UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Mr. Matthew Rowe, Assistant Director
Water and Science Administration
Maryland Department of the Environment
1800 Washington Boulevard., Suite 540
Baltimore, Maryland 21230-1718

FEB 19 2019

Dear Mr. Rowe:

The U.S. Environmental Protection Agency (EPA), Region III, is pleased to approve the polychlorinated biphenyls total maximum daily loads (TMDL) for the Piscataway Creek and Mattawoman Creek Tidal Segments. The Maryland Department of the Environment (MDE) submitted the report, *Total Maximum Daily Load of Polychlorinated Biphenyls in the Piscataway Creek and Mattawoman Creek Tidal Fresh Chesapeake Bay Segments, Prince George's and Charles Counties, MD* (December 2018), to EPA for review and action on December 11, 2018. The TMDLs were established to address impairments of water quality as identified on Maryland's Section 303(d) List.

The TMDLs were established and submitted in accordance with Section 303(d)(1)(c) and 303(d)(2) of the Clean Water Act. Our review indicates that the load and wasteload allocations in the TMDLs have been established at levels necessary that, when fully implemented, will lead to the attainment of the water quality standard addressed by these TMDLs. A copy of EPA's rationale for approval is enclosed.

As you are aware, any new or revised National Pollutant Discharge Elimination System permits must be consistent with the assumptions and requirements of applicable TMDL wasteload allocations pursuant to 40 CFR §122.44(d)(1)(vii)(B). Please continue to submit all such permits to EPA for review per EPA's letters dated October 1, 1998.

If you have any questions regarding the TMDLs, please contact Ms. Jillian Adair, Maryland TMDL Coordinator, at 215-814-5713 or adair.jillian@epa.gov.

Sincerely,

Catherine A. Libertz

Catherine A. Libertz, Director
Water Protection Division

Enclosure
cc : Melissa Chatham, MDE-WSA

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Decision Rationale
Total Maximum Daily Load of Polychlorinated Biphenyls in the Piscataway Creek and Mattawoman Creek Tidal Fresh Chesapeake Bay Segments, Prince George's and Charles Counties, MD

Catherine A. Libertz

Catherine A. Libertz, Director
Water Protection Division

Date: 2-19-19

Decision Rationale
Total Maximum Daily Load for Piscataway Creek and Mattawoman Creek Tidal Fresh Chesapeake Bay Segments, Maryland

I. Introduction

The Clean Water Act (CWA) requires a Total Maximum Daily Load (TMDL) be developed for those waterbodies identified as impaired by a state where technology-based effluent limits and other pollution controls do not provide for the attainment of water quality standards. A TMDL establishes a target for the total load of a particular pollutant that a water body can assimilate and divides that load into wasteload allocations (WLA), given to point sources, load allocations (LAs), given to nonpoint sources and natural background, and a margin of safety (MOS), which takes into account any uncertainty. Mathematically, a TMDL is commonly expressed as an equation, shown below.

$$TMDL = \sum WLAs + \sum LAs + MOS$$

This document sets forth the U.S. Environmental Protection Agency, Region III's (EPA's) rationale for approving the TMDL for polychlorinated biphenyls (PCBs) for the Piscataway Creek and Mattawoman Creek Tidal Fresh Chesapeake Bay Segments. The TMDL was developed to address impairments of water quality standards as identified on Maryland's Section 303(d) list of water quality-limited segments. The Maryland Department of the Environment (MDE) submitted the report, *Total Maximum Daily Load of Polychlorinated Biphenyls in the Piscataway Creek and Mattawoman Creek Tidal Fresh Chesapeake Bay Segments, Prince George's and Charles Counties, MD,* (December 2018) (hereinafter referred to as the "TMDL report"), to EPA on December 6, 2018. EPA requested revisions and MDE re-submitted the TMDL for final review and action on December 11, 2018. EPA's decision is based upon its administrative record, which includes the TMDL report and information in supporting files provided to EPA by MDE. EPA has reviewed and determined that the TMDL meets the requirements of Section 303(d) of the Clean Water Act and its implementing regulations at 40 CFR Part 130 including but not limited to:

1. TMDLs are designed to implement applicable water quality standards.
2. TMDLs include wasteload allocations and load allocations.
3. TMDLs consider natural background sources.
4. TMDLs consider critical conditions.
5. TMDLs consider seasonal variations.
6. TMDLs include a margin of safety.
7. TMDLs have been subject to public participation.

In addition, EPA has considered and finds acceptable the reasonable assurances set forth in the TMDL Report.

From this point forward, all references in this rationale can be found in Maryland's TMDL Report, *Total Maximum Daily Load of Polychlorinated Biphenyls in the Piscataway Creek and Mattawoman Creek Tidal Fresh Chesapeake Bay Segments, Prince George's and*

Charles Counties, MD, unless otherwise noted. In addition, the "Piscataway Creek and Mattawoman Creek Tidal Fresh Chesapeake Bay Segments" will be referred to as the "Piscataway Creek and Mattawoman Creek tidal segments".

II. Section 303(d) Listing Information

MDE has established PCB TMDLs for the Piscataway Creek and Mattawoman Creek tidal segments. Table 1 presents the assessment units and parameters from MDE's 303(d) list of impaired waters that are addressed by this TMDL.

Table 1: Waterbodies and Impairments Addressed by the TMDL

Assessment Unit	Waterbody Name	Parameter Addressed
MD-PISTF	Piscataway Creek Tidal Fresh	PCBS IN FISH TISSUE
MD-MATTF	Mattawoman Creek	PCBS IN FISH TISSUE

The Piscataway Creek and Mattawoman Creek tidal segments are tributaries of the tidal Potomac River, which drain portions of Prince George's and Charles Counties. The Piscataway Creek and Mattawoman Creek watersheds are 180 km^2 and 251 km^2, respectively. While the land-use of the Piscataway Creek watershed is dominated by urban (42 percent), followed by forest (41), water/wetland (9), and agriculture (8), the Mattawoman Creek watershed is dominated by forest (51 percent), followed by urban (25), water/wetland (16), and agriculture (7).

The Piscataway Creek and Mattawoman Creek tidal segments were first listed as impaired for PCBs in fish tissue in Maryland's 2014 Integrated Report. MDE lists waters as impaired for PCBs in fish tissue when total PCB (tPCB) fish tissue concentrations exceed the tPCB fish tissue listing threshold of 39 nanograms/gram (ng/g), which is based on a fish consumption limit of four 8-ounce meals per month and is applied to the skinless fillet of the fish, the edible portion typically consumed by humans. MDE analyzed 4 fish tissue composite samples (20 total fish) in the Piscataway Creek tidal segment and 3 fish tissue composite samples (15 total fish) in the Mattawoman Creek tidal segment, which were collected in March 2009 and July and August 2011. In addition, other PCB water quality criteria designed to protect aquatic life and human health related to the consumption of fish are expressed as tPCB water column concentrations and were assessed as part of this TMDL effort.

The TMDLs established herein by MDE address the PCBs in fish tissue listings for the Piscataway Creek and Mattawoman Creek tidal segments as identified in MDE's 2016 Integrated Report. For more information regarding the water quality characterization of the watersheds, please refer to Section 2.2 of the TMDL report.

III. TMDL Overview

MDE has established PCB TMDLs for the Piscataway Creek and Mattawoman Creek tidal segments, which are presented in Section 5.7 of the TMDL report. These TMDLs were established based on modeling from the 2007 PCB TMDLs for tidal portions of the Potomac and

Anacostia Rivers (hereafter referred to as TPAR TMDL)[1]. The TPAR TMDL model included the Piscataway Creek and Mattawoman Creek tidal segments, however, these waters did not receive individual TMDLs as they were not listed as impaired on Maryland's 303(d) list at the time of development. At the time the TPAR TMDL was developed, MDE used a fish tissue tPCB listing threshold of 88 ng/g (88 nanograms per gram). Following development of the TPAR TMDL, MDE revised its listing threshold to 39 ng/g, which is the endpoint used to establish these TMDLs.

In establishing these TMDLs, MDE has demonstrated that the allocations assigned in the TPAR TMDL will result in the attainment of water quality standards in the Piscataway Creek and Mattawoman Creek tidal segments. MDE's analysis has fully adopted the modeling and analytical framework from the TPAR TMDL and the TMDLs and allocations presented are fully consistent with those laid out in the TPAR TMDL.

The PCB TMDLs are presented in Table 17 as daily and annual loads in grams of tPCBs per source category. Section 4.0 discusses the PCB source assessments in the Piscataway Creek and Mattawoman Creek watersheds. Regulated sources of PCBs in the watersheds include two municipal waste water treatment plants (WWTPs) and regulated stormwater, which consists of Phase I and Phase II separate storm sewer systems (MS4), industrial facilities permitted for stormwater discharges, and the MDE general permit to construction sites. Non-regulated sources of PCBs in the watersheds include run-off from non-regulated watershed areas, direct atmospheric deposition to the surface of the tidal segments, and one contaminated site (i.e. areas with known PCB soil contamination, as documented by state or federal hazardous waste cleanup programs). Although the transport of PCBs from bottom sediments to the water column through re-suspension and diffusion and the tidal exchange of PCBs from the tidal Potomac River to the Piscataway Creek and Mattawoman Creek tidal segments represent significant sources of PCBs, the modeling framework simulated these conditions as a single system, treating these contributions as internal loads within the system and assigning baseline loads only to external sources. Consequently, no baseline loads or TMDL allocations are presented for these sources.

The TPAR TMDL demonstrated that load reductions were only required within the Potomac River watershed above the Chain Bridge and the Anacostia River watershed, upstream of the Piscataway Creek and Mattawoman Creek tidal segments, in order to attain water quality standards within Piscataway Creek and Mattawoman Creek tidal segments. No load reductions were required for sources that discharge directly to the Piscataway Creek and Mattawoman Creek watersheds. However, upstream load reductions are necessary in order to achieve TMDL endpoints within the Piscataway Creek and Mattawoman Creek, as they lead to a reduction in loadings to the Piscataway Creek and Mattawoman Creek from tidal exchanges with the mainstem of the Potomac River.

Although reductions were unnecessary for sources within the direct drainage of the Piscataway Creek and Mattawoman Creek watersheds, the TPAR TMDL applied a reduction of

[1] See Haywood, H. C., and Buchanan, C. 2007. Total Maximum Daily Loads of Polychlorinated Biphenyls (PCBs) for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland, and Virginia. Rockville, MD: Interstate Commission on the Potomac River Basin.

five percent to PCB loads from non-regulated watershed runoff, contaminated sites, and NPDES regulated stormwater solely to provide a MOS for the TMDLs. No additional reductions outside of the MOS were applied to these sources. A 93.4 percent reduction to PCB loads from atmospheric deposition was applied across all tidal segments within the TPAR TMDL in order to support the "fishing" designated use. The TPAR TMDL asserts that the proposed 93.4 percent reduction in atmospheric deposition of PCBs should yield the five percent reduction in loads represented by the MOS. Therefore, reductions to PCB loads from non-regulated watershed runoff, contaminated sites, and NPDES regulated stormwater do not have to be addressed directly, as they will be achieved through reductions in atmospheric deposition.

Computational Procedures

The water column and sediment TMDL endpoints for the Piscataway Creek and Mattawoman Creek tidal segments are developed by translating the fish tissue tPCB listing threshold concentration into an associated water column and sediment tPCB threshold concentration, as the water quality model only simulates water column and sediment tPCB concentration and does not incorporate a food web model to predict fish tissue tPCB concentrations. The translation uses a bioaccumulation factor to relate tPCB fish tissue concentrations to tPCB water column and sediment concentrations. The estimated tPCB water column concentration (i.e. water column tPCB threshold concentration) is then compared to all applicable criteria and the most stringent is chosen as the water column TMDL endpoint. The methodology to calculate the water column and sediment TMDL endpoints is further discussed in Section 3.0 of the TMDL report.

The water quality model (POTPCB model) developed for the TPAR TMDL is a coupled hydrodynamic, salinity, sorbent dynamics, and PCB mass balance model developed by LimnoTech. The hydrodynamic simulations are based on a version of the Dynamic Hydrologic Model (DYNHD), and sorbent dynamics and PCB mass balance are simulated with a version of the Water Quality Analysis Simulation Program 5 (WASP5)/Toxic chemical (TOXI4) Model. A complete description of the model is found in a separate document (LimnoTech 2007). The POTPCB model contains 257 model segments (including Piscataway Creek and Mattawoman Creek tidal segments) in which daily PCB water column and sediment concentrations are simulated.

The TMDL scenario is determined through iterative diagnostic runs applying the same hydrologic year flows as the baseline scenario with incremental load reductions until the sediment and water column tPCB concentrations (median daily) achieve the TMDL endpoints. The water column and sediment tPCB concentrations (median daily) from the TPAR TMDL scenario for the Piscataway Creek and Mattawoman Creek tidal segments are compared with the 2018 revised TMDL endpoints to determine whether the existing TMDL allocations from the TPAR TMDL are sufficient for protecting the "fishing" designated use in the tidal segments. The water column and sediment tPCB concentrations for the tidal segments from the TPAR TMDL fall below the 2018 revised TMDL endpoints; thus, the TMDL allocations established in the TPAR TMDL are supportive of the "fishing" designated use for the Piscataway Creek and Mattawoman Creek tidal segments.

EPA has determined that the TMDL is consistent with statutory and regulatory requirements and EPA's policy and guidance. EPA's rationale for approving the TMDL is set forth according to the regulatory requirements listed below.

IV. Discussion of Regulatory Requirements

1) TMDLs are designed to meet the applicable water quality standards.

EPA regulations at 40 CFR 130.7(c)(1) state that TMDLs shall be established at levels necessary to attain and maintain the applicable narrative and numerical WQS. Water quality standards are state regulations that define the water quality goals of a waterbody. Water quality standards are comprised of three components: (1) designated uses, (2) criteria (numeric or narrative) necessary to protect those uses, and (3) antidegradation provisions that prevent the degradation of water quality.

The designated use class of the waters of the Piscataway Creek and Mattawoman Creek tidal segments is *Use Class II – Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting*. This use class incorporates several designated uses including "water contact recreation," "fishing," "the protection of aquatic life and wildlife," and the "support of estuarine and marine aquatic life and shellfish harvesting". Since the Piscataway Creek and Mattawoman Creek tidal segments were identified as impaired for PCBs in fish tissue, the overall objective of the TMDLs is to ensure that the "fishing" designated use, which is protective of human health related to the consumption of fish, is supported. However, this TMDL will also ensure the protection of all other applicable designated uses as the TMDL endpoints developed to support the "fishing" designated use are more stringent than the water quality standards supportive of the remaining uses.

The State of Maryland has adopted three separate water column tPCB criteria to account for different aspects of water quality. There is (1) a human health criterion of 0.64 nanograms/liter (ng/L) or parts per trillion (ppt) that addresses the consumption of PCB contaminated fish, (2) a freshwater chronic criterion of 14 ng/L that is protective of aquatic life in non-tidal systems, and (3) a saltwater chronic criterion of 30 ng/L that is protective of aquatic life in tidal systems. In addition, Maryland regularly collects and analyzes fish tissue data to compare to their tPCB fish tissue listing threshold of 39 ng/g, which is used to issue fish consumption advisories and recommendations and determine whether the waterbodies are meeting the "fishing" designated use.

The water column and sediment TMDL endpoint tPCB concentrations applied in the Piscataway Creek and Mattawoman Creek PCB TMDL were derived from Maryland's fish tissue listing threshold tPCB concentration and site-specific bioaccumulation factors (BAFs). These water column TMDL endpoints are lower than: 1) the human health criterion relative to fish consumption, and 2) both freshwater and saltwater aquatic life chronic criteria. This indicates that the TMDL is not only protective of the "fishing" designated use but also the "aquatic life" designated use, specifically the protection of "support of estuarine and marine aquatic life and shellfish harvesting". Lastly, the designated use for "water contact recreation" is not associated with any potential human health risks due to PCB exposure.

TMDL endpoints developed under the TPAR TMDL were compared to the TMDL endpoints for the Piscataway Creek and Mattawoman Creek tidal segments presented in the 2018 TMDL report to ensure that the allocations assigned by the TPAR TMDL are protective of the "fishing" designated use within these tidal segments. Based on the foregoing, EPA finds the TMDL is designed to meet the applicable water quality standards.

2) TMDLs include wasteload allocations and load allocations.

EPA regulations at 40 CFR §130.2(i) define TMDL as the sum of the WLAs for point sources and LAs for nonpoint sources and natural background. The development of the WLAs and LAs is further discussed below.

Wasteload Allocations

According to Federal regulations at 40 CFR §130.2(h), a WLA is the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. As described in Section 5.4.2, individual WLAs were assigned to two WWTPs and aggregate WLAs were assigned by county to regulated stormwater for each tidal segment[2]. Regulated stormwater includes Phase I and Phase II MS4s, industrial facilities permitted for stormwater discharges, and the MDE general permit to construction sites. Table 17 provides annual and daily WLAs for all point source categories. The calculation of daily loads is discussed in Section 5.6 of the TMDL report. Only regulated stormwater was prescribed reductions (five percent). WLAs for the two WWTPs were calculated based on the water column tPCB TPAR TMDL endpoint concentration and the design flows for the WWTPs. Baseline loads lower than the calculated WLAs resulted in a negative percent load reduction for the WWTPs. Based on the foregoing, EPA finds that both annual and daily WLAs included in the TMDL satisfy the regulations at 40 CFR Part 130.

MDE is authorized to administer the National Pollutant Discharge Elimination System (NPDES) Program, which, among other duties, includes issuing NPDES permits to existing or future point sources subject to the NPDES program. The effluent limitations in any new or revised NPDES permits must be consistent with "the assumptions and requirements of any available [WLA]" in an approved TMDL pursuant to 40 CFR §122.44 (d)(1)(vii)(B). EPA has authority to object to the issuance of an NPDES permit that is inconsistent with the assumptions and requirements of WLAs established for that point source. It is expected that MDE will require periodic monitoring of the point source(s), through the NPDES permit process, in order to monitor and determine compliance with the TMDL's WLAs.

A TMDL represents the sum of WLAs for point sources, LAs for nonpoint sources and natural background conditions. In some circumstances, the available data and information may be insufficient to assign each source an individual WLA. In those circumstances, it is appropriate to express allocations from NPDES-regulated discharges as a single categorical aggregate wasteload allocation. *See* Memorandum from Robert H. Wayland and James A.

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[2] The fact that the TMDL does not assign WLAs to any other sources in the watershed should not be construed as a determination by either EPA or MDE that there are no additional sources in the watershed that are subject to the NPDES program.

Hanlon to EPA Water Division Directors, *Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on those WLAs* (Nov. 22, 2002). Such aggregate WLAs constitute "available WLA[s]for the discharge[s] prepared by the State and approved by EPA" for purposes of 40 C.F.R. § 122.44(d)(1)(vii)(B)."

Load Allocations

According to Federal regulations at 40 CFR §130.2(g), a LA is the portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. As described in Section 5.4.1, LAs were assigned to: non-regulated watershed runoff, one contaminated site, and direct atmospheric deposition to the surface of the tidal segments[3]. Non-regulated watershed runoff and the one contaminated site were prescribed a five percent reduction, while atmospheric deposition was prescribed a 93.4 percent reduction.

Table 17 of the TMDL Report provides annual and daily LAs per source category for the Piscataway Creek and Mattawoman Creek tidal segments. The calculation of daily loads is discussed in Section 5.6 of the TMDL report. Based on the foregoing, EPA finds that both annual and daily LAs included in the TMDL satisfy the regulations at 40 CFR Part 130.

3) TMDLs consider natural background sources.

According to Federal regulations at 40 CFR §130.2(g & i), natural background sources of pollutants are part of the LA and, wherever possible natural and nonpoint source loads should be distinguished. PCBs do not occur naturally in the environment. Therefore, unless existing or historical anthropogenic sources are present, their natural background levels are expected to be zero. Based on the foregoing, EPA finds the TMDL accounts for natural background sources consistent with the regulations at 40 CFR §130.2(g & i).

4) TMDLs consider critical conditions.

EPA regulations at 40 CFR §130.7(c)(1) require TMDLs to account for critical conditions for stream flow, loading, and water quality parameters. PCB levels in fish tissue become elevated due to long term exposure primarily through consumption of lower trophic level organisms, rather than a critical condition defined by acute exposure to temporary fluctuations in water column tPCB concentrations. Critical conditions are further discussed in Section 5.3 of the TMDL report. Based on the foregoing, EPA finds that the TMDL accounts for critical conditions consistent with the regulations at 40 CFR §130.7(c)(1).

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[3] EPA's approval of this TMDL does not mean that EPA has determined there are no point sources within the land use categories that are assigned load allocations in the TMDL. EPA's review and approval of this TMDL does not represent a determination whether some of the sources discussed in the TMDL, under appropriate conditions, might be subject to the NPDES program.

5) TMDLs consider seasonal variations.

EPA regulations at 40 CFR §130.7(c)(1) require TMDLs to consider seasonal variations. Seasonal variation was captured in the TPAR TMDL through the use of daily surface flows and loads of total suspended solids and particulate carbon from calendar year 2005, which was selected as the hydrologic design year as it most closely matches the long-term harmonic mean flow of the Potomac River. Seasonal variations are further discussed in Section 4.4 of the TMDL report and Appendix C of the TPAR TMDL. Based on the foregoing, EPA finds the TMDL has been established at levels necessary to attain and maintain the applicable water quality standards with seasonal variations consistent with the regulations at 40 CFR §130.7(c)(1).

6) TMDLs include a margin of safety.

EPA regulations at 40 CFR §130.7(c)(1) require TMDLs to include a margin of safety (MOS). The MOS is an accounting of uncertainty about the relationship between pollutant loads and receiving water quality. It can be provided implicitly through analytical assumptions or explicitly by reserving a portion of loading capacity. The TPAR TMDL used conservative assumptions in estimating loads and in developing the POTPCB model. To provide further assurance, an explicit MOS of five percent was applied to each source category with the exception of WWTPs. The MOS is further discussed in Section 4.7 of the TMDL report and Section 3.0 of the TPAR TMDL. Based on the foregoing, EPA finds that MDE has incorporated a MOS into the TMDL consistent with the regulations at 40 CFR §130.7(c)(1).

7) TMDLs have been subject to public participation.

EPA regulations at 40 CFR §130.7(c)(1)(ii) require TMDLs to be subject to public review and the State to implement a process for involving the public in development of TMDLs. MDE provided an opportunity for public review and comment on the TMDL from August 15, 2018 through September 14, 2018. MDE received two sets of written comments from EPA and Prince George's County Department of Environment/TetraTech. MDE provided a comment response document. EPA recognizes that PCB tracking is relatively new in the context of stormwater controls and regulation. EPA encourages the stormwater sources identified in the TMDL report to take an iterative adaptive management approach, to the extent consistent with their NPDES permits, to achieve any reductions assumed or required by the TMDL. Based on the foregoing, EPA finds that the TMDL has been subject to MDE's public participation process.

In addition, in reaching our conclusions on approving the PCB TMDLs for the Piscataway Creek and Mattawoman Creek tidal segments, EPA appropriately considered information on the endangered and threatened species and their critical habitat in Maryland's waters identified by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service.

V. Discussion of Reasonable Assurance

The CWA section 303(d) requires that a TMDL be "established at a level necessary to implement the applicable water quality standard." Documenting adequate reasonable assurance increases the probability that regulatory and voluntary mechanisms will be applied such that the pollution reduction levels specified in the TMDL are achieved and, therefore, applicable water quality standards are attained.

Where a TMDL is developed for waters impaired by both point and nonpoint sources, in EPA's best professional judgment, determinations of reasonable assurance that the TMDL's LAs will be achieved could include whether practices capable of reducing the specified pollutant load: (1) exist; (2) are technically feasible at a level required to meet allocations; and (3) are likely to be implemented. Where there is a demonstration that nonpoint source load reductions can and will be achieved, a TMDL writer can determine that reasonable assurance exists and, on the basis of that reasonable assurance, allocate greater loadings to point sources.

As documented in the TPAR TMDL and further correspondence with MDE, the atmospheric deposition of PCBs directly to the Piscataway and Mattawoman tidal segments likely originates from the volatilization of PCBs from land-based sources outside of the Piscataway and Mattawoman watersheds. Further efforts to track and address these land-based sources are in process of being implemented by relevant state and local agencies. Over time, it is anticipated that addressing these land-based sources will likely lead to the reduction of atmospheric deposition of PCBs directly to the Piscataway and Mattawoman tidal segments. Reasonable assurance is further discussed in Section 6.0 of the TMDL Report.