- 2.5.2 Administrative and judicial review under these Regulations shall be in accordance with the provisions of 7 Del.C., Ch. 72.
- 2.5.3 These Regulations, being necessary for the health and welfare of the State and its inhabitants, shall be liberally construed in order to preserve the land, air, surface water, and groundwater resources of the State.
- 2.6 Emergency Conditions. If the Secretary finds that an emergency condition exists which may result in adverse environmental impacts, DNREC may waive appropriate portions of these Regulations, or the conditions of any permit or plan approved and/or issued under these Regulations, in order to deal with the emergency. Economic hardship alone will not be considered an emergency condition.
- 2.7 *Marina Guidebook*. The Department of Natural Resources and Environmental Control maintains a *Marina Guidebook* which contains useful information about the planning, design, and operation of marinas. This guidebook can be used as a public service, as an educational tool, and for technology transfer.
- 2.8 Effective Date. These Regulations shall become effective on March 29, 1990.

3.0 Definitions

- “Activity”** Construction, demolition, or operation, or use of any facility, property, or device. Any dredging, filling, construction of any kind, including but not limited to, construction of a basin, channel, dock, pier, jetty, breakwater, bulkhead, revetment or other marina structure, or human induced or conducted action resulting in the making of a connection to state waters.
- “Alteration”** Any change to an existing marina which would (a) increase the number of slips by five (5) or more, or (b) involve new or additional upland or water-based activities whose construction or operation have the potential to generate pollution. Maintenance of existing serviceable structures shall not be considered an alteration.
- “Ambient”** The background biological, chemical, and/or physical conditions, as measured at a point(s) outside of the influence of the pollution source being studied.
- “Anchorages”** Areas in which vessels are held by means of anchors or similar devices which are removed from the bottom and carried aboard the vessels once they are underway.
- “Best Management Practices”** Methods, measures, or practices that are determined by the Department to be reasonable and cost-effective means for a person to meet certain pollution control needs. Best management practices include, but are not limited to, structural and nonstructural controls and operation and maintenance procedures. Best management practices can be applied before, during, or after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters.
- “Board”** The Environmental Appeals Board.
- “Boat Ramps”** Facilities which provide access to the water primarily for vessels that are carried on, launched from and returned to trailers.
- “Breakwater”** A structure, parallel to the shore, that protects a shore area, harbor, anchorage, or basin from waves.
- “Bulkhead”** A vertical walled structure or partition intended to retain or prevent sliding of the land, or to provide an interface between land activities and those which occur in the water, or intended to protect the upland against damage from wave action.

- “Commercial Marinas”**Marinas which are operated primarily for profit.
- “Critical Habitat”**Areas classified by the Department and that serve an essential role in the maintenance of sensitive species. Critical habitat areas may include unique aquatic or terrestrial ecosystems that support rare, endangered, or threatened plants and animals. Rare, endangered, or threatened species are defined by both state and/or federal listings.
- “Dedicated Pumpout Facility”** A semi-permanent connection made between a vessel and the shore for the purpose of removing vessel sewage from the vessel holding tank or head on a continuous or automatic intermittent basis to an approved sewage disposal facility.
- “Degradation”**Any adverse change in surface or groundwater quality or designated uses, as defined in applicable Delaware water quality regulations, including the *Delaware Surface Water Quality Standards* and the *State of Delaware Regulations Governing Public Drinking Water Systems*.
- “Department”** The Department of Natural Resources and Environmental Control.
- “Discharge”**Any release, however caused, from a vessel, pier, or other marina facility. This includes any escape, disposal, spillage, leaking, pumping, emitting, pouring, dumping, or emptying.
- “Dock”**A fixed or floating decked structure where a vessel or vessels may be secured either temporarily or indefinitely.
- “Dry Slip”**A slip or berth in which the vessel rests in a rack or trailer located on land adjoining the water, rather than in or over the water.
- “Dry Stack Marina”**A boating facility which stores vessels on dry land, including but not limited to, dry storage facilities, boatels, valet storage, pigeon hole storage, and stackominiums.
- “Dump Station”**See **Pumpout Facility**.
- “Exfiltration Area”**An underground stormwater retention area consisting of perforated pipes placed within an underground bed of crushed rock or other pervious granular material.
- “Existing Marina”**Any marina structures or functions that were in operation or had a valid subaqueous lands lease or permit as of March 29, 1990.
- “Finger Pier”**A comparatively smaller dock structure attached (usually perpendicular) to a primary pier or bulkhead, usually provided to facilitate access to berthed vessels.
- “Fishing Facilities”**Facilities which provide slips, anchorages, or mooring fields for charter fishing boats and other fishing operations.
- “Gray water”**The liquid and water-borne waste derived from vessel galleys, showers, bathroom sinks and tubs, but not including sewage.
- “Harbormaster”**An officer designated for a particular facility who executes and enforces the 'Rules and Regulations for Marina Users' that are included as part of the Operation and Maintenance Plan for the facility.
- “Headboat”**A commercial vessel, primarily used for fishing activities that can accommodate more than twenty people.
- “Holding Tank”**A storage tank for sewage which requires pumping out and is part of an installed Type III Marine Sanitation Device. Holding tanks may also receive and store vessel gray water.
- “Intertidal Flat”**That shallow water habitat situated between the extreme high and extreme low tidal limits.
- “Joint Application Form”**The Department's combined application form for subaqueous lands, wetlands and marina projects.
- “Live-aboard vessel”**
- A vessel used principally as a residence.
 - A vessel used as a place of business, professional or other commercial enterprise and, if used as a means of transportation, said transportation use is secondary or subsidiary use.
 - Any other floating structure used for purposes stated above under the above two parts.
 - Charter and other similar fishing boats shall not be considered to be live-aboard vessels unless they are residences as described in the first part.
- “Maintenance Dredging”**Dredging of previously dredged channels, ditches, dockages, lagoons and other waterways to maintain or restore the approach depth and width.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- “Maintenance Wastes”**Materials collected while maintaining or operating vessels, including, but not limited to, soot, machinery deposits, solvents, hydrocarbons, scraped paint, deck sweepings, wiping wastes, and rags.
- “Marina”**Those facilities on or adjacent to the water which provide for mooring, berthing, or storage of vessels, and which may include any or all of the related ancillary structures and functions of marinas such as slips, docks, finger piers, piers, berths, upland vessel storage areas, boat ramps, anchorages, shore stabilization structures, breakwaters, channels, moorings, basins, vessel repair services, vessel sales, sales of supplies which are normally associated with boating (such as fuel, bait and tackle), vessel rentals, and parking areas for users of the marina.
- “Marine Sanitation Device”**Any equipment utilized on board a vessel which is designed to receive, retain, treat, or discharge sewage, and any process to treat such sewage. Marine sanitation devices, as defined by 7 Del.C. §6035, are classified as:
- Type I Marine Sanitation Device - A device that produces an effluent having a fecal coliform bacteria count not greater than 1.000 per 100 milliliters and no visible floating solids.
- Type II Marine Sanitation Device - A device that produces an effluent having a fecal coliform bacteria count not greater than 200 per 100 milliliters and suspended solids not greater than 150 milligrams per liter.
- Type III Marine Sanitation Device - A device that is designed to prevent the overboard discharge of treated or untreated sewage or any waste derived from sewage. A Type III MSD is a no direct discharge device. A Type III MSD shall include both portable and permanently installed MSD devices.
- “Minimum Navigable Depth”**The minimum depth, at mean low tide, that is required for safe navigation by vessels.
- “Mooring Fields”**An area in which vessels are held by means of mooring buoys or similar devices which are fastened to stationary underwater devices which are not carried aboard the vessels as regular equipment. Mooring fields have no direct access from land and the moored vessels can only be reached through the use of small dinghies or other vessels.
- “Most Probable Number (MPN)”**An index of coliform bacteria as defined in the 1989 edition of *Standard Methods for the Examination of Water and Wastewater*, which is published jointly by the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation.
- “Oil”**Oil of any kind and in any form including, but not limited to, petroleum products, tank bottoms, oil refuse, oil mixed with other wastes, and all other liquid hydrocarbons regardless of specific gravity.
- “Pier”**A structure in, on or over subaqueous lands which is used by the public primarily for fishing, crabbing, swimming, or viewing. A pier shall not include vessel berthing use unless specifically designated as such.
- “Private Slips or Ramps”**Facilities that are not part of a residential or planned community marina, serve a single residence, and are constructed exclusively for the personal use of the occupants of that residence.
- “Public Marinas”**Marinas owned by governmental agencies and operated with their own personnel or through a concession or other agreement with a private entity.
- “Pumpout Facility”**A mechanical device which is temporarily connected to a vessel for the purpose of removing vessel sewage from its holding tank or head to an approved sewage disposal facility.
- A **Dump Station** is a type of pumpout facility which receives vessel sewage from portable marine sanitation devices and from which sewage is delivered or transferred to an approved sewage disposal facility. See also **Dedicated Pumpout Facility**.
- “Recreational Marinas”**Recreational marinas include residential or planned community marinas, water sports club marinas, and all other marinas which are not commercial marinas or public marinas.
- “Recreational Water Use Area”**An area specifically designated by the Department for waterbased recreational use, including but not limited to, fishing, clamming, water skiing, sailboarding, snorkeling, diving, rowing, swimming, and boating.

“Residential or Planned Community Marinas” Groups of 5 or more slips that are contiguous, are for the exclusive personal use of the adjoining upland residents, and:

1. are constructed, owned, operated, or maintained jointly; or
2. are created as a unit or common element under the Unit Property Act, 27 Del.C. Ch. 22.

Residential or planned community marinas are usually (but not always) part of a single, overall development plan and/or are designed to share common facilities such as docks, walkways, pilings, or an entrance channel. They are distinguishable from commercial marinas because they do not have commercial operations or support facilities and are for the exclusive use of the residents of the adjoining upland property.

“Retention” Prevention of the discharge of a given volume of stormwater runoff into surface waters of the State accomplished through on-site storage of a specified quantity of rainfall and/or runoff, with provision for controlled release of water in excess of the stored volume.

“Revetment” A sloping structure made of stone, concrete, or other material, and built to protect a shoreline, scarp, embankment, or structure against erosion by wave action or currents.

“Riprap” A layer, facing, protective mound of stones, or other durable material placed to prevent erosion, scour, or sloughing of a structure or embankment. Also, the stone or other material so used.

“Secretary” The Secretary of the Department of Natural Resources and Environmental Control.

“Sewage” Human body wastes and wastes from toilets and other receptacles intended to receive or retain human body wastes.

“Shellfish” Any edible molluska or crustacea including oysters, clams, lobsters, mussels, whelks, crabs, and shrimp.

“Slip” A place where a vessel may be secured to a fixed or floating structure, including, but not limited to, a dock, finger pier, or mooring. Anchorages may also be included if they provide non-transient berthing for vessels. Slips may be wet (in the water) or dry (in a rack or other device on land).

“Solid Waste” Any garbage, refuse, sludge, or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from commercial operations or from community activities. Solid waste does not include solid or dissolved material in domestic sewage or discharges which are point sources that are subject to permits.

“Structure” Any man-made object including, but not limited to: piers, slips, docks, breakwaters, revetments, or bulkheads.

“Subaqueous Lands” Submerged lands and tidelands, as defined by 7 Del.C., Ch. 72 and 7504 *Delaware Regulations Governing the Use of Subaqueous Lands*.

“Submerged Aquatic Vegetation” Vascular plants rooted in the sediment and permanently growing on or below the surface of the water. Submerged aquatic vegetation does not include emergent wetland species.

“Subtidal Flat” A shallow water habitat situated below the extreme low tidal limit.

“Support Facilities” Installations or services that support the functions of a marina, such as utility services, fueling stations, repair and launching facilities, the marina headquarters, parking, retail facilities catering to the boating and aquatic recreational needs of marina users, and restrooms, showers, and laundries.

“Tidal Flushing” The exchange of waters within a confined area, such as a marina basin, with water from a larger adjoining water body; such exchange being due to the rise and fall of the tide, and/or wind circulation with accompanying mixing of the water.

“Transient Mooring” Anchorage or mooring periods less than forty-eight hours.

“Uplands” Lands of elevations above the current mean or ordinary high water mark and which are not classified as **wetlands**.

“Upland Basin Marina” Any marina constructed by excavating or dredging uplands.

“Vessel” Every type of watercraft, boat, houseboat, or other form of man-made contrivance used, or capable of being used, whether or not capable of self-propulsion, for navigation on the waters of the state.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

“Vessel Repair/Maintenance Yards” Any facility which provides for the new construction, repair or maintenance of vessels.

“Wastewater”The liquid and water-borne human and/or household waste derived from residential, industrial, institutional, or commercial sources, including vessels.

“Water Pollution”The man-made or man-induced alteration of the natural chemical, physical, biological, and/or radiological integrity of water.

“Water Sports Club Marinas”The facilities used by people associated for the common purpose of engaging in any manner of water sports. Such facilities are normally made available to dues-paying members only. Examples include sailing clubs, fishing clubs, waterskiing clubs, and rowing clubs.

“Waters of Exceptional Recreational or Ecological Significance” Waters which are specifically classified in *7401 Delaware Surface Water Quality Standards* as important, unique, or sensitive from a recreational and/or ecological perspective.

“Waters of the State”All surface waters of the State as defined in *7401 Delaware Surface Water Quality Standards*.

“Wetlands”Wetland areas as defined by the State Wetland Act or the State Freshwater Wetland Act.

“Wet Slip”A berth or slip space in the water.

4.0 Permits and Approvals

4.1 Applicant. An Applicant shall be the property owner of record, lessee, or designated representative thereof, of any marina for which a permit application or operation and maintenance plan is filed. If the applicant is not the record owner or lessee, the applicant must demonstrate that he shall become one or the other before the permit is issued or the operation and maintenance plan is approved.

4.2 Construction of New Marinas or Alteration of Existing Marinas

4.2.1 All construction for new marinas and for alterations to existing marinas shall require a marina permit from the Department. The applicant shall be responsible for obtaining any other local, state, or federal permits or approvals that may be required for the proposed construction or alteration.

4.2.2 All applications for permits for construction or alterations shall be in a form approved by the Department.

4.2.3 Applicants shall provide a Siting and Design Study (SDS) for new marina applications. The SDS studies or investigations shall be site-specific. The type of studies or investigations that are necessary to prove environmental safety and support an application shall be based upon the existing ecological conditions, including physical, biological, and chemical characteristics of the site, the existing hydrological conditions, the existing marinas in the area (demand for, capacity of, type and quality, etc.), and other site qualities such as required under Section II, *Requirements for Siting and Designing New Marinas*. All proposals for study or investigation shall be presented to the Department for review and shall be based upon sound scientific principles. Such proposals shall be modified, if warranted, based upon Department comments prior to initiation. The studies shall be conducted by individuals qualified to utilize methods of collection and analysis which are recognized and accepted by the Department.

4.2.4 The individuals recognized as acceptable to the Department for data collection, analyses, studies, and investigations shall have experience with techniques generally recognized by experts in the field. Ecological studies shall be conducted by individuals experienced and educated in ecological relationships typical of the waterbody in question (fresh, brackish, tidal, estuarine, or oceanic). Chemists, engineers, hydrologists, toxicologists, economists, architects, land planners, etc., shall also be educated and experienced in their particular field as it pertains to the specific characteristics of the proposed project.

4.2.5 Supplemental studies or investigations to support the SDS may be required by the Department.

4.3 Permit Processing Procedures

- 4.3.1 Pre-application Meetings. If requested by the Applicant, the Department will conduct pre-application meetings to discuss the requirements for a particular project, prior to preparation of the marina permit application.
- 4.3.2 Application Review and Processing Procedures
 - 4.3.2.1 Review Criteria. The Department will evaluate permit applications based on their predicted impacts to Delaware's land, water, underwater, and air resources in order to ensure proper management, protection, conservation, and utilization of those resources in accordance with 7 **Del.C.**, Ch. 60, 66 and 72.
 - 4.3.2.2 Incomplete Applications. The Department will first review applications to determine if they are reasonably complete and will return incomplete applications to the applicant. An active file will not be created for returned applications.
 - 4.3.2.3 Active/Inactive Applications. If an application is determined to be reasonably complete, but additional information is subsequently requested by the Department and the applicant fails to provide that information within 180 days of receiving such request, the application will be considered to be inactive. Exceptions may be granted for cases in which the data or information requested cannot reasonably be supplied within the 180 day period. The Department may return inactive applications. Once an application has been returned, the applicant must submit a new application in order to re-activate the file, including payment of any fees that are required for new applications.
 - 4.3.2.4 Public Notice: Upon receipt of an application which is determined to be reasonably complete, the Department will:
 - 4.3.2.4.1 Advertise receipt of the application in two (2) newspapers of statewide circulation.
 - 4.3.2.4.2 Receive public comments for 45 days from the date of notice.
 - 4.3.2.4.3 Allow the applicant to respond to questions posed by the Department and the public within the time period defined for active applications.
 - 4.3.2.4.4 Publish a public notice of the final completed application.
 - 4.3.2.4.5 Receive requests for a public hearing and additional comments for 20 days from the date of notice.
 - 4.3.2.5 Public Hearing
 - 4.3.2.5.1 If a meritorious request for a public hearing is received or if the Department decides that a hearing would be in the public interest, applicable procedures for notice and conduct will be followed in accordance with 7 **Del.C.**, §§6006, 6609 and 7207. The costs of such hearings shall be charged to the applicant. These costs may include the costs of publication of the notice of the hearing, charge for the hearing room, if any, costs for recording, transcription, and copying the proceedings, and other costs directly related to the hearing. No charge will be made for the salaries and expenses of the public officials involved in the hearing.
 - 4.3.2.5.2 Final Issuance or Denial of Application. Following the receipt of public comments and/or a public hearing if held, the Department will make a final evaluation of all information on record for the project and will either issue a permit or deny the application. Once a denial has been issued, any subsequent submittals will be considered as a new application requiring payment of appropriate fees.
- 4.4 Fees. Each application shall be accompanied by a non-refundable application fee established by the General Assembly. This fee shall cover the costs of handling and evaluating the application, and other expenses of administering the marina program. In accordance with 7 **Del.C.**, §6003(h), no fee will be required when the applicant is a state or federal government agency or political subdivision of the State of Delaware.
- 4.5 Enforcement and Penalties. The provisions of this Regulation shall be enforced by the Secretary as provided in 7 **Del.C.**, §§6005, 6013, 7214 and 6617. Such enforcement may include revocation of any permit for cause. The failure of the Department to enforce any of the

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

provisions of this Regulation shall not constitute a waiver by the Department of any such provisions.

4.6 Appeal to the Board

4.6.1 As provided by 7 **Del.C.**, §6008, any person whose interest is substantially affected by any action of the Secretary may appeal to the Environmental Appeals Board (Board) within 20 days after the Secretary has announced the decision.

4.6.2 As provided by 7 **Del.C.**, §7210, a decision by the Secretary to deny a permit on any matter involving state-owned subaqueous lands, cannot be appealed to the Board.

4.7 Appeal from the Board's Decision

Any person aggrieved by any decision of the Board, may appeal to the Superior Court for the county in which the activity in question is principally located by filing a petition as provided in 7 **Del.C.**, §6009. Such petition must be made within 30 days of the Board's decision.

4.8 Variance. The Secretary may, upon request by the applicant, grant a variance from any section of this Regulation as provided in 7 **Del.C.**, §6011 after following the notice and public hearing procedures outlined therein.

5.0 Applicable Standards and Codes

Applicable provisions of the most recent versions in effect on the effective date of these Regulations are hereby incorporated by reference and shall be a part of this Regulation.

5.1 National Fire Protection Association (NFPA) 13, *Standard for the Installation of Sprinkler Systems*;

5.2 NFPA 30, *Flammable and Combustible Liquids Code*;

5.3 NFPA 30A, *Automotive and Marine Service Station Code*;

5.4 NFPA 70, *National Electrical Code*;

5.5 NFPA 302, *Fire Protection Standard for Pleasure and Commercial Craft*;

5.6 NFPA 303, *Fire Protection Standard for Marinas and Boatyards*;

6.0 Subaqueous Lands Requirements

All new marinas or marina alterations must comply with subaqueous lands requirements as described in 7 **Del.C.**, Ch. 72 and the *7504 Regulations Governing the Use of Subaqueous Lands*. Where the construction of marinas or ancillary facilities require the use of public subaqueous lands to fully effectuate the operation of the facility, the Department will require such mitigation as may be appropriate under 7 **Del.C.** Chapter 72 and *7504 (see above) Regulations Governing the Use of Subaqueous Lands*.

7.0 Consistency with Zoning Plans

The applicant shall provide evidence of zoning approval for proposed marina projects. The Department may defer consideration of an application if it determines that substantive questions regarding the zoning status for the proposed project actions are raised in a zoning appeal.

8.0 Other Regulatory Agencies

Compliance with these Regulations does not relieve any person from complying with the laws, rules, regulations, and requirements imposed on the same lands, uses, structures, facilities, or other appurtenances by local, State, and Federal government agencies, or other divisions within the Department.

9.0 Severability

If any part of these Regulations or their application is held invalid or unconstitutional, the application of that part to other persons or circumstances and the remainder of these Regulations shall not be affected.

10.0 Bonding

- 10.1 Requirement. Applicants may be required to obtain a secured bond, or other surety acceptable to the Department, including an irrevocable letter of credit or money in escrow, that shall be sufficient to hire an independent contractor to complete any conditions imposed, or to effect any limitations, or to restore the project area to its original condition in the event of a failure by the applicant to comply with the conditions or limitations of the marina construction permit. Bonds may be required for compensation projects, see Section 11.3.10.
- 10.2 Amount. Bonds shall be posted in an amount equal to 115 percent of the estimated cost of the activity.

11.0 Requirements for Siting and Designing New Marinas

This section describes the requirements, restrictions, and limitation criteria for new marina development. Requirements for the construction of new small marinas (25 slips or less) and minor alterations to existing marinas are identified in Section IV of this Regulation. New marina applications must include a Siting and Design Study that demonstrates how the proposed marina meets the criteria of this section. The Department will review all permit applications to determine if the project will comply with the *Delaware Surface Water Duality Standards* and other applicable State regulations. The Department will deny a permit if the permit application fails to demonstrate to the Department's satisfaction that the siting, design, construction, and operation of the marina will comply with all applicable State regulations.

11.1 Siting and design

- 11.1.1 A Siting and Design Study (SDS) must be submitted for each project. The SDS must assess the impacts of all the Environmental Siting Considerations and Planning and Design Requirements identified in Sections 11.4 & 11.5, below.
- 11.1.2 The SDS shall examine all facets of a project. The primary objective of the SDS shall be avoidance of impacts. It shall document all efforts to avoid adverse impacts, and to minimize and offset unavoidable adverse impacts to aquatic and terrestrial resources. Such documentation shall be in the form of an objective alternatives analysis that satisfies this sequencing of review criteria and provides an evaluation of practicable alternate sites and/or designs for Department consideration.
- 11.1.3 All designs that include water-based vessel storage must be accompanied by alternatives that explore various combinations of wet and dry vessel storage. At least one alternative which uses only land-based vessel storage must be evaluated.
- 11.1.4 Facilities which must comply with the Federal Aid in Sportfish Restoration Act (Dingell-Johnson Program), may substitute documents which satisfy these federal program requirements in place of the Siting and Design Study required by this Regulation. Substitute documentation shall be reviewed by the Department in the same manner as a Siting and Design Study by using the criteria described in Section II.C., below.
- 11.1.5 Siting and Design Studies shall not be required for alterations to existing facilities if:
 - 11.1.5.1 They are located on freshwater impoundments, and
 - 11.1.5.2 They provide service for human or wind powered craft only.

11.2 Review criteria

- 11.2.1 These Regulations set forth rebuttable presumptions that:
 - 11.2.1.1 alternatives that do not involve the use of state waters for storage of vessels have less adverse impact on the aquatic environment, and
 - 11.2.1.2 alternatives that do not involve the use of state waters for storage of vessels are available.
- 11.2.2 In evaluating the SDS the Department must first determine whether the applicant has demonstrated that:
 - 11.2.2.1 potential impacts have been or can be avoided to the maximum extent practicable when considering existing technology, infrastructure, logistics, and costs in light of overall project purposes, and
 - 11.2.2.2 impacts have been or can be minimized to an extent practicable and appropriate to the scope and degree of those environmental impacts, and

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 11.2.2.3 any unavoidable impacts to aquatic and terrestrial resources have been or can be compensated for to an extent that is practicable and appropriate.
- 11.2.3 The Department will also consider the public interest in any activity which might affect the use of subaqueous lands including, but not limited to, the following:
 - 11.2.3.1 The potential effect on the public with respect to commerce, navigation, recreation, aesthetic enjoyment, natural resources, and other uses of the subaqueous lands.
 - 11.2.3.2 The extent to which any disruption of the public use of such lands is temporary or permanent.
 - 11.2.3.3 The extent to which the public at large would benefit from the activity or project and the extent to which it would suffer detriment.
 - 11.2.3.4 The extent to which structures that extend over subaqueous lands are dependent upon water access for their primary purpose. Restaurants, decks, residences, and other non-water dependent structures that extend over subaqueous lands shall not be authorized by these Regulations.
- 11.2.4 The Department will only issue a permit for the alternative found to be the least environmentally damaging practicable alternative. Appropriate and practicable steps to avoid and minimize adverse impacts will be required through project modifications and permit conditions.
- 11.2.5 The Department may determine that the environmental impacts of a project are so significant that, even if alternatives are not available, the application should be denied regardless of the compensatory mitigation proposed by the applicant. In making its determination, the Department will prepare a report which documents the reasons for the denial.
- 11.3 Environmental siting considerations. The Department's review of all permit applications will include consideration of the following:
 - 11.3.1 Vessel Storage
Any permit application, except as allowed in Section IV, below, that involves water based vessel storage (wet slips) must demonstrate to the Department's satisfaction that:
 - 11.3.1.1 no practicable and appropriate comparable land-based vessel storage alternatives exist, or
 - 11.3.1.2 that available land-based alternatives have an equal or greater adverse impact on the aquatic environment than comparable water-based vessel storage alternatives.
 - 11.3.1.3 When evaluating comparability, the Department will consider number of slips, location, intended use, and proposed ancillary facilities.
 - 11.3.2 Water Quality Assessment
 - 11.3.2.1 Policy Statement. It is the policy of the Department to prevent degradation of the surface and groundwaters of the State which might result from any pollutant source, so that all existing water designated uses are maintained and protected. Marinas shall be permitted only if they do not cause a violation of established Delaware water quality regulations.
 - 11.3.2.2 Requirements. In order to meet the policy objectives stated in (a), above, the applicant must provide, as part of the Siting and Design Study, a documented and valid water quality assessment of the potential impacts of the design, construction, and operation of the proposed marina. At a minimum, the assessment must explicitly address fecal coliform and dissolved oxygen surface water quality standards. Other parameters may be required by the Department if there is a documented concern. At a minimum, a valid assessment will include appropriate modeling, monitoring, and data analysis to determine the following:
 - 11.3.2.2.1 the flushing characteristics of the proposed marina;
 - 11.3.2.2.2 the spatial extent of the shellfish harvest closure zone; the closure zone shall be clearly indicated on an appropriate U.S.C.G. chart of the area (see also Section 11.3.5.2, below)

11.3.2.2.3 the 24 hour average dissolved oxygen concentration and the one hour (or instantaneous) minimum dissolved oxygen concentration both inside the marina and in adjacent ambient waters.

11.3.2.3 Conditions. For each of the items described above, the analyses shall be conducted based on the following conditions:

11.3.2.3.1 Average ambient water temperature and salinity for the critical season of marina operation. The critical season is defined as the season which has the highest potential for adverse water quality impacts. The critical season will be assumed to be the late summer months unless the applicant or the Department can document a more critical time period.

11.3.2.3.2 For tidally influenced sites, the average tidal conditions (high and low tide elevations, tide range, and current velocities) for the critical season of marina operation.

11.3.2.3.3 Sediment Oxygen Demand rates of at least 1.0 gm/sq m/d at 20 degrees C. This base rate will be adjusted to the temperature of the analysis based on the following formula:

$$SOD_T = SOD_{20} (1.065)^{(T-20)}$$

Where:

SOD_{20} - SOD @ 20°C

SOD_T = - SOD at temperature of analysis

T = Temperature °C

A higher base rate may be required by the Department if there is documented evidence that higher SOD rates exist at the site.

11.3.2.3.4 Seasonal average ambient BOD and concentrations of the adjacent receiving waters.

11.3.2.3.5 Seasonal 24 hour average ambient dissolved oxygen concentrations of the adjacent receiving waters.

11.3.2.3.6 Atypical instantaneous minimum and maximum dissolved oxygen concentration determined by continuous dissolved oxygen, temperature, and salinity monitoring of the adjacent waters at the site. The monitoring should be conducted during the season of interest. Temperatures should approximate the average seasonal temperature in 11.3.2.3.1 above.

11.3.2.3.7 Additional or alternative conditions may be required or approved by the Department if there is documented evidence that the additions or alternatives are appropriate.

11.3.2.4 Each assessment shall include documentation of all water quality data and calculations relevant to these items. Additional guidance regarding water quality assessments can be found in the *Marina Guidebook*.

11.3.2.5 The Department may require the applicant to implement a water quality monitoring plan for the periods of time prior to construction, during construction, and after construction. The determination of whether a water quality monitoring plan is required will be made by the Department based upon the ecological sensitivity of the proposed site and the potential for violation of Delaware water quality regulations. The Department will weigh costs versus benefits when determining what is practicable and appropriate.

11.3.3 Cumulative Impacts

The Department shall reserve the right to consider the cumulative impacts of clusters of proposed new and existing developments in a finite receiving water body. Therefore, even in cases where such projects, if considered alone, would comply with applicable State regulations, the Department may still deny an individual application or applications, or may require each applicant to make modifications so that the cumulative impacts of the projects shall not cause violations of State regulations.

11.3.4 Wetlands

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 11.3.4.1 No activity shall occur in wetlands without first obtaining a permit from the Department pursuant to The Wetlands Act (7 Del.C., Chapter 66) and 7500 *Wetlands Regulations*.
- 11.3.4.2 It is the policy of the State to preserve and protect public and private wetlands and to prevent their despoliation and destruction consistent with the historic right of private ownership of lands. Therefore, the Department shall strictly regulate the location of marinas in wetlands. Marinas shall be limited to those sites where applicants can demonstrate that short and long-term adverse impacts to the biological, chemical, and physical integrity of wetlands and their functions have been avoided, and that unavoidable impacts have been minimized and can be compensated for.
- 11.3.4.3 Before the Department allows disturbance of wetlands, the applicant shall demonstrate that all practicable alternatives to avoiding wetland impacts have been thoroughly examined and the results of such examinations shall be provided to the Department. In all cases, the applicant shall demonstrate that the purchase of additional property to avoid the wetland impacts is impracticable.
- 11.3.4.4 If wetlands impacts cannot be avoided, and the applicant has demonstrated that wetland impacts have been minimized, the Department may allow compensation. Compensation plans must provide for the creation or restoration of an area of wetlands that is of equal or greater value than the area that will be disturbed or destroyed so that there is no net loss of wetlands. Compensation requirements are more fully described in Subsection 11.3.10 *Mitigation Measures*.
- 11.3.5 Shellfish Resources
- The Siting and Design Study shall include a description of all measures taken to first avoid, and then minimize unavoidable impacts to shellfish resources. The Department will consider the following impacts of proposed marina facilities on shellfish resources:
- 11.3.5.1 Impacts on the organisms themselves, including their ability to survive, grow and propagate, without regard to potential use by humans; and
- 11.3.5.2 Impacts that may cause a violation of Reg. 7401 *Delaware Surface Water Quality Standards*, (including, but not limited to, Sections 3 and 10 of the Standards); and
- 11.3.5.3 Impacts on the public's ability to harvest and consume edible shellfish species based upon the shellfish growing area classification proposed by the Delaware Division of Public Health for the marina or marina alteration under consideration.
- 11.3.6 Submerged Aquatic Vegetation (SAV). SAV is protected because it provides shelter and a source of food to small aquatic organisms, and because of its ability to filter and remove suspended solids and disperse wave energy.
- 11.3.6.1 Applicants must demonstrate that short and long-term impacts to SAV have been avoided, and that unavoidable impacts have been minimized and can be compensated for. Marina projects that could cause the destruction of SAV without corresponding compensation as approved by the Department shall not be permitted. Compensation measures are more fully described in Section 11.3.10 *Mitigation Measures*.
- 11.3.6.2 Shading of SAV by piers should be avoided.
- 11.3.7 Benthic Resources
- 11.3.7.1 Benthic resources are protected because of their importance in the food chain and their value as commercial and recreational food sources.
- 11.3.7.2 The status of a benthic community shall be assessed by the applicant using frequency, diversity, and abundance measures approved by the Department. As a part of this determination, the rapid bioassessment techniques of Luckenbach, Diaz and Schaffner (1989)* as modified by the Department shall be used to characterize benthic communities. Taxonomic and biomass data specific to this methodology shall be collected. The Department may continue to modify this methodology as experience is gained in applying these techniques in Delaware waters.

*Luckenbach, M.W., R.J. Diaz and L.C. Schaffner. 1989. Report to the Virginia Water Control Board. Appendix I. Project 8: Benthic Assessment Procedures. Virginia Institute of Marine Science, School of Marine Science, College of William and Mary, Gloucester Point, VA.

11.3.7.3 The Department may require monitoring of the benthos as a permit condition.

11.3.8 Critical Habitats. Construction of marinas shall not be permitted at sites that are recognized by the Department as critical habitats.

11.3.9 Recreational Water Use Areas. Marinas shall not be permitted at sites which conflict with Recreational Water Use Areas as duly adopted by the State.

11.3.10 Mitigation Measures

11.3.10.1 General

11.3.10.1.1 All mitigation and compensation measures must be reviewed and approved by the Department before a permit can be issued. Department approvals may establish a schedule for completion.

11.3.10.1.2 The intent of this policy is to assure no net loss of aquatic habitat productivity, including flora and fauna.

11.3.10.1.3 When a proposed activity would cause unavoidable disturbance to, or loss of, environmental resources such as those described in parts 11.3.10.2. and 11.3.10.3, below, such disturbance or loss shall be minimized, and any remaining impacts shall be compensated for by the creation or restoration of a comparable or greater area. The area to be created or restored may be reduced if the applicant can prove through the use of Department approved productivity/functional assessment models or other similar and approved methods, that creating or restoring a lesser area will result in no net loss in the environmental value or function of the resource.

11.3.10.1.4 Where the Department permits compensation in area ratios less than those listed in 11.3.10.2.4 and 11.3.10.3.3, because of an applicant's productivity/functional assessment model projections or other studies, post creation/restoration monitoring shall be required of the applicant to validate those projections or studies. In such cases, the Department shall require additional compensation if monitoring indicates that a net loss of environmental value or function has resulted. Additional compensation efforts may be required if the initial compensation effort is not successful.

11.3.10.1.5 Compensation similar in kind and location to the resource that will be disturbed or destroyed is preferred. Proposals for off-site compensation will only be considered if the compensation site is in the same watershed as the resource that will be lost. The Department may also consider proposals for out-of-kind compensation if the proposed compensation would provide equivalent or greater functions and values than the resource that will be disturbed or destroyed.

11.3.10.1.6 The State of Delaware may establish a compensation bank, or license a private compensation bank, which is an area of wetlands or other suitable aquatic habitat(s) that has been created or restored by the State and which may be available for use by potential applicants to meet the compensation requirements of their projects. The costs of creating or restoring an area within the compensation bank, including any land acquisition costs and administrative costs, plus the initial and maintenance costs of the compensation work itself, shall form the basis of the charge to the applicant for use of any credits so established. No lands within the compensation bank shall become the property of the applicant because of any fee paid to use the bank credits.

11.3.10.2 Wetlands

11.3.10.2.1 Compensation may be allowed by the Department to offset unavoidable impacts to existing wetlands. Compensation will only be considered if the applicant has demonstrated avoidance and minimization in accordance with

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

Section 11.2.2, above. This may require modification of marina plans, including limiting the number of slips and/or rearranging the marina configuration. When evaluating compensation plans, the Department will consider the functions and values, quality, areal extent, and configuration of wetlands which will be impacted by the activity.

- 11.3.10.2.2 Wetland functions and values encompass:
 - 11.3.10.2.2.1 Environmental quality values (water quality maintenance, aquatic productivity, microclimate regulation, etc.)
 - 11.3.10.2.2.2 Fish and wildlife values (fish and shellfish, waterfowl and other birds, fur bearers, and other wildlife)
 - 11.3.10.2.2.3 Socioeconomic values (flood control, erosion control, water supply, fishing and hunting, aesthetics, research, education, etc.)
- 11.3.10.2.3 Marinas shall not be permitted that would adversely impact wetlands without corresponding compensation as required by the Department. Creation of wetlands from existing intertidal or subtidal flats, enhancement of existing wetlands, or transfer of title of existing wetlands (including granting of easements) to a government agency or conservation organization are not acceptable forms of compensation.
- 11.3.10.2.4 Compensation plans for wetlands shall be considered on a case-by-case basis. A no net loss criterion shall be applied to all activities. Compensation shall be required in the ratio of 2:1 for areas disturbed, except as provided in subparagraph 11.3.10.1.3, above. In no case shall compensation be allowed in ratios less than 1:1 for areas disturbed.
- 11.3.10.2.5 Compensation shall be with the same species (flora and fauna) and soil types that were disrupted unless alternate species or soil types are approved by the Department.
- 11.3.10.2.6 Post creation/restoration monitoring shall be required for a minimum of three (3) years after completion of the compensation project. A wetland compensation project shall be considered successful if the plantings have achieved at least 85% of the required density and areal coverage. Functional values for fauna must also achieve 85% of expected abundance, frequency, and diversity. If the compensation measures fail to achieve these requirements within one (1) year, the applicant shall be required to replant and/or take other appropriate measures until success is achieved.
- 11.3.10.3 Submerged Aquatic Vegetation (SAV) Beds
 - 11.3.10.3.1 Compensation to offset unavoidable impacts to established SAV beds will only be considered if the applicant has demonstrated avoidance and minimization in accordance with Subsection 11.2.2 above. This may require modification of marina plans, including limiting the number of slips and/or rearranging the marina configuration. When evaluating compensation plans, the Department shall consider the functions and values, quality, and areal extent of the SAV which will be impacted by the activity.
 - 11.3.10.3.2 Marinas shall not be permitted in areas that will result in the destruction of SAV beds without corresponding compensation measures as approved by the Department.
 - 11.3.10.3.3 Compensation projects shall be considered on a case-by-case basis by the Department. Compensation shall be required in a ratio of 2:1 for SAV beds disturbed, unless the applicant can demonstrate, through generally accepted methods, that a smaller area will provide the same ecological productivity and function. In no case shall compensation be allowed in ratios less than 1:1 for areas disturbed.
 - 11.3.10.3.4 Compensation must employ the same species (flora and fauna) as the ones disturbed, or alternate species as approved by the Department.

11.3.10.3.5 A SAV compensation program shall be considered successful if the average density and average shoot height of each of the SAV varieties in the compensation area is the same or greater than the average density and average shoot height of each of the SAV varieties in the bed that was disturbed. If the compensation measures fail to achieve these requirements, the applicant shall be required to replant and/or take other appropriate measures to achieve success.

11.3.10.4 Bonding. To assure that there are funds available for mitigation and compensation, the applicant shall be required to post a ten-year bond or other surety acceptable to the Department including an irrevocable letter of credit or money in escrow, and equal to 200% of the amount adequate to pay for the full mitigation and compensation program. If success, as defined in 11.3.10.2.6 and 11.3.10.3.5. is reached after five years, the bond will be released in its entirety. The Department may release portions of the Bond, if successful compensation is demonstrated after two years but in no case shall the bond be maintained at less than 115% of funds necessary to pay for the full mitigation and compensation program.

11.4 Planning and design requirements

The Department's review of all applications will also include consideration of the following design features:

11.4.1 Marina Flushing

11.4.1.1 Marinas shall be designed to maximize flushing so as to prevent the possible accumulation of contaminants that could result in a violation of *7401 Delaware Surface Water Quality Standards*, and to meet the policy objectives as set forth in II.D.2(a), above. Guidance on suitable methods to determine marina flushing characteristics can be found in the *Marina Guidebook*. The applicant remains responsible for providing the justifications for the model chosen.

11.4.1.2 Marina basins shall be designed so that they do not include square corners or stagnant water areas that tend to collect debris or cause shoaling or flushing problems.

11.4.1.3 Marina basin and access channel depths shall not be deeper than the existing controlling depth of the receiving waterbody and shall be designed to introduce a negative slope (shallow to deep) when moving from the head of the basin toward the receiving waterbody.

11.4.2 Dredging and Dredged Material Disposal. Dredging and dredged material disposal activities shall be in accordance with *7504 Regulations Governing the Use of Subaqueous Lands*, as authorized by 7 Del.C., Ch. 72, and the following. Dredged material disposal activities may also be regulated, depending upon the nature of the spoil material, by *1301 Delaware Regulations Governing Solid Waste* or *1302 Delaware Regulations Governing Hazardous Waste*.

11.4.2.1 Dredging shall be limited to the minimum dimensions necessary for the project and should avoid sensitive areas such as wetlands, shellfish resources, and SAV. *Delaware Surface Water Quality Standards (Regulation 7401)* must not be violated because of dredging operations.

11.4.2.2 The Department may authorize dredging or other marina activities on a seasonally restricted basis in known nursery and spawning areas of important species. Marinas shall not be permitted in areas that would require frequent maintenance dredging, resulting in harm to aquatic life and preventing the recolonization of benthic organisms. Such areas include those which would require maintenance dredging more often than once every four years.

11.4.2.3 Dredging activities shall not be approved until the applicant can demonstrate that both initial and future maintenance dredging demands can be accommodated by the proposed disposal plan. Future maintenance dredging shall be estimated using a project life not less than 30 years unless the applicant can provide good reasons why the project life will be less than 30 years.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

11.4.3 Shoreline Protection Structures

Construction of shoreline protection structures shall be in accordance with *7504 Delaware Regulations Governing the Use of Subaqueous Lands*, as authorized under 7 **Del.C.**, Ch.Ch. 72. Shoreline protection structures should be designed to minimize adverse impacts to aquatic resources. When bulkheading is proposed as part of a marina project, the permit application must include an evaluation of alternatives to bulkheading. Such evaluations must demonstrate that no practicable and appropriate alternative to bulkheading exists to effectuate the primary purpose of the project.

11.4.4 Navigation and Access Channels

11.4.4.1 Marinas shall only be located in areas which, in the determination of the Department, offer safe and convenient access to waters of navigable depth. Such locations tend to present maximum opportunities for flushing, with less danger of sedimentation than very shallow sites. Safe and convenient access will be determined on a case-by-case basis. Factors such as existing water depths, distance to existing channels and their depths, and tidal and wave action will be considered.

11.4.4.2 Where feasible, docks and piers shall be extended to navigable depths rather than employing dredging to provide such depths closer to shore. In some cases, limitations on maximum vessel drafts may be necessary. Minimum navigable depths shall be based on the kind of vessels expected to use the marina, but shall not exceed the depths of the receiving waterbody.

11.4.4.3 Alignment of channels shall make maximum practical use of natural or existing channels.

11.4.4.4 Docks, moorings, pilings, and other structures or berthing areas associated with marinas shall be located a minimum of ten (10) feet from a navigation channel.

11.4.4.5 Marina docking facilities shall not extend beyond existing structures in the immediate vicinity unless absolutely necessary to obtain adequate water depths for a water dependent activity.

11.4.4.6 Where adequate water depths exist for water dependent marina structures, berthing areas shall not extend channelward more than 10% of the width of the waterbody at that location, not to exceed 250 feet. In no case shall a structure extend channelward more than 20 percent of the width of the waterbody (as measured from mean low water to mean low water).

11.4.5 Vessel Traffic and Navigation

11.4.5.1 Marinas shall be designed to minimize adverse effects on the existing public and private use of waters of the State. This includes applications for mooring sites (permanent or temporary), speed or traffic reductions, or any other device, either physical or regulatory, that may cause the use of State waters to be restricted.

11.4.5.2 New marinas must be sited and/or designed, to the maximum extent practicable, to afford adequate protection against wakes caused by vessel traffic.

11.4.6 Water Supply

11.4.6.1 Marina construction, maintenance, dredged material disposal, or operation shall not be allowed to contribute substances to groundwater in violation of 7 **Del.C.**, §6003, regardless of whether the affected groundwater is used as a public or private water supply.

11.4.6.2 Marina construction, maintenance, dredged material disposal, or operation shall not be allowed to contaminate a public water supply as defined by *7401 Delaware Surface Water Quality Standards*, whether existing or reserved for future use.

11.4.6.3 When an applicant proposes to construct an upland basin marina, whether through excavation or other means (i.e. connection of an existing landlocked waterbody to tidal waters), documentation must be provided to demonstrate that the basin will not cause intrusion of saltwater into a public or private water supply.

11.4.6.4 Applicants must demonstrate that there is an adequate water supply to serve all of the project's needs, and that all required permits and/or approvals can be

obtained for the proposed method of water supply, whether by well installation, hook-up to an existing water supply system, or other means.

11.4.7 Wastewater Facilities

11.4.7.1 In accordance with 7 **Del.C.**, §6035, discharge of raw, untreated, or inadequately treated sewage from marine sanitation devices into waters of the State, including marina basins, is prohibited.

11.4.7.2 All marinas shall comply with the provisions set forth in 7 **Del.C.**, §6035.

11.4.7.3 Adequate restroom facilities for the use of marina patrons shall be provided to discourage any overboard discharge of untreated or inadequately treated sewage from vessels, and to protect water quality. Toilet facilities shall be constructed in a location that would facilitate their use by the users of the marina. The number of toilets required for any given marina shall be determined by the nature (recreational, public, or commercial) and size of the marina and by its specific configuration. There shall be adequate restroom facilities to serve patrons such that use of shoreside facilities is encouraged. Public restroom facilities will not be required at recreational marinas if every resident who utilizes a slip within the marina can quickly and conveniently travel from the slip to their residence.

11.4.7.4 The applicant shall demonstrate adequate capacity to properly dispose of all sanitary wastes generated by the project.

11.4.7.5 An ample number of signs shall be provided to identify the location of public restrooms and of pumpout facilities or dump stations. Such signs shall also fully explain the procedures and rules governing the use of these facilities.

11.4.7.6 The applicant must demonstrate that proper treatment, storage, or disposal permits have been or can be obtained.

11.4.8 Parking. In the absence of local planning requirements, the following rebuttable presumption is set forth:

11.4.8.1 Dedicated parking spaces should be provided at a rate of 0.50 spaces/slip, plus such additional spaces required by local codes for retail activities, handicapped citizens, residences, and employee parking.

11.4.8.2 The applicant may submit information to the Department in support of an alternative parking space rate. The Department will review such information to determine if the proposed standard is appropriate for use. In the event of a conflict between this requirement and an applicable local building code or requirement, the local code shall have precedence.

11.4.9 Stormwater Management

11.4.9.1 Storm-water runoff becomes polluted with oils, greases, organic and inorganic wastes, and other potentially harmful substances. The movement of these substances into streams and estuaries can have significant adverse water quality impacts. To minimize these impacts, all marina permit applications shall include plans for stormwater management and sediment and erosion control. These plans must be reviewed and approved by the appropriate plan approval agency in order to ensure compliance with 7 **Del.C.**, Ch. 40, *5101 Delaware Sediment and Stormwater Regulations*, and the *National Pollutant Discharge Elimination System (NPDES) Stormwater Regulations*, (40 CFR 122.26).

11.4.9.2 In the event that the proposed marina project is exempted or waived from the requirements of Chapter 40 or the NPDES Stormwater Program, surface water and groundwater quality protection must still be demonstrated by the applicant. In reviewing the plans for stormwater management and sediment and erosion control, the Department will rely upon the water quality provisions of Chapter 40 and *5101 Delaware Sediment and Stormwater Regulations*.

11.4.10 Solid Waste Management. Storage, handling, and disposal of solid wastes shall be in strict accordance with the Department's *Regulations Governing Solid Waste (Regulation 1301)*.

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

- 11.4.10.1 Discharge of solid waste, including but not limited to, garbage, maintenance waste, plastics, refuse, and rubbish into waters of the state, including marina basins, is prohibited.
- 11.4.10.2 Solid wastes shall be managed so as to prevent their entrance into any surface or groundwaters of the State.
- 11.4.11 Vessel Maintenance Areas and Activities
 - 11.4.11.1 Vessel maintenance areas shall be sited as far from the water as is practicable, and shall be designed so that all maintenance activities that are potential sources of water or air pollution can be accomplished over dry land and under roof, where practicable, as determined by the Department. Control of by-products, debris, residues, spills, and stormwater runoff shall comply with applicable Department regulations. All drains from maintenance areas must lead to a sump, holding tank, or pumpout facility from which the wastes can later be extracted for treatment and/or disposal by approved methods. Drainage of maintenance areas directly into surface or groundwater shall not be allowed.
 - 11.4.11.2 Maintenance activities including, but not limited to, painting, welding, woodworking, and LPG servicing shall comply with applicable State regulations, as well as with NFPA 303; *Fire Protection Standards for Marinas and Boatyards*.
 - 11.4.11.3 Only biodegradable detergents shall be allowed for vessel washing and cleaning within waters of the State.
 - 11.4.11.4 Waste oils and other wastes generated as a result of maintenance and repair operations shall not be disposed of into ground or surface water.
 - 11.4.11.5 Materials used in maintenance and repair operations shall be stored and handled in accordance with local fire codes or, if none exist, with applicable codes and standards of NFPA and with applicable Department regulations. Such material shall be stored in such a way as to prevent adverse environmental impacts.
- 11.4.12 Fuel Storage and Delivery Facilities
 - 11.4.12.1 Fuels shall be stored and handled in accordance with local fire codes or, if none exist, with NFPA 303, *Fire Protection Standards for Marinas and Boatyards*, and with applicable Department regulations. All vessel fueling operations shall be undertaken at the fueling station or other specifically designated remote location in accordance with NFPA 302, *Fire Protection Standards for Pleasure and Commercial Motor Crafts*.
 - 11.4.12.2 Aboveground and underground fuel storage tank installations shall comply with all State and/or local storage tank regulations.
- 11.4.13 Fire Protection Systems

Fire protection systems shall comply with local fire codes or, if none exist, with NFPA 303, *Fire Protection Standard for Marinas and Boatyards*.
- 11.4.14 Life Safety Equipment. Flotation devices shall be provided at regular intervals throughout the marina to ensure the safety of marina users.
- 11.4.15 Fish Wastes. Fish waste disposal shall be in accordance with 7 Del.C., Ch. 60, and with any applicable Department approved policies.
- 11.4.16 Marina Structures. Marina structures in, on, or over subaqueous lands shall be designed to comply with applicable requirements of 7504 *Delaware Regulations Governing the Use of Subaqueous Lands* and with the following:
 - 11.4.16.1 They shall be designed to minimize adverse impacts on navigation, public use of waters, and natural resources, while allowing the applicant adequate access to waters of navigable depth.
 - 11.4.16.2 They shall not significantly restrict water-flows.
 - 11.4.16.3 The width and length of all structures shall be limited to what is reasonable for the intended use. To the extent feasible, heights and widths should be chosen to minimize shading of vegetation. Shading of SAV should be avoided.
 - 11.4.16.4 Barrier-free access for the handicapped shall be provided for all marina structures when required by federal, state, or local statutes, regulations, or ordinances.

- 11.4.16.5 They shall have sufficient strength to resist expected dead, live, wind, and impact loads. Adequate consideration shall be made for forces imposed by earth pressures, flowing water, floating objects or debris (including ice), and vessel docking and mooring operations.
- 11.4.16.6 Marina structures shall not be constructed using creosote treated timber.

12.0 Alterations to Existing Marinas

12.1 General Requirements

- 12.1.1 Applicants for marina alterations shall comply with all applicable Delaware Laws and Regulations. Applying for an alteration to an existing marina rather than a new marina does not relieve the applicant of responsibility for obtaining any other local, state, or federal permits or approvals that may be required for the proposed alteration.
- 12.1.2 Applicants for marina alterations shall comply with all requirements of this Regulation except as may be provided for otherwise in the paragraphs below. However, only the newly constructed portions of the marina (whether upland or water-based) must comply with the requirements for new marinas. Upland portions of the original, existing marina that are left undisturbed or are upgraded by the alteration, shall be brought into compliance with the requirements for new marinas only to the extent practicable.

12.1.2.1 Shoreline Protection Structures

Shoreline protection must comply with 7 **Del.C.**, Ch. 72, and *7504 Regulations Governing the Use of Subaqueous lands*.

12.2 Dredging and Dredged Material Disposal

- 12.2.1 Dredging to enlarge, deepen, or relocate a channel to specifications differing from the previously approved dredge plan shall constitute an alteration and must conform with Subsection 11.4.2.1.
- 12.2.2 Except as provided in Subsection 11.4.2.1 above, a marina alteration permit is not required for maintenance dredging provided that all spoils are placed in approved areas. However, the applicant shall obtain a letter of authorization pursuant to *7504 Delaware Regulations Governing the Use of Subaqueous Lands* for any maintenance dredging activity.

- 12.3 Parking. Applicants for marina alterations that include an increase in the number of slips must comply with Subsection 11.4.8 above.
- 12.4 Stormwater Management. Marina alterations that involve changes to, or disturbance of, the upland portion of the property, must comply with Subsection 11.4.9 of these Regulations for the disturbed or altered portion of the upland property, and to the extent practicable, for the existing, unaltered portions of the property.
- 12.5 Operations and Maintenance Plan. An updated Operations and Maintenance Plan must be submitted for the entire marina at the time of application. The plan must cover the operation and maintenance of the original, existing portions of the marina, as well as the new, altered portions of the marina.

13.0 Permit Application Requirements for New Construction of Small Marinas and Minor Alterations to Existing Marinas

- 13.1 In order to reduce environmental impacts by encouraging consolidation of vessel docking facilities, permitting requirements for small, new marinas and minor alterations to existing marinas may be governed under this Section. Applicants for marina projects that meet the applicability criteria described in Section 14.1 below, qualify to submit a modified permit application as described in Section 13.2.
- 13.2 Applicants who qualify for small marina permitting status are not relieved from complying with the requirements identified in Sections 1.0, 11.0, 12.0 or 14.0 of this regulation. However, small marina permitting status does allow the applicant to submit a marina permit application that has been modified so that application requirements will be less burdensome.
- 13.3 Applicability

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

An applicant may apply for a permit under this Section if the proposed new marina or marina alteration can be described by any one of the following:

- 13.3.1 It is a commercial, recreational, or public marina of more than 4 but not more than 25 slips.
 - 13.3.2 It is a commercial or public boat ramp.
 - 13.3.3 It is a recreational boat ramp in conjunction with more than 4 but not more than 25 slips.
 - 13.3.4 It is a facility that has fewer than five slips, but is classified as a marina because one or more headboats are docked there.
 - 13.3.5 It is a minor alteration. Minor alterations are those that expand an existing marina by 25 slips or fewer, or involve no new waterbased structures or activities.
 - 13.3.6 In addition to the above five items, the proposed marina or proposed alteration must not include fuel storage or delivery facilities, or vessel maintenance or repair facilities in order to qualify for permitting status under this section.
 - 13.3.7 Alterations can only be permitted under this section once unless the proposed alteration expands the marina by fewer than 25 slips, in which case, future alterations may be permitted under this section until the total number of additional slips from the combined alterations reaches 25.
 - 13.3.8 If the Department determines that this section does not apply to a proposed marina or marina alteration, the proposed new facility or alteration shall be required to comply with all requirements of the preceding sections of the *Marina Regulations* and shall not be eligible for the small marina permit application and processing procedures identified in Sections 13.2, 13.3, and 13.4, below.
- 13.4 Permit application: modified requirements. The requirements for marina permit applications identified in Sections 1.0, 11.0, 12.0, and 14.0 of this Regulation have been modified in Sections 13.0, 13.2, 13.3 and 13.4 below, to accommodate small new marinas and minor alterations. Applicants for marina projects that meet the applicability criteria described in Section IV.A, above, may submit an application and follow the permit processing procedures that have been modified as described below.
- 13.4.1 Siting and Design Study
 - 13.4.1.1 Applicants need not provide justification for wet slip vessel and storage as required in Section 11.3.1.
 - 13.4.1.2 The applicant may provide published data representative of site conditions in lieu of site specific field studies to satisfy the requirements of the Water Quality Assessment (Section 11.3.2). If published data is not available, an abbreviated sampling strategy that has been mutually developed and agreed upon by the applicant and the Department may be submitted to satisfy this requirement.
 - 13.4.1.3 The benthic resources assessment required in accordance with Section 11.3.7 need not be performed.
 - 13.4.2 Joint Application Form - All appropriate appendices of the Joint Application Form shall be completed. However, applicants may submit the appendices modified for small marina projects in lieu of the standard appendices.
 - 13.4.3 Operations and Maintenance Plan (O&M Plan) - Applicants for new small marinas may use the Department's Standard Operations and Maintenance Plan and need not prepare a specialized plan. This requirement is satisfied by providing the information required in the Standard Operations and Maintenance Plan Information Sheet (Sheet is obtained from the Department). Water quality monitoring will not be required as part of the O&M Plan for small marinas or minor alterations. Applicants proposing minor alterations to existing marinas need only modify their existing O&M Plan as appropriate.
 - 13.4.4 Fees. The fee for minor, new marinas or, minor marina alterations will apply as appropriate.
- 13.5 Bonding. The applicant will not be required to post a bond for project construction.
- 13.6 Public notice requirements. The initial public notice and 45 day comment period will not be required, for small, new marinas or minor marina alterations. The first public notification will be the 20 day notice, during which requests for a public hearing may be received.

14.0 Marina Operations and Maintenance (O&M) Plan

14.1 Pumpout requirements. Regardless of the number of slips, any marina providing other than transient berthing for any vessel containing a Type III marine sanitation device shall provide access to a sewage pumpout or dump station as required by 7 Del.C., §6035. In addition, the marina owner shall post signs to identify the location of the marina's pumpout/dump stations. If the marina is not required to provide this service, the marina owner shall post a sign identifying the location of the nearest pumpout station.

14.2 Marina operations and maintenance (O&M) plan. This section of the Regulations presents the requirements for obtaining a marina operations and maintenance (O&M) plan. It applies to all marinas in the State of Delaware, whether existing, under construction, or proposed. The intent of the operations and maintenance plan is to address compliance with statutory requirements and permit programs and to protect the aquatic and terrestrial environment. Once the plan is approved, marina owners are responsible for:

- ensuring that marina personnel comply with all aspects of the plan,
- providing copies of the plan to all marina tenants, and
- taking appropriate action to deal with marina tenants who violate any provision of the plan.

14.2.1 Periodic Review and Approval

All marinas governed by this Regulation shall be required to update and submit their previously approved O&M plan for Department review and re-approval based upon the following schedule:

- 14.2.1.1 Marinas with 0-50 slips - due for re-approval four years after O&M plan approval date
- 14.2.1.2 Marinas with 51-100 slips - due to re-approval three years after O&M plan approval date
- 14.2.1.3 Marinas with >100 slips - due for re-approval two years after O&M plan approval date

14.2.2 Standard O & M Plans

14.2.2.1 Any existing marina with 50 slips or less which does not contain fueling or maintenance facilities.

14.2.2.2 Applicants for the following types of marinas may request a Standard O&M Plan Information Sheet from the Department:

- 14.2.2.2.1 Any new marina that qualifies for permitting status under Section IV of this Regulation,
- 14.2.2.2.2 Facilities that have less than 5 slips, but provide dockage for one or more headboats,
- 14.2.2.2.3 Public, commercial, and recreational boat ramps.

14.2.2.3 Upon completion, the standard O&M Plan Information Sheet is submitted to the Department for incorporation into the Department approved Standard O&M Plan. The plan is then returned to the applicant for final signatures. The Department may also request modifications to tailor the standard plan to the particular operation before final approval.

14.2.2.4 Applicants owning or operating more than one marina on freshwater impoundments where the marinas are substantially equivalent in size, services offered, and the potential to cause pollution, may submit one O&M plan to cover these facilities.

14.2.2.5 Applicants for marinas that must comply with the Federal Aid in Sportfish Restoration Act (Dingell-Johnson Program), may submit documents that satisfy these federal program requirements and cover the intent of the O&M plan, to satisfy the requirements of the O&M plan.

14.2.3 O&M Plans: Required Information

This section describes the minimum information required in the O&M plan. New marinas and alterations to existing marinas must submit a draft plan with their marina permit application and a final plan six months after operation commences. Existing marinas must submit the

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

plan within one year of the effective date of this Regulation. Whenever the marina ownership or leasehold changes, the O&M plan must be revised and resubmitted for Department approval.

14.2.3.1 Water Quality Management

14.2.3.1.1 All O&M plans shall include a plan to reduce the seasonal wet storage of vessels to the maximum extent practicable, including dates for autumn vessel removal and spring launching.

14.2.3.2 Stormwater Runoff - All O&M plans shall include a plan for managing stormwater. Included in this plan shall be practicable steps to eliminate-sources of pollution associated with rainfall runoff. For new marinas, the operation and maintenance of all stormwater management facilities and structures shall be discussed. For existing marinas, major retrofitting will not be required. However, where practicable, all activities that may cause or contribute to pollution such as maintenance facilities and storage areas for wastes, or for materials such as solvents, paints, oils, and greases, shall be placed under roof. In all maintenance areas, housekeeping procedures shall be instituted to minimize the accumulation of maintenance wastes and to provide proper storage for maintenance materials. Wherever practicable, vegetated buffer areas between non-porous surfaces and the water should be planted and/or maintained. Owners of existing commercial marinas that provide major vessel maintenance services should install a sand filter or other water quality management practice as a means to treat wastewater from maintenance activities and stormwater run-off.

14.2.3.3 Storage and Handling of all Materials Used in Maintenance. The O&M plan must describe all methods used for material storage and handling. All methods must be in accordance with applicable regulations. Materials of concern include fuels, paints, preservatives, pesticides, solvents, oils, greases, epoxies, corrosive cleaners, and other materials used in the maintenance of vessels or marina structures and facilities.

14.2.3.4 Storage, Handling and Disposal of Wastes. The O&M plan must describe methods for storage, handling, and disposal of wastes. All methods must comply with Department regulations.

14.2.3.5 Shoreline Structures Maintenance

14.2.3.5.1 All maintenance and repair of bulkheads, piers, etc., shall be conducted with minimal adverse impact to the existing aquatic environment, and with prior approval of the Department, when required by the *Delaware Regulations Governing the Use of Subaqueous Lands*.

14.2.3.5.2 The O & M plan shall include a description of techniques that will be used to protect the environment during regular maintenance operations. The *Marina Guidebook* may be used for information on best management practices for shoreline structure maintenance.

14.2.3.6 Emergency Operations. The marina owner/operator shall develop plans of action for the following emergencies:

14.2.3.6.1 Fuel/Oil Spill Prevention and Containment Plans. All marinas that provide fuel facilities shall have a spill contingency plan approved by the Department.

14.2.3.6.1.1 Marina operators shall immediately notify the Department in the event of any oil or fuel spill in accordance with 7 Del.C., §6028.

14.2.3.6.1.2 It is the responsibility of the marina operator to properly contain and clean up any spills that are a result of marina operations in a timely and diligent manner. Mitigation, compensation, and/or remediation of impacts resulting from spills, shall be required by the Department. If the marina operator does not promptly act to clean up the spill, the Department may order a cleanup, compensation, and/or remediation using whatever means are available to it and shall hold the marina operator financially responsible for all costs incurred by the State for the cleanup.

14.2.3.6.2 Sewage Spill Prevention and Containment Plan

- 14.2.3.6.3 Fire
- 14.2.3.6.4 Hurricane/Severe Weather: The hurricane/severe weather preparedness plan shall include, but not be limited to, the following:
 - 14.2.3.6.4.1 Knowledge of local Civil Defense and State Marine Patrol hurricane/severe weather notification practices.
 - 14.2.3.6.4.2 Preparation and distribution to boaters of a copy of marina policies, rules, and regulations regarding severe weather procedures.
 - 14.2.3.6.4.3 Procedures to be used by vessel owners for securing and evacuating vessels in preparation for severe weather events.
 - 14.2.3.6.4.4 Procedures to be used by marina personnel for securing/evacuating marina facilities and any unattended or derelict vessels.
- 14.2.3.6.5 Emergency telephone numbers.
- 14.2.3.7 *Rules and Regulations for Marina Users* (Includes full time slip renters and transient boaters) To ensure compliance with this Regulation, rules and regulations applying to boaters and governing the day-to-day operations and activities at the marina as they relate to environmental pollution shall be included in the marina O&M plan. When developing Rules and Regulations, applicants shall demonstrate consistency with this Regulation. Categories of rules and regulations that shall be addressed include, but are not limited to, the following:
 - 14.2.3.7.1 Restrictions on overboard sewage discharge and rules on the uses of marine sanitation devices and pumpout facilities;
 - 14.2.3.7.2 Boater responsibilities for fuel and sewage spills, clean-up costs, and reporting requirements;
 - 14.2.3.7.3 Proper procedures for vessel fueling operations;
 - 14.2.3.7.4 Proper disposal of waste oils;
 - 14.2.3.7.5 Policies and procedures for removal of oil from bilges;
 - 14.2.3.7.6 Rules pertaining to fire prevention and fire protection;
 - 14.2.3.7.7 Policies and procedures for trash and garbage disposal;
 - 14.2.3.7.8 Policies and procedures for vessel maintenance activities;
 - 14.2.3.7.9 Restrictions on vessel speeds and wake conditions if applicable;
 - 14.2.3.7.10 Marina user responsibilities during emergencies.
- 14.2.3.8 Additional Required Information for O&M Plans
 - 14.2.3.8.1 Tidal Range - Mean high water and mean low water elevation; referenced to National Geodetic Vertical Datum (N.G.V.D.);
 - 14.2.3.8.2 Marina Layout - The location of all property boundaries, public telephones, slips, launching ramps, piers, buildings, roadways, walks, parking areas, vessel storage facilities, extent of roof coverage, and other items deemed appropriate;
 - 14.2.3.8.3 Water Depths - The depth of water at mean low water in all areas used for berthing, mooring, and maneuvering of vessels within the marina;
 - 14.2.3.8.4 Capacities - the size of each berth and dry stack space, including the total number of each type;
 - 14.2.3.8.5 Fueling Facilities Location and Rules - Fuel type, location, and capacity of each storage tank; location and type of each fuel pump; location of emergency cut-off valves on fuel lines and pumps;
 - 14.2.3.8.6 Sanitation Facilities Location and Rules - Location and type of sewage pumpout and dump stations or the location of the nearest pumpout/dump station, including any dedicated pumpout locations for live-aboard vessels; locations of public restrooms; types of facilities employed at the marina for handling wastewater (i.e. sewer, septic, holding tank); cite permit numbers where applicable;

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

14.2.3.8.7 Numbers and types of marine sanitation devices on board vessels berthed at the marina. For proposed marinas, this information should be estimated based on anticipated vessel types and sizes.

14.2.3.8.8 Fire Protection Equipment Locations and Rules -Location, size, and capacity of each hydrant, standpipe, or other water supply source; location, type, and capacity of each portable fire extinguisher; location of any fire alarm pull stations;

14.2.3.8.9 Other Rules and Regulations - Additional rules and regulations contained in the approved O & M plan that apply to boaters using the marina.

14.3 Posting of approved plans

Copies of the Department-approved Marina Operations & Maintenance plan shall be distributed to all marina tenants (full time slip renters), and shall be posted in the harbormaster's office or other prominent place within the marina, where it shall be readily available for inspection at all times.

14.4 Water quality monitoring

Marinas may be required to perform water quality monitoring to ensure compliance with Delaware water quality regulations. The determination of whether a water quality monitoring plan is required will be based upon the ecological sensitivity of the site and evidence that water quality regulations may be violated. If monitoring is required, the Department will consider logistics and costs in determining the appropriate nature and scope of the water quality monitoring plan.