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DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL  
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Office of the  
Secretary

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**Secretary's Order No. 2008-W-0054**

**Re: Adopting Final 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.’<sup>1</sup> The water quality experts within the Department’s Division of Water Resources

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<sup>1</sup> For ease of reference the waters and the watershed shall be referred to as the Inland Bays.

(“DWR”), Watershed Assessment Section<sup>2</sup> (“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,”<sup>3</sup> which recognizes how important 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

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<sup>2</sup> 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 Groundwater Discharge Section for its expertise in regulating onsite wastewater treatment systems.

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

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 has 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<sup>4</sup> 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.

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

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

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.

*s/John A. Hughes*  
John A. Hughes  
Secretary

## HEARING OFFICER'S REPORT

TO: The Honorable John A. Hughes  
Secretary, Department of Natural Resources and Environmental Control

FROM: Robert P. Haynes, Esquire  
Senior Hearing Officer, Office of the Secretary  
Department of Natural Resources and Environmental Control

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

DATE: October 14, 2008

### I. BACKGROUND AND PROCEDURAL HISTORY

This Report considers proposed regulations entitled “Regulations Governing the Pollution Control Strategy for the Indian River, Indian River Bay, Rehoboth Bay and Little Assawoman Bay Watersheds” (“PCS”), which the Department of Natural Resources and Environmental Control’s (“Department”) Division of Water Resources, Watershed Assessment Section (“WAS”) drafted and published in the June 1, 2008 *Delaware Register of Regulations*. The PCS is to reduce nitrogen and phosphorous pollution entering the Inland Bays<sup>1</sup> from permitted point sources and from nonpoint sources, which the PCS defines as originating “from diffuse areas having no well-defined source.”

Delaware’s efforts to reduce the Inland Bays’ pollution originated in 1969 when Governor Peterson created a commission to study the Inland Bays. In 1986, Delaware classified most of the Inland Bays as waters of “exceptional recreational or ecological significance,” (“ERES”) or ‘exceptional waters’ in the State’s “Surface Water Quality Standards” issued under the *Federal Water Pollution Control Act, 33 U.S.C §§1251 et seq.*, known as the Clean Water Act (“CWA”). This ‘exceptional waters’ classification for the Inland Bays has continued with each amendment of the Surface Water Quality Standards, and requires that the Department

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<sup>1</sup> For ease of reference, the various individual waters and their watersheds will be referred to as the Inland Bays unless otherwise noted.

afford 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.”

In 1982, the Department formed an Inland Bays Study Group. In 1983, the Department participated in an Inland Bays Task Force, and the Inland Bays’ pollution was a topic in the “Decisions for Delaware.” In 1984, the Department created an Inland Bays Monitoring Committee to assist in the study of the Inland Bays’ water quality. In 1988, the Inland Bays Estuary Program was created and the Inland Bays were included in the National Estuary Program. Between 1988-1990, the Department conducted intensive water quality monitoring of the Inland Bays. In 1995, the Department prepared the Comprehensive Conservation & Management Plan (“CCMP”) for the Inland Bays. In 1995, the General Assembly created the Center for the Inland Bays (“CIB”) in the Inland Bays and Watershed Enhancement Act, which delegated to the CIB the implementation of the CCMP.

The Department, in a series of reports required by the CWA, determined that the Inland Bays do not meet the ERES water quality standard, which means that under the CWA they are “impaired.” This finding of impairment requires Delaware to take such regulatory steps necessary to improve the Inland Bays’ water quality so that it attains the ERES water quality standard. These water quality reports are prepared every two years, as required by the CWA, and they have identified the cause of the Inland Bays’ impaired water quality as attributable to excessive amounts of nitrogen and phosphorous, which are chemicals that promote algae and plant growth that, in turn, reduce the water’s dissolved oxygen below the level needed to maintain most aquatic life.

In 1998, after conducting years of water quality sampling, monitoring, and computer modeling of the Inland Bays, the Department issued regulations that established Total Maximum

Daily Loads (“TMDLs”) for nitrogen and phosphorous in most of the Inland Bays. The TMDLs essentially are limits on how much of these chemicals the Inland Bays can receive and maintain their ‘exceptional waters’ classification. The TMDLs determined that significant reductions in the nitrogen and phosphorous pollution was needed from the three identified sources, 1) point source discharges regulated by discharge permits, 2) nonpoint sources such as from the land application of fertilizer and the groundwater contamination from onsite wastewater treatment and disposal systems (“OWTDS”), and 3) from air emissions that are deposited on the ground and water. The Department is expressly not authorized to regulate the land application of nutrients for agricultural uses.

In 1998, the Department also formed a Tributary Action Team made up of local citizens and organizations to assist the Department’s efforts to eliminate pollution in the Inland Bays. In 2004, the Department issued TMDL regulations for the remaining portions of the Inland Bays that also required reductions in the Inland Bays’ nitrogen and phosphorous pollution from all sources.

In 2005, WAS issued a draft PCS for public comment and discussion and held public workshops to inform and educate the public of this important pollution control effort that the Department was undertaking. This draft included several major pollution control features, including: 1) preserving the existing vegetative riparian buffer zone along designated waters 2) requiring performance standards for new and replacement OWTDSs and their maintenance, and 3) requiring enhanced sediment and stormwater management plans that reduced nutrient discharges from stormwater runoff.

The most controversial was the buffer zone requirement for any new land development. The PCS defined “buffers” as “an existing or purposely established area of vegetation which protects water resources from pollution.” Based upon the public comments received, WAS

revised the PCS draft and circulated it to interested persons for comments and discussions. After receiving public input, albeit in this informal process, the PCS again was revised in an effort to reduce the disputed issues and achieve the best possible regulation.

The Department formerly commenced its regulation development process on February 13, 2006 when Secretary John A. Hughes signed Start Action Notice (“SAN”) 2002-6. This process continued with informal discussions and draft revisions with interested persons and organizations in an effort to reach a consensus, or at least to reduce the areas of controversy before PCS would be published as a proposed regulation. The Department conducted an extensive outreach effort with meetings and a public workshop.

The Department decided, based on considerable opposition to the buffer zone, that it first would address the other PCS methods to reduce nitrogen and phosphorous pollution from other nonpoint sources, and then return to the buffer zone issue at a later date. Thus, a fourth draft of the PCS reserved the buffer zone regulation from the other PCS draft regulations and the Department published this PCS in the May 1, 2007 *Delaware Register of Regulations*. The Department held two public hearing on this PCS on June 13, 2007 and June 14, 2007, and heard comments from both supporters and opponents of the PCS that requested that the PCS include the buffer zone so that the PCS would be complete if adopted. The Department again met with interested persons and decided to withdraw the 2007 PCS as a proposed regulation. The Department replaced the partial PCS with a complete PCS that included all three major components, namely, 1) the OWTDS performance standards and maintenance requirements, 2) the buffer zone requirement, and 3) the nutrient reduction requirement for sediment and stormwater plans. The Department published the complete PCS as a proposed regulation in the June 1, 2008 *Delaware Register of Regulations*.

The Department held a public hearing on the PCS commencing at 6:00 p.m. on June 23, 2008 at the Cheer Center in Georgetown, Sussex County, Delaware in order to receive public comments, and approximately 400 persons attended. Additional public comments were submitted in writing by the end of the public comment period on June 30, 2008. This Report considers the public comments, although each may not be addressed individually, and my research on the issues, including advice from the Department of Justice, and makes a recommendation for the Secretary of the Department on the PCS based upon the entire administrative record developed, including the public hearing record.

## **II. SUMMARY OF THE PUBLIC HEARING RECORD**

The public hearing record contains a one hundred and forty nine page verbatim transcript of the public hearing, and documents, marked as Exhibits (“Ex.”), which were admitted into the record as hearing exhibits, including written comments received during the public comment period that ended on June 30, 2008.

At the public hearing, Jennifer Volk, an Environmental Scientist with WAS, and Katherine Bunting-Howarth, Ph.D, J.D., Director of the Division of Water Resources, spoke and Ms. Volk presented the Department’s exhibits into the record, which were marked as DNREC Ex. Nos. 1-40.<sup>2</sup> These exhibits chronicle the Department’s regulatory efforts and scientific studies that support the PCS. They include the studies for the “*Total Maximum Daily Loads (TMDLs) for Indian River, Indian River Bay and Rehoboth Bay Watersheds*” regulation that was approved by Secretary’s Order No. 98-0044 effective December 10, 1998 and the “*Total Maximum Daily Loads (TMDLs) for the Little Assawoman Bay and its Watershed*” regulation

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<sup>2</sup> The public hearing is for the purpose of hearing from the public and does not require the Department to develop a complete record of decision for the Secretary for a regulation, which entails the exercise of the Department’s legislative authority. Instead, the Department develops a basic record for the benefit of the public to examine at the public hearing in order to make public comments based upon the relevant basic documents that support a proposed regulation.

approved by Secretary's Order No. 2004-W-0059 and effective January 11, 2005. These two regulations established the pollution reductions needed to attain the 'exceptional waters' classification for the Inland Bays and include a provision that a watershed-wide pollution control strategy should be implemented to achieve these reductions.

The PCS sets forth a comprehensive set of implementing regulations to achieve the reductions in nitrogen and phosphorous pollution that currently enters the Inland Bays from within the watershed. For point sources, the PCS reaffirms the prior determination that all permitted surface water discharges of these two nutrients should be systematically eliminated from the Inland Bays. For nonpoint sources, the PCS focuses on several methods of pollution control, namely, 1) improving over time the performance of each OWTDS based upon its size, location and age, and employing proven and commercial available technology, 2) preserving the natural protection afforded by vegetative riparian buffers that currently exist along the waters, which buffer zones act as a filter to keep these harmful chemicals from entering the waters in excessive levels, and 3) requiring nutrient reductions to be reflected in all sediment and stormwater planning. A review of the regulatory details set forth the PCS' comprehensive regulatory effort that the Department has undertaken in the difficult and controversial area of reducing nonpoint source pollution. The PCS provides a degree of regulatory flexibility while still achieving the TMDLs' mandated reductions.

In Section 1 -Authority and Scope, the PCS sets forth various effective dates for the regulations and certain exemptions. Section 1.3 provides that the PCS would go into effect 60 days after publication in the *Delaware Register of Regulations*, as opposed to the minimum ten days after publication. Section 1.4 provides a five year time period to obtain final plan approval to avoid the PCS' requirements in Section 4 (buffer zone) and Section 5 (sediment and stormwater controls) if the property has pending "proposed major subdivision plans, site plans,

concept plans, initial stage calculation sheets, request for service level evaluation, or requests for scoping meetings which have been received by the Delaware Department of Transportation [“DELDOT”] prior to the effective date of the regulations.” Section 1.4.1 states that if no DELDOT submission is required, then the exemption would be based upon proposed plans pending final approval by Sussex County or other local government before the effective date of Section 4 and Section 5, which Section 1.4.2 provides as 10 days after publication for land development plans to be approved by Sussex County and one year after publication for land developments to be approved by any municipality. Section 1.5 provides an effective date of 30 days for Section 6 for the general provisions in the PCS’ regulation of OWTDSs. Section 1.6 provides an effective date of 180 days from publication for Section 7, which applies to the maintenance and inspection regulation of OWTDSs. Section 1.7 provides an effective date of 60 days from publication for Section 8.2.1 and Section 8.3.1, which apply performance standards for new OWTDSs larger than 2,500 gallons per day. Section 1.8 provides an effective date of 60 days after publication for performance standards for OWTDSs less than 2,500 gallons per day (“gpd”) and within 1,000 feet of the mean high water line of the tidal portions of the Inland Bays and their associated tidal wetlands. Section 1.9 requires that by January 1, 2015, all permit applications for OWTDSs 2,500 gpd and less meet Section 8.4’s performance standard. The other exemption that is not expressed directly is that the PCS will not alter any existing land use because the PCS applies only to any future changes in land use. Consequently, the PCS will not alter anyone’s existing right to use their property, as such properties currently are approved for use by Sussex County or a municipality.

Section 2 sets forth the many definitions of technical terms used in the PCS. Most of these definitions have been in the earlier drafts and have been subject to much scrutiny and refinement through the course of the regulatory development process. The definitions include

highly scientific terms, such as “high potential for phosphorous mobility” based upon soil testing and site specific conditions. Other important terms are the definitions of “primary water features” and “secondary water features” and their illustration on regulatory maps in Appendix A to the PCS, which the Department created at the public’s request in order to graphically depict these waters. Other scientific based definitions are for the OWTDS performance standards for nitrogen and phosphorous, which the PCS delineates into several performance levels known as PSN1, PSN2 and PSN3 for nitrogen and PSP1 and PSP2 for phosphorous, and Section 8 applies to new or replacement OWTDSs depending on size, location, and age.

Section 3 follows up on the TMDLs and reaffirms that all surface water discharges of nutrients into the Inland Bays shall be systematically eliminated in any future permit the Department issues authorizing such discharges under the CWA and state authority. This section also establishes the opportunity for trading between point sources and nonpoint sources within each specific watershed, subject to Department approval.

Section 4 provides for the establishment of a buffer zone in any new major subdivision and activities requiring a site or major subdivision plan approval by Sussex County or other local government. Section 4.1.2 reaffirms that the PCS’ buffer zone requirement does not impact any existing development or land usage, but will only regulate prospectively for any change in usage by a new land development. Section 4.1.3 exempts from the buffer zone requirement any new “land or buildings that are deemed to be in agriculture use as prescribed by *9 Del. C. §6902(b)*.” Section 4.1.4 exempts any on-lot improvements that require a site plan and impacting less than 5,000 square feet. Section 4.1.5 exempts water-dependent facilities and installation, operation and repair of various road and utility infrastructure. Section 4.1.6 exempts all isolated stormwater ponds and farm ponds from the buffer zone establishment.

Section 4.2.1 establishes a buffer zone extending 100 feet from State-regulated wetlands, or from the high water line of all tidal waters, whichever extends farther upland and from the ordinary high water line for all other primary waters. Section 4.2.2 provides a buffer zone extending 60 feet from the ordinary high water line for all secondary waters.

In Section 4.3, the Department allows a property owner to elect to reduce the width of the buffer zone by use of one of several advanced stormwater management methods set forth in Section 5 and the creation of a binding, ongoing agreement to implement a development-wide nutrient management plan to be created by a certified nutrient consultant and administered by a certified nutrient handler in accordance with *Regulations Governing the Nutrient Management Program*. If a property owner elects this method of pollution control, then Sections 4.3.1 and 4.3.2 allow a buffer zone to be reduced to 50 feet for primary waters and 30 feet for secondary waters. This alternative also in Section 4.4 requires that this nutrient management pollution control be included as a deed restriction on the property and in the bylaws of any property owners' association. Section 4.5 requires that all buffer zones be established as separate parcels within a new development. Section 4.8 requires maintenance of the vegetative cover in buffer zones so that they maintain their water quality benefits to reduce nitrogen and phosphorous discharges. Sections 4.10 provides for the use of buffer zones for flood control structures, utility rights of way and structures, stormwater best management practices, existing unpaved single track trails or footpaths no wider than 5 feet, or pervious or impervious footpaths that are 5% or less of the buffer zone's area, road crossings. Section 4.11 allows for buffer zones to be used for the maintenance of tax ditches.

In Section 5, the PCS addresses Sediment and Stormwater Controls, which include the requirements that sediment and stormwater runoff be managed for nutrient reductions where practicable (Section 5.1), that the Department's *Sediment and Stormwater Regulations* shall

require criteria in plans to further reduce nutrients (Section 5.2), that the establishment of a buffer zone, as required in Section 4, would satisfy the nutrient reduction in a stormwater management plan (Section 5.3), and that reduced width buffer zones, as allowed in Section 4, or properties with no primary or secondary water features shall reduce nutrients based upon guidance documents for such stormwater projects (Section 5.3.3).

In Section 6, the PCS sets forth the OWTDS general regulations, which include that the PCS will complement the Department's existing *Regulations Governing the Design, Installation and Operation of On-site Wastewater Treatment and Disposal Systems* ("OWTDS Regulations"), but that the PCS will control in the event of any conflict (Section 6.1). The PCS states that in the Inland Bays watershed all cesspools and seepage pits are prohibited and must be replaced consistent with the OWTDS Regulations, and each holding tank in the Inland Bays should be operated consistent with each Department issued permit (Section 6.2 and 6.3). The PSC reaffirms the Department's policy that temporary holding tanks are allowed in the Inland Bays only when the property will be connected to a central sewer system in the next five years (Section 6.4). The PCS reaffirms that any OWTDS must comply with setback requirements to the maximum extent possible (Section 6.5). Section 6.6 prohibits any new drainfields on parcels recorded thirty days after the publication of the final PCS if they are located within 100 feet from state-regulated wetlands, the tidal portions of the Inland Bays, or from all other primary water features. Finally, Section 6.7 requires that all "innovative and alternative" OWTDSs with design flow of 2,500 gpd or less must achieve nitrogen reductions that comply with the PSN3.

Section 7 requires that all OWTDSs be cleaned out and inspected by duly licensed persons. The clean out and inspection is required upon the transfer of ownership of the parcel on which they are located, unless 1) the transfer is for a new structure and then the certificate of completion shall be sufficient proof, 2) the owner has proof that the clean out and inspection has

occurred in the past 36 months, or 3) the owner has a service contract that satisfies the clean out and inspection requirement.

Section 8 provides the performance standards for OWTDSs based upon their design flow, location and age. For systems larger than 20,000 gpd, new systems must attain PSN1, and replacement systems PSN2, and any system with an expiring permit will have 60 months to attain PSN2. Where the Department has identified locations as having high potential for phosphorous mobility, then new systems and any expiring permits shall comply with PSP1; however, if the Department determines that a redesign is necessary, then such OWTDS shall have 60 months to comply with PSP1. For OWTDSs with design flows between 2501 gpd and below 20,000 gpd, the PCS requires PSN2 for new systems, and PSN3 for replacement systems, but any expiring permits shall have 60 months to comply. Any expiring permit in locations identified as having a high potential for phosphorous mobility will need to attain PSP2. Finally, for the smallest OWTDSs with design flows of 2,500 gpd or less, the PCS requires PSN3 for new and replacement systems, and approval of advanced treated systems as authorized by the OWTDS Regulations. In Section 8.4.5, the requirement for a small system can be waived upon proof that the small system will be removed in the next five years based upon its connection to a central sewer system.

Section 9 of the PCS sets forth the enforcement, challenges and waiver provisions, which allow for technical corrections to be made to the regulatory maps of the primary and secondary water features. In addition, the PCS provides for a waiver procedure, including for hardship.

Section 10 contains the standard severability clause and Section 11 is reserved for "Other."

The public comments at the hearing and received in written documents during the extended public comment period that ended June 30, 2008 were summarized by WAS and were

the subject of their technical response on the central issues raised, which were: 1) the hardship on property owners caused by the requirement to establish a buffer area along designated waters for any new development, 2) the need to have a wider buffer area of at least 100 hundred feet in order to adequately protect the Inland Bays from excessive nitrogen and phosphorous, 3) the financial hardship and effectiveness of imposing more stringent performance standards for new or replacement OWTDSs, and 4) the claim that the PCS was an unlawful intrusion into the rights of property owners. Representatives of the most active groups who previously participated in the PCS' regulatory development, namely the Positive Growth Alliance ("PGA"), the Center for the Inland Bays ("CIB"), the Sierra Club and Green Delaware provided comments at the hearing. Some of their comments supported the PCS, such as from Green Delaware, the Sierra Club and CIB, although many of these comments indicated that the PCS did not go far enough, particularly on the buffer zone's widths. Some comments questioned the PCS' cost to achieve the pollution reduction based upon the Department's \$25 million estimate to implement the PCS. The comments also complained about the higher cost of improved OWTDSs and maintenance and the Department's right to inspect. Many of the comments, particularly from the PGA, questioned whether the Department has the authority to require buffer zones as a method to prevent pollution of the Inland Bays.

I requested the Department's experts in WAS to provide a response to the public comments and it is set forth in Appendix A hereto. In addition, they recommended some minor changes to the proposed PCS based upon the public comments, and this version is attached as Appendix B hereto in the formats required by the *Delaware Register of Regulations*.

### III. DISCUSSION AND REASONS

The Department's long history of regulatory efforts to improve the Inland Bays' water quality may seem by many as taking too long. Indeed, in 1997, the Department resolved litigation that challenged the pace of the Department's regulatory efforts to reduce the pollution of Delaware's waters, including the Inland Bays. The Department participated in a settlement that was approved by federal court in *American Littoral Society & Sierra Club v. EPA*. ("Consent Decree"), which established a specific time schedule for the Department's actions needed to improve water quality to meet the federal and state quality standards.

The length of the history of regulatory efforts also is best explained by the degree of difficulty in designing methods to reduce nitrogen and phosphorous pollution in the Inland Bays from nonpoint sources. The Department's experts determined that the regulation of nonpoint sources of pollution was only possible by regulating the entire watershed because nitrogen and phosphorous that enter the surface water or groundwater anywhere in the watershed will flow into the Inland Bays and add to its already impaired or polluted water quality. The difficulty in regulating is compounded by the very attraction of the Inland Bays, which brings people to live and visit near the environmental beauty of these 'exceptional waters.' If the Inland Bays were not classified as waters that required the most protection, then the Department's remedy for their pollution could be far less stringent.

I find that the PCS sets forth a careful balancing of the twin pressures on the Inland Bays, land development within the Inland Bays that add more OWTDSs and nitrogen and phosphorous pollution on one side and the CWA's and state law's requirement to end the water pollution of the Inland Bays on the other. The PCS sets forth a comprehensive set of regulations that will reduce the nitrogen and phosphorous pollution of the Inland Bays attributable to nonpoint sources, namely, the land application of these harmful chemicals by OWTDSs and any future

destruction of the remaining natural riparian buffer zones. The Department could require faster methods to reduce the pollution, such as accelerating the conversion of older, less environmental OWTDSs, but this would be a more drastic way to reduce the pollution of the Inland Bays faster than the PCS' reasonable time periods. Instead, the Department's experts crafted the PCS to allow responsible growth. This growth will occur with new, improved OWTDS that will discharge less nitrogen and phosphorus into the groundwater. The growth will occur with allowing new land development to occur so long as it protects the remaining riparian buffer areas so that more extreme pollution control measures are not needed in the future.

The nonsource point pollution in the Inland Bays watersheds is from the approximately 18,000 OWTDSs, stormwater runoff from land development, from fertilizer use in farming and landscaping, and animal waste. The pollutants enter groundwater and surface water and the natural flow of water in a watershed transports them to the Inland Bays. Thus, the PCS will reduce the nitrogen and phosphorous by 1) improving OWTDSs over time as new and more improved systems are installed either on new parcels or as replacements for the older, less environmental OWTDSs, 2) preserving the existing riparian buffer zones in a vegetative state that allows them to capture the nitrogen and phosphorous before it enters the water in the groundwater or in stormwater runoff, and 3) improving sediment and stormwater plans so that they reduce more nutrient discharges.

The issue with the PCS' provisions to require over time a move to better OWTDSs was the hardship and economic burden imposed by the environmental regulation from installing and maintaining more expensive systems, which will reduce nitrogen and phosphorous discharges compared to the OWTDSs that do not meet the more stringent treatment standards. The Department knows that the change to more environmental OWTDSs will cost more. The Department conducted an economic analysis of the economic impacts on property owners, and

this analysis supports the need for the PCS despite the additional cost because the OWTDSs' improvements are necessary to end the pollution of the Inland Bays. Nevertheless, if property owners cannot afford the improved systems, then the Department recognizes that they will not be installed until the property owners have available funds. Consequently, the Department has included waiver procedures to allow more time for owners to comply and recognizes that compliance may need to be deferred for hardship situations while a property owner obtains funding, which could be from public funds. Moreover, the public comments requested such flexibility be included. I find that such a procedure is best handled on a case-by-case basis upon proof of a hardship or the need for a waiver, and that the PCS provides a reasonable way to administer this pollution control method.

In general, the PCS imposes performance standards on all OWTDSs in the Inland Bays' watershed. These standards allow implementation over an extended and reasonable time period through all new and replacement system installations, which, when fully implemented, will reduce nitrogen by 50% from this nonpoint source that contribute 11% to the Inland Bays' nitrogen pollution. The need for changing OWTDS standards is driven by the need to protect the Inland Bays from nitrogen and phosphorous pollution from the older OWTDSs installed, albeit with the Department's approval, prior to the PCS. Thus, this component achieves in a reasonable manner a significant portion of the required reductions in the amount of these polluting chemicals that enter the Inland Bays, as required by the CWA and the Inland Bays' TMDLs.

The other area of considerable controversy is the PCS' establishment in Section 4 of a riparian buffer zone for any new major land development. The challenge from opponents of the buffer was that the Department was going beyond its powers granted by the General Assembly to regulate the environment. Specifically, the claim was that the Department was intruding into the power the General Assembly granted county and local government to regulate land use in its

zoning and planning authority. The opponents rely on the language within Section 6010(a) that “no such rule or regulation shall extend, modify or conflict with any law of this State or its reasonable implication thereof.”

The Department unquestionably has the authority in *7 Del. C. Chapter 60* to establish water quality standards. The Department also has the authority to eliminate pollution that causes water quality to be in violation of the standards. The PCS is the Department’s exercise of its regulatory authority to reduce the pollution of nitrogen and phosphorous in the Inland Bays from nonpoint sources. The PCS is the selected policy to implement the required significant reductions to these harmful chemicals. This policy will be implemented in a way that will alter the point source discharges regulated by surface water discharge permits, the permits granted to install and operate OWTDSs, the permits for sediment and stormwater management, and any Department permits that may be needed for land development if such development will destroy existing buffer zones needed to protect the Inland Bays from being even more polluted than they currently are.

The real issue raised in the legal challenge to the buffer zone is whether it conflicts with zoning and land use authority the General Assembly has delegated to the local government, specifically Sussex County and any municipalities in the watershed. The problem with this argument is that under its logical conclusion the Department would not be allowed to prohibit heavy industrial development in the Coastal Zone despite the Department’s objection, or issue environmental regulations necessary to regulate the construction of pollution control equipment for the Indian River Generating Station, for example. The very planning authority delegated to the county and municipal government recognizes the Department’s primary authority to protect the environment from pollution. Thus, the error of the opponents’ reliance on Section 6010(a) is

evident from its logical extension into the very heart of the Department's ability to regulate the environment by the promulgation of regulations.

The Department is subject to many different laws and often it is necessary to reconcile the intent of each law as it applies to each area of regulation. To the extent that one law conflicts with another, then rules of statutory construction are applied in order to interpret the laws in a manner consistent with the most recent intent of the General Assembly. In the case of the authority to issue regulations, the General Assembly has set forth Section 6010(a) in Title 7 for the Department the general principle that all regulations should not conflict with any law. Indeed, regulations are an administrative agency's attempt to interpret often broad and vague laws. The Department also follows the Administrative Procedures Act, *29 Del. C. §§101 et seq.*

The PCS is consistent with the underlying statutory authority that allows the Department to exercise its authority to reduce pollution. Moreover, the general authority granted for land use planning and regulation delegated to Sussex County and municipalities also recognizes the Department's authority and expertise to protect the environment from pollution. This expertise was applied to require the establishment of buffer zones along the primary and secondary water features. This regulation in Section 4 essentially will not permit new land development to destroy the natural vegetative buffers that now protect the Inland Bays from being even more polluted. The buffer zones are essential and vital component consistent with ending the pollution of the Inland Bays, which pollution poses a risk to the environment and public health. There is no difference in this form of pollution control than the pollution control equipment the Department requires by regulation on other forms of pollution, such as air emissions or wastewater treatment plant discharges. The underlying goal is to protect the environment from pollution and the PCS reasonably relates to that purpose in its buffer zone requirement, as applied to new major land developments that will pollute the Inland Bays just as much as if a

pipe was discharging pollutants directly into them. Thus, nonpoint sources of pollution may not be as obvious as a pipe, but the scientific evidence supports that for the Inland Bays nonpoint sources contribute much more to the pollution than any discharge from a pipe.

The Department's experts selected as the appropriate and indeed the only reasonable method to reduce the pollution from nonpoint sources was in a watershed-wide regulation that will require all property owners to be responsible with the reductions because each property drains into the Inland Bays and either has some discharge of the harmful chemicals or transports them in the groundwater or surface water. The reason for the watershed-wide method of regulation is because any amount of nitrogen or phosphorous from a nonpoint source within the watershed will add to the continued pollution of the Inland Bays from excessive levels of these harmful chemicals.

The Inland Bays' TMDLs were based upon considerable scientific research and study of the Inland Bays. The Inland Bays' TMDLs established that nitrogen and phosphorous from nonpoint sources must be reduced by at least 40% throughout the Inland Bays and by as much as 85% depending on the location within the watersheds. The Department recognizes that some may advocate for faster and more extreme measures to protect the Inland Bays from pollution, but the Department's submits that implementation of the PCS now will avoid relying on such more drastic measures in the future if the Inland Bays' pollution continues absent the adoption of the PCS now. The longer any regulatory action is taken to reduce nitrogen and phosphorous pollution, the harder any future solution will be to reduce the Inland Bays' pollution so that it may attain its 'exceptional' water quality standard.

I find that the PCS is based upon the comprehensive research and expert judgment of not only the Department's experts, but also independent experts. The CIB's experts consider that the PCS' buffer zones are too small and seek to expand them. The Department's experts may agree

that expansion is appropriate to provide a measure of safety to an admittedly difficult task of assessing and modeling the Inland Bays' water quality. I find that the PCS' regulatory actions are rationally related to reducing nitrogen and phosphorous pollution in the Inland Bays, and once implemented, along with the Department's other regulatory actions, will allow the Inland Bays' water quality to improve and eventually attain the 'exceptional' water quality standard required by the CWA.

I find that the public comments also do not support any amendment or other delay to the prompt approval of the proposed regulations as final regulations. This recommendation is based on the practical reality of a delayed implementation included as part of the PCS, which was in part due to efforts to achieve compromise.

The Department's experts have provided some minor editorial changes that I consider not to be substantive in nature. Consequently, I recommend the adoption of these changes and not holding any further public hearings for such nonsubstantive changes.

#### **IV. RECOMMENDED FINDINGS AND CONCLUSIONS**

Based on the record developed, I find and conclude that the record supports approval of the proposed regulations, as set forth in Appendix B hereto, as final regulations. In conclusion, I recommend the Secretary adopt the following findings and conclusions:

- 1.) The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
- 2.) The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;
- 3.) The Department held a public hearing in a manner required by the law and regulations;

4.) The Department considered all timely and relevant public comments in making its determination;

5.) The Department's PCS, as set forth in Appendix B hereto, are adequately supported, not arbitrary or capricious and are consistent with the applicable laws and regulations. Consequently, the proposed regulations in Appendix B should be approved as final regulations as promptly as possible, and be allowed to go into effect ten days after publication in the next available issue of the *Delaware Register of Regulations* or in the later date specified in the regulations; and that

6.) The Department shall submit the proposed regulations as final regulations to the *Delaware Register of Regulation* for publication in its next available issue, and shall provide written notice to the persons affected by the Order as determined by the Department from the names and addresses provided.

[s/Robert P. Haynes](#)

Robert P. Haynes, Esquire  
Senior Hearing Officer

**Appendix A**  
**Division Response to Public Comments**

**Appendix B**  
**Regulations Recommended to be Adopted**