

7400 Watershed Assessment Section

7430 TMDLs for Bacteria for the Chesapeake Bay Drainage Basin, Delaware

(Chester River, Choptank River, Marshyhope Creek, Nanticoke River, Gum Branch, Gravelly Branch, Deep Creek, Broad Creek, and Pocomoke River Watersheds)

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 Chesapeake Bay Drainage Basin (Chester River, Choptank River, Marshyhope Creek, Nanticoke River, Gum Branch, Gravelly Branch, Deep Creek, Broad Creek, and Pocomoke River Watersheds) 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 Chesapeake Bay Drainage Basin (Chester River, Choptank River, Marshyhope Creek, Nanticoke River, Gum Branch, Gravelly Branch, Deep Creek, Broad Creek, and Pocomoke River Watersheds) 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 the Chesapeake Bay Drainage Basin

Article 1. The nonpoint source bacteria load in the entire Chester River Watershed shall be reduced by 37 percent from the 1997-2004 baseline level.

Article 2. The nonpoint source bacteria load in the entire Choptank River watershed shall be reduced by 29 percent from the 1997-2005 baseline level.

Article 3. The nonpoint source bacteria load in the entire Marshyhope Creek watershed shall be reduced by 21 percent from the 1997-2005 baseline level.

Article 4. The nonpoint source bacteria load in the entire Pocomoke River watershed shall be reduced by 30 percent from the 1997-2004 baseline level.

Article 5. The nonpoint source bacteria load in the entire Nanticoke River, Gum Branch, Gravelly Branch, Deep Creek, and Broad Creek Watersheds shall be reduced by 3% percent from the 2000-2005 baseline level.

Article 6. All point source bacteria loading in the entire Chesapeake Bay Drainage Basin (Chester River, Choptank River, Marshyhope Creek, Nanticoke River, Gum Branch, Gravelly Branch, Deep Creek, Broad Creek, and Pocomoke River Watersheds) shall be capped at the current, geometric mean concentration level of 100 CFU *enterococcus*/100mL.

Article 7. Based upon cumulative distribution analyses and assuming implementation of reductions identified by Article 1 through Article 6 above, DNREC has determined that, with an

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE

adequate margin of safety, water quality standards will be met in the Chesapeake Bay Drainage Basin (Chester River, Choptank River, Marshyhope Creek, Nanticoke River, Gum Branch, Gravelly Branch, Deep Creek, Broad Creek, and Pocomoke River Watersheds).

Article 8. 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 Tributary Action Teams, other stakeholders, and the public.

10 DE Reg. 1041 (12/01/06)