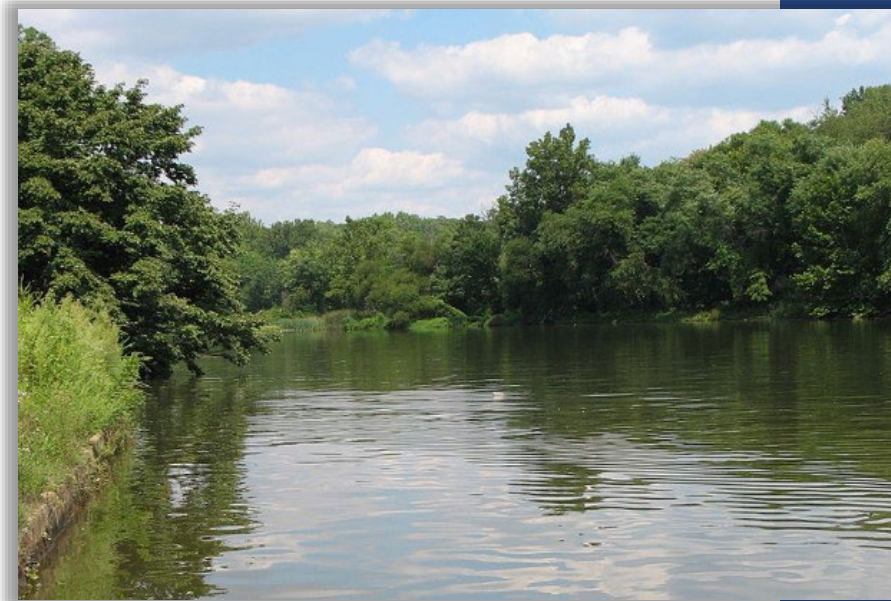


Action Plan for the Tidal Potomac and Anacostia Rivers PCB TMDL

**A Plan to Address PWCS' Assigned
Wasteload Allocation for the Tidal
Potomac and Anacostia Rivers PCB
TMDL**



Permit #: VAR40010
Prepared: May 11, 2020
Updated: September 2022

This document addresses Part II B of the VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer System. This document serves as a PWCS-specific TMDL Action Plan to identify the best management practices and other interim milestone activities to be implemented to address the PCB wasteload allocation assigned to the PWCS' regulated MS4 area in the *"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"* approved by the Environmental Protection Agency on October 31, 2007.

**Prince William County
Public Schools**

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As a permittee under the Commonwealth of Virginia 2013-2018 General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4), Prince William County Public Schools (PWCS) is required to develop specific Total Maximum Daily Load (TMDL) Action Plans for pollutants identified in TMDL wasteload allocations as updates to the existing MS4 Program Plan.

For TMDLs approved by the Environmental Protection Agency (EPA) prior to July 1, 2013, permittees with associated wasteload allocations shall update the previously approved Local TMDL Action Plan no later than May 1, 2020 according to Section II.B.1.a of the 2018-2023 MS4 General Permit.

This Action Plan contains the required and suggested elements that should be included to ensure the TMDL Action Plan ("Action Plan") is approvable. This Action Plan should allow the VDEQ to verify that PWCS will be able to meet the requirements of the Local TMDL Special Condition by the end of the second permit cycle.

This Action Plan includes supporting material to show that the permittee has:

- (2013-2018 General Permit Section IB2a) developed a list of legal authorities applicable to reducing Polychlorinated Biphenyls (PCBs);
- (2013-2018 General Permit Section IB2b) developed an updated list of additional management practices, control techniques, system design and engineering methods beyond the Minimum Control Measures included in the Program Plan applicable to reducing PCBs;
- (2013-2018 General Permit IB2c) enhanced public education and employee training program to promote reduction of PCBs;
- (2013-2018 General Permit IB2e) assessed significant sources of PCBs from facilities of concern;
- (2018-2023 General Permit IIB6a) developed an inventory of potentially significant sources of PCBs that drain into the MS4, including a location of the potential source, whether the source is from legacy or current site activities, and a description of any measures implemented to prevent discharge of PCBs from the site.
- (2018-2023 General Permit IIB3b) provided the Environmental Protection Agency (EPA) approval date for the PCB TMDL;
- (2018-2023 General Permit IIB3c) provided the wasteload allocation of PCBs;
- (2018-2023 General Permit IIB3e-f) assessed and documented the Best Management Practices (BMPs) designed to reduce the PCBs; and
- (2018-2023 General Permit IIB3h) developed an updated schedule of anticipated actions to reduce bacteria during this permit term;

The submitted Action Plan becomes effective and enforceable 90 days after the date received by the VDEQ unless specifically denied in writing by the Department in accordance with Section I.B.1.c of the 2013-2018 General Permit.

Prince William County Public Schools (PWCS) currently operates under the Virginia MS4 General Permit (#VAR040100 November 1, 2018 – October 31, 2023) to address stormwater discharges from its regulated properties. The components of this MS4 program, including the methods used to fulfill the six minimum control measures (MCM #1 – 6), are detailed in the PWCS MS4 Program Plan (Apex, May 2020).

The Final Report dated September 28, 2007 with minor revisions dated October 31, 2007 for *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* assigned aggregate waste load allocations (WLAs) summarized in **Table 1** for Prince William County Public Schools (Permit No. VAR040100), Prince William County (VA0088595), Federal Bureau of Investigation (FBI) Academy (VAR040105), and U.S. Marine Corps Quantico (VAR040069) for PCB impairment. The EPA's TMDL decision rationale is dated October 31, 2007 (*Decision Rationale Total Maximum Daily Loads for Polychlorinated Biphenyls (PCBs) Tidal Potomac & Anacostia River Watershed in the District of Columbia, Maryland, and Virginia*).

Prince William County School MS4 properties are located in Watershed Codes 5251 and 5491. Watershed 5251 has an 85.8% reduction, and 5491 has a 5% reduction, which have a combined 70.6% total reduction (see Table 12).

Table 1. Summary of WLA for PWCS Properties

Aggregate MS4s	Watershed	WLA: PCBs (g/yr)
Prince William County Public Schools	Powells Creek	8.70
Prince William County FBI Academy	Quantico Creek	
U.S. Marine Corps Quantico	Occoquan River	
	Potomac River (Middle)	

1. Current Program and Legal Authority

(2013-2018 General Permit Section I.B.2.a.(1)) Develop and maintain a list of legal authorities such as ordinances, state and other permits, orders, specific contract language, and interjurisdictional agreements applicable to reducing the pollutant identified in each applicable WLA.

As a school system, PWCS does not have regulatory authority and must rely on Prince William County to develop and enforce ordinances. Therefore, the primary tool for preventing the discharge of PCBs to the storm sewer system within Prince William County is Chapter 23.2 Article 2 of the Prince William County Code of Ordinances.

Section 23.2-4.3 of this ordinance states “If any activity listed in subsection 23.2-4.1(b) of this chapter is found by the director to be a source of pollutants to waters of the United States, the director shall serve a written notice on the party responsible for the activity which orders that the activity be ceased or conducted in a manner that will avoid the discharge of pollutants to the stormwater system. The notice shall state the date by which the activity shall cease or be conducted without pollution. Failure to comply with any such order within the time stated in the notice shall constitute a violation. For any violations of this chapter, the owner must comply with the director's orders within the time specified in the notice. Failure to comply with such order shall constitute a violation of this chapter. In addition to any penalty imposed for each violation, a judge hearing the case may direct the person responsible to remediate or correct, and each day's default in such remediation or correction shall constitute a violation of and a separate offense under this section.”

2. Significant Source Assessment and Inventory

(2018-2023 General Permit Section II.B.3.d) Identification of the significant sources of the pollutants of concern discharging to the permittee's MS4 and that are not covered under a separate VPDES permit. For the purposes of this requirement, a significant source of pollutants means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified in the TMDL.

A. Assessment

For the purposes of this assessment, a significant source of pollutant(s) from a facility of concern means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified in the TMDL.

PCBs can be released into the environment through release events such as leaks from PCB containing equipment/materials or illegal/improper disposal.

Stormwater runoff can transport PCB releases through the environment. Stormwater discharges from PWCS properties in this watershed ultimately discharge into the Potomac River.

Because PCBs are primarily a legacy pollutant, with most uses banned since the 1970s, PWCS schools and sites constructed after the 1970s are unlikely to be sources of PCB pollutants. The most effective means to identify, reduce, and eliminate residual PCBs is to assess and remediate sources of PCBs at PWCS properties constructed prior to 1979 in the impacted watershed.

B. Inventory

(2018-2013 General Permit Section IIB.6.a) For each PCB TMDL Action Plan, the permittee shall include an inventory of potentially significant sources of PCBs owned or operated by the permittee that drains to the MS4 that includes the following information: (1) Location of the potential source; (2) Whether or not the Potential source is from current site activities or activities previously conducted at the site that have been terminated (i.e. legacy activities; and (3) A description of any measures being implemented or to be implemented to prevent exposure to stormwater and the discharge of PCBs from the site.

For the purposes of this Action Plan, PWCS properties within the impacted watersheds constructed prior to 1979 are considered potential significant PCB sources, listed in **Table 2** below. All potential sources are from legacy activities. A description of measures implemented to prevent exposure to stormwater and the discharge of PCBs from the site can be found in Section 3 of this Action Plan. Based on original construction dates of the remaining PWCS facilities within the impacted watersheds, no other facilities are considered potential significant PCB sources.

Table 2. Inventory of Potential Significant PCB Sources

Watershed	HUC	Schools	Constructed
Powells Creek	PL51	Coles Elementary	1968
Quantico Creek	PL52	Dumfries Elementary	1919
		Graham Park Middle	1963
		Washington-Reid Annex	1951
		Pattie Elementary	1978
Occoquan River	PL41, PL47, PL48	Belmont Elementary	1967
		Rockledge Elementary	1972
		Woodbridge High School	1974
Potomac River	PL50	Featherstone Elementary	1961
		Kilby Elementary	1959
		Lynn Middle School	1964
		Potomac View Elementary	1964
		Vaughan Elementary	1964

3. Means and Methods to Meet the Wasteload Allocation

(2018-2023 General Permit Section II.3.e) BMPs designed to reduce the pollutant of concern.

A. Implemented Means and Methods

This section describes the management practices that have been implemented thus far.

Dumfries Elementary was renovated in 1937, 1977, and 2014, including replacement of all potentially PCB-containing fluorescent lamp ballasts. Containerized universal waste was transported by a licensed hauler to an EPA-approved incineration facility. All identified PCB sources have been removed from this facility.

Featherstone Elementary was renovated in 2000, including replacement of all potentially PCB-containing fluorescent lamp ballasts. Containerized universal waste was transported by a licensed hauler to an EPA-approved incineration facility. All identified PCB sources have been removed from this facility.

Lynn Middle and Graham Park Elementary were renovated in 2000/2001, including replacement of all potentially PCB-containing fluorescent lamp ballasts. Containerized universal waste was transported by a licensed hauler to an EPA-approved incineration facility. All identified PCB sources have been removed from these facilities.

Vaughan Elementary was renovated in 2004/2005, including replacement of all potentially PCB-containing fluorescent lamp ballasts. Containerized universal waste was transported by a licensed hauler to an EPA-approved incineration facility. All identified PCB sources have been removed from this facility.

Belmont Elementary and Potomac View Middle were renovated in 2005/2006, including replacement of all potentially PCB-containing fluorescent lamp ballasts. Containerized universal waste was transported by a licensed hauler to an EPA-approved incineration facility. All identified PCB sources have been removed from these facilities.

Rockledge Elementary was renovated in 2007, including replacement of all potentially PCB-containing fluorescent lamp ballasts. Containerized universal waste was transported by a licensed hauler to an EPA-approved incineration facility. All identified PCB sources have been removed from this facility.

Coles Elementary was renovated in 2007/2008, including replacement of all potentially PCB-containing fluorescent lamp ballasts. Containerized universal waste was transported by a licensed hauler to an EPA-approved incineration facility. All identified PCB sources have been removed from this facility.

Washington-Reid Annex and Pattie Elementary were renovated in 2012, including replacement of all potentially PCB-containing fluorescent lamp ballasts. Containerized universal waste was transported by a licensed hauler to an EPA-approved incineration facility. All identified PCB sources have been removed from these facilities.

Woodbridge High was renovated in 2010, including replacement of all potentially PCB-containing fluorescent lamp ballasts.

Kilby Elementary was replaced in 2018. During demolition of the old school building, all potential PCB-containing ballasts and window caulking was removed. Containerized universal waste was transported by a licensed hauler to an EPA-approved incineration facility. All identified PCB sources have been removed from this facility.

4. Education and Outreach

(2018-2023 General Permit Section II.B.3.g) An outreach strategy to enhance the public's education (including employees) on methods to eliminate and reduce discharges of the pollutants.

A. Public Education & Outreach

PWCS incorporates education of the effects of human activity on water quality and how we as humans affect it into public science education courses at multiple grade levels. Through the Virginia Standards of Learning (SOLs), students learn the importance of protecting and maintaining our water resources and how it affects their watershed. PWCS implements all Virginia SOLs and specifically incorporates water quality issues into grade 4 and 6 earth science courses.

- Grade One: Curriculum includes identification of natural resources, factors that affect air and water quality, and recycling, reusing, and reducing consumption of natural resources.
- Grade Three: Curriculum includes aquatic ecosystems, the effects of human activity on air/water/habitat quality.
- Grade Four: Curriculum includes Virginia natural resources, watersheds and water resources, ocean environment, and the influences of human activity on ecosystems.
- Grade Five: Curriculum includes the human role in conserving limited resources.
- Grade Six: Curriculum includes the importance of protecting and maintaining water resources, the location and structure of Virginia's regional watershed systems, conservation/health/safety issues associated with watersheds, wetlands, and estuaries.
- Grade Nine: Earth Science class curriculum includes dependence on freshwater resources and the effects of human usage on water quality, regional Virginia watersheds (including the Bay and its tributaries), economic and public policy issues concerning the oceans and the coastal zone (including the Chesapeake Bay), conservation issues, and watershed monitoring.

B. Employee Training

Legacy sources of PCB contamination have been incorporated into annual employee training programs. PWCS provides annual pollution prevention, illicit discharge identification and prevention, and good housekeeping training to custodial, maintenance, and operations employees no less than once per every 24 months. This training is provided through Custodial Advisory Training (CATS) multiple times a year to provide ample opportunity for each employee to meet training requirements. Through CATS, staff learn the impact of dumping chemicals and cleaning solutions on PWCS properties and the sources and consequences of stormwater pollution. Training incorporates pollution prevention and good housekeeping included in the SOPs of Appendix A of the PWCS MS4 Program Plan, Version 6.0. PWCS ensures its employees and contractors maintain certifications, as required by the Virginia Pesticide Control Act, for all employees handling and applying pesticides and herbicides. Staff receive specific training in the following concepts:

- PCB contamination identification, risk factors, and significant sources
- Proper storage and disposal of cleaning chemicals
- Proper dumpster usage
- Illicit discharge prevention
- Parking lot pollution prevention
- Proper pesticide and herbicide storage and usage

5. TMDL Action Plan Evaluation

(2013-2018 General Permit Section I.B.2.e) Develop and implement a method to assess TMDL Action Plans for their effectiveness in reducing the pollutants identified in the WLAs.

The non-structural BMPs and methods included in this action plan are not associated with an assigned load reduction efficiency. Therefore, PWCS will evaluate the effectiveness of this action plan by annually reviewing the measures outlined in Sections 3 and 4 for completion.

Facility Assessment: All PWCS sites with potentially significant sources of PCBs have been renovated. If new sources of PCBs are discovered, PWCS will notify the VDEQ in writing within 30 days of discovery as required by Section II.B.6.b of the General Permit.

Education and Outreach: PWCS will include metrics for attendance and involvement in the educational programs outlined in Section 4 in the Annual Report.

6. Annual Reporting

(2013-2018 General Permit Section I.B.5 and 2018-2023 General Permit Part I.D.5) Annual reporting requirements.

In proceeding Annual Reports, PWCS will provide a report on the implementation of the TMDL Action Plan and associated evaluation including the results of any monitoring conducted as part of the evaluation.