



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Office of Water Management

# **Triennial Review Water Quality Standards (TR #10)**

## **Draft Final-Form Rulemaking**

Water Resources Advisory Committee  
May 16, 2024

Josh Shapiro, Governor

Jessica Shirley, Acting Secretary

# Water Quality Standards (WQS)

- Implement Sections 5 and 402 of The Clean Streams Law and Section 303 of the Federal Clean Water Act.
  - Protected water uses, water quality criteria and an antidegradation policy.
  - 25 Pa. Code Chapter 93
  - 25 Pa. Code Chapter 16

# Triennial Review of WQS

- Required by Section 303(c)(1) of the Federal Clean Water Act.
- Completed at least once every 3 years.
- Department's 10<sup>th</sup> triennial review (TR #10).

# TR#10 Proposed Rulemaking

DEP met with the WRAC on November 17, 2022 to present information on the draft proposed triennial review of water quality standards.

# TR#10 Proposed Rulemaking

The proposed regulation was adopted by the Environmental Quality Board (EQB) at its July 11, 2023 meeting and was published in the *Pennsylvania Bulletin* on October 7, 2023 (53 Pa.B. 6170).

- 45-day public comment period that ended on November 21, 2023
- 1 virtual public hearing held on November 14, 2023

# TR#10 Proposed Rulemaking

EQB received comments from 105 commentators including comments and testimony from:

- 19 witnesses at the public hearing
- United States Environmental Protection Agency (EPA) Region 3
- Independent Regulatory Review Commission (IRRC)

The comments received, and DEP's responses are summarized in the DEP's Comment and Response Document.

- DEP considered all public comments received on the proposed rulemaking in preparing the final rulemaking.

# TR#10 Proposed Rulemaking

Major comments included:

- Opposition to reaffirmation of removal of WC use (Delaware Estuary)
- Support for reaffirmation of removal of WC use (Delaware Estuary)
- Opposition to 1,4-dioxane criterion
- Support for the new and updated criteria
- Opposition to the less stringent human health criteria

# ▶ TR#10 Draft Final-Form Rulemaking

No changes were made to Annex A between proposed and draft final-form rulemaking.



# Human Health Criteria

Pollutant	Current (µg/L)	Updated (µg/L)
Barium	2400	1000
Boron	3100	1000
Methyl ethyl ketone	21000	4000
1,2,3-trichloropropane	210	30
1,2,4-trimethylbenzene	72	10
1,3,5-trimethylbenzene	72	10
Xylene	70000	1000
Acetone	3500	6000
Formaldehyde	700	1000
Metolachlor	69	700
Resorcinol	2700	3000

# Human Health Criteria

**TABLE 5  
WATER QUALITY CRITERIA FOR TOXIC SUBSTANCES**

PP NO	Chemical Name	CAS Number	Fish and Aquatic Life Criteria		Human	-
			Criteria Continuous Concentrations (ug/L)	Criteria Maximum Concentration (ug/L)	Health Criteria (ug/L)	<u>Foot</u> <u>Notes</u>
* * * * *						
D	CYCLOHEXYLAMINE	108918	N/A	N/A	1000	[H]2
E	DIAZINON	333415	0.17	0.17	N/A	-
<b>D</b>	<b>1,4-DIOXANE</b>	<b>123911</b>	<b>N/A</b>	<b>N/A</b>	<b>0.3</b>	<b>1</b>
D	FORMALDEHYDE	50000	440	2200	[700] 1000	[H]2
D	2-HEXANONE	591786	4300	21000	N/A	-
* * * * *						

# Human Health Criteria

**TABLE 5  
WATER QUALITY CRITERIA FOR TOXIC SUBSTANCES**

PP NO	Chemical Name	CAS Number	Fish and Aquatic Life Criteria		Human Health Criteria (ug/L)	- <u>Foot</u> <u>Notes</u> -
			Criteria Continuous Concentrations (ug/L)	Criteria Maximum Concentration (ug/L)		
* * * * *						
10V	2-CHLOROETHYL VINYL ETHER	110758	3500	18000	N/A	-
<b>11V</b>	<b>CHLOROFORM</b>	<b>67663</b>	<b>390</b>	<b>1900</b>	<b>[5-7] 60</b>	<b>[H]2</b>
12V	DICHLOROBROMO- METHANE	75274	N/A	N/A	0.95	<b>[CRL]1</b>
* * * * *						
6P	CHLORDANE	57749	0.0043	2.4	0.0003	<b>[CRL]1</b>
<b>E</b>	<b>CHLOROPHENOXY HERBICIDE (2,4-D)</b>	<b>94757</b>	<b>N/A</b>	<b>N/A</b>	<b>[1400] 1300</b>	<b>[H]2</b>
E	CHLOROPHENOXY HERBICIDE (2,4,5-TP)	93721	N/A	N/A	100	<b>[H]2</b>
* * * * *						

# Aquatic Life Criteria

**TABLE 5  
WATER QUALITY CRITERIA FOR TOXIC SUBSTANCES**

PP NO	Chemical Name	CAS Number	Fish and Aquatic Life Criteria		Human	<u>Foot</u> <u>Notes</u>
			Criteria Continuous Concentrations (ug/L)	Criteria Maximum Concentration (ug/L)	Health Criteria (ug/L)	
1M	ANTIMONY	7440360	220	1100	5.6 [†]	[H]2,5
2M	ARSENIC	7440382	150 (As3+)	340 (As3+)	10	[H]2
3M	BERYLLIUM	7440417	N/A	N/A	N/A	-
4M	CADMIUM	7440439	*{1.101672- (ln[H]x0.041838)}x	*{1.136672-(ln[H]x0.041838)} x	N/A	-
			<b>[Exp(0.7409xln[H]-4.719)]</b> <b>Exp(0.7977 x ln([H]) - 3.909)</b>	<b>[Exp(1.0166xln[H]-3.924)]</b> <b>Exp(0.9789 x ln([H]) - 3.866)</b>		
			(ex: @H=100, CCC= <b>[0.25]0.72</b> )	(ex: @H=100, CMC= <b>[2.0]1.8</b> )		
			<b>(ex: @ H=50, CCC= 0.43)</b>	<b>(ex: @ H=50, CMC= 0.94)</b>		
			<b>(ex: @ H=25, CCC= 0.25)</b>	<b>(ex: @ H=25, CMC= 0.49)</b>		
5M	CHROMIUM III	16065831	*0.860xExp(0.819xln[H]+0.6 848)	*0.316xExp(0.819xln[H]+3.72 56)	N/A	-

# Aquatic Life Criteria

**TABLE 5  
WATER QUALITY CRITERIA FOR TOXIC SUBSTANCES**

PP NO	Chemical Name	CAS Number	Fish and Aquatic Life Criteria		Human	<u>Foot</u> <u>Notes</u>
			Criteria Continuous Concentrations (ug/L)	Criteria Maximum Concentration (ug/L)	Health Criteria (ug/L)	
* * * * *						
5P	delta-BHC	319868	N/A	N/A	N/A	-
<b>E</b>	<b>CARBARYL</b>	<b>63252</b>	<b>2.1</b>	<b>2.1</b>	<b>N/A</b>	<b>-</b>
6P	CHLORDANE	57749	0.0043	2.4	0.0003	[CRL]1
* * * * *						
PP	2,3,7,8-TCDD	1746016	N/A	N/A	5.0 E-9 [+]	[CRL]1,5
<b>E</b>	<b>TRIBUTYL TIN</b>	-	<b>0.072</b>	<b>0.46</b>	<b>N/A</b>	<b>-</b>
D	ACETONE	67641	86000	450000	[3500] <u>6000</u>	[H]2

# Minor Edits / Clarifications to Ch 93

## § 93.7. Specific water quality criteria.

(a) Table 3 displays specific water quality criteria and associated critical uses. The criteria associated with the Statewide water uses listed in § 93.4, Table 2 apply to all surface waters, unless a specific exception is indicated in §§ 93.9a—93.9z. These exceptions will be indicated on a stream-by-stream or segment-by-segment basis by the words “Add” or “Delete” followed by the appropriate symbols described elsewhere in this chapter. Other specific water quality criteria apply to surface waters as specified in §§ 93.9a—93.9z. All applicable criteria shall be applied in accordance with this chapter, Chapter 96 (relating to water quality standards implementation) and other applicable State and Federal laws and regulations. **Unless otherwise specified in Table 3, the duration of aquatic life criteria with “minimum” or “maximum” values is a one-hour average. The duration of pH is a one-hour average.**

# Minor Edits / Clarifications to Ch 93

## § 93.8c. Human health and aquatic life criteria for toxic substances.

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- (c) Unless otherwise specified in this section, the aquatic life criteria in Table 5 have the following duration periods:
- (1) One-hour average for criteria maximum concentrations
  - (2) Four-day average for criteria continuous concentrations

## § 93.8e. Special Criteria for the Great Lakes System.

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- (c) Unless otherwise specified in this section, the aquatic life criteria in Table 6 have the following duration periods:
- (1) One-hour average for criteria maximum concentrations
  - (2) Four-day average for criteria continuous concentrations

# Minor Edits / Clarifications to Ch 93

## § 93.9. Designated water uses and water quality criteria.

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(a) The tables in §§ 93.9a—93.9z display designated water uses and water quality criteria in addition to the water uses and criteria specified in Tables 2 and 3. Designated uses shall be protected in accordance with Chapters 95 and 96 (relating to wastewater treatment requirements; and water quality standards implementation) and any other applicable State and Federal laws and regulations. The tables also indicate specific exceptions to Tables 2 and 3 on a stream-by-stream or segment-by-segment basis by the words “add” or “delete” followed by the appropriate symbols described elsewhere in this chapter. **A one-hour average duration period applies to the Tur<sub>1</sub> and Tur<sub>2</sub> criteria in Drainage List E; the D.O. criterion in Drainage List O (Yellow Breeches); and the pH criterion in Drainage List X.** The county column in §§ 93.9a—93.9z indicates the county in which the mouth of the stream or the downstream limit of the zone described for that entry is located. Abbreviations used in the Stream and the “Zone” columns are as follows:



# Amendments to Chapter 16

The Department received no written public comments or testimony on the proposed amendments to Chapter 16.

No additional changes were made to the Policy following the close of the public comment period.

## ▶ Minor Edits / Corrections to Ch 16

- Update §16.32(d)(1), so that DEP may include other EPA-approved data sources rather than being limited to IRIS to obtain risk assessment values.
- Update §16.41, delete reference to Appendix A, Table 1A

# Tentative Timeline

Rulemaking Activity	Date
Agricultural Advisory Board (AAB) Presentation – Draft Final-Form Rulemaking	April 16, 2024
EQB Presentation – Final-Form Rulemaking	Q3 2024
IRRC Presentation – Final-Form Rulemaking	Q3 2024
Publish in PA Bulletin – Final-Form Rulemaking	Q3 or Q4 2024

# Recommendation

The Department requests WRAC's concurrence on this final-form rulemaking.



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DEPARTMENT OF ENVIRONMENTAL PROTECTION



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