

ANNEX A

TITLE 25. ENVIRONMENTAL PROTECTION
 PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
 Subpart C. PROTECTION OF NATURAL RESOURCES
 ARTICLE II. WATER RESOURCES

**CHAPTER 16. WATER QUALITY TOXICS MANAGEMENT STRATEGY—
 STATEMENT OF POLICY**

**Subchapter A. GUIDELINES FOR DEVELOPMENT OF CRITERIA
 FOR TOXIC SUBSTANCES AND WATER QUALITY CRITERIA
 FOR TOXIC SUBSTANCES**

APPENDIX A

TABLE 1A

SITE-SPECIFIC WATER QUALITY CRITERIA FOR TOXIC SUBSTANCES

The following table contains water quality criteria that were developed based on a need for a site-specific water quality criterion, and according to the guidelines for criteria development, as contained in this chapter. The sources the Department of Environmental Protection (Department) uses to obtain relevant risk assessment values for these criteria include, but is not limited to, United States Environmental Protection Agency agency-wide supported data systems such as Integrated Risk Information System (IRIS) and ECOTOX; the Great Lakes' Tier II [aquatic] aquatic life criteria guidelines; and other nationally developed criteria as reviewed and approved by the Department for Statewide use. A criterion placed in this table will remain a site-specific criterion as originally developed and be incorporated into the appropriate portion of §§ 93.9a—93.9z that relates to “exceptions to specific criteria” unless, during rulemaking, it is determined that the same criteria has general Statewide applicability.

PP NO	Chemical Name	CAS Number	<i>Fish and [Acquatic] Aquatic Life Criteria</i>		Human Health Criteria [(ug/l)] <u>(ug/L)</u>	Health Effect	Drainage List	Water Body/County
			Criteria Continuous Concentrations	Criteria Maximum Concentration				
			[(ug/l)] <u>(ug/L)</u>	[(ug/l)] <u>(ug/L)</u>				
†	1,4 Dioxane	123911	103000	515000	3.0	CRL	F	West Branch Perkiomen

[- Acrylamide 79061 N/A	N/A	.008	CRL	S	Creek, Berks County Stump Creek, Henderson Township, Jefferson County]
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Acronyms and Footnotes to Table 1A

- CAS—Chemical Abstract Service number
- CRL—Cancer risk level at 1×10^{-6}
- H—Threshold effect human health criterion; incorporates additional uncertainty factor for some Group C carcinogens.
- ln [H]—Natural Logarithm of the Hardness of stream as mg/l CaCO₃
- ug/L—Micrograms per liter
- N/A—Criterion not developed
- PP NO—Priority Pollutant Number

TABLE 2A

APPROVED EPA AND DEP ACCREDITED ANALYTICAL METHODS AND
DETECTION LIMITS: INORGANICS

Parameter (CAS)	Method Number (Description) *Source	Detection Limit (MDL) ($\mu\text{g}/[\text{L}]$)

11M	SILVER (07440224)	3111 B or C (AA, flame) 10
		3113 B (AA, furnace) 0.2
		200.7 (ICP/AES) 2
		200.8 (ICP/MS) 0.1
		200.9 (STGFAA) 0.6
		—* ³ (DCP) NA
		<u>200.7 (ICP/AES)</u> <u>0.01</u>
=	<u>STRONTIUM</u> <u>(07440246)</u>	<u>200.8 (ICP/MS)</u> <u>2.0</u>
		<u>6010B (ICP/AES)</u> <u>0.01</u>
		<u>6020(ICP/MS)</u> <u>1.0</u>

TABLE 2B

APPROVED EPA **AND DEP ACCREDITED** ANALYTICAL METHODS AND
DETECTION LIMITS: ORGANICS

Parameter (CAS)	Method Number (Description) *Source	Detection Limit (MDL) ($\mu\text{g}/\text{L}$)

=	<u>BENZENE METADISULFONIC ACID (00098486)</u>	<u>OR 357A Test America, HPLC/UV or LC/MS/MS</u> <u>50</u>
=	<u>BENZENE MONOSULFONIC ACID (00098113)</u>	<u>OR 357A Test America, HPLC/UV or LC/MS/MS</u> <u>50</u>
1A	2-CHLOROPHENOL (00095578)	604—GC/FID 0.31 604—GC/ECD 0.58 625—GC/MS 3.3 1625B— 10 GC/MS(isotope)

7A	4-NITROPHENOL (00100027)	604—GC/FID 2.8 604—GC/ECD 0.70 625—GC/MS 2.4 1625B— 50 GC/MS(isotope)
=	<u>NONYLPHENOL (00104405)</u>	<u>7065-06M—GC/MS D7485-09 – LC/LC/TANDEM MS</u> <u>2.0 .033</u>

10A	PHENOL (00108952)	604—GC/FID 0.14 604—GC/ECD 2.2

		625—GC/MS	1.5
		1625B—	10
		GC/MS(isotope)	
=	<u>P-PHENOL SULFONIC</u>	<u>OR 357A Test</u>	
	<u>ACID</u>	<u>America, HPLC/UV</u>	<u>50</u>
	<u>(00098679)</u>	<u>or LC/MS/MS</u>	
=	<u>RESORCINOL</u>	<u>8270D—GC/MS</u>	<u>100</u>
	<u>(01084603)</u>		

3V	BENZENE	602—GC/PID	0.20
	(00071432)	624—GC/MS	4.4
		1624B—	10
		GC/MS(isotope)	
=	<u>BENZYL CHLORIDE</u>	<u>8021B—GC</u>	<u>1.0</u>
	<u>(00100447)</u>	<u>8260B—GC/MS</u>	<u>.005-5.0</u>
5V	BROMOFORM	601—GC/Hal.	0.20
	(00075252)	624—GC/MS	4.7
		1624B—	10
		GC/MS(isotope)	
=	<u>2-BUTOXYETHANOL</u>	<u>EPA R5/6LC –</u>	
	<u>(00111762)</u>	<u>LC/MS/MS</u>	<u>125</u>
		<u>(DIRECT INJECT)</u>	

26V	1,2-trans- DICHLOROETHYLENE	601—GC/Hal.	0.10
	(00156605)	624—GC/MS	1.6
		1624B—	10
		GC/MS(isotope)	
=	<u>1,2-cis-</u>	<u>601—GC/Hal.</u>	<u>0.10</u>
	<u>DICHLOROETHYLENE</u>	<u>624—GC/MS</u>	<u>1.6</u>
	<u>(00156592)</u>	<u>1624B—</u>	<u>10</u>
		<u>GC/MS(isotope)</u>	

29V	TRICHLOROETHYLENE	601—GC/Hal.	0.12
	(00079016)	624—GC/MS	1.9
		1624B—	10
		GC/MS(isotope)	
=	<u>1,2,4-</u>	<u>524.2 – GC/MS</u>	<u>0.5</u>

	<u>TRIMETHYLBENZENE</u>	<u>624 – GC/MS</u>	<u>1.0</u>
	<u>(00095636)</u>	<u>8021B—GC</u>	<u>1.0</u>
		<u>8260B—GC/MS</u>	<u>2.0</u>
	<u>1,3,5-</u>	<u>524.2 – GC/MS</u>	<u>0.5</u>
=	<u>TRIMETHYLBENZENE</u>	<u>624 – GC/MS</u>	<u>1.0</u>
	<u>(00108678)</u>	<u>8021B—GC</u>	<u>1.0</u>
		<u>8260B—GC/MS</u>	<u>2.0</u>

		610—GC/FID	NA
2B	ACENAPHTHYLENE	610—HPLC	2.3
	(00208968)	625—GC/MS	3.5
		1625B—	10
		GC/MS(isotope)	
=	<u>ACRYLAMIDE</u>	<u>8032A (GC)</u>	<u>.032</u>
	<u>(00079061)</u>	<u>8316 (HPLC)</u>	<u>10</u>

		610—GC/FID	NA
18B	CHRYSENE	610—HPLC	0.15
	(00218019)	625—GC/MS	2.5
		1625B—	10
		GC/MS(isotope)	
=	<u>CYCLOHEXYLAMINE</u>	<u>8270B—GC/MS</u>	<u>.01</u>
	<u>(00108918)</u>		

		606—GC/ECD	3.0
29B	DI-N-OCTYL PHTHALATE	625—GC/MS	2.5
	(00117840)	1625B—	10
		GC/MS(isotope)	
=	<u>1,4-DIOXANE</u>	<u>624—GC/MS</u>	<u>1.0</u>
	<u>(00123911)</u>	<u>625—GC/MS</u>	<u>5.0</u>
		<u>8260B —GC/MS</u>	<u>0.1</u>
		<u>8270L—GC/MS</u>	<u>0.2</u>
