

WITHDRAWAL OF THE THREE LONG ISLAND PATHOGEN TMDLS November 2018



Department of
Environmental
Conservation

FACT SHEET

Description of Action

The Department of Environmental Conservation (DEC) has withdrawn the three Long Island Pathogen Total Maximum Daily Load (TMDLs) that were approved by the US Environmental Protection Agency (EPA) between 2003 and 2007. The withdrawal was necessary because recent data had shown that implementation of the TMDLs would not have caused water quality standards to be achieved. The impaired waterbodies included in these TMDLs have been moved to Part 2c (*Multiple Segment/Categorical Waterbody Segments Impaired due to Shellfishing Restrictions*) of the New York State 2018 Section 303(d) List of Impaired/TMDL Waters. DEC will rewrite the TMDLs to correct the deficiencies.

The three TMDLs that were the subject of this action are:

1. Pathogen TMDLs for Shellfish Waters in Oyster Bay Harbor and Mill Neck Creek (Finalized in September 2003 for 5 waterbodies).
2. Peconic Bay Pathogens TMDL (Finalized in September 2006 for 25 waterbodies).
3. Shellfish Pathogen TMDLs for 27 303(d)-listed Waters (finalized in September 2007 for 27 waterbodies).

Rationale for Withdrawing the TMDLs

Once TMDLs are approved by EPA, the State Pollutant Discharge Elimination System (SPDES) permits must include conditions necessary to implement the TMDL (NYC RR 750-1.11). As such, DEC's SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s) Permit No. GP-0-15-003 includes a requirement that MS4s discharging pathogens to a water for which a TMDL for pathogens has been developed must modify their Stormwater Management Program (SWMP) to meet the additional requirements in Part IX.C of the MS4 General Permit. Specifically, they must address pathogens for the portion of their storm sewershed in TMDL watersheds. Also, Part IX.C of the MS4 General Permit includes the watershed-specific requirements necessary to meet the pollutant load reductions specified by the TMDLs.

The approved TMDLs that formed the basis for these MS4 General Permit conditions were based on certain incorrect loading assumptions that were discovered through the course of implementing the TMDLs. For example, the TMDLs assumed that the entire topographic watershed discharges to the impaired waterbody, where in many areas only a small portion of the

watershed discharges to the waterbody.

There are 45 MS4 Operators located within the watersheds listed in Part IX.C of the MS4 General Permit for which the Long Island Pathogen TMDLs were developed. In advance of the deadlines specified in Table IX.C, MS4 Operators had expressed concerns. Chief among those MS4 Operator concerns is that the TMDLs either wrongly assumed that the source of the impairment was primarily MS4s or dramatically overestimated the MS4 contribution. In response, DEC finalized a Retrofit Program Plan Guidance Document for Pathogen Impaired Waters on Long Island (2013 Guidance Document) to gather additional information to evaluate MS4 Operators' concerns. In accordance with the 2013 Guidance Document, the 45 MS4 Operators located within the watersheds of the pathogen impaired waterbodies submitted storm sewershed mapping and land use data which allowed both the MS4s and DEC to better understand the extent and location of the storm sewer systems and the contributing loads from these systems.

That new information confirmed that the TMDL assumptions significantly overestimated the stormwater contribution to the impairment. In fact, it was determined that not all MS4 Operators own or operate stormwater systems that discharge to one of the pathogen-impaired waterbodies. MS4 Operators that reported a discharge to a TMDL waterbody delineated and characterized the land area contributing to the MS4 (the sewershed) and confirmed that the TMDL's use of the entire topographic watershed as the contributing land area was not a realistic representation of the contribution from MS4s. The cause for such a disparity in contributing area is that the TMDLs did not account for the local historical planning practices of infiltrating stormwater wherever possible; stormwater is routinely directed to dry wells and recharge basins where it is infiltrated and is no longer a contributor to surface water. Additionally, the TMDLs used an un-calibrated watershed model to estimate the load in each waterbody, rather than using ambient water quality samples and the National Shellfish Sanitation Program's (NSSP) fecal coliform water quality criteria. Because of this critical error, the load reductions provided by the TMDL were incorrect and in most cases over-estimated the total reduction required.

In summary, the TMDLs did not accurately identify the sources of pathogens causing the impairment because of inaccurate assumptions, and so placed most of the load reduction burden on MS4s. Additionally, the failure of the TMDLs to accurately identify the impairment sources resulted in TMDLs that, if implemented, would not have achieved water quality standards.

DEC will rewrite the TMDLs to correctly determine the sources of pathogens so the impairments can be addressed. Also, by withdrawing these pathogen TMDLs, DEC will be able to finalize the MS4 General Permit renewal with its many water quality improvements, including enhanced Best Management Practices for pathogen-impaired waters.