

# DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

## DIVISION OF WATER RESOURCES

Statutory Authority: 7 Delaware Code, Chapter 60 (7 Del.C. Ch. 60)

**Proposed Total Maximum Daily Loads (TMDLs) for the Army Creek, Blackbird Creek, Broadkill River, Cedar Creek, Dragon Run Creek, Leipsic River, Little Creek, Mispillion River, Red Lion Creek, Smyrna River, and St. Jones River Watersheds, Delaware**

### PROPOSED

#### NOTICE OF PUBLIC HEARINGS

##### **Brief Synopsis of the Subject, Substance, and Issues**

The Department of Natural Resources and Environmental Control (DNREC) plans to conduct Public Hearings regarding Proposed Total Maximum Daily Loads (TMDLs) Regulations for nitrogen, phosphorous, and bacteria for the Army Creek, Blackbird Creek, Broadkill River, Cedar Creek, Dragon Run Creek, Leipsic River, Little Creek, Mispillion River, Red Lion Creek, Smyrna River, and St. Jones River Watersheds. A TMDL sets a limit on the amount of a pollutant that can be discharged into a waterbody and still meet water quality standards. TMDLs are composed of Waste Load Allocations (WLAs) for point source discharges, Load Allocations (LAs) for nonpoint sources, and a Margin of Safety (MOS) to account for uncertainties.

Draft TMDL Regulations for these watersheds were published in the May 1, 2006 issue of the *Delaware Register of Regulations* and were reviewed during public workshops held in May, 2006. All comments received at the workshops and during the May 1 through 31 comment period were considered by the Department. Comments relative to the Blackbird Creek, Broadkill River, Cedar Creek, Leipsic River, Little Creek, Mispillion River, Smyrna River, and St. Jones River did not result in changes to the Draft TMDL Regulations. However, comments did result in enhancements to the technical support documents. Comments relative to Army Creek, Dragon Run Creek, and Red Lion Creek, as well as additional technical analyses, resulted in minor changes to the TMDL Regulations and enhancements to the technical support document. The revised proposed TMDL Regulations for the Army Creek, Dragon Run Creek, and Red Lion Creek watersheds are published, following this notice, in this issue of the *Register*.

##### **Possible Terms of the Agency Action**

Following adoption of the Proposed TMDL Regulations, DNREC will develop Pollution Control Strategies (PCSs) designed to achieve the necessary load reductions. PCSs will identify specific pollution reduction activities and timeframes and will be developed in concert with Tributary Action Teams, other stakeholders, and the public.

##### **Statutory Basis or Legal Authority to Act**

The authority to develop a TMDL is provided by Title 7 of the **Delaware Code**, Chapter 60, and Section 303(d) of the Federal Clean Water Act, 33 U.S.C. 1251 et. seq., as amended.

##### **Other Legislation That May be Impacted**

None

##### **Notice of Public Hearings and Comment Period**

The Public Hearing for the proposed Broadkill River, Cedar Creek, and Mispillion River Watersheds will be held at 6:00 p.m., Tuesday, August 22, 2006 in Room 104, Cannon Lab, University of Delaware College of Marine Studies, Lewes, DE.

The Public Hearing for the proposed TMDLs for the Blackbird Creek, Leipsic River, Little Creek, Smyrna River, and St. Jones River Watersheds will be held at 6:00 p.m., Thursday, August 24, 2006 at the Delaware National Estuarine Research Reserve, 818 Kitts Hummock Road, Dover, DE.

The Public Hearing for the proposed TMDLs for the Army Creek, Dragon Run Creek, and Red Lion Creek Watersheds will be held at 6:00 p.m., Tuesday, August 29, 2006 at DNREC's Lukens Drive Building, 391 Lukens

Drive, New Castle, DE.

The hearing records for these watersheds will remain open until 4:30 p.m., Friday, September 15, 2006. Please send written comments to Hassan Mirsajadi, Watershed Assessment Section, Division of Water Resources, Department of Natural Resources and Environmental Control, 820 Silver Lake Boulevard, Suite 220, Dover, DE 19904-2464, (302) 739-9939, facsimile: (302) 739-6140, email: ([Hassan.Mirsajadi@state.de.us](mailto:Hassan.Mirsajadi@state.de.us)). All written comments must be received by 4:30 p.m., Friday, September 15, 2006. Electronic submission is preferred.

Copies of the Proposed TMDL Regulations for these watersheds will be available as of Tuesday, August 1, 2006 on the Department's website ([www.dnrec.delaware.gov](http://www.dnrec.delaware.gov)) by clicking on "TMDLs" under "Information" or by contacting Hassan Mirsajadi, Watershed Assessment Section, Division of Water Resources, Department of Natural Resources and Environmental Control, 820 Silver Lake Boulevard, Suite 220, Dover, DE 19904-2464, (302) 739-9939, facsimile: (302) 739-6140, email: ([Hassan.Mirsajadi@state.de.us](mailto:Hassan.Mirsajadi@state.de.us)). Copies of the TMDL reports and technical support documents for these watersheds will be available on the Department's website as of Monday, August 14, 2006.

Prepared By:

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## **7416 Total Maximum Daily Loads (TMDLs) for the Army Creek 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 Army Creek and several of its tributaries and ponds are impaired by high levels of bacteria and elevated levels of the nutrients nitrogen and phosphorous, and that the designated uses are not fully supported due to levels of these pollutants in these waterways.

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. TMDLs are composed of three components, including Waste Load Allocations (WLAs) for point source discharges, Load Allocations (LAs) for nonpoint sources, and a Margin of Safety (MOS).

DNREC listed Army Creek on several of the State's 303(d) Lists and proposes the following Total Maximum Daily Loads regulation for nitrogen, phosphorous, and *enterococcus* bacteria.

### **2.0 Total Maximum Daily Loads (TMDLs) Regulation for Army Creek**

Article 1. The nonpoint source nitrogen load in the entire Army Creek watershed shall be reduced by 40 percent from the 2002-2005 baseline level. This shall result in a yearly-average total nitrogen load of 24.3 pounds per day.

Article 2. The nonpoint source phosphorous load in the entire Army Creek watershed shall be reduced by 40 percent from the 2002-2005 baseline level. This shall result in a yearly-average total phosphorous load of 2.04 pounds per day.

Article 3. The overall *enterococcus* bacteria load in the entire Army Creek watershed shall be reduced by 37 percent from the 1997-2005 baseline level.

Article 4. Based upon water quality model runs 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 Army Creek.

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 Teams, other stakeholders, and the public.

## **7420 - Total Maximum Daily Loads (TMDLs) for the Dragon Run Creek 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 Dragon Run Creek and several of its tributaries and ponds are impaired by

high levels of bacteria and elevated levels of the nutrients nitrogen and phosphorous, and that the designated uses are not fully supported due to levels of these pollutants in these waterways.

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. TMDLs are composed of three components, including Waste Load Allocations (WLAs) for point source discharges, Load Allocations (LAs) for nonpoint sources, and a Margin of Safety (MOS).

DNREC listed Dragon Run Creek on several of the State's 303(d) Lists and proposes the following Total Maximum Daily Loads regulation for nitrogen, phosphorous, and *enterococcus* bacteria.

## **2.0 Total Maximum Daily Loads (TMDLs) Regulation for Dragon Run Creek**

Article 1. The nonpoint source nitrogen load in the entire Dragon Run Creek watershed shall be reduced by 40 percent from the 2002-2005 baseline level. This shall result in a yearly-average total nitrogen load of 79.7 pounds per day.

Article 2. The nonpoint source phosphorous load in the entire Dragon Run Creek watershed shall be reduced by 40 percent from the 2002-2005 baseline level. This shall result in a yearly-average total phosphorous load of 4.25 pounds per day.

Article 3. The overall *enterococcus* bacteria load in the entire Dragon Run Creek watershed shall be reduced by 15 percent from the 1997-2005 baseline level.

Article 4. Based upon water quality model runs 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 Dragon Run Creek.

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 Teams, other stakeholders, and the public.

## **7424 Total Maximum Daily Loads (TMDLs) for the Red Lion Creek 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 Red Lion Creek and several of its tributaries and ponds are impaired by high levels of bacteria and elevated levels of the nutrients nitrogen and phosphorous, and that the designated uses are not fully supported due to levels of these pollutants in these waterways.

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. TMDLs are composed of three components, including Waste Load Allocations (WLAs) for point source discharges, Load Allocations (LAs) for nonpoint sources, and a Margin of Safety (MOS).

DNREC listed Red Lion Creek on several of the State's 303(d) Lists and proposes the following Total Maximum Daily Loads regulation for nitrogen, phosphorous, and *enterococcus* bacteria.

### **2.0 Total Maximum Daily Loads (TMDLs) Regulation for Red Lion Creek**

Article 1. The nonpoint source nitrogen load in the entire Red Lion Creek watershed shall be reduced by 40 percent from the 2002-2005 baseline level. This shall result in a yearly-average total nitrogen load of 121.3 pounds per day.

Article 2. The overall phosphorous load in the entire Red Lion Creek watershed shall be reduced by 38 percent from the 2002-2005 baseline level. This shall result in a yearly-average total phosphorous load of 3.7 pounds per day.

Article 3. The overall *enterococcus* bacteria load in the entire Red Lion Creek watershed shall be reduced by 38 percent from the 1997-2005 baseline level.

Article 4. Based upon water quality model runs 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 Red Lion Creek.

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 Teams, other stakeholders, and the public.

**10 DE Reg. 305 (08/01/06) (Prop.)**