



Fact Sheet: Delaware River Estuary PCB TMDLs

Waterbody/Watershed	Zones 2 through 5 of the Delaware River (i.e., mainstem of river and tidal portions of tributaries) Total # of TMDLs: 4
Date TMDL Approved	Approved 12/15/2003; prepared by Delaware River Basin Commission (DRBC)
Basis for 303(d) Listing	PCBs in fish tissue
Water Quality Standards Target & TMDL Target	Water quality standards: Zone 2 & 3 – 44.4 picograms per liter (water & fish consumption) Zone 4 and upper Zone 5 – 44.8 picograms per liter (fish consumption only) Lower Zone 5 – 7.9 picograms per liter
Existing Source Loadings	Dry weather effluent concentration range: 1,430 to 45,140 picograms/liter Wet weather effluent concentration range: 2,030 to 10,240 picograms/liter Sources include loadings from the air, the main stem Delaware River above Trenton, tributaries to the Delaware both above and below Trenton, industrial and municipal point source discharges, combined sewer overflows, and storm water runoff, including runoff from seriously contaminated sites.
Method for Characterizing Existing Loadings	Data from DRBC's investigations in 1996 and 1997 investigated loadings from point sources; utilized high resolution gas chromatography/high resolution mass spectrometry .
Method for Determining Allowable Load (Loading Capacity)	<ul style="list-style-type: none"> • Hydrodynamic model • Conservative chemical water quality model • Penta-PCB and Organic carbon water quality models Total allowable loading or assimilative capacity of 94.99 mg/day of penta-PCBs.
Reductions Needed to Reach Target	Plan to complete additional monitoring and modeling following issuance of the Stage 1 TMDLs will enable a more refined analysis to form the basis of the Stage 2 TMDLs

<p>Allocations</p>	<p>Zone 2: Total TMDL—257.36 mg/day WLA—11.03 mg/day LA—233.46 mg/day</p> <p>Zone 3: Total TMDL—17.82 mg/day WLA—5.67 mg/day LA—11.26 mg/day</p> <p>Zone 4: Total TMDL—56.71 mg/day WLA—6.54 mg/day LA—47.34 mg/day</p> <p>Zone 5: Total TMDL—48.06 mg/day WLA—15.62 mg/day LA—30.04 mg/day</p>
<p>Margin of Safety</p>	<p>An explicit percentage of 5% was utilized in the apportionment of the zone TMDLs. Both the apportionment of the zone TMDLs using the current percentage contribution and use of a margin of safety of 5% were recommended by the DRBC's Toxic Advisory Committee.</p>
<p>Reasonable Assurance</p>	<p>Point sources: Effluent quality data and source minimization plans required through National Pollutant Discharge Elimination System (NPDES) permits issued by state permitting authorities will provide the basis for assessments regarding consistency with the WLAs developed or issued in Stage 1 and Stage 2. DRBC regulations also require that the WLAs be reviewed and, if required, revised every five years, or as directed by DRBC. This will ensure that additional discharges of the pollutant or increased nonpoint source loadings in the future will be considered.</p> <p>Nonpoint sources: Achieving the load reductions required for contaminated sites will require close coordination with the federal CERCLA programs and state programs overseeing the assessment and cleanup of these sites. In addition, DRBC has broad powers under Article 5 of the Delaware River Basin Compact (Public Law 87-328) to control future pollution and abate existing pollution in the waters of the basin.</p>

Implementation	<p>This TMDL uses adaptive implementation through execution of load reduction strategies while additional monitoring and modeling efforts proceed. The approach recognizes that additional monitoring data and modeling results will be available following issuance of the Stage 1 TMDLs to enable a more sophisticated analysis to form the basis of the Stage 2 TMDLs.</p> <p>Both the Stage 1 and Stage 2 TMDLs envision controls by nonpoint sources including, but not limited to, implementation of best management practices.</p>
Monitoring	<p>In the interval between Stage 1 and Stage 2 TMDL establishment, EPA, the states and DRBC will continue to further refine the TMDL through more detailed, congener-specific monitoring to enhance the TMDL PCB water quality model.</p>
<p>Source: <i>Total Maximum Daily Loads for Polychlorinated Biphenyls (PCBs) for Zones 2-5 of the Tidal Delaware River</i>, December 15, 2003, available at http://www.epa.gov/reg3wapd/tmdl/pa_tmdl/DelawareRiver/TMDLreport.pdf.</p>	

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