DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF WATER RESOURCES

Statutory Authority: 7 Delaware Code, Chapter 60 (7 **Del.C**. Ch. 60)
7 **DE Admin. Code** 7427 and 7428

FINAL

Secretary's Order No. 2006-W-0052

Approving Regulations Establishing Total Maximum Daily Loads for Bacteria within the Murderkill River and Appoquinimink River Watersheds

Date of Issuance: November 14, 2006
Effective Date: December 11, 2006

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 to amend the regulation that established Total Maximum Daily Loads ("TMDLs") for bacteria in the Murderkill River and Appoquinimink River watersheds. The Department last adopted Murderkill River watershed TMDLs for nutrients and oxygen demanding material in Secretary's Order No. 2005-W-0025, issued May 12, 2005. The United States Environmental protection Agency ("EPA") adopted Appoquinimink River TMDLs for nutrients and oxygen demanding material on December 15, 2003.

Based on the record, including the public hearing record reviewed in the November 9, 2006, Hearing Officer's Report ("Report"), attached as Appendix A, I find the proposed regulations are well supported and are not arbitrary or capricious. The Report reviews and summarizes the combined public hearing record, including the September 20, 2006, public hearing. The Report recommends approval of the proposed regulations as final regulations without modification. I agree with the Report and adopt it as part of this Order along with its reasons.

The Report discusses the need to establish bacteria TMDLs for these watersheds, and recommends approval of the proposed bacteria TMDLs. The TMDLs are based upon sound scientific evidence, are consistent with state and federal law, and are a reasoned exercise of the Department's authority to issue regulations to improve water quality. The TMDLs will limit the release of harmful levels of bacteria into the waters within each watershed. The regulations identify the level of reduction in bacteria that will enable the waters to improve to meet clean water standards. The TMDLs will allow the Department to establish Pollution Control Strategy for the watersheds, which will enforce compliance with the TMDLs. Thus, these TMDLs are an important part of a multi-step federal and state regulatory process that will improve the waters within these watersheds so that they meet the Clean Water Act's standards.

The Report notes the public comments. The Department welcomes the comments. Some of the comments were instrumental in making some changes to the technical support documents, and minor modification to the proposed TMDLs. The Department published the proposed TMDLs, as revised, to reflect the changes the Department considered appropriate based upon the public comments. The Department and the public share the common goal of improving Delaware's water quality.

In conclusion, the following findings and conclusions are entered:

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

2. The approval of the proposed regulations as final regulations will protect and improve the water quality within three watersheds, as defined by elevation maps. The TMDLs as regulations will allow the Department to develop Pollution Control Strategies to control the release of bacteria, which is a pollutant that is impairing the water quality of the waters within the watersheds;

3. The TMDLs approved by this Order were developed consistent with the applicable law and regulatory standards, and are supported by expert technical analysis;

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 published in the September 1, 2006, *Delaware Register of Regulations,* and set forth in Appendix A to the Report, are adequately supported, not arbitrary or capricious, are consistent with the applicable laws and regulations, and should be approved as final regulations to go into effect ten days after their publication in the next available issue of the *Delaware Register of 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 either the public workshop or at the public hearing, including participation through the submission of timely and relevant written comments.

John A. Hughes
Secretary

7427 Total Maximum Daily Loads (TMDLs) for Bacteria for the Appoquinimink River Watershed, Delaware

1.0 Introduction and Background

Water quality monitoring performed by the Department of Natural Resources and Environmental Control (DNREC) has shown that the waters of the Appoquinimink River Watershed are impaired by high levels of bacteria and that the designated uses are not fully supported due to levels of this pollutant in these waters.

Section 303(d) of the Federal Clean Water Act (CWA) requires States to develop a list (303(d) List) of waterbodies for which existing pollution control activities are not sufficient to attain applicable water quality criteria and to develop Total Maximum Daily Loads (TMDLs) for pollutants or stressors causing the impairment. A TMDL sets a limit on the amount of a pollutant that can be discharged into a waterbody and still protect water quality. A TMDL is composed of three components, including a Waste Load Allocation (WLA) for point source discharges, Load Allocation (LA) for nonpoint sources, and a Margin of Safety (MOS).

DNREC listed the Appoquinimink River Watershed on several of the State's 303(d) Lists and proposes the following Total Maximum Daily Loads regulation for *enterococcus* bacteria.

2.0 Total Maximum Daily Loads (TMDLs) Regulation for Appoquinimink River Watershed

Article 1. The nonpoint source bacteria load in the fresh water portion of the Appoquinimink River Watershed shall be reduced by 11 percent from the 1997-2005 baseline level.

Article 2. The nonpoint source bacteria load in the marine water portion of the Appoquinimink River Watershed shall be reduced by 72 percent from the 1997-2005 baseline level.

Article 3. The MS4 point source bacteria load in the fresh water portion of the Appoquinimink River Watershed shall be reduced by 15 percent from the 1997-2005 baseline level.

Article 4. The MS4 point source bacteria load in the marine water portion of the Appoquinimink River Watershed shall be reduced by 73 percent from the 1997-2005 baseline level.

Article 5. The Middletown-Odessa-Townsend (MOT) wastewater treatment plant point source bacteria loading shall be capped at the current, geometric mean concentration level of 35 CFU *enterococcus*/ 100mL.

Article 6. Based upon cumulative distribution analyses and assuming implementation of reductions identified by Article 1 through Article 5 above, DNREC has determined that, with an adequate margin of safety, water quality standards will be met in the Appoquinimink River Watershed.

Article 7. Implementation of this TMDLs Regulation shall be achieved through the development and implementation of a Pollution Control Strategy. The Strategy will be developed by DNREC in concert with the Tributary Action Team, other stakeholders, and the public.

7428 Total Maximum Daily Loads (TMDLs) for Bacteria for the Murderkill River Watershed, Delaware

1.0 Introduction and Background

Water quality monitoring performed by the Department of Natural Resources and Environmental Control (DNREC) has shown that the waters of the Murderkill River Watershed are impaired by high levels of bacteria and

that the designated uses are not fully supported due to levels of this pollutant in these waters.

Section 303(d) of the Federal Clean Water Act (CWA) requires States to develop a list (303(d) List) of waterbodies for which existing pollution control activities are not sufficient to attain applicable water quality criteria and to develop Total Maximum Daily Loads (TMDLs) for pollutants or stressors causing the impairment. A TMDL sets a limit on the amount of a pollutant that can be discharged into a waterbody and still protect water quality. A TMDL is composed of three components, including a Waste Load Allocation (WLA) for point source discharges, Load Allocation (LA) for nonpoint sources, and a Margin of Safety (MOS).

DNREC listed the Murderkill River Watershed on several of the State's 303(d) Lists and proposes the following Total Maximum Daily Loads regulation for *enterococcus* bacteria.

2.0 Total Maximum Daily Loads (TMDLs) Regulation for Murderkill River Watershed

Article 1. The nonpoint source bacteria load in the fresh water portion of the Murderkill River Watershed shall be reduced by 32 percent from the 1997-2005 baseline level.

Article 2. The nonpoint source bacteria load in the marine water portion of the Murderkill River Watershed shall be reduced by 67 percent from the 1997-2005 baseline level.

Article 3. All point source bacteria loading in the Murderkill River Watershed shall be capped at the current, geometric mean concentration level of 35 CFU *enterococcus*/100mL.

Article 4. Based upon cumulative distribution analyses and assuming implementation of reductions identified by Article 1 through Article 3 above, DNREC has determined that, with an adequate margin of safety, water quality standards will be met in the Murderkill River Watershed.

Article 5. Implementation of this TMDLs Regulation shall be achieved through the development and implementation of a Pollution Control Strategy. The Strategy will be developed by DNREC in concert with the Tributary Action Team, other stakeholders, and the public.