

General VPDES Permit for Discharges of Stormwater Associated With Industrial Activity (VAR05) & Chesapeake Bay TMDL Requirements

Virginia Department of Environmental Quality

Presentation to Virginia Asphalt Association









January 5, 2017

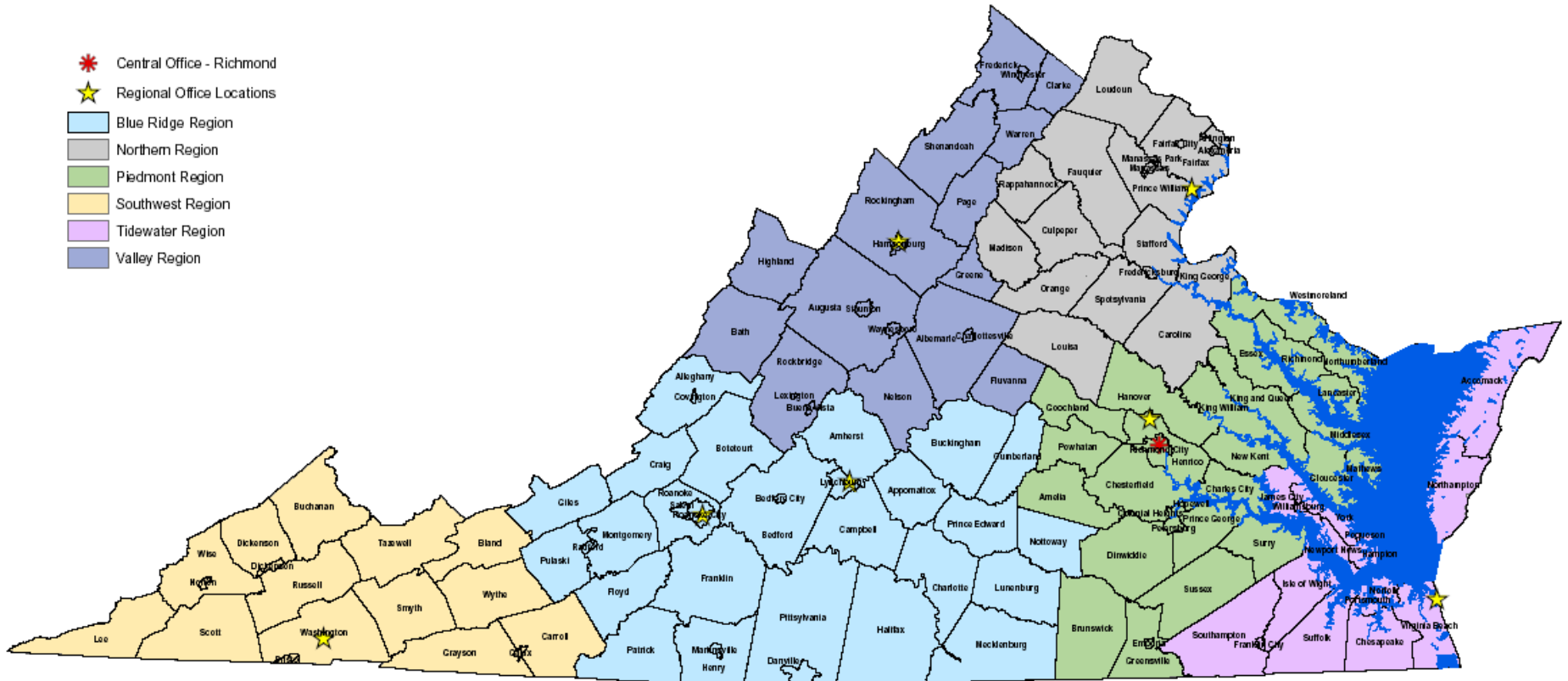
Allan Brockenbrough, PE

Manager-Office of VPDES Permits

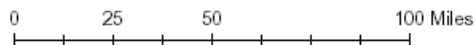
Virginia Department of Environmental Quality

Regional Offices

-  Central Office - Richmond
-  Regional Office Locations
-  Blue Ridge Region
-  Northern Region
-  Piedmont Region
-  Southwest Region
-  Tidewater Region
-  Valley Region



Regional Offices are the primary contact for permits



Stormwater General

- Stormwater runoff is generated when precipitation flows over land or impervious surfaces and it accumulates debris, chemicals, sediment or other pollutants that could adversely affect water quality.
- The primary method to control stormwater discharges is the use of best management practices (BMPs).
- In addition, most stormwater discharges are considered point sources and require coverage under a permit issued by the DEQ.
- The Virginia Pollutant Discharge Elimination System (VPDES) regulates stormwater discharges for:
 - * MS4s
 - * Construction
 - * **Industrial**

Industrial Stormwater General Permit (ISWGP)

- For stormwater discharges only
- General Permit coverage via registration
- Limited non-storm water discharges are authorized (Part I.B.1)
- As a general rule, if it's not rain or snow melt it shouldn't be going out your outfall or discharge location
- 29 industrial 'sectors' based on SIC code
- Sector D is Asphalt Paving and Roofing Materials and Lubricant Manufacturers

ISWGP

BASIC REQUIREMENTS

- Monitoring
- Stormwater Pollution Prevention Plan
- Comprehensive Site Evaluation (annually)
- Routine Facility Inspections (quarterly)
- Corrective Actions
 - Benchmarks exceeded
 - Routine inspections reveal deficiencies
 - Comprehensive Site Evaluations reveal deficiencies

Stormwater Monitoring

Types of storm water monitoring

- Quarterly visuals
- Benchmark
- Effluent Limitation
- Total Maximum Daily Load (TMDL) for Impaired Waters

Quarterly Visuals

(Part I.A.1.a)

- Conducted once per calendar quarter
- During normal working hours
- Report includes the outfall location, the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the stormwater discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution), and probable sources of any observed stormwater contamination
- Document examination in accordance with your permit and maintain on site with your Storm Water Pollution Prevention Plan (SWP3)
- Does not have to be submitted to DEQ

Benchmark Monitoring

(Part I.A.1.b)

- Conducted on a semi-annual basis
 - January 1 – June 30
 - July 1 – December 31
- During “normal working hours” not applicable
- Values that exceed a benchmark concentration are not permit violations
 - Requires a review of SWP3 and best management practices
 - Document, maintain with SWP3, and sign in accordance with Part II.K
- Results of monitoring submitted to DEQ on the Discharge Monitoring Report (DMR) form
- Waivers are available to facilities consistently below benchmarks, no compliance issues
- Sector D benchmark for total suspended solids – 100 mg/L

Numeric Effluent Limitations

(9 VAC25-151-120)

- Conducted on a semi-annual basis
 - January 1 – June 30
 - July 1 – December 31
- During “normal working hours” not applicable
- Values that exceed an effluent limitation are permit violations
- Results of monitoring submitted to DEQ on the Discharge Monitoring Report (DMR) form
- Waivers and substantially identical outfall monitoring provisions are not available for effluent limitations

Numeric Effluent Limitations

(9 VAC25-151-120)

- Sector D effluent limitations include:

Parameter	Effluent Limitations	
	Daily Maximum	30-day Average
Discharges from areas where production of asphalt paving and roofing emulsions occurs (SIC 2951, 2952)		
Total Suspended Solids (TSS)	23 mg/L	15 mg/L
Oil and Grease	15 mg/L	10 mg/L
pH	6.0 - 9.0 s.u.	

TMDL Requirements

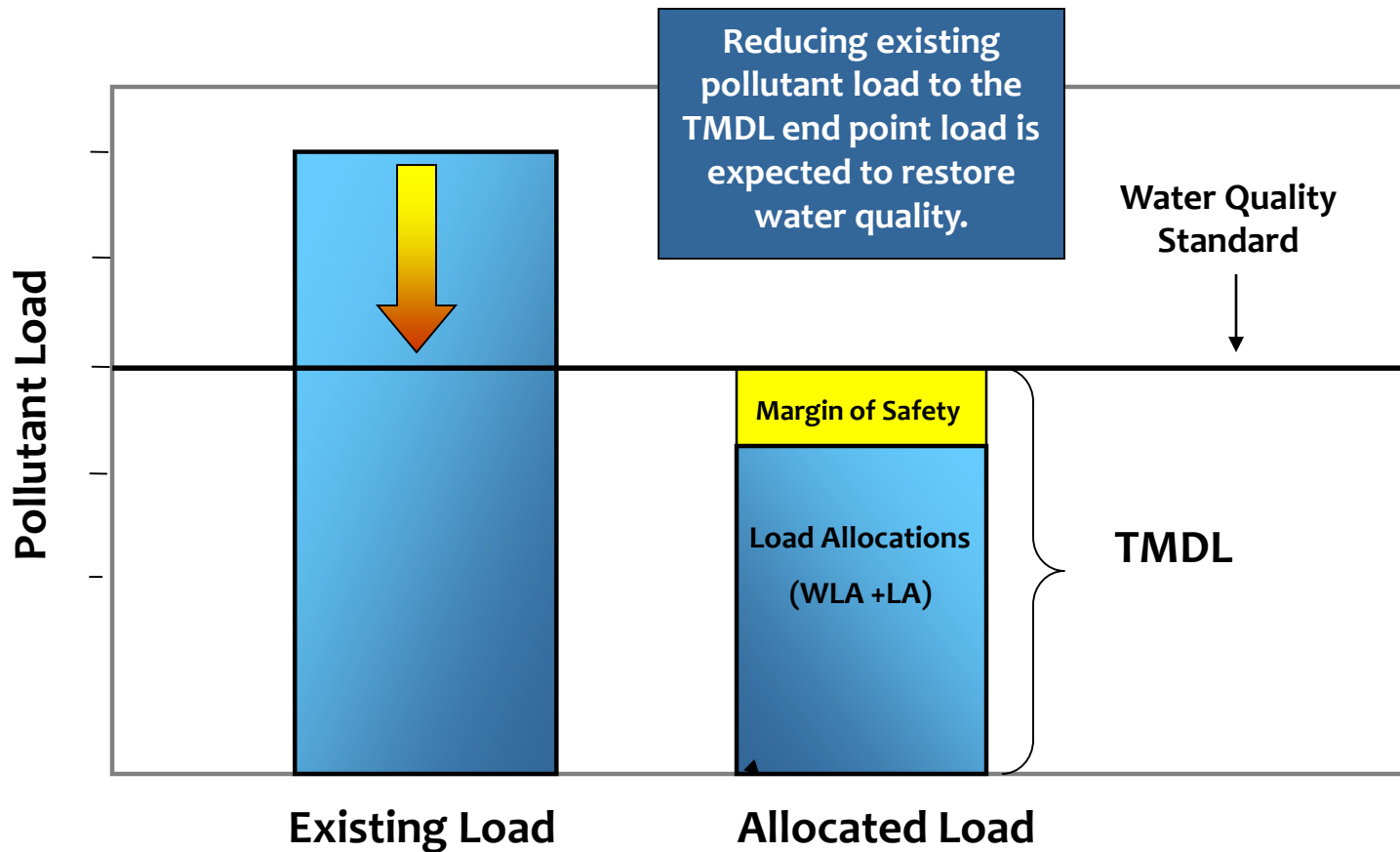
What is a TMDL?

Total Maximum Daily Load

- A TMDL is the total amount of a certain pollutant that a water body can receive without exceeding water quality standards
- TMDL studies are required by law:
 - 1972 Clean Water Act
 - 1997 Water Quality Monitoring Information and Restoration Act
- A TMDL must be developed if a waterbody is listed as *impaired* for any of its designated uses



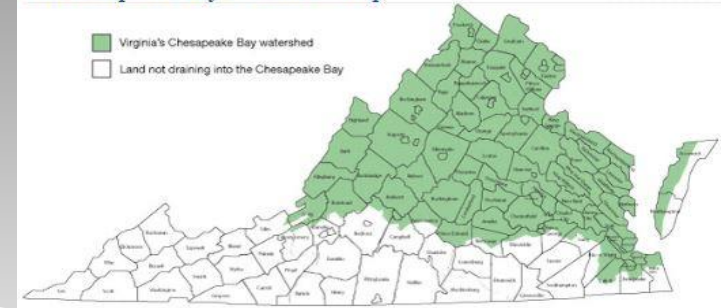
An Example TMDL



Chesapeake Bay TMDL

(Part I.B.7)

VA Chesapeake Bay Watershed map



- All SWGP holders within the Chesapeake Bay watershed are required to test for Total Nitrogen (TN), Total Phosphorus (TP), and Total Suspended Solids (TSS)
- Conducted on a semi-annual basis for the first four monitoring periods of permit coverage
 - January 1 – June 30
 - July 1 – December 31
- During “normal working hours” not applicable
- Results of monitoring submitted to DEQ on the DMR

Chesapeake Bay TMDL

(Part I.B.7)

- After four monitoring periods you must calculate your facility's loadings (that is what your facility is contributing)
- Loadings must be individually calculated for TN, TP, and TSS
- DEQ had developed a calculation tool available at:
<http://www.deq.virginia.gov/Programs/Water/PermittingCompliance/PollutionDischargeElimination/PermitsFees.aspx#isw>
- Compare your facility's loadings to those provided in the permit (Part I.B.7.b.3)
- If your facility's loadings are greater than those noted in the permit, you must develop a Chesapeake Bay TMDL Action Plan

Chesapeake Bay TMDL Action Plan

(Part I.B.7)

- If required, the Chesapeake Bay TMDL Action Plan shall be submitted within 90 days from the end of the second year's monitoring period (4 semi-annual monitoring cycles) and shall include:
 - A determination of the total pollutant load reductions for TP, TN, and TSS (as appropriate) necessary to reduce the annual loads from industrial activities. This shall be determined by calculating the difference between the loading values listed in subdivision 7 b (3) (a) of this subsection, and the average of the sampling data for TP, TN, or TSS (as appropriate) for the entire facility. The reduction applies to the total difference calculated for each pollutant of concern
 - The means and methods, such as management practices and retrofit programs, that will be utilized to meet the required reductions determined in subdivision 7 b (3) (c) (i) of this subsection, and a schedule to achieve those reductions by June 30, 2024. The schedule should include annual benchmarks to demonstrate the ongoing progress in meeting those reductions; and
 - The permittee may consider utilization of any pollutant trading or offset program in accordance with §§ 62.1-44.19:20 through 62.1-44.19:23 of the Code of Virginia, governing trading and offsetting, to meet the required reductions

Chesapeake Bay TMDL Action Plan

(Part I.B.7)

- The permittee shall implement the Chesapeake Bay TMDL Action Plan over the remaining term of this permit to achieve the necessary reductions by June 30, 2024
- Permittees who are required to submit an Action Plan shall submit an annual report to DEQ by June 30th each year describing the progress made in meeting required reductions.

Contact:

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Questions?