



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

November 21, 2018

Dear Marylander:

The intent of this letter is to solicit readily available data and/or information to support the establishment of Total Maximum Daily Load (TMDL) that would address sediment water quality impairments in the Patapsco River Basin. Specifically, the Maryland Department of the Environment (MDE) is looking for data and information that would be helpful in addressing the sediment, bacteria and temperature impairments in the Patapsco River watershed. Also, Figure 1 in the attached data solicitation notice depicts the Patapsco River watershed. **If you are aware of available data and/or information pertaining to sediment, bacteria, polychlorinated biphenyls (PCBs) and temperature impairments within the Patapsco River watershed, please view this correspondence with care.**

The federal Clean Water Act requires states to monitor the quality of their waters. For those waterbodies failing to meet the established water quality standards, states are required to develop TMDLs. A TMDL specifies the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards and shows how pollutant loadings can be allocated among point and non-point sources. MDE is responsible for establishing TMDLs in Maryland. Federal guidance requires states to use the best and most readily available data for their TMDL studies. In addition, states are required to involve the public in establishing TMDLs and typically conduct a 30-day public comment period to meet this requirement. After public review, TMDLs are submitted to the United States Environmental Protection Agency (USEPA) for approval. Once approved, the TMDL provides a basis for developing a watershed strategy to achieve water quality standards. For additional information, a TMDL fact sheet is attached to this correspondence.

Thank you for your attention to this mailing. If you have any questions regarding this activity or MDE's TMDL Development Division, please contact me (410-537-3937; Melissa.Chatham@maryland.gov), or visit our web site at <http://www.mde.maryland.gov/TMDL>.

Sincerely,

Melissa Chatham

TMDL Technical Review Coordinator
Water and Science Administration

Enclosure: Data Solicitation Notice and TMDL Fact Sheet

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Data Solicitation Notice in Support of Developing Total Maximum Daily Loads for Sediment, Bacteria, PCBs and Temperature in the Patapsco River Basin

Section 303(d) of the federal Clean Water Act requires Maryland to: (1) identify waters, known as water quality limited segments (WQLSs), where technology-based effluent limitations and other required controls cannot achieve water quality standards; (2) for each listed water, establish Total Maximum Daily Loads (TMDLs) for pollutants preventing the attainment of water quality standards; and (3) offer an opportunity for public review and comment on the proposed TMDLs.

The Patapsco River Basin has been identified on the State's list of water quality limited segments as impaired by excess sediment, bacteria, polychlorinated biphenyls (PCBs) and temperature which are currently scheduled for TMDL development in the next several years. The location of the Patapsco River Basin and its subwatersheds are shown in Figure 1.

The Maryland Department of the Environment (MDE) would appreciate your assistance in obtaining the best and most readily available data and other information that would aid in the development of TMDLs for sediment, bacteria, PCBs and temperature in the subwatersheds of the Patapsco River Basin. Please consider these steps in responding to this solicitation:

- MDE would like to make sure that your information is considered, while minimizing your response effort. If you have already provided relevant information to another unit of the State government, other than MDE's TMDL Division, simply let us know when, with whom, and what type of information was submitted.
- MDE is interested in documents or datasets that provide information regarding water quality conditions associated with the aforementioned impairments. Please refer to Table 1 for key sampling parameters. MDE is looking for data in all media including surface water, groundwater, soil, fish tissue, and sediments. MDE is also interested in information regarding the causes and sources of the impairments in the waterbodies of interest, and any other information you believe might consider relevant.
- Please do not limit your data to only the listed impairments – MDE seeks all available water quality data for the Patapsco River and its subwatersheds.
- Information regarding sampling methodologies, design, conditions (i.e., time of day and weather conditions during and preceding the sampling), sampling locations (i.e., geographical coordinates and maps), peer review, detection limits, and quality assurance procedures applied would also be very beneficial. Please include such information where available.

Thank you for your participation in this endeavor. Please mail your data and/or information (preferably final and in electronic format) by December 21, 2018 to the following address:

Melissa Chatham
 Water and Science Administration
 Maryland Department of the Environment
 1800 Washington Boulevard, Suite 540
 Baltimore, MD 21230

If you have questions regarding this matter, please contact Melissa Chatham (410-537-3937; Melissa.Chatham@Maryland.gov). You may also wish to visit MDE's web site at <http://www.mde.maryland.gov/TMDL>.

Table 1: Summary of MD 8-Digit Watershed Impairments Within the Patapsco River Basin

MD 8-Digit Watershed Number	MD 8-Digit Watershed Name	Listed Impairment of Current Interest for TMDL Development
02130903	Baltimore Harbor	Bacteria, PCBs and Sediment
02130904	Jones Falls	Temperature
02130905	Gwynns Falls	Temperature
02130907	Liberty Reservoir	Temperature

Table 2: Key Sampling Parameters

Parameter	Reporting Units	Parameter	Reporting Units
Turbidity	NTU	Sediment Load	lbs/acre/year or lbs/yr
Total Suspended Solids/Sediment	mg/l	Total Suspended Solids/Sediment	mg/l
Geomorphic Studies	---	Suspended Sediment Concentration	mg/l
Stream Flow	cfs	Secci Disk	m
Geometry (channel geometry, bathymetry)	---	Meteorological Information	---
Fish Community Data	Number of Species	Stream Physical Habitat Data	---
Benthic Community Data	Number of Species	Temperature	Degree C
<i>E. Coli</i>	Counts/100ml	Bacteria Source Tracking Studies	---
<i>Enterococci</i>	Counts/100ml	Total PCBs	ppb (as cogener based PCBs)
Dissolved PCBs	ppb (as cogener based PCBs)	Particulate PCBs	ppb (as cogener based PCBs)

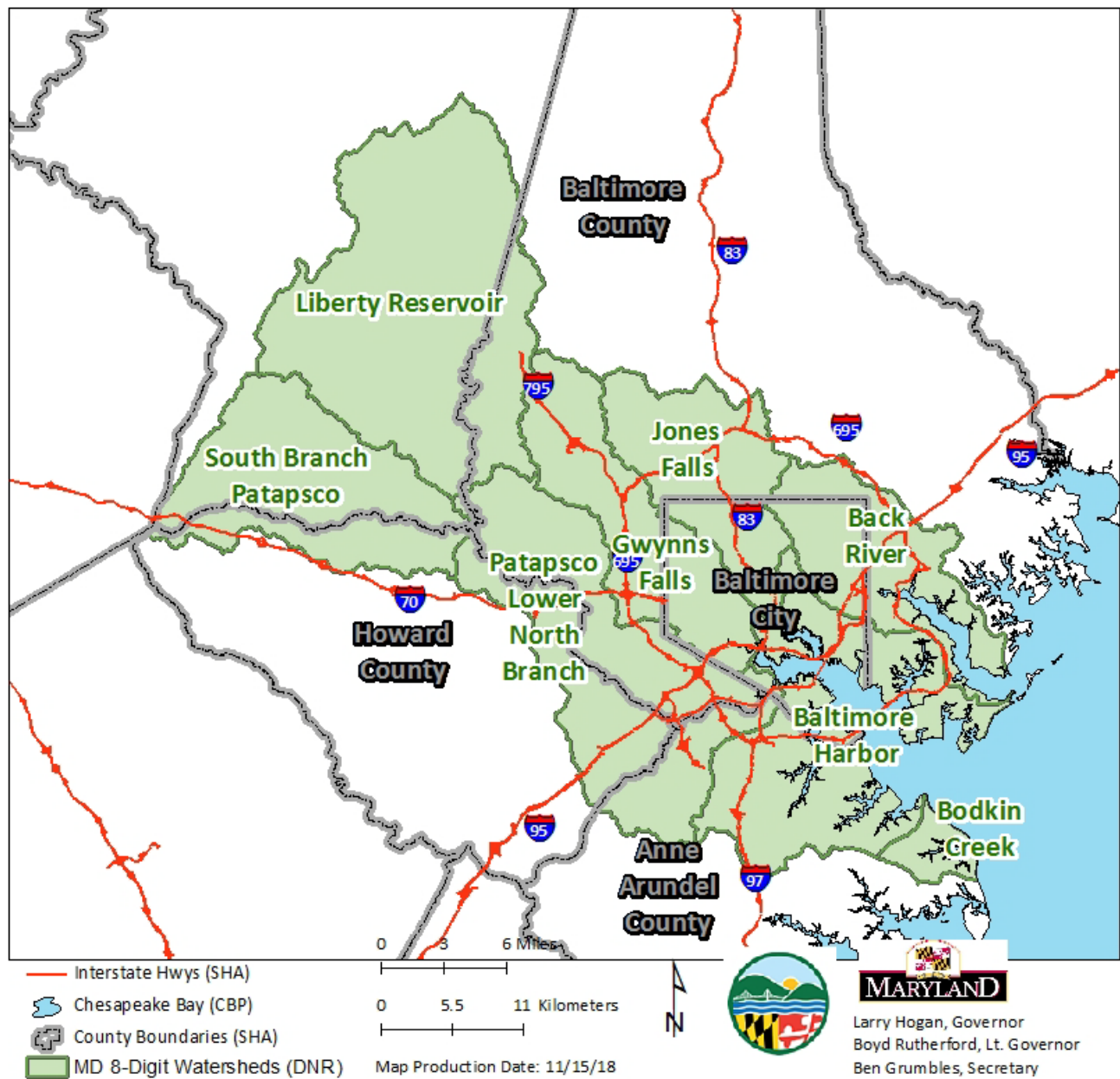
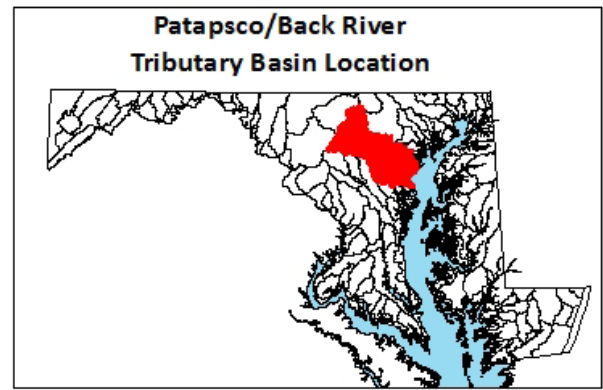
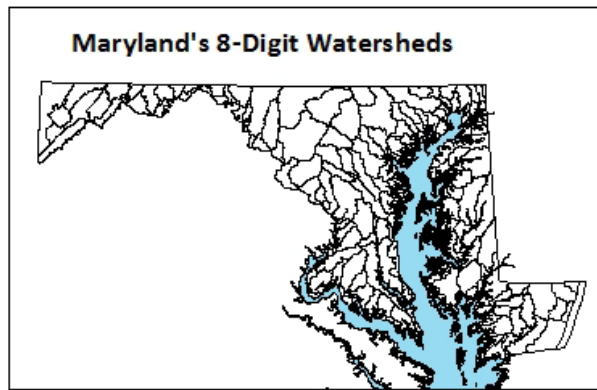


Figure 1: Location of the Patapsco River Watershed



Total Maximum Daily Loads (TMDLs)

What You Need to Know

What is a TMDL?

A TMDL (Total Maximum Daily Load) is an estimate of the maximum amount of an impairing substance or stressor (pollutant) that a waterbody can assimilate without violating water quality standards. This total load includes pollutants that come from the end of a pipe (point sources), stormwater runoff and groundwater flow (nonpoint sources), and a "margin of safety" that

provides a cushion needed because of uncertainties associated with estimates. A TMDL also may include an allowance for future increases in pollutant loads due to changes in land use, population growth, and the expansion of business activity.

What are the benefits of TMDLs?

Maryland's cultural heritage is closely tied to its rivers, coastal waters and the Chesapeake Bay. The seafood industry, recreational activities and the quality of life for Maryland's citizens depend on the quality of our waters. Maryland's waters are currently managed through the use of "water-quality-based permits," which place limits on the discharge of wastewater to ensure receiving waters will remain "fishable and swimmable." The

Chesapeake Bay TMDL has defined upper limits on the amount of nitrogen, phosphorus and sediment that may go into the Bay. TMDLs formalize these procedures for setting upper limits on pollutants and will create a lasting framework to ensure clean waters for generations to come.

Why is Maryland developing TMDLs?

All states are required by the federal Clean Water Act to consider the development of TMDLs. Every two years, states must submit a prioritized list of waterbodies that do not meet water quality standards or will not meet the standards after all technology-based pollution controls are in place.

Technology-based controls, defined under the Code of Federal Regulations, 40 CFR 130.7(b)(1)(i-iii), are the basic pollution controls for point sources and nonpoint sources that are uniformly required by federal, state or local law.

What waterbodies are currently on the TMDL list?

In accordance with Section 303(d) of the federal Clean Water Act, the State develops a list of impaired waterbodies, commonly referred to as the "303(d) List," which is Category 5 of its "Integrated Report (IR) of Surface Water Quality." Category 5 of the IR identifies the impaired waterbodies and the impairing substances (e.g., nutrients, sediments,

fecal coliform bacteria) for which TMDLs should be developed. Across the State, there are approximately 134 watersheds that are impaired by one or more substances. Maryland's current approved IR is the 2016 IR. The U.S. Environmental Protection Agency (EPA) approved the 2016 IR on November 1, 2017.

What are the steps in developing a TMDL?

The first step in the TMDL process is to identify waterbodies that are impaired and should have TMDLs. This involves assessing existing water quality information collected by a variety of monitoring techniques. If the existing water quality information demonstrates that water quality standards are being met, a Water Quality Analysis (WQA) may be conducted. The WQA is used to support moving the waterbody from the “impaired” section to the “meets standards” section of the IR for the specified pollutant. If the data demonstrate that an impairment exists then TMDL development continues, using computer modeling. Computer modeling is used to estimate pollutant loadings to

the waterbodies and water quality impacts of the pollutant loadings under varying conditions, such as low stream flows. The modeling is used to estimate the amount of pollutants waterbodies can assimilate without violating water quality standards. Once this maximum pollutant load (TMDL) is defined, it must be allocated between point and nonpoint sources, accounting for a margin of safety and future allocation. The allocation will balance equity and cost considerations, and may involve innovative approaches such as trading between different pollutant sources. The public, affected dischargers, regional agencies, and local governments will be involved in the TMDL development process.

How do TMDLs fit into Maryland’s existing water quality efforts?

Many of Maryland’s existing efforts to protect and restore water quality will help the State meet its TMDL goals. Some examples include Maryland’s Watershed Implementation Plan (WIP) for the Chesapeake Bay, the Gunpowder Watershed Project, the Coastal Bays of the National Estuaries Program, the Baltimore Harbor Toxics Regional Action Plan, and a variety of pollution prevention efforts. The waters identified for TMDLs are also

at the core of Maryland’s Clean Water Action Plan. In many ways, Maryland’s ongoing effort to reduce nutrients entering the Chesapeake Bay has been very similar to a TMDL process. Stakeholders and researchers recognized water quality problems, set an achievable goal, and then identified specific controls for point and nonpoint pollution sources intended to achieve the goal. This is the essence of a TMDL.

How can TMDL goals be achieved?

A TMDL improves water quality when the pollutant allocations are implemented, not when a TMDL is established. When the State or EPA identifies a water quality impairment on Category 5 of the IR and then establishes the TMDL, we begin a water quality-based process to ensure that the TMDL is not exceeded.

Section 303(d) does not establish any new implementation requirements beyond those mechanisms that exist elsewhere in State, local, Tribal, or Federal law. These mechanisms include state and local permitting and regulatory authority, and efforts under the Chesapeake Bay WIP that are supported by technical and financial assistance. Maryland has one of the most comprehensive, multi-level, community-based estuary restoration programs in the country. We are committed to building on our existing efforts and believe that a

combination of voluntary commitments and regulatory procedures is the best course to take in Maryland. Additionally, programs exist that provide technical and financial assistance to control and allocate pollutant loads. Examples include cost share programs for nutrient removal at municipal wastewater treatment plants, low-cost loans from the State’s revolving loan program, grants for stormwater retrofits, cost share grant funds for stream restoration, agricultural cost share programs, agricultural technical assistance programs, and acid mine drainage remediation assistance.

For more information on Maryland’s TMDL Program, contact the Maryland Department of the Environment, Science Services Administration at (410) 537-3818, or access MDE’s web page at www.mde.maryland.gov/tmdl.