DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF WATER RESOURCES

Statutory Authority: 7 Delaware Code, Chapters 40, 60, 66, 70 and 72 (7 **Del.C.**, Chs. 40, 60, 66 & 72)
7 **DE Admin. Code** 7403

FINAL

Secretary's Order No. 2008-W-0054

7403 Regulations Governing the Pollution Control Strategy for the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay Watersheds

Date of Issuance: October 15, 2008
Effective Date: November 11, 2008

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") under 29 **Del.C.** §§8001 et seq., 29 **Del.C.** §§10111 et seq. and 7 **Del C**.§6010(a), the following findings, reasons and conclusions are entered as an Order of the Secretary in the above-referenced rulemaking proceeding.

Background and Procedural History

This Order considers proposed regulations entitled "Pollution Control Strategy for the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay Watersheds" ("PCS"). The PCS seeks to reduce the discharge of harmful pollutants that impair the water quality of Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay and their tributaries, which are waters collectively named the 'Inland Bays.'[1] The water quality experts within the Department's Division of Water Resources ("DWR"), Watershed Assessment Section[2] ("WAS") drafted the proposed regulations based upon their vast knowledge of the Inland Bays water quality, their knowledge of scientific literature, and their experience working on many of the Department's underlying regulatory actions to improve the Inland Bays' water quality, all of which form the foundation for the PCS and are described in detail below.

The first regulatory foundation for the PCS is the federal and state statutory regulatory authority. The federal authority is under the Clean Water Act ("CWA"), 33 U.S.C. §1251 et seq. as amended, which the Department administers as a result of delegations from the United States Environmental Protection Agency ("EPA"). In addition, the Department has state statutory authority to protect Delaware's waters from pollution by the issuance of permits and the promulgation of regulations 7 **Del.C.** Chap. 60.

The second regulatory action that supports the PCS was the Department's exercise of its federal authority under Section 303(b) of the CWA to study Delaware's waters, to classify each of them into their appropriate uses, and to establish "Surface Water Quality Standards" based upon each classification. The Department classified the Inland Bays as waters of "exceptional recreational or ecological significance,"[3] which recognizes how important

1. For ease of reference the waters and the watershed shall be referred to as the Inland Bays.
2. While WAS is the primary author of the PCS, other Department programs assisted in its provisions, particularly the Division of Soil and Water Conservation for its expertise in stormwater regulation and the Division of Water Resources' sections such as the Wetlands and Subaqueous Land Section for its expertise in regulating wetlands, the Surface Water Discharge Section for its expertise in regulating point source discharges and the Goundwater Discharge Section for its expertise in regulating onsite wastewater treatment systems.

these waters are to Delaware's environment and economy. This classification requires the Department to accord the Inland Bays "a level of protection in excess of that provided most other waters of the State" because they "are recognized as special natural assets of the State, and must be protected and enhanced for the benefit of present and future generations of Delawareans."

The third regulatory building block for the PCS was the Department's comprehensive study of the State's existing water quality in a Watershed Assessment Report prepared pursuant to Section 305(b) of the CWA, and subsequent identification of all Delaware waters that failed to meet their applicable classification, as designated by the "Surface Water Quality Standards," in the list of impaired waters developed pursuant to Section 303(d) of the CWA. The Department's study determined that the Inland Bays' water quality did not meet the standard for 'exceptional waters' and were 'impaired,' which is a finding that triggers the need for the Department to take such regulatory actions as necessary to improve the Inland Bays' water quality so that it is no longer impaired.

The Department found that the Inland Bays' impairment was caused by excessive levels of the nutrients nitrogen and phosphorus, and low dissolved oxygen, which hasl caused excessive growth of macroalgae and phytoplankton and killed fish and other aquatic life that need adequate oxygen levels in water to survive. The overall impact of too much nitrogen and phosphorous, particularly on a fragile ecological system such as the Inland Bays with its limited tidal flows and circulation, is that all aquatic life will be threatened. If the aquatic life dies in the Inland Bays, then this region will no longer be an attraction and valuable natural resource for residents to live near its waters or for visitors to enjoy.

The Department identified the following sources of nitrogen and phosphorous pollution entering the Inland Bays: 1) discharges directly into the surface waters pursuant to a Department issued permit ("point source"), such as from wastewater treatment plants, 2) nonpoint sources such as onsite wastewater treatment and disposal systems or other land applications of these chemicals in fertilizer or wastewater which enter the Inland Bays via stormwater runoff and groundwater, and 3) the discharges from air emissions falling on the surface waters. The PCS primarily addresses the nonpoint sources of nitrogen and phosphorous pollution.

The fourth foundation for the PCS was the Department's issuance of regulations, "Total Maximum Daily Loads" (TMDLs), that determined how much nitrogen and phosphorous pollution the Inland Bays may receive and still attain their 'exceptional waters' classification. In effect, TMDLs are similar to limits the Department includes in air pollution control and water pollution control permits, but the important difference is that TMDLs not only apply to any individual source of offending pollutants, but to all properties in a watershed. The TMDLs impose a duty on the Department to implement regulatory actions to reduce the amount of nitrogen and phosphorous within the watershed, which is what the PCS does.

The Department's regulatory actions to improve Delaware's water quality faced a legal challenge, but surprisingly not from polluters but from environmental groups who claimed the Department was not achieving clean water goals fast enough. In 1997, the Department worked with EPA to resolve this litigation in a settlement approved by federal court in American Littoral Society & Sierra Club v. EPA. ("Consent Decree"), which established a time schedule for the Department's TMDLs as needed actions to improve water quality to meet the standards. This litigation highlights the prospect that, if the Department does not take action voluntarily to comply with the CWA, then the Department may face another legal challenge to implement the PCS and actually achieve the needed reductions in nitrogen and phosphorous from the Inland Bays' nonpoint sources.

In 1998, the Department promulgated TMDL regulations for the Inland Bays[4] that established how much nitrogen and phosphorous must be reduced from all sources within the Inland Bays watershed in order that the waters may attain their 'exceptional' water quality standard. For point sources, the Inland Bays TMDLs required zero discharges of nitrogen and phosphorous and the systematic elimination of existing surface water discharges of nitrogen and phosphorous into the Inland Bays. The Department is implementing this regulatory action in the federal and state permits issued to regulate these point source discharges into the surface waters, and this will reduce 537 pounds per day of nitrogen and 68 pounds per day of phosphorous from being discharged into the Inland Bays.

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3. The designation was for Rehoboth Bay, Indian River Bay, Little Assawoman Bay, and the marine portions of Indian River and Iron Branch.

4. The Department issued regulations for the Little Assawoman Bay and the tributaries within the entire basin in 2005.

The Inland Bays' TMDLs also estimated that 4,447 pounds per day of nitrogen and 163 pounds per day of phosphorus entered the Inland Bays from nonpoint sources. In order for the Inland Bays to attain its 'exceptional' classification and no longer be impaired, the TMDLs require that all nonpoint sources in the Inland Bays watersheds reduce nitrogen discharges by at least 40% and up to 85% and reduce phosphorous discharges by at least 40% and up to 65%. Most of these nonpoint sources of pollutants are not easily regulated by any permit because there is no practical way to monitor these pollutants in groundwater and from stormwater runoff. However, some sources, such as onsite wastewater treatment and disposal systems, as well as stormwater, have some regulatory requirements in their design and operation and the PCS will make this existing regulation more stringent to achieve the TMDLs' needed reductions of the nitrogen and phosphorous pollution of the Inland Bays. However, until this regulation, the Department has not required nutrient reduction standards for stormwater, and only applied nitrogen standards to some large community onsite wastewater treatment and disposal systems to protect drinking water from nitrogen pollution, which regulatory requirements are not based upon the TMDLs and consequently are not intended to achieve reductions needed to end the pollution of the Inland Bays.

The Department's experts determined, after careful consideration of how the nitrogen and phosphorous reduction could be regulated, that a watershed wide regulation was needed to reduce the levels of nitrogen and phosphorous entering the Inland Bays consistent with the Inland Bays' TMDLs from each onsite wastewater treatment disposal system and from the lands adjoining the waters if the natural vegetation is disturbed. The experts developed a PCS for the Inland Bays watershed, which contains three main components: 1) a requirement for performance standards for new or replacement onsite wastewater treatment and disposal systems that reflect improvements in the treatment technology and a requirement for improved maintenance of all systems, 2) inclusion of criteria in sediment and stormwater plans to reduce nutrients in stormwater runoff, and 3) a requirement that any new major land development include a riparian buffer area to reduce the nitrogen and phosphorous pollution from stormwater runoff and groundwater flows into certain designated Inland Bays' waters within the watershed. This buffer area is to be maintained to allow the land to act as a natural filter and absorb the nitrogen and phosphorous pollution before they enter the waters and pollute the Inland Bays.

The PCS' onsite wastewater treatment and disposal system, stormwater, and buffer requirements have many necessary details, but also allow considerable flexibility to accommodate certain specific needs. The details and flexibility are from almost a decade of development of the PCS. The Department's regulatory development process for the PCS was extraordinary in its efforts to reach all concerned citizens and business owners. The Department worked with many individuals and organizations to identify all concerns with the PCS, and to educate the public on the need to reduce the amount of nitrogen and phosphorous that is polluting the Inland Bays. The common goal of all concerned was that the Inland Bays' water quality needed to be improved to meet the 'exceptional' water quality standard.

The Department conducted a series of meetings and public workshops before it first published its proposed PCS regulation in 2007, which was the subject of a 2007 public hearing. This PCS version addressed the pollution from onsite wastewater treatment and disposal systems and stormwater, but deferred addressing pollution from the destruction of riparian buffers until a later date. Many of the public comments at the 2007 public hearing stressed the need for the Department to address the entire nonpoint source water pollution problem at the same time and include buffer provisions. Based upon the public comments, the Department again met with individuals and organizations in order to resolve concerns with the proposed regulation. The Department eventually withdrew the prior PCS version and published a revised version as a proposed regulation in the June 1, 2008 issue of the ***Delaware Register of Regulations***. This PCS addressed the three components, onsite wastewater treatment and disposal systems, a buffer area and stormwater.

The PCS was the subject of a June 23, 2008 public hearing before the Department's Senior Hearing Officer, Robert P. Haynes, at the Cheer Center in Georgetown, Sussex County. An estimated 400 persons attended the public hearing, and expressed comments both in favor and in opposition to the PCS. Mr. Haynes further developed the Department's administrative record by seeking advice from the Department's technical experts, who prepared a response and suggested minor changes to the PCS. Mr. Haynes prepared a report of recommendations ("Report"), dated October 14, 2008, a copy of which is attached hereto and incorporated herein. The Report recommends that the Department adopt the proposed regulations, as revised to include non-substantive changes, as final regulations.

Discussion and Reasons

The above litany of regulatory actions as building blocks for the PCS and the considerable time and effort in the PCS' regulatory process highlights the Department's difficulty to reduce nitrogen and phosphorous pollution from nonpoint sources. The difficulty is partly due to the fact that the nitrogen and phosphorus that enters the Inland Bays comes from any deposit of such pollutants within the entire watershed because any amount of deposit of these nutrients at the far outer reaches of the watershed will flow to the Inland Bays and adversely impact its water quality, which already has too much nitrogen and phosphorous pollution to attain the required 'exceptional' water quality standard required by the CWA and its regulations, and state law and the Department's regulations.

The PCS is the method the Department's experts recommend as an appropriate regulatory action to require nonpoint sources in the Inland Bays watershed to reduce the pollution from nitrogen and phosphorous to levels consistent with the Inland Bays TMDLs. Based upon the entire record, and relying upon the knowledge of the Department's staff, I find that there is considerable science to support the need to take regulatory action now to reduce nonpoint source pollution. I hereby adopt the proposed regulations attached to the Report as the Department's final regulations and I further adopt the Report to the extent it is consistent with this Order. The reason for this decision is simple and straightforward. The Department's failure to take regulatory action now will jeopardize the continued viability of the Inland Bays as bodies of water classified as 'exceptional waters.' Moreover, not approving this PCS could cause more litigation based upon a failure to comply with the CWA. Consequently, I approve of the PCS as a reasonable method to reduce nitrogen and phosphorous entering the Inland Bays from nonpoint sources.

All empirical evidence supports that action is needed now to improve the Inland Bays water quality in order that these waters may attain their 'exceptional' water quality standard. The PCS is based upon sound science and well-supported by the technical judgment of water quality experts, including those outside of the Department. The reasonableness of the PCS is based in part upon the hard work of many, including those who continue to oppose the regulation of nonpoint sources of pollution. The Department is grateful for the time and interest spent by all concerned. Nevertheless, the lack of a complete consensus does not provide an excuse for inaction. The PCS will allow the Department to satisfy state and federal laws and regulations, which impose upon the Department a duty to take regulatory action to reduce nitrogen and phosphorous discharges into the Inland Bays.

The PCS will reduce the amount of harmful pollutants that will enter the Inland Bays, but the improvements will occur over time as new developments include buffer areas and improved stormwater management and as new onsite wastewater treatment and disposal systems with better treatment technology are installed. The time to make these improvement also supports adopting the PCS now because the Inland Bays' water quality cannot afford any more delays while more nitrogen and phosphorous enters the water from nonpoint sources. Any delay in reducing the pollution from nonpoint sources will only delay the time when the Inland Bays achieves its 'exceptional' water standard, as required by the CWA and the Department's regulations. While the costs of individual technologies may decrease, the overall costs associated with reducing nonpoint sources of pollution will continue to increase; hence, taking action now will enhance the cost-effectiveness of the necessary controls. The need for regulatory action now also is prompted by growth of the population that resides in the Inland Bays watershed and its popularity with tourists. Each resident and visitor, while welcome, places a strain on the Inland Bays water quality because onsite wastewater discharges will increase and more of the riparian buffer areas will be lost to new development. Consequently, this PCS is needed now to start reducing prospectively the nitrogen and phosphorous pollution caused by onsite wastewater treatment and disposal systems and by the destruction of natural riparian buffers that absorb the nitrogen and phosphorous to reduce it from entering the waters.

The PCS establishes a requirement that any new "major" land development, as defined by local zoning authorities, include a buffer area adjoining Inland Bays waters that have been mapped by the Department after consultation and public input during the lengthy regulatory development process. This buffer area requirement was challenged as unreasonable and outside the Department's authority. The buffer area requirement also was viewed as interfering with local authority over land use regulation. The Department does not agree that the buffer areas requirement is unreasonable, outside of its federal and state authority or in conflict with local land use regulation. The buffer areas are required to protect the water quality of the Inland Bays, which is one of the Department's central purposes, as delegated from the General Assembly. The regulation to ensure water quality requires property owners to change the way they may use their property, but this exercise of regulation is similar to authority to prevent the discharge of pollution from a pipe into a stream, or by requiring property owners to install stormwater management facilities, or to ban buildings near wells or septic systems and to require a safe separation distance

between a well and septic system. Environmental regulation means exercising control over sources of pollution, and property owners have no right to unfettered pollution.

The buffer areas are needed to protect the Inland Bays from adverse water quality consequences of more nitrogen and phosphorous pollution entering these already 'impaired' and, hence, polluted waters. The regulatory concept protects and improves water quality in two ways: 1) it protects already vegetated riparian corridors from transitioning from an ecological mechanism that naturally filters out these pollutants, and 2) it protects water quality in cases where no riparian buffer zone exists by creating an area that will improve and protect water quality. Because of the natural ability of buffers to protect streams from these harmful pollutants, the PCS' establishment of buffer zones may seem unusual since the owner of the buffer zone's land may not have any nitrogen or phosphorous (either as fertilizer or wastewater from a septic system) anywhere on the property. Nevertheless, the buffer area is needed under the watershed concept of regulation in which every property owner is subject to regulation to reduce nitrogen and phosphorous from entering the Inland Bays. This is because the regulation is designed to reduce nutrient loads from all nonpoint sources, and nitrogen-rich ground-waters are, in many cases, intercepted and treated by soils and vegetation growing within a buffer. Owners of the buffer zone land play an essential role because they are adjacent to designated waters that are needed in this watershed-wide regulatory effort. If the remaining buffer areas are destroyed, then buffers as a natural method of pollution control will be removed forever and the pollution of the Inland Bays will continue and water quality will decline. The buffer areas are needed to absorb the nitrogen and phosphorous before it enters the waters and the PCS properly requires that the remaining buffer areas be preserved.

The Department submits that the PCS' buffer zone requirement does not conflict with local laws and ordinances. The Department's purpose is to regulate for water quality purposes. The Department is not aware of any conflict between the buffer area and the county land use ordinances. Should a building be built in a PCS buffer area, then there would be a violation of the PCS, which could allow the Department to undertake such enforcement action as appropriate to end the pollution. This type of environmental regulation is no different than the requirement that owners in their building plans set aside land for stormwater management facilities in order to satisfy environmental regulations. The Department's PCS also is taken under its joint federal and state authority to administer the CWA, which may also allow federal regulation to trump any state or local law that prevents reducing the pollution entering the Inland Bays. Thus, any conflict between the Department's regulation and local land use regulation hopefully will not occur, but this Order shall direct the Department's permits to be issued consistent with the PCS in order to reduce any possible conflict with current or future local land use control. With the PCS, the Department is fulfilling its CWA and state law duties to improve the water quality of the Inland Bays so that it attains its 'exceptional' water quality standard. The protection of the existing riparian buffer areas is necessary to protecting the Inland Bays.

The PCS' onsite wastewater treatment and disposal system performance standards also were challenged as unreasonable, especially those applicable to individual onsite septic systems. The PCS recognizes that new technology is available for septic system installations that will reduce the amount of nitrogen and phosphorous discharged into the groundwater and then to surface waters. This change is consistent with the Department's recognition and adoption of regulations that require the best available technology be used to prevent pollution.

Admittedly, the Inland Bays will not change overnight as a result of this Order. Instead, the deterioration of water quality is occurring gradually, but relentlessly due to increased destruction of the natural buffer areas along the waters and the installation of each onsite wastewater treatment and disposal systems that discharge more nitrogen and phosphorous than discharged by the types required by the PCS, which have been commercially available for many years. Despite the great controversy over the PCS, there is one point of agreement, namely, everyone wants the Inland Bays to have the cleanest possible water and the most abundant aquatic life.

The dispute arises over what regulatory action the Department should implement to achieve the 'exceptional' water standard. The only alternative from opponents of the PCS is to do nothing or very little, which is not a viable option in light of the federal mandate to take regulatory action. The PCS is a reasonable method of regulation, which will require that new systems installed in particularly sensitive areas employ improved treatment technology to reduce the discharge of nitrogen and phosphorous. Similarly, the PCS is reasonable in its regulation to require any new land development to preserve and maintain buffer areas to protect the water quality from receiving excessive amounts of nitrogen and phosphorous. The PCS provides flexibility in the size of the buffer based on a development's use of other ways to reduce nutrients in the development. Further, the PCS is fair and equitable in

that it addresses all major sources of nonpoint source pollution and distributes the costs of improving water quality over a broad base of watershed users.

The Department understands that every regulatory action it takes controls the use of property. Indeed, the very essence of environmental regulation is to regulate the use of property in a way to reduce pollution. The same principle applies to creating a buffer area that requires a wastewater treatment facility to eliminate its surface water discharge into the Inland Bays, or for the Department to regulate property owners to install any pollution control equipment to meet certain established standards designed to protect the environment and public health. The Department requires pollution control equipment for solid waste facilities, air emission, and water discharges and the only difference is the regulation of a watershed, but that is the appropriate action to take to improve the Inland Bays' water quality that is being polluted by nonpoint sources throughout the watershed.

The Department's ability to regulate the Inland Bays' water quality is supported by considerable federal and state regulatory authority. In contrast, the right of property owners to pollute is subject to environmental regulation. There is no constitutional right to pollute when laws and regulations prohibit such pollution, and the Inland Bays TMDLs established that the Inland Bays are being polluted from nonpoint sources that allow too much nitrogen and phosphorous to enter the waters. The nonpoint sources contribute most of this pollution and the PCS is the reasonable, fair and equitable solution to reduce the pollution from nonpoint sources.

The Department is aware of the higher cost of the improved onsite wastewater treatment and disposal systems and the burden imposed by not allowing a land owner to develop every inch of waterfront property. The Department has carefully considered the financial impacts, and concluded that, on balance, the PCS is needed and reasonable even with the potentially adverse economic impact to individual property owners. Additionally, the flexibility provided within the regulation minimizes adverse financial impacts to individual property owners. The right of a citizen to pollute does not depend on their income or whether they live in a modest home with a septic system or own waterfront property in the hopes of a significant windfall from future land development. The Department regulates for the purpose of replacing the onsite wastewater treatment and disposal systems that add to the Inland Bays pollution the most to be replaced with commercially available pollution-reducing technologies, and will assist those who cannot afford the cost within its authority to provide such assistance. Moreover, the PCS includes flexibility for specific financial hardship considerations that may provide certain property owners more time to comply. The plight of the waterfront owner is the same as others who are faced by any change in environmental regulation or law. It is the same risk as other changes that may occur to the property, such as the location of a highway or a solid waste disposal facility. The Department's analysis indicates that the buffer area will offer aesthetic amenities and will be beneficial in the long-term to the value of property, particularly since buffers will ultimately reduce pollutant loads and eliminate nuisance algal accumulations and fish kills.

In sum, the PCS is a reasonable, albeit not a perfect effort, to confront the difficult regulatory task to reduce the amount of nitrogen and phosphorous that enters the Inland Bays from nonpoint sources, which are reductions that the TMDLs and the CWA require. The buffer area, stormwater requirements, and performance standards for onsite wastewater treatment and disposal systems will only go into effect prospectively for new land development and new or replacement onsite wastewater treatment and disposal systems. Owners of onsite wastewater treatment and disposal systems will be required to employ pollution-reducing technologies in the future, beginning with the properties within 1,000 feet of the tidal portions of the Inland Bays and ending by 2015 when it applies to all properties in the Inland Bays watershed. These components of the PCS will achieve the needed reduction to allow the Inland Bays to attain the duly promulgated water quality standards along with the other regulatory actions the Department is undertaking.

In conclusion, the following findings and conclusions are entered:

1. The Department, acting through this Order of the Secretary, adopts the proposed regulation as final regulations, as set forth in the Appendix to the Report, under 29 **Del.C.** §6010(a);

2. The issuance of the proposed regulations as final regulations will protect and improve the water quality of the Inland Bays and allow, together with other Department regulatory actions, the Inland Bays to attain their duly promulgated water quality standards;

3. The PCS approved by this Order is a reasonable, fair and equitable method of regulation to reduce the discharge of nitrogen and phosphorous from onsite wastewater treatment and disposal systems and from properties adjoining the Inland Bays' waters, and is supported by sound technical analysis, ample scientific literature and facts;

4. The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations, held a public hearing in a manner required by the law and regulations, and considered all timely and relevant public comments in making its determination;

5. The Department's proposed regulations, as set forth in the Appendix to the Report, are not arbitrary or capricious, and are consistent with the applicable laws and regulations; and that;

6. The Department shall provide written notice to the persons affected by the Order, as determined by those who participated in this rulemaking at the June 23, 2008 public hearing, including participation through the submission of written comments.

John A. Hughes, Secretary

7403 Regulations Governing The Pollution Control Strategy For The Indian River, Indian River Bay, Rehoboth Bay And Little Assawoman Bay Watersheds

FORWARD

For years, various governmental and private entities have encouraged the use of voluntary practices in order to reduce nutrient loading into the Indian River, Indian River Bay, Rehoboth Bay, Little Assawoman Bay and their tributaries (the Inland Bays) such that water quality standards are achieved in support of their designated uses. While reducing pollutant loads to an extent, these attempts have not resulted in the desired outcome of controlling pollution and improving water quality. In order to achieve the Total Maximum Daily Loads (TMDLs), determined through vigorous research and modeling, the following Pollution Control Strategy regulations must be implemented.

In addition, the Department will consider the use of water quality trading to achieve point and nonpoint source load reductions. All trading proposals will be in support of the TMDL required load reductions and are subject to Department approval.

It is the policy of the Department of Natural Resources and Environmental Control to implement each component of the Pollution Control Strategy and these Regulations in a timely fashion. The Department supports review of all related ordinances, regulations and laws in order to promote consistency among all legal instruments.

1.0 Authority and Scope

1.1 These Regulations are adopted by the Secretary of the Department of Natural Resources and Environmental Control under and pursuant to the authority set forth in 7 **Del.C**. Ch. 40, 60, 66 **[,70]** and 72 and in 29 **Del.C.** §§8014(5) and 8025.

1.2 These Regulations apply to the public and private lands draining into the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay and their tributaries (collectively referred to as “the Inland Bays”).

1.3 Unless otherwise stated in these Regulations, the effective date of these Regulations is 60 days from the date of publication of the final Regulations.

1.4 Proposed major subdivision plans, site plans, concept plans, initial stage calculation sheets, requests for service level evaluation, or requests for scoping meetings which have been received by DelDOT prior to the effective date of this regulation for a development proposal, for the purpose of securing a letter of no objection, support facilities report, entrance location, or entrance approval, are not subject to the buffer and stormwater requirements of these Regulations, Sections 4 and 5. If after 5 years from the effective date, an application for the project has not been submitted to the appropriate county or local government and substantial expenditures have not been made for the project to proceed, all stormwater and buffer provisions of these Regulations will be applicable to the project.

1.4.1 In instances where submissions to DELDOT are not required prior to filing an application with Sussex County or local government, projects for which applications have been submitted to the County or a municipality prior to the effective date of these Regulations are not subject to the buffer and stormwater provisions, Sections 4 and 5, of these Regulations.

1.4.2 For projects within the County, the effective date of Sections 4 and 5 shall be 10 calendar days after the date of publication of the final Regulations in the *Delaware Register of Regulations*. For projects on lands located within municipalities as of the date of publication of these Regulations, the effective date of Sections 4 and 5 of these Regulations shall be one year from the date of publication of the final Regulations in the *Delaware Register of Regulations*.

1.5 Section 6 of these Regulations will become effective 30 days from the date of publication of the final Regulations.

1.6 Section 7 of these Regulations will become effective 180 days from the date of publication of the final Regulations.

1.7 New systems, as described in Sections 8.2.1 and 8.3.1 of these Regulations, that have submitted a Site Investigation Report (SIR) and a Preliminary Groundwater Impact Assessment (PGIA) or a Site Selection and Evaluation Report (SSER) within 60 days from the date of publication of the final Regulations, are not subject to the general onsite wastewater treatment and disposal system provisions of these Regulations.

1.8 Section 8.4 of these Regulations shall be effective for all permit applications whose site evaluations have been submitted to the Department 60 days or more after the date of publication of the final Regulations when those sites lie within 1000 feet of the mean high water line of the Indian River, Indian River Bay, Rehoboth Bay, or Little Assawoman Bay or their tributaries, or from their associated tidal wetlands shown on Delaware's 1992 State Wetland Mapping Project Maps. The 1000 foot boundary line from these tidal wetland and water areas is depicted on the map entitled “Areas Requiring Early Implementation of PSN3” contained in Appendix B of this Regulation.

1.9 All complete permit applications received on or after January 1, 2015 for new and replacement systems throughout the Inland Bays Watershed shall comply with Section 8.4 of these Regulations.

2.0 Definitions

The following words and terms, when used in these Regulations, should have the following meaning unless the context clearly indicates otherwise:

“**Best Management Practice (BMP)**” means a system or procedure that has been determined to be an effective, practical means of preventing or reducing nonpoint source pollution. These include conservation practices or management measures which control soil loss and reduce water quality degradation caused by nutrients, animal wastes, toxins, sediment, and runoff.

“**Buffer”** means an existing or purposely established area of vegetation which protects water resources from pollution.

“**Certified Service Provider**” means an individual representative of a manufacturer/supplier who holds a Department Class E System Contractor or Class H System Inspector license, or a Class E System Contractor who is certified, through Department approved training, on the operation and maintenance of the advanced treatment unit or system, or a Class H System Inspector who has become certified through Department approved training on the operation and maintenance of the advanced treatment unit or system, or a homeowner who has obtained Department individual home service provider certification and has been through Department approved training on the operation and maintenance of

their advanced treatment unit or system. The Department homeowner certification allows the homeowner to operate and maintain their advanced treatment unit or system at their primary place of residence.

"**Clean Water Act (CWA)**" means the Federal Water Pollution Control Act, 33 U.S.C. §§1251-1387.

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

"**Drainfield**" means a system of open-jointed or perforated piping, alternative distribution units, or other seepage systems for receiving the flow from septic tanks or other treatment facilities and designed to distribute effluent for oxidation and adsorption by the soil within the zone of aeration.

"**End of Pipe**" means the location where effluent discharges from the end of the advanced pretreatment unit before ultimately dispersing into the soil drainfield. This is the location where nitrogen and phosphorus sampling may occur in order to determine compliance with the applicable performance standard.

"**High potential for phosphorus mobility**" means an area where:

- the site's soils have a Fertility Index Value (FIV) of greater than 100 for phosphorus or a soil test value of over 100 parts per million (ppm) by the Mehlich 3 soil test; and
- the groundwater phosphorus content is above 0.034 mg/l and there is an indication that ground-water is anoxic due to low dissolved oxygen or oxidation reduction potential below 200 mV; and
- the disposal area contains soils with a seasonal high water table above 27 inches.

"**Indian River Watershed**" means the lands that drain into the Indian River and its tributaries as illustrated by the Delaware watershed map available from the Watershed Assessment Section, Division of Water Resources, Department of Natural Resources and Environmental Control.

"**Indian River Bay Watershed**" means the lands that drain into the Indian River Bay and its tributaries as illustrated by the Delaware watershed map available from the Watershed Assessment Section, Division of Water Resources, Department of Natural Resources and Environmental Control.

"**Innovative and Alternative (IA) onsite wastewater treatment and disposal systems**" means anything other than a conventional onsite wastewater treatment and disposal system.

"**Little Assawoman Bay Watershed**" means the lands that drain into the Little Assawoman Bay and its tributaries as illustrated by the Delaware watershed map available from the Watershed Assessment Section, Division of Water Resources, Department of Natural Resources and Environmental Control.

"**Major subdivision**" means a subdivision of land involving a proposed new street or the extension of an existing street.

"**Mean high water (MHW)**" means the point on the bank, tidal flat, beach or shore, up to which the presence or action of the water leaves a distinct mark, either by erosion, destruction of terrestrial vegetation (non-aquatic), physical markings or characteristics, and known vegetation lines, and may be further identified by tidal gauge data, or any other suitable means of delineating the mean height reached by a rising tide.

"**National Pollutant Discharge Elimination System (NPDES)**" means the program prescribed by the Federal Water Pollution Control Act for point sources of pollution.

"**Nonpoint source (NPS) pollution**" means pollution originating from diffuse areas having no well-defined source.

"**Nutrient"** means any element or compound essential as a raw mineral for organism growth and development and, for the purpose of this regulation, is limited to nitrogen and phosphorus.

"**Onsite wastewater treatment and disposal system (OWTDS)**" means a conventional or innovative and alternative wastewater treatment and disposal systems installed or proposed to be installed on the land of the owner or on other land to which the owner has the legal right to install the system.

"**Ordinary high water mark"** means, for nontidal waters, the line where the presence and action of water are continuous enough during ordinary rainfall years to leave a mark upon the soil of the bed or banks of the waterbody.

"**Performance Standard Nitrogen level 1 (PSN1)**" means where total nitrogen levels achieve either:

- an average annual concentration of 5 mg/l (parts per million (ppm)) total nitrogen in effluent sampled at the end-of-pipe of the pretreatment unit; or
- a 90% reduction in the effluent total nitrogen concentration when compared to the influent total nitrogen concentration; or
- an average annual concentration of 5 mg/l beneath any permitted wastewater spray irrigation field as verified by monitoring in-field lysimeters, providing that the design percolate concentration does not exceed 5 mg/l on an average annual basis.

Discharge limitations are to be expressed as a mass, based on average design flows (221 gallons per day per unit for residential systems).

"**Performance Standard Nitrogen level 2 (PSN2)**" means where total nitrogen levels achieve either:

- an average annual concentration of 10 mg/l (parts per million (ppm)) total nitrogen in effluent sampled at the end-of-pipe of the pretreatment unit; or
- an 80% reduction in effluent total nitrogen concentration when compared to the influent total nitrogen concentration; or
- an average annual concentration of 10 mg/l beneath any permitted wastewater spray irrigation field as verified by monitoring in-field lysimeters, providing that the design percolate concentration does not exceed 10 mg/l on an average annual basis.

Discharge limitations are to be expressed as a mass, based on average design flows (221 gallons per day per unit for residential systems).

"**Performance Standard Nitrogen level 3 (PSN3)**" means where total nitrogen levels achieve either:

- an average annual concentration of 20 mg/l (parts per million (ppm)) total nitrogen in effluent sampled at the end-of-pipe of the pretreatment unit; or
- a 50% reduction in effluent total nitrogen concentration when compared to the influent total nitrogen concentration.

"**Performance Standard Phosphorus level 1 (PSP1)**" means where total phosphorus levels achieve either:

- an average annual concentration of 3.9 mg/l (parts per million (ppm)) total phosphorus in effluent sampled at the end-of-pipe of the pretreatment unit; or
- a 75% reduction in effluent total phosphorous concentration when compared to the influent total phosphorus; or
- an average annual concentration of 3.9 mg/l beneath any permitted wastewater spray irrigation field as verified by monitoring in-field lysimeters, providing that the design percolate concentration does not exceed 3.9 mg/l on an annual average basis.

Discharge limitations are to be expressed as a mass, based on average design flows (221 gallons per day per unit for residential systems).

"**Performance Standard Phosphorus level 2 (PSP2)**" means where total phosphorus levels achieve either:

- an average annual concentration of 7.85 mg/l (parts per million (ppm)) total phosphorus in effluent sampled at the end-of-pipe of the pretreatment unit; or
- a 50% reduction in effluent total phosphorus concentration when compared to the influent total phosphorus concentration.

Discharge limitations are to be expressed as a mass, based on average design flows (221 gallons per day per unit for residential systems).

"**Person**" means any individual, business enterprise, or business entity, including but not limited to, a trust, firm, joint stock company, partnership corporation (including government corporation), limited liability company or association, any state, municipality, commission, or political subdivision of a state, any federal agency, any interstate body, or other such entities as allowed by law.

"**Point source pollution**" means pollution discharged directly from a specific site such as a municipal sewage treatment plant or an industrial outfall pipe.

"**Pollution Control Strategy (PCS)**" means a document that specifies actions necessary to systematically achieve pollutant load reductions specified by a Total Maximum Daily Load for a given waterbody. The regulatory actions are included in these Regulations.

"**Pre-engineered plan**" means a design using packaged mechanical devices such as equipment of cataloged design which complies with all applicable regulations and approved by the Department, or listed by a third party testing authority for a specific application recognized and approved by the Department.

"Primary water features" means State-regulated wetlands and those waters depicted by the United States Geological Survey on the National Hydrography Dataset as perennial, and identified on maps developed by the Department and adopted as part of this Regulation in Appendix A. Such features may be adjusted in accordance with Section 9.2 of these Regulations.

"Rehoboth Bay Watershed" means the lands that drain into the Rehoboth Bay and its tributaries as illustrated by the Delaware watershed map available from the Watershed Assessment Section, Division of Water Resources, Department of Natural Resources and Environmental Control.

"Secondary water features" means those waters depicted by the United States Geological Survey on the National Hydrography Dataset as intermittent, and those forested ditches that flow within or are directly adjacent to forested lands, and identified on maps developed by the Department and adopted as part of this Regulation in Appendix A. Such features may be adjusted in accordance with Section 9.2 of these Regulations.

"**Site plan**" means a drawing illustrating proposed residential planned communities, conditional uses, dwellings, multiple family dwellings, townhouses, houses of worship, hotels, motels or motor lodges, docks or piers, footbridges or walkways, business and office buildings, commercial buildings or industrial buildings, mobile home parks, campgrounds, borrow pits, or amusement places, circuses, or carnival grounds.

"**State-regulated wetlands**" means those wetlands depicted on maps adopted pursuant to 7 **Del.C.** Ch. 66 or otherwise field verified or adjusted.

"**Systematically eliminate**" means to require the elimination of waste loading into the affected waterbody by point sources on a firm, fixed schedule as approved by the Department. This elimination must occur within five years of the expiration of the facility's current NPDES permit unless a longer period of time is provided for in a State or Federally enforceable Consent Order, Decree, or Administrative Order.

"**Total Maximum Daily Load (TMDL)**" means the amount of a given pollutant that may be discharged to a waterbody from point, nonpoint, and natural background sources and still allows attainment or maintenance of the applicable narrative and numerical water quality standards. A TMDL is the sum of the individual Waste Load Allocations (WLAs) for point sources and Load Allocations (LAs) for nonpoint sources and natural background sources of pollution. A TMDL may include a reasonable margin of safety (MOS) to account for uncertainties regarding the relationship between mass loading and resulting water quality. In simplistic terms, a TMDL matches the strength, location and timing of pollution sources within a watershed with the inherent ability of the receiving water to assimilate the pollutant without adverse impact.

"**Treatment train**" means a series of best management practices for stormwater.

[~~"View corridor" means selective removal, pruning, and/or thinning of natural vegetation within a defined corridor in order to provide a view of a water feature.~~]

"**Watershed**" means a region or area delineated by a topographical divide and draining ultimately to a particular watercourse.

3.0 Point Source Implementation

3.1 Permitted discharges of nutrients into the Indian River, Indian River Bay, Rehoboth Bay, Little Assawoman Bay or their tributaries under the NPDES program shall be systematically eliminated through their NPDES renewal process.

3.2 Subject to approval by the Department, point sources may choose to engage in water quality trading on a case-by-case basis in accordance with the following:

3.2.1 Trades must occur within the same watershed (Indian River, Indian River Bay, Rehoboth Bay, or Little Assawoman Bay) as the point source discharge is located.

3.2.2 Trades must involve a trading ratio of at least 2:1 between nonpoint sources and point sources.

3.2.3 The nutrient load reduction involved in the trade must constitute reductions that occur beyond the baseline or the point or nonpoint source nutrient reductions required under the TMDL and this Pollution Control Strategy.

4.0 Buffer Zone Established

This section requires riparian buffers in order to protect and improve water quality.

4.1 Applicability.

4.1.1 A buffer is only required for new major subdivisions and new activities requiring a site or major subdivision plan approval by Sussex County or other local government. For redevelopment projects, new improvements within the respective buffer shall be permitted at the existing set back or greater in accordance with applicable county or local ordinances.

4.1.2 This buffer provision does not apply to major subdivisions, site plans, or individual lots used for detached single family homes recorded prior to effective date of this regulation.

4.1.3 This buffer provision does not apply to any land or buildings deemed to be in agriculture use as prescribed in 9 **Del.C.** 6902(b).

4.1.4 On-lot improvements requiring a site plan impacting less than 5000 square feet are excluded.

4.1.5 Excluded from the buffer provisions of this Regulation are permitted water-dependent facilities (maritime, recreational, educational or fisheries activities that cannot exist outside of the buffer by reason of the intrinsic nature of their operation) and the permitted installation, operation, repair or maintenance of any sanitary sewer system, stormwater facility, culvert, bridge, public utility, street, drainage facility, pond, recreational amenity, pier, bulkhead, boat ramp, waterway improvement project or erosion-stabilization project that has received the joint approval of the appropriate federal, state and local agencies.

4.1.6 Isolated, stormwater and farm ponds are excluded from the buffer provisions.

4.2 For purposes of this Section, buffers are hereby established for primary and secondary water features.

4.2.1 Buffers of 100 feet are hereby established landward from State-regulated wetlands, or landward from the mean high water line of all tidal waters, whichever extends farther upland, and landward from the ordinary high water mark of all other primary water features.

4.2.2 Buffers of 60 feet are hereby established landward from the ordinary high water mark of all secondary water features.

4.3 Buffer widths may be reduced to the widths specified below when combined with the provisions outlined in Section 5 and contingent upon the creation of a development-wide nutrient management plan created by a certified nutrient consultant and implemented by a certified nutrient handler in accordance with the Regulations Governing the Nutrient Management Program.

4.3.1 Buffers of 50 feet are hereby established landward from State-regulated wetlands, or the mean high water line of all tidal waters, whichever extends farther upland, and from the ordinary high water mark of all other primary water features.

4.3.2 Buffers of 30 feet are hereby established landward from the ordinary high water mark of all secondary water features.

4.4 When Section 4.3 applies, the applicant shall ensure that deed restrictions and the homeowner's association bylaws include the following statement: "This development is subject to a nutrient management plan, which shall be implemented by a certified nutrient handler. The nutrient management plan is designed to reduce pollutants entering the Inland Bays. The nutrient management plan must be maintained and implemented in accordance with the Inland Bays Pollution Control Strategy and Regulations of the Pollution Control Strategy for the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay Watersheds, Delaware." In addition, the following requirements must also be met:

4.4.1 The homeowner's association must retain the nutrient management plan on file and maintain records of nutrient applications. A summary of nutrient application records must be submitted to the Delaware Department of Agriculture, Nutrient Management Program on an annual basis.

4.4.2 The homeowner's association must sign and accept any and all responsibility for implementation of these requirements.

4.5 In order to protect buffers and thus water quality, no landowner or their representative shall extend lot lines into buffers.

4.6 Determination of the areas of State jurisdiction, including the limit of State-regulated wetlands as mapped or otherwise field adjusted, the mean high water line of tidal waters and the ordinary high water line of non-tidal waters and the upland edge of buffers will be made by the Department.

4.7 No person shall submit final site plans or final major subdivision plats without including buffers as defined and described in these regulations that are clearly demarcated, designated, and recorded on such plans or plats.

4.8 Property owner(s) shall maintain the buffer in perpetuity in accordance with these regulations. Property owners shall install boundary signs or markers or distinctive vegetation identifying the upland edge of the buffer.

4.9 Buffer property owners or managers shall manage buffers to maintain their water quality benefits.

4.10 Allowable uses within the buffer are:

4.10.1 Flood control structures, where permitted,

4.10.2 Utility rights of way/structures, where permitted,

4.10.3 Stormwater best management practices may be placed within the buffer, but no closer than 25 feet to the feature being buffered, provided that the buffer is in open space,

4.10.4 Unpaved, pervious single-track trails or footpaths no wider than 5 feet, or pervious or impervious footpaths that encompass 5% or less of the buffer area, (in instances where the trail area is greater than 5% of the buffer area, the buffer will require 1/1 mitigation on a per square foot basis), and

4.10.5 Road crossings, where permitted,

4.11 In instances where a buffer is required adjacent to a tax ditch, the **[~~maintenance~~]** right-of-way may be included as part of the buffer. Access to the ditch for maintenance purposes shall be preserved.

5.0 Sediment and Stormwater Controls

5.1 Sediment and stormwater runoff shall be managed for nutrient reductions where practicable.

5.2 When the Delaware Sediment and Stormwater Regulations require the creation of a permanent sediment and stormwater management plan, that plan shall be designed and implemented to include design criteria to further reduce nutrient contributions. Consistency will be determined at the conceptual stormwater plan process step. Compliance will be determined before approval of final site or subdivision plans.

5.3 Compliance with 5.2 of these Regulations shall be achieved using one of the following methods:

5.3.1 For properties that contain primary and/or secondary water features, establish buffers consistent with Section 4.2 of these Regulations; or

5.3.2 For properties that contain primary and/or secondary water features, establish buffers consistent with Sections 4.3 and 4.4 of these Regulations in combination with any of the options listed in 5.3.3 of this Section; or

5.3.3 For properties that utilize a reduced width buffer or do not contain primary or secondary water features, select any of the options listed in 5.3.3.1 – 5.3.3.4 below:

5.3.3.1 Reduce nutrient contributions by the percentage required by the TMDL for the watershed in which the project is located, based on a comparison between the post-developed condition with and without stormwater quality management best management practices using the procedures outlined in the guidance document entitled, "Achieving Stormwater Pollution Control Strategy Reductions for Water Quality"; or

5.3.3.2 Reduce nutrient contributions so as to achieve irreducible concentrations of nutrients using the procedures outlined in the guidance document entitled, "Achieving Stormwater Pollution Control Strategy Reductions for Water Quality"; or

5.3.3.3 Reduce nutrient contributions using three practices within a treatment train using the procedures outlined in the guidance document entitled, "Achieving Stormwater Pollution Control Strategy Reductions for Water Quality"; or

5.3.3.4 Establish 30% of project parcel as forest in common open space through preservation and protection of existing forest stands or creation of new forest stands in accordance with the guidance document entitled, "Forestry Guidance for Inland Bays Pollution Control Strategies." In order to comply with the stormwater management requirements of this section, to the extent practicable, the forested area shall be an integral component of the project's stormwater management plan.

5.4 When Sections 5.3.1 or 5.3.2 apply, the buffer zone shall be established in accordance with Section 4 of these Regulations.

6.0 On-site Wastewater Treatment and Disposal Systems—General

6.1 This section of the Regulations of the Pollution Control Strategy for the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay Watersheds complements sections of the Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems. If inconsistencies exist, these Regulations of the Pollution Control Strategy for the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay Watersheds control.

6.2 All cesspools or seepage pits are prohibited within Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay watersheds and shall be replaced in accordance with the Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems and these Regulations of the Pollution Control Strategy for the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay Watersheds.

6.3 Existing holding tanks must be operated in accordance with their permits and their conditions.

6.4 In instances where central sewer service will become available within five years, temporary holding tanks will only be permitted after the Department receives a letter (with an approved Certificate of Public Convenience and Necessity (CPCN) **[where applicable)]** stating when central sewer will become available from Sussex County, the appropriate municipality, or the wastewater utility.

6.5 Existing onsite wastewater treatment and disposal systems which are repaired or replaced and new systems on parcels recorded prior to 30 calendar days after the date of publication of these final Regulations in the *Delaware Register of Regulation*s shall be subject to the setback requirements of these Regulations and the Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems. However, if it is impossible to comply with such requirements due to lot size limitations, the system shall conform to the maximum extent practicable.

6.6 No new drainfields on parcels recorded 30 calendar days or more after the publication of these final Regulations in the *Delaware Register of Regulations* may be present within 100 feet landward from State-regulated wetlands, or landward from the mean high water line of all tidal waters, whichever extends farther upland, and landward from the ordinary high water mark of all other primary water features.

6.7 All innovative and alternative onsite wastewater treatment and disposal systems having flows of less than or equal to 2,500 gallons per day must comply with Performance Standard Nitrogen level 3.

7.0 On-site Wastewater Treatment and Disposal System Operation, Maintenance and Inspection Program

7.1 An operation, maintenance and inspection program for individual onsite wastewater treatment and disposal systems (OWTDS) is hereby established for the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay watersheds.

7.2 **[For ~~A~~a]**ll properties utilizing an OWTDS that are sold or otherwise transferred to other ownership**[, the owner or trustee]** shall have their systems pumped out and inspected prior to the completion of the sale.

7.2.1 For transfers of a new property, the certificate of completion will fulfill the requirements of this section.

7.2.2 If an inspection has occurred within the previous 36 months and the property owner can provide documentation of such pump out and inspection, then such documentation will fulfill the requirements of this section.

7.2.3 If the owner of an individual OWTDS provides proof of a licensed operator or has an annual service contract with a certified service provider then the requirements of this section have been met.

7.3 Pumpouts shall be performed by a licensed Class F Liquid Waste Hauler. Inspections shall be performed by a licensed Class H System Inspector.

7.4 Standard inspection forms, developed by the Department, shall be used by the system inspector. The property owner shall provide the system inspector with all available pertinent information. The completed inspection report shall detail the results of the inspection. The system inspector shall provide the Department and the property owner with a written copy of the inspection report.

7.5 The Department will maintain a list of all licensed Class H System Inspectors and certified service providers which will be available for review.

8.0 On-site Wastewater Treatment and Disposal System Performance Standards

8.1 All OWTDSs in the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay Watersheds are required to reduce their nutrient wastewater loads.

8.2 Requirements for large OWTDSs having flows greater than 20,000 gallons per day (gpd):

8.2.1 All new systems shall meet Performance Standard Nitrogen level 1 (PSN1).

8.2.2 All replacement systems shall meet Performance Standard Nitrogen level 2 (PSN2).

8.2.3 When the operation and maintenance permit expires for an existing system, the Department will require the system to meet Performance Standard Nitrogen level 2 (PSN2). If the Department deems that the OWTDS must be redesigned to meet PSN2, the owner or operator of the system will have up to 60 months from the permit expiration date to bring the OWTDS into compliance with the new standard.

8.2.4 Where the system location is identified as having high potential for phosphorus mobility, new OWTDSs shall meet a Performance Standard Phosphorus level 1 (PSP1).

8.2.5 When the operation and maintenance permit expires for an existing system, and the system location is identified as having high potential for phosphorus mobility, the system must comply with the Performance Standard Phosphorous level 1 (PSP1). If the Department deems that the system must be redesigned to meet PSP1, the owner or operator of the system will have up to 60 months from the permit expiration date to bring the OWTDS into compliance with the new standard.

8.3 Requirements for large OWTDSs having flows greater than 2,500 gpd but less than 20,000 gpd:

8.3.1 All new systems shall meet a Performance Standard Nitrogen level 2 (PSN2).

8.3.2 All replacement systems shall meet a Performance Standard Nitrogen level 3 (PSN3).

8.3.3 When the operation and maintenance permit expires for an existing system, the system must meet a Performance Standard Nitrogen level 3 (PSN3). If the Department deems that the large OWTDS must be redesigned, the owner or operator of the system will have up to 60 months from the permit expiration date to bring the OWTDS into compliance with the new standard.

8.3.4 When the operation and maintenance permit expires for an existing system and the system location is identified as having high potential for phosphorus mobility, the system must comply with the Performance Standard Phosphorous level 2 (PSP2).

8.4 Requirements for small OWTDSs having flows less than or equal to 2,500 gpd:

8.4.1 All new and replacement systems shall meet a Performance Standard Nitrogen level 3 (PSN3).

8.4.2 Department approval and use of advanced treatment units shall be in accordance with the Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems and the Innovative and Alternative System Approval Checklist.

8.4.3 All permit applications shall be prepared in accordance with the Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems and these Regulations.

8.4.4 To provide proper operation and maintenance of the innovative and alternative onsite wastewater treatment and disposal system, the permittee is required to adhere to Department permit conditions. These permit conditions require mandatory operation and maintenance for the life of the system by maintaining a service contract with a certified service provider.

8.4.5 In instances where central sewer will become available within five years, the requirements of Section 8.4 will be waived after the Department receives a letter (with an approved Certificate of Public Convenience and Necessity (CPCN) **[where applicable)]** stating when central sewer will become available from Sussex County, the appropriate municipality, or the wastewater utility.

8.5 Large systems will be operated and monitored in accordance with permit conditions, and the following:

8.5.1 Large systems shall be operated by a Department licensed operator. The class level of the operator required and frequencies of inspections will be in accordance with the Regulations for Licensing Operators of Wastewater Facilities.

8.5.2 Large systems shall be sampled as outlined in the permit conditions.

9.0 Enforcement, Challenges, and Waivers

9.1 Enforcement of these regulations shall be as outlined in Title 7, Chapter 60, Section 6005 of the **Delaware Code**.

9.2 Technical errors related to primary and/or secondary water feature classifications may be brought to the Department's attention by following the procedures outlined in the guidance document entitled, "Procedures for Challenging the "Map of Water Features to be Buffered in the Inland Bays Watershed." If an on-site evaluation by the Department establishes that a technical error exists in the Map of Water Features to be Buffered in the Inland Bays Watershed that has been adopted by the Department as part of this Regulation, the map containing the error may be corrected by the Department after the Department documents, in writing, the results of the on-site evaluation, and the Department gives the public notice of any proposed correction. For purposes of this subsection, the term "public notice" shall consist of having notice of the proposed correction, the name of the property owner, location of the property in issue and a description of the error, published in a daily newspaper of general circulation throughout the State and a newspaper of general circulation in the county in which the activity is proposed. Such notice shall be published at least 20 days in advance of any correction to a map by the Department. If the Department determines that it has received a meritorious objection to any proposed correction set forth in a public notice, the Department may hold a public hearing if necessary in accordance with the procedures and laws required by the State of Delaware.

9.3 Technical errors related to the location of the tidal wetlands depicted on the map entitled "Areas Requiring Early Implementation of PSN3" may be brought to the Department's attention by following the procedures outlined in Title 7, Chapter 66 of the **Delaware Code**.

9.4 Waiver requests from the stormwater management requirements of Section 5 shall be determined through the procedures outlined in the Delaware Sediment and Stormwater Regulations.

9.5 Waiver requests for all other sections of these Regulations shall follow these procedures. Upon the applicant's request, the Secretary may grant a waiver from the strict application of this Regulation after an opportunity for formal public notification and review.

9.5.1 Notice shall be provided to the public including all contiguous property owners.

9.5.2 A public hearing will be held if a meritorious request is received within a reasonable time as stated in the advertisement.

9.5.3 A public hearing request shall be deemed meritorious if it exhibits a familiarity with the waiver request and has a reasoned statement of the waiver's probable impact.

9.5.4 No waiver shall be granted unless the said variance meets the following criteria:

9.5.4.1 The action will not result in substantial adverse effect on water quality, in general; and

9.5.4.2 The waiver must minimize the effects to the water quality goals of these Regulations to the greatest extent possible; and

9.5.4.3 A denial of the desired waiver would preclude a reasonable use of the property; and

9.5.4.4 The justification for the waiver is not related to a self-imposed special condition.

9.6 In addition to the waivers available in 9.4, the Secretary may grant hardship waivers from Sections 6.2 and 8.4 of these Regulations as outlined below.

9.6.1 The Secretary may consider the following factors in reviewing an application for a waiver based on hardship:

9.6.1.1 Advanced age or bad health of the applicant; or

9.6.1.2 Need of applicant to care for aged, incapacitated, or disabled relatives; or

9.6.1.3 Lack of funding programs and/or institutional opportunities for low and fixed income applicants.

9.6.2 Hardship waivers granted by the Secretary may contain but are not limited to conditions such as:

9.6.2.1 Permits for the life of the applicant; or

9.6.2.2 Limiting the number of permanent residents using the system; or

9.6.2.3 Use of non-nutrient reducing on-site wastewater treatment and disposal systems for a specified period of time.

9.6.3 Documentation of hardship must be provided before the application is referred to the Secretary for action.

9.6.4 Department personnel shall strive to aid and accommodate the needs of the applicants for waivers due to hardship.

9.7 In the event that more than one waiver from these Regulations is required, the Secretary may coordinate the review of such waivers.

10.0 Severability

Should any section, paragraph, or other part of this document be declared invalid for any reason, the remainder shall not be affected.

11.0 Other (Reserved)

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