

FINAL

## Technical Memorandum for Conococheague Creek BOD TMDL

### Significant BOD Point and Non-point Sources in the Conococheague Creek Watershed

EPA requires that Total Maximum Daily Load (TMDL) allocations account for all significant sources of the impairing pollutant. This technical memorandum identifies, in detail, the significant surface water discharges of Biological Oxygen Demand (BOD) to the Conococheague Creek in Maryland, and non-point sources and their distribution between Pennsylvania and Maryland. Modeling input information is provided for simulating all potentially significant point sources as discrete discharges. Details are provided for allocating non-point source loads for BOD to different land uses categories. These are conceptual values that are within the TMDL thresholds. They represent viable individual allocations to each point source. The Maryland Department of the Environment (MDE) expressly reserves the right to allocate the TMDL among different sources in any manner that is reasonably calculated to achieve water quality standards.

The BOD TMDL is being established for the Conococheague Creek for 7Q10 low-flow conditions. It shows that the Creek has some assimilative capacity to handle more BOD loads from both the point and non-point sources than the current load allocations. Table 1 provides a BOD TMDL distribution between point and non-point sources.

**Table 1: Summary of BOD TMDL for the Conococheague Creek**

	<u>Flow</u>		<u>BOD</u>	
			<u>Concentration</u>	<u>Load</u>
	cfs	mgd	mg/l	lbs/month
<b>Load Allocations (LA)</b>				
From PA @ MD/PA State Line	55.35	35.77	2.4	21,492
From MD Tributaries	8.09	5.23	2.4	3,142
LA Sub-Total	63.44	41.00	-	24,634
<b>Waste Load Allocations (WLA)</b>				
Conococheague WWTP (MD0063509)	-	4.1000	20	20,529
Broadfording Church WWTP (MD0051373)	-	0.0030	17	13
Resh Road Sanitary Landfill (MD0064866)	-	0.0059	30	44
WLA Sub-Total	-	4.1089	-	20,586
<b>Future Allocation (FA)</b>				
To PA (Total)	55.35	35.77	0.45	4,029
To MD Non-point Sources	8.09	5.23	0.45	590
To MD Point Sources	-	-	-	1,925
FA- Total	-	-	-	6,544

FINAL

## Technical Memorandum, Continued

**Table 1: Summary of BOD TMDL for the Conococheague Creek, Continued**

<b>Margin of Safety (MOS)</b>				
PA (total)	55.35	-	0.15	1,363
MD (Non-point Sources)	8.09	-	0.15	177
MD (Point Sources)	-	4.1089	3.13	3,216
MOS- Total	-	-	-	4,756

Loadings, concentrations and flows represented in the above Table 1 are for illustrative purposes only. Actual effluent limits and related permit conditions will be established at the time of permit issuance or renewal and will be based upon conditions present at that time, as reflected in population projections, infrastructure needs as defined in the Washington County Comprehensive Water and Sewer Plans. Point source loadings, flows and concentrations placed in permits will be based upon the information listed above as well as that provided during the permit adjudication process.