DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
Statutory Authority: 7 Delaware Code, Chapter 60 (7 Del.C. Ch. 60)

REGISTER NOTICE

PROPOSED

Total Maximum Daily Loads (TMDLs) for Little Assawoman Bay Watershed, Delaware

1.0 Brief Synopsis of the Subject, Substance, and Issues

The Department of Natural Resources and Environmental Control (DNREC) is proposing to adopt Total Maximum Daily Loads (TMDLs) Regulation for nitrogen and for phosphorous for the Little Assawoman Bay Watershed. A TMDL sets 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).

2.0 Possible Terms of the Agency Action

Following adoption of the proposed Total Maximum Daily Load for the Little Assawoman Bay, DNREC will develop a Pollution Control Strategy (PCS) to achieve the necessary load reductions. The PCS will identify specific pollution reduction activities and timeframes and will be developed in concert with the Inland Bays Tributary Action Team, other stakeholders, and the public.

3.0 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.

4.0 Other Legislation That May be Impacted

None

5.0 Notice of Public Comment

A public hearing will be held on Tuesday, November 30, 2004, at 3:00 p.m., at Bethany Beach Town Hall, 214 Garfield Parkway, Bethany Beach, Delaware. The hearing record will remain open until 5:00 p.m., November 30, 2004. Please bring written comments to the hearing or send them to Lisa A. Vest, DNREC, 89 Kings Highway, Dover, DE, 19901; facsimile: (302) 739- 6242. For planning purposes, those individuals wishing to make oral comments at the public hearing are requested to notify Marianne Brady, (302)-739-4590; facsimile: (302) 739-6140; email: (marianne.brady@state.de.us) by 4:30 p.m., November 29, 2004.

Additional information and supporting technical documents may be obtained by contacting Hassan Mirsajadi, Watershed Assessment Section, Division of Water Resources, Department of Natural Resources and Environmental Control, 820 Silver Lake Boulevard, Suite 820, Dover, DE 19904-2464, (302) 739-4590, facsimile: (302) 739-6140, email: (hassan.mirsajadi@state.de.us)

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Total Maximum Daily Loads (TMDLs) for Little Assawoman Bay Watershed, Delaware

1.0 Introduction and Background

1.1 Intensive water quality monitoring performed by the State of Delaware, the federal government, various university and private researchers, and citizen monitoring groups has shown that surface waters of the Inland Bays Watershed including the Little Assawoman Bay are highly enriched with the nutrients nitrogen and phosphorous. Although nutrients are essential elements for both plants and animals, their presence in excessive amounts cause undesirable conditions. Symptoms of nutrient enrichment in the Inland Bays have included excessive macroalgae growth (sea lettuce and other species), phytoplankton blooms (some potentially toxic), large daily swings in dissolved oxygen levels, loss of Submerged Aquatic Vegetation (SAV), and fish kills. These symptoms threaten the future of the Inland Bays - very significant natural, ecological, and recreational resources of the State - and may result in

adverse impacts to the local and State economies through reduced tourism, a decline in property values, and lost revenues. Hence, excessive nutrients pose a significant threat to the health and well being of people, other animals, and plants living within the watershed.

1.2 A reduction in the amount of nitrogen and phosphorous reaching the Inland Bays is necessary to reverse the undesirable effects. These nutrients enter the Bays and its tributaries and ponds from several sources including point sources, nonpoint sources, and from the atmosphere. Point sources of nutrients are end-of-pipe discharges coming from municipal and industrial wastewater treatment plants and other industrial uses. Nonpoint sources of nutrients include runoff from agricultural and urban areas, seepage from septic tanks, and ground water discharges. Atmospheric deposition comes from both local and regional sources, such as motor vehicle exhausts and emissions from power plants that burn fossil fuels.

1.3 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 standards and to develop Total Maximum Daily Loads (TMDLs) for pollutants or stressors causing the impacts. 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).

1.4 The Delaware Department of Natural Resources and Environmental Control (DNREC) listed the Little Assawoman Bay and several tributaries and ponds of the Inland Bays on the State's 303(d) Lists and proposes the following Total Maximum Daily Loads regulation for nitrogen and phosphorous.

2.0 Total Maximum Daily Loads (TMDLs) Regulation for the Little Assawoman Bay, Delaware

Article 1. The nonpoint source nitrogen load in the Little Assawoman Bay Watershed shall be reduced by 40 percent. For the 3-year period of 1998 through 2000, this would result in reduction of total nitrogen load in the Watershed from 594 pounds per day to 357 pounds per day.

Article 2. The nonpoint source phosphorous load in the Little Assawoman Bay Watershed shall be reduced by 40 percent. For the 3-year period of 1998 through 2000, this would result in reduction of total phosphorous load in the Watershed from 49 pounds per day to 30 pounds per day.

Article 3. Implementation of this TMDL Regulation shall be achieved through development and implementation of a Pollution Control Strategy. The Strategy will be developed by DNREC in concert with the Inland Bays Tributary Action Team, other stakeholders, and the public.