

Regulatory Analysis Form

(Completed by Promulgating Agency)

(All Comments submitted on this regulation will appear on IRRC's website)

INDEPENDENT REGULATORY REVIEW COMMISSION

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Independent Regulatory
Review Commission

October 17, 2023

(1) Agency:

Environmental Protection

(2) Agency Number: 7

Identification Number: 571

IRRC Number: 3384

(3) PA Code Cite: 25 Pa. Code Chapter 93

(4) Short Title: Water Quality Standards – Site-Specific Water Quality Criteria

(5) Agency Contacts (List Telephone Number and Email Address):

Primary Contact: Laura Griffin; 717.772.3277; laurgriffi@pa.gov

Secondary Contact: Ezra Thrush; 717.783.8727; ezthrush@pa.gov

(6) Type of Rulemaking (check applicable box):

Proposed Regulation

Final Regulation

Final Omitted Regulation

Emergency Certification Regulation

Certification by the Governor

Certification by the Attorney General

(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)

The proposed amendments to 25 Pa. Code Chapter 93 (relating to water quality standards) will update and revise the process for developing and adopting site-specific water quality criteria in § 93.8d (relating to the development of site-specific water quality criteria), delete the statewide total mercury criterion of 0.05 µg/L for Ebaughs Creek and add a site-specific methylmercury water quality criterion of 0.00004 µg/L for Ebaughs Creeks to § 93.9o (relating to Drainage List O). This site-specific criterion addition to § 93.9o will be used to develop new National Pollutant Discharge Elimination System (NPDES) effluent limitation requirements for the York County Sanitary Landfill operated by the York County Solid Waste and Refuse Authority (YCSWRA), located in Hopewell Township, York County.

(8) State the statutory authority for the regulation. Include specific statutory citation.

This proposed rulemaking is authorized under sections 5(b)(1) and 402 of The Clean Streams Law (CSL) (35 P.S. §§ 691.5(b)(1) and 691.402), which authorize the Environmental Quality Board (Board) to develop and adopt rules and regulations to implement the CSL (35 P.S. §§ 691.1—691.1001) and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20), which grants to the Board the power and duty to formulate, adopt and promulgate rules and regulations for the proper performance of the work of the Department of Environmental Protection (Department). In addition, sections 101(a)(2) and 303 of the Federal Clean Water Act (CWA) (33 U.S.C.A. §§ 1251(a)(2) and 1313) set forth requirements for water quality standards, which states must meet to implement the CWA. Section 101(a)(3) of the CWA declares the national policy that the discharge of toxic pollutants in toxic amounts be prohibited (33 U.S.C.A. § 1251(a)(3)). Section 303(c)(2)(B) directs states to adopt numeric criteria for toxic pollutants if they are present in a discharge that

could be reasonably expected to interfere with a state's designated uses and are necessary to support those uses.

(9) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation as well as, any deadlines for action.

Under sections 4, 5 and 402 of the CSL, the Department has the duty to formulate regulations that prevent and eliminate water pollution. 35 P.S. §§ 691.4, 691.5, and 691.402. "Pollution" is defined by the law as "contamination of any waters of the Commonwealth such as ... to render such waters harmful, detrimental or injurious to public health..., or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life..." (35 P.S. § 691.41). This term includes contamination by alteration of the physical, chemical, or biological properties of water. The definition of "pollution" requires the Department to determine when a discharge constitutes pollution and to establish standards to determine whether such discharge constitutes pollution. Section 1920-A of the Administrative Code of 1929 authorizes the Board to formulate, adopt and promulgate such rules and regulations as may be determined by the Board for proper performance of the work of the Department (71 P.S. § 510-20(b)). The development of water quality criteria meets this legal obligation.

States are required to protect existing and designated uses of their surface waters and develop criteria to protect those uses. This proposed regulation will modify existing regulations that allow the development of site-specific criteria to protect water uses. Further, the proposed regulations establish a site-specific standard for methylmercury to protect the use of Ebaughs Creek.

Water quality standards must be reviewed and approved by the United States Environmental Protection Agency (EPA) for consistency with the mandates under the CWA. Section 101(a)(2) of the CWA, 33 U.S.C.A. § 1251(a)(2), establishes the national goal that wherever attainable, water quality should provide for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water. Section 303(c)(2)(A), 33 U.S.C.A. § 1313(c)(2)(A), requires water quality standards to include designated uses of waters and criteria necessary to protect those uses, taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial and other purposes. The federal water quality standards regulation at 40 CFR 131.11(b)(1) requires states and authorized tribes to adopt numeric water quality criteria that are based on criteria recommendations developed by the EPA under CWA section 304(a), EPA section 304(a) criteria recommendations modified to reflect site-specific conditions, or other scientifically-defensible methods. The site-specific criteria proposed in this rulemaking are consistent with these mandates. Section 303(c)(2)(B) directs states to adopt numeric criteria for toxic pollutants if they are present in a discharge that could be reasonably expected to interfere with a state's designated uses and are necessary to support those uses.

(10) State why the regulation is needed. Explain the compelling public interest that justifies the regulation. Describe who will benefit from the regulation. Quantify the benefits as completely as possible and approximate the number of people who will benefit.

Water quality standards are necessary to protect the surface waters of this Commonwealth. Pennsylvania's surface waters, through the water quality standards program, are protected for a variety of uses, including: drinking water supplies for humans, livestock and wildlife; industrial water supplies; irrigation for crops; aquatic life uses; and recreation and fish consumption. All of the residents and visitors of this Commonwealth will benefit from updating the Chapter 93 water quality standards to provide the appropriate level of water quality protection for all water uses and users of surface waters of this Commonwealth.

The regulated community and the public will benefit from having regulations that clearly outline the site-specific criteria development and adoption process. These proposed amendments are critical to ensuring the Department receives the information necessary to determine if site-specific water quality criteria are applicable, to develop site-specific water quality criteria recommendations that are protective of surface water uses, and to incorporate the site-specific criteria into the Commonwealth's water quality standards. The proposed amendments will clarify when site-specific criteria may be requested and how to submit a request. Furthermore, the proposed amendments will enable the Department to implement site-specific criteria in NPDES permits in the most efficient and timely manner available.

The site-specific methylmercury water quality criterion contained in this proposed rulemaking is specific to Ebaughs Creek. YCSWRA's discharge is currently the only known discharge to Ebaughs Creek containing mercury and YCSWRA will benefit by having a permit with effluent limitations that were developed based on this site-specific water quality criterion. Persons proposing a new discharge containing mercury to this stream would likely be afforded the same benefit.

(11) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulations.

No. The proposed regulations are not more stringent than federal standards.

(12) How does this regulation compare with those of the other states? How will this affect Pennsylvania's ability to compete with other states?

Other states are also required to maintain water quality standards based on the federal mandate identified in the response to question #9. Therefore, the proposed amendments will not put Pennsylvania at a competitive disadvantage to other states.

(13) Will the regulation affect any other regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

No other regulations are affected by this proposal.

(14) Describe the communications with and solicitation of input from the public, any advisory council/group, small businesses and groups representing small businesses in the development and drafting of the regulation. List the specific persons and/or groups who were involved. ("Small business" is defined in Section 3 of the Regulatory Review Act, Act 76 of 2012.)

The Department used data and information collected and reported by YCSWRA, based on a Department-approved study plan, to develop a site-specific criterion for Ebaughs Creek, York County. This data and information supports the Board's proposed rulemaking for a methylmercury site-specific criterion, as set forth in Annex A.

On March 16, 2023, the Department met with the Water Resources Advisory Committee (WRAC) to present its recommended updates to § 93.8d and the site-specific methylmercury water quality criterion for Ebaughs Creek. WRAC voted to support presentation of this proposed rulemaking to the Board. Additionally, the Department presented draft regulatory amendments to the Agricultural Advisory Board (AAB) on March 15, 2023, explaining the proposed changes.

The public will be afforded the opportunity to comment on this proposed regulation, which will include a public hearing during a 45-day public comment period following publication in the *Pennsylvania Bulletin*.

(15) Identify the types and number of persons, businesses, small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012) and organizations which will be affected by the regulation. How are they affected?

When site-specific criteria are necessary either to protect more sensitive intervening uses or for substances currently lacking statewide numeric criteria in Chapter 93, persons with NPDES permits may need to conduct the required studies to develop site-specific criteria and may need to install treatment to comply with their NPDES permit effluent limitations. In cases where a person with an NPDES permit elects to request a site-specific criterion or criteria, the individual would need to conduct the required studies and to comply with their NPDES permit effluent limitations. Requests for site-specific criteria are often initiated by persons with NPDES permits for any number of different pollutants. For example, if a toxic pollutant will be discharged to surface water as a result of a remediation, and no statewide water quality criterion is available to develop effluent limitations, a person may request development of a site-specific criterion. A person who wants to be eligible for the cleanup liability protection under the Commonwealth's Land Recycling and Environmental Standards Act must attain compliance with environmental standards.

The proposed site-specific methylmercury water quality criterion will impose new NPDES effluent limitation requirements on an existing wastewater discharge from York County Sanitary Landfill operated by the YCSWRA. The Department has not identified any additional permitted discharges of mercury to Ebaughs Creek. As such, no additional entities are expected to be affected by this site-specific methylmercury water quality criterion.

(16) List the persons, groups or entities, including small businesses, that will be required to comply with the regulation. Approximate the number that will be required to comply.

The proposed site-specific methylmercury water quality criterion will impose new NPDES effluent limitation requirements on an existing wastewater discharge from York County Sanitary Landfill operated by the YCSWRA. The Department has not identified any additional permitted discharges of mercury or methylmercury to Ebaughs Creek. As such, no additional entities are expected to be affected by this site-specific methylmercury water quality criterion.

(17) Identify the financial, economic and social impact of the regulation on individuals, small businesses, businesses and labor communities and other public and private organizations. Evaluate the benefits expected as a result of the regulation.

Currently, the proposed site-specific methylmercury water quality criterion only impacts a single existing wastewater discharger, which is YCSWRA. If any new or existing point source discharge to Ebaughs Creek was found to contain mercury or methylmercury and required water quality-based effluent limitations, the permit effluent limitations would be based on the proposed site-specific methylmercury water quality criterion.

In general, persons requesting site-specific criteria would need to satisfy the requirements under § 93.8d and may incur costs associated with the need for retention of scientific consultants and to conduct data collection. However, since the proposed amendments do not significantly increase or decrease the existing

study requirements detailed presently in § 93.8d, the proposed amendments do not establish any new or additional costs for any persons requesting site-specific criteria under § 93.8d.

Also see the response to question #15 regarding eligibility for cleanup liability protection under the Commonwealth's Land Recycling and Environmental Standards Act.

(18) Explain how the benefits of the regulation outweigh any cost and adverse effects.

Establishing site-specific criteria and adding clarification for the process of developing and adopting site-specific criteria will benefit this Commonwealth's residents, industries, and visitors. Clarifying the regulations will help permit applicants avoid spending resources to request criteria when it may be harmful to surface waters of this Commonwealth. Additionally, clarity on the site-specific criteria development process will help permit applicants navigate how to pursue site-specific criteria. The majority of requests for site-specific criteria will be initiated by persons with NPDES permits. Depending upon the site-specific circumstances and the study data and information, site-specific criteria may provide relief from statewide criteria. Economic impacts are generally limited to the person(s) submitting the request.

(19) Provide a specific estimate of the costs and/or savings to the regulated community associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

The proposed site-specific methylmercury water quality criterion will impose new NPDES effluent limitation requirements on YCSWRA. These new effluent limitations may result in additional treatment costs being incurred by YCSWRA. A specific cost estimate is not possible at this time because site-specific operating factors and potential treatment options are still being considered by YCSWRA.

Monitoring requirements are determined on a permit-by-permit basis, so the Department cannot estimate costs to specific facilities. However, the Department reviewed sampling cost information for methylmercury that was available in the National Environmental Monitoring Index (NEMI). NEMI is a freely available compendium of information on a variety of environmental analytical test methods that was developed by the National Water Quality Monitoring Council in collaboration with partners in the federal, state, and private sectors. A review of NEMI has revealed information for one methylmercury analytical method developed by the United States Geological Survey (USGS). The average cost per sample for this analytical test method ranges between \$51 and \$200.

The proposed changes to § 93.8d will not immediately impose costs to the regulated community. Additionally, the site-specific criteria will only apply in lieu of statewide criteria or if no statewide criterion is available.

(20) Provide a specific estimate of the costs and/or savings to the local governments associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

No costs will be imposed directly upon local government by the proposed amendments to the site-specific criteria development process in § 93.8d.

The proposed amendments to the mercury criterion for Ebaughs Creek were requested by the YCSWRA, and these amendments are not expected to impact any other active NPDES discharges to Ebaughs Creek. The YCSWRA is currently evaluating mercury removal treatment technologies and associated costs.

This proposed regulation will be implemented through existing Department programs, procedures and policies.

(21) Provide a specific estimate of the costs and/or savings to the state government associated with the implementation of the regulation, including any legal, accounting, or consulting procedures which may be required. Explain how the dollar estimates were derived.

No costs will be imposed directly upon Commonwealth government by this proposed regulation. This proposed regulation will be implemented through existing Department programs, procedures and policies.

(22) For each of the groups and entities identified in items (19)-(21) above, submit a statement of legal, accounting or consulting procedures and additional reporting, recordkeeping or other paperwork, including copies of forms or reports, which will be required for implementation of the regulation and an explanation of measures which have been taken to minimize these requirements.

The Department will use existing procedures to implement this regulation. Existing, new or expanded discharges of mercury or methylmercury to Ebaughs Creek may be subject to NPDES permit effluent limitations based on the site-specific methylmercury water quality criterion in this proposed rulemaking. Additionally, all consulting procedures incurred by YCSWRA to develop a site-specific criterion are based on their request to pursue an alternative to the total mercury statewide criterion.

(22a) Are forms required for implementation of the regulation?

No additional forms are required as a result of this regulation.

(22b) If forms are required for implementation of the regulation, attach copies of the forms here. If your agency uses electronic forms, provide links to each form or a detailed description of the information required to be reported. Failure to attach forms, provide links, or provide a detailed description of the information to be reported will constitute a faulty delivery of the regulation.

No additional forms are required as a result of this regulation.

(23) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

	Current FY 2018/19	FY +1 2019/20	FY +2 2020/21	FY +3 2021/22	FY +4 2022/23	FY +5 2023/24
SAVINGS:	\$	\$	\$	\$	\$	\$
Regulated Community	Not Measurable	Not Measurable	Not Measurable	Not Measurable	Not Measurable	Not Measurable
Local Government	“	“	“	“	“	“
State Government	“	“	“	“	“	“
Total Savings	“	“	“	“	“	“
COSTS:						

Regulated Community	Not Measurable	Not Measurable	Not Measurable	Not Measurable	Not Measurable	Not Measurable
Local Government	“	“	“	“	“	“
State Government	“	“	“	“	“	“
Total Costs	“	“	“	“	“	“
REVENUE LOSSES:						
Regulated Community	Not Measurable	Not Measurable	Not Measurable	Not Measurable	Not Measurable	Not Measurable
Local Government	“	“	“	“	“	“
State Government	“	“	“	“	“	“
Total Revenue Losses	“	“	“	“	“	“

(23a) Provide the past three-year expenditure history for programs affected by the regulation.

Program	FY -3 (2019/20)	FY -2 (2020/21)	FY -1 (2021/22)	Current FY (2022/23)
160-10381 Enviro Protection Operations	\$84,023,000	\$94,202,000	\$98,036,000	\$102,719,000
161-10382 Enviro Program Management	\$27,920,000	\$32,041,000	\$34,160,000	\$35,739,000

(24) For any regulation that may have an adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), provide an economic impact statement that includes the following:

(a) An identification and estimate of the number of small businesses subject to the regulation.

Currently, YCSWRA is the only business directly impacted by the proposed site-specific methylmercury water quality criterion in this proposed rulemaking. The Department cannot predict how many small businesses will be affected by the proposed clarifications to the process for site-specific criteria development, but it is expected the effect will be positive since the proposed amendments clarify the process for prospective facilities to follow in the event site-specific criteria are pursued for the waters to which the facilities discharge. When this proposed regulation goes into effect, no additional discharges beyond YCSWRA will be affected.

(b) The projected reporting, recordkeeping and other administrative costs required for compliance with the proposed regulation, including the type of professional skills necessary for preparation of the report or record.

Each request for site-specific criteria requires a review that is based on site-specific considerations. NPDES permits and other approvals will identify the required reporting and recordkeeping necessary for compliance. The proposed regulation establishes water quality standards. 25 Pa. Code Chapter 92a establishes how the standards will be applied, including the compliance mechanisms. Recordkeeping and monitoring

requirements for effluent limitation compliance will continue to apply to all discharges, as applicable under Chapter 92a. Existing Department procedures will be used to implement this proposed regulation.

(c) A statement of probable effect on impacted small businesses.

Currently, YCSWRA is the only business directly impacted by the proposed site-specific methylmercury water quality criterion in this proposed rulemaking. The Department cannot predict how many small businesses will be affected by the proposed clarifications to the process for site-specific criteria development. The effect will likely be positive since the proposed amendments clarify the process for prospective facilities to follow in the event site-specific criteria are requested for a wastewater discharge. When this proposed regulation goes into effect, no additional discharges beyond YCSWRA's will be affected.

(d) A description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation.

The proposed regulations involve a site-specific methylmercury water quality criterion for YCSWRA's discharge to Ebaughs Creek. The YCSWRA discharge contains concentrations of mercury sufficient to exceed either the statewide total mercury criterion or the site-specific methylmercury water quality criterion for Ebaughs Creek. As such, treatment of the discharge will be required. There are no known less intrusive or less costly alternatives to the proposed rulemaking. However, the facility may use any less intrusive or less costly operation or treatment methods that will result in compliance with the permitted effluent limit established based on the site-specific criterion.

(25) List any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, the elderly, small businesses, and farmers.

While no special provisions are included, it is important to note that this proposed rulemaking will afford the water quality protections necessary to ensure clean water for all residents, industries, and visitors of this Commonwealth.

(26) Include a description of any alternative regulatory provisions which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.

This proposed regulation will meet the Commonwealth's obligations under the CSL and the CWA to protect water uses. The proposed regulations present a modified process to develop site-specific criteria. This process will produce criteria that provide the most appropriate level of protection for specific waterbodies. No alternative regulatory schemes are available to achieve the correct level of protection for the subject waters of this Commonwealth.

(27) In conducting a regulatory flexibility analysis, explain whether regulatory methods were considered that will minimize any adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), including:

a) The establishment of less stringent compliance or reporting requirements for small businesses;

The proposed regulation establishes water quality standards. 25 Pa. Code Chapters 92a and 96 establishes how the standards will be applied, including the compliance mechanisms. Recordkeeping and monitoring requirements for effluent limitation compliance will continue to apply to all discharges, as applicable under

Chapter 92a. This proposed regulation does not establish or revise compliance or reporting requirements for any entity, including small businesses.

b) The establishment of less stringent schedules or deadlines for compliance or reporting requirements for small businesses;

Schedules of compliance and reporting requirements to meet the site-specific criteria may be considered when permit or approval actions are taken, in accordance with 25 Pa. Code Chapter 92a. This proposed regulation does not establish compliance schedules for any entity, including small businesses.

c) The consolidation or simplification of compliance or reporting requirements for small businesses;

Compliance and reporting requirements to meet the standards of this rulemaking may be considered when permit or approval actions are taken, in accordance with 25 Pa. Code Chapter 92a. This proposed regulation does not establish compliance or reporting requirements for any entity, including small businesses.

d) The establishment of performance standards for small businesses to replace design or operational standards required in the regulation; and

The proposed regulation represents performance standards, but it does not dictate the design of treatment plants to meet the performance standards for any entity, including small businesses. Site-specific water quality criteria establish the in-stream water quality protection goals for specific waterbodies and does not identify the design or operational standards that must be used to meet the goals.

e) The exemption of small businesses from all or any part of the requirements contained in the regulation.

There were no such exemptions of small businesses to consider in this case.

(28) If data is the basis for this regulation, please provide a description of the data, explain in detail how the data was obtained, and how it meets the acceptability standard for empirical, replicable and testable data that is supported by documentation, statistics, reports, studies or research. Please submit data or supporting materials with the regulatory package. If the material exceeds 50 pages, please provide it in a searchable electronic format or provide a list of citations and internet links that, where possible, can be accessed in a searchable format in lieu of the actual material. If other data was considered but not used, please explain why that data was determined not to be acceptable.

See the detailed information and recommended site-specific methylmercury water quality criterion for Ebaughs Creek, York County described in the attached “Development of a Site-Specific Methylmercury Water Quality Criterion for Ebaughs Creek”.

(29) Include a schedule for review of the regulation including:

- | | |
|---|-------------------------|
| A. The length of the public comment period: | <u>45 days</u> |
| B. The date or dates on which any public meetings or hearings will be held: | <u>December 5, 2023</u> |

C. The expected date of delivery of the final-form regulation:	<u>Quarter 1, 2025</u>
D. The expected effective date of the final-form regulation:	<u>Upon publication of the final-form rulemaking</u>
E. The expected date by which compliance with the final-form regulation will be required:	<u>Upon publication of the final-form rulemaking</u>
F. The expected date by which required permits, licenses or other approvals must be obtained:	<u>No expectation that a permit must be obtained. New, additional, or increased discharges will be subject to the regulation that is in effect at the time a permit application is filed and a Department decision is made.</u>

(30) Describe the plan developed for evaluating the continuing effectiveness of the regulations after its implementation.

The Board is not proposing to establish a sunset date for this proposed regulation because it is needed for the Department to carry out its statutory authority. The Department will continue to closely monitor this proposed regulation for its effectiveness and recommend updates to the Board as necessary.

Also, since the CWA requires review and revision of water quality standards as necessary, but at least once every three years, a schedule for review is inherently established.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER**

**Development of a Site-Specific Methylmercury Water Quality Criterion for
Ebaughs Creek**

February 2022

Introduction

The York County Solid Waste and Refuse Authority (YCSWRA) operates the York County Sanitary Landfill (YCSL), located in Hopewell Township, York County. Department staff from the Clean Water Program, Southcentral Regional Office (SCRO) identified the presence of mercury in the YCSWRA's permitted landfill leachate discharge. YCSWRA requested development of site-specific criteria for methylmercury. SCRO requested the assistance of Central Office staff in developing ambient water quality criteria (AWQC) for methylmercury for the unnamed tributary (UNT) to Ebaughs Creek.

The YCSL is a 306-acre site owned by the YCSWRA. Between 1974 and 1997, the landfill received municipal and industrial waste, which was placed into lined and unlined cells. The site contains approximately 135 acres of unlined landfill. Detection of volatile organic compounds associated with the unlined cells was discovered in 1983. A pump and treat system was installed and began operation in 1985. The system consisted of 17 extraction wells and air stripping towers. The air stripping towers discharge treated groundwater from two outfalls under NPDES permit number PA0081744. Outfall 002 discharges into a UNT to Ebaughs Creek. This outfall discharges to the headwaters of a small first-order tributary with limited watershed area and comprises a significant portion of the stream flow (effluent dominated) at the point discharge. Ebaughs Creek is designated as a Cold Water Fishes, Migratory Fishes (CWF, MF) stream. The outfall has documented total mercury (THg) concentrations consistently above the Commonwealth's current human health criterion of 0.05 µg/L, but below the aquatic life criteria continuous concentration (CCC) of 0.77 µg/L and the criteria maximum concentration (CMC) of 1.4 µg/L.

Background

Mercury is a naturally occurring, widely distributed element that cycles in the environment through natural processes and human activities. However, the source of mercury to the receiving streams is not naturally occurring. It comes from an anthropogenic source originating from effluent at the landfill operated by YCSWRA. Various forms of mercury exist in the environment with some forms being more toxic to people than others. Toxicity is also related to exposure amount, exposure pathway and individual susceptibility. The most toxic form currently known is methylmercury (MeHg), which is an organic form of mercury. Relevant organic forms in the environment are dimethyl- and monomethylmercury. Acidic conditions will increase the shift to this more toxic form (Harte et al., 1991). Human exposure to MeHg primarily occurs

through the consumption of contaminated fish tissue. MeHg is highly fat soluble and has a high affinity for sulfhydryl proteins (Hong et al., 2012). Therefore, it tends to accumulate in the fatty tissue of the central nervous system, but it may also cause negative effects on nearly every system within the body including cardiovascular, pulmonary, renal, immunological, neurological, endocrine, hematological and reproductive (Rice et al., 2014). Given its high fat solubility, MeHg can easily cross cell membranes, the blood-brain barrier, and the placenta. Fetal exposure tends to be significantly increased when compared to the maternal burden and leads to impaired neurological development (ATSDR, 2013, Rice et al., 2014, Myers and Davidson, 1998). In contrast, inorganic mercury is poorly absorbed through the digestive tract (Hong et al., 2012) and does not readily cross the body's blood-brain barrier or placenta (Harte et al., 1991). As such, it is generally regarded as less toxic.

MeHg is formed in the environment when bacteria capable of methylation are exposed to a source of inorganic mercury and convert it to an organic (methylated) form. MeHg is both a bioaccumulating and a biomagnifying substance. As previously stated, fish serve as the primary source of human exposure. Fish exposure to MeHg can occur through their interactions with the water column, the sediment and food sources (i.e. epiphytes, macrophytes, macroinvertebrates and lower trophic level fish). Freshwater species are known to be more sensitive to the effects of mercury than marine species (Harte et al., 1991).

YCSWRA Site-Specific Mercury and Metals Translator Studies

YCSWRA performed a site-specific study for the collection of data necessary to develop a site-specific AWQC for MeHg ($AWQC_{MeHg}$) that is protective of human health for Ebaughs Creek. YCSWRA also performed a study to develop site-specific translator factor, which, when applied to the site-specific $AWQC_{MeHg}$, would establish the THg permit effluent limitation necessary to achieve the $AWQC_{MeHg}$ in the receiving water. On September 23, 2015, YCSWRA submitted their Site-Specific Methylmercury Water Quality Criterion Stream Study Plan (hereafter referred to as "the Plan"). The Plan contained both the criterion study and the translator study. YCSWRA agreed to collect fish tissue samples and surface water samples at a location on Ebaughs Creek for the calculation of site-specific bioaccumulation factor (BAF).

The site-specific BAF, along with USEPA's revised national human health inputs (USEPA, n.d., USEPA, 2000b, USEPA, 2002a, USEPA, 2010), and 25 Pa. Code Chapters 93 and 16 (as noted in the following section titled *Development of Ambient Water Quality Criteria for Methylmercury Criteria*) were used to translate and update USEPA's 2001 fish tissue-based $AWQC_{MeHg}$ criterion of 0.3 mg/kg (USEPA, 2001) into site-specific water column-based $AWQC_{MeHg}$ for the receiving stream.

A separate, but concurrent, study was proposed for the development of a metals translator factor for the receiving stream. For that study, water column samples were collected from the well-mixed effluent and receiving water (approximately 25 feet downstream from the discharge outfall). Since NPDES discharge permit limitations must be developed as THg, a conversion factor was needed to establish appropriate water column-based effluent limitation for the facility. The factors were used to translate the final $AWQC_{MeHg}$ back to $AWQC_{THg}$. The final Plan was approved by DEP on October 6, 2016. Sampling began in October 2016 and ended in September

2017. On behalf of YCSWRA, AECOM (YCSWRA’s consultant) submitted a Site-Specific Methylmercury Water Quality Criterion Stream Study Report (the Report) in December 2017.

Fish Tissue Sampling

Site Selection

The fish tissue collection sites were determined through a qualitative fish survey of Ebaughs Creek conducted by AECOM in March 2016. The fish tissue sampling sites for the MeHg study were selected based on sufficient densities of apex predatory fish and proximity to the discharge (i.e. nearest downstream location from the discharge containing legal-sized gamefish). Survey collection methods were consistent with the DEP’s *Pennsylvania Wadeable Semi-Quantitative Fish Sampling Protocol for Streams* (DEP, 2013). Results of the qualitative survey identified brown trout and American eel as the only target species for Ebaughs Creek. Three composite fish tissue samples made up of two to five individual fish per composite would be targeted for collection at a single location on the tributary. AECOM selected the Ebaughs Creek EC-02 station as the fish tissue collection site for the study. This site is located nearly 2 miles downstream of the outfall.

Sample Collection

Fish tissue was collected at EC-02 in October 2016 and September 2017 (Table 1). Sufficient quantities of fish allowed for three composite samples to be collected at each site for each target species as described above. However, one composite sample was determined to be an outlier and removed from the final BAF calculation. The MeHg fish tissue result for Composite II (brown trout) collected on October 18, 2016 from Ebaughs Creek was extremely low. This value was extremely out of range when compared to all other composite results collected during both sampling events. As this value would appear to be an outlier, DEP has removed it from the final data set used in calculating a BAF for Ebaughs Creek (See Table 6).

Table 1. Summary of Composite Fish Tissue Sample Results for Mercury.

Sample #	Species	Location	Result	Unit	Date Collected
Comp 1	American Eel	EC -02	76.8	ng/g	10/18/16
Comp 2	American Eel	EC -02	87.7	ng/g	10/18/16
Comp 3	American Eel	EC -02	64.8	ng/g	10/18/16
Comp 1	Brown Trout	EC -02	45.2	ng/g	10/18/16
Comp 2	Brown Trout	EC -02	3.27	ng/g	10/18/16
Comp 3	Brown Trout	EC -02	55.2	ng/g	10/18/16
Comp 1	American Eel	EC -02	110	ng/g	9/12/2017
Comp 2	American Eel	EC -02	119	ng/g	9/12/2017
Comp 3	American Eel	EC -02	83.6	ng/g	9/12/2017
Comp 1	Brown Trout	EC -02	41.3	ng/g	9/12/2017
Comp 2	Brown Trout	EC -02	28.1	ng/g	9/12/2017
Comp 3	Brown Trout	EC -02	21.1	ng/g	9/12/2017

Surface Water Sampling

Surface water samples were collected at EC-02 (Table 2). Water samples were collected by YCSWRA staff and AECOM staff in accordance with the approved work plan and sampling method following USEPA's *Method 1669: Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria Levels*. Water samples were collected monthly for the duration of the study. The MeHg criterion-related samples were collected at the fish tissue sample locations (EC-02), and the THg translator-related samples were collected approximately 25 feet downstream from the outfall, which is a location representative of well-mixed effluent and receiving water. Samples were analyzed for THg and dissolved MeHg in accordance with USEPA's *Method 1631: Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry* (USEPA, 2002b) and *Method 1630: Methyl Mercury in Water by Distillation, Aqueous Ethylation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry* (USEPA, 1998).

Table 2. Summary of the monthly water column sample results (dissolved MeHg) collected at the fish tissue site on Ebaughs Creek. One-half of the method detection limit (MDL) (0.01 ng/L) was used for any values reported as <0.02 ng/L.

Date	Location	MeHg result	MDL	Unit
Oct-16	EC-02	<0.02	0.020	ng/L
Nov-16	EC-02	<0.02	0.020	ng/L
Dec-16	EC-02	<0.02	0.020	ng/L
Jan-17	EC-02	<0.02	0.020	ng/L
Feb-17	EC-02	<0.02	0.020	ng/L
Mar-17	EC-02	<0.02	0.022	ng/L
Apr-17	EC-02	<0.02	0.020	ng/L
May-17	EC-02	<0.02	0.020	ng/L
Jun-17	EC-02	<0.02	0.020	ng/L
Jul-17	EC-02	<0.02	0.020	ng/L
Aug-17	EC-02	<0.02	0.020	ng/L
Sep-17	EC-02	<0.02	0.020	ng/L

Development of Ambient Water Quality Criteria for Methylmercury

In accordance with 25 Pa. Code Chapter 93, Water Quality Standards, and Chapter 16, Statement of Policy, the human health ambient water quality criterion was developed using the provisions in §§ 93.8d (relating to development of site-specific water quality criteria) and 16.32 (relating to threshold level toxic effects) and the USEPA *Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion* (USEPA, 2010). The inputs for body weight (80 kg), drinking water intake (2.4 L) and fish consumption (22 g/day) were updated to reflect the most current data available from USEPA and were used in the development of this criterion.

The data sets resulting from these studies contained a significant number of water column MeHg results that were reported as less than the method detection limit (MDL). The Plan did not

discuss how the consultant, or DEP, would handle non-detect values. Furthermore, non-detect values were not expected since highly sensitive USEPA methods were used to analyze the samples. DEP contacted USEPA for additional guidance and consultation on the non-detect values, and DEP was referred to USEPA's *Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion* (USEPA, 2010). Section 4.3.1 of the guidance references the USEPA's *Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories* (USEPA, 2000a), which recommends using one-half of the MDL for non-detects in calculating mean values.

Site-specific BAF, site-specific metals translation factor, and SSC for MeHg were developed for the purpose of developing THg effluent limitations for the YCSWRA NPDES permit (PA0081744) for discharging to the UNT to Ebaughs Creek. The equations used for this process are as follows.

Equations for Water Quality Criteria Development and Metals Translation Factors

Individual Bioaccumulation Factor (BAF)

Eq.

$$\text{BAF} = \text{Ct}/\text{Cw} \quad (1)$$

where: BAF = bioaccumulation factor in L/kg

Ct = concentration of total mercury in fish tissue in mg/kg, wet tissue weight

Cw = concentration of dissolved methylmercury in water in mg/L

Final Bioaccumulation Factor (Final BAF)

$$\text{Final BAF} = \text{geometric mean of BAF} \quad (2)$$

Methylmercury Threshold Human Health Ambient Water Quality Criterion ($\text{AWQC}_{\text{MeHg}}$)

$$\text{AWQC}_{\text{MeHg}} = [\text{BW} \times (\text{RfD}-\text{RSC})]/[\text{DI} + (\text{FI} \times \text{BAF})] \quad (3)$$

where: $\text{AWQC}_{\text{MeHg}}$ = methylmercury ambient water quality criteria

BW = human body weight, 80 kg

RfD = reference dose, (0.0001 mg/kg-d)

RSC = relative source contribution, (0.000027 mg/kg-d)

DI = drinking water intake, 2.4L/day

FI = fish intake, current USEPA recommended value, 0.022 kg/day

BAF = bioaccumulation factor L/kg, tropic level 4

Individual Metals Translation Factor (f_d)

$$f_d = \text{Cd}_{\text{MeHg}}/\text{Ct}_{\text{Hg}} \quad (4)$$

where: f_d = site-specific water column metals translation factor

Cd_{MeHg} = the dissolved concentration of methylmercury

Ct_{Hg} = the total recoverable concentration of mercury

Final Metals Translation Factor (Final f_d)

$$\text{Final } f_d = \text{geometric mean of the site-specific individual metals translation factors} \quad (5)$$

Specific Water Quality Criteria Development for Ebaughs Creek

BAFs for Ebaughs Creek

Eq. (1) was used to calculate the individual BAFs for each sample at Ebaughs Creek (Table 6), and Eq. (2) was used to calculate the Final BAF for Ebaughs Creek (Final BAF_(Ebaughs)), which is 5.882398×10^6 L/kg.

Table 3. Summary of the individual BAF calculations for Ebaughs Creek.

Sample #	Species	Location	Result	Unit	Date Collected	BAF (L/g)	BAF (L/kg)
Comp 1	American Eel	EC-02	76.8	ng/g	10/18/16	7680	7680000
Comp 2	American Eel	EC-02	87.7	ng/g	10/18/16	8770	8770000
Comp 3	American Eel	EC-02	64.8	ng/g	10/18/16	6480	6480000
Comp 1	Brown Trout	EC-02	45.2	ng/g	10/18/16	4520	4520000
Comp 2	Brown Trout	EC-02	(Outlier)	ng/g	10/18/16	--	--
Comp 3	Brown Trout	EC-02	55.2	ng/g	10/18/16	5520	5520000
Comp 1	American Eel	EC-02	110	ng/g	9/12/2017	11000	11000000
Comp 2	American Eel	EC-02	119	ng/g	9/12/2017	11900	11900000
Comp 3	American Eel	EC-02	83.6	ng/g	9/12/2017	8360	8360000
Comp 1	Brown Trout	EC-02	41.3	ng/g	9/12/2017	4130	4130000
Comp 2	Brown Trout	EC-02	28.1	ng/g	9/12/2017	2810	2810000
Comp 3	Brown Trout	EC-02	21.1	ng/g	9/12/2017	2110	2110000

Final BAF_(Ebaughs) = geometric mean of individual BAFs for Ebaughs Creek

$$= 5,882,398 \text{ L/kg}$$

$$= 5.882398 \times 10^6 \text{ L/kg}$$

Methylmercury - AWQC_{MeHg} for Ebaughs Creek

Eq. (3) was used to calculate the AWQC_{MeHg} for Ebaughs Creek (AWQC_{MeHg} (Ebaughs)), which is 4×10^{-5} µg/L.

$$\text{AWQC}_{\text{MeHg}}(\text{Ebaughs}) = [80 \text{ kg} \times (0.0001 \text{ mg/kg-d} - 0.000027 \text{ mg/kg-d})] / [2.4 \text{ L} + (0.022 \text{ kg} \times 5882398 \text{ L/kg})]$$

$$= [0.00584 \text{ mg}] / [129415 \text{ L}]$$

$$= 0.000000045 \text{ mg/L}$$

$$= 4 \times 10^{-8} \text{ mg/L}$$

$$= 4 \times 10^{-5} \text{ µg/L}$$

Metals Translation Factors for Ebaughs Creek

Eq. (4) was used to calculate the individual f_d for Ebaughs Creek (Table 7), and Eq. (5) was used to calculate the Final f_d for Ebaughs Creek (Final $f_{d(Ebaughs)}$), which is 5.88×10^{-5} .

Table 4. Summary of the individual translation factors calculated from the monthly sample results for Ebaughs Creek. One-half of the MDL (0.01 ng/L) was used for any values reported as <0.02 ng/L.

Sample Date	Ebaughs Down	Analyte	Report matrix	Unit	F_d (Ebaughs)
Oct-16	171	Hg	TR	ng/L	5.55556E-05
	0.0095	MeHg	D	ng/L	
Nov-16	302	Hg	TR	ng/L	3.31126E-05
	0.01	MeHg	D	ng/L	
Dec-16	164	Hg	TR	ng/L	6.09756E-05
	0.01	MeHg	D	ng/L	
Jan-17	165	Hg	TR	ng/L	6.06061E-05
	0.01	MeHg	D	ng/L	
Feb-17	178	Hg	TR	ng/L	5.61798E-05
	0.01	MeHg	D	ng/L	
Mar-17	160	Hg	TR	ng/L	6.25000E-05
	0.01	MeHg	D	ng/L	
Apr-17	224	Hg	TR	ng/L	1.25000E-05
	0.028	MeHg	D	ng/L	
May-17	168	Hg	TR	ng/L	6.25000E-05
	0.0105	MeHg	D	ng/L	
Jun-17	189	Hg	TR	ng/L	5.02646E-05
	0.0095	MeHg	D	ng/L	
Jul-17	169	Hg	TR	ng/L	5.91716E-05
	0.01	MeHg	D	ng/L	
Aug-17	143	Hg	TR	ng/L	6.99301E-05
	0.01	MeHg	D	ng/L	
Sep-17	228	Hg	TR	ng/L	4.38596E-05
	0.01	MeHg	D	ng/L	

Final $f_{d(Ebaughs)}$ = geometric mean of the individual f_d for Ebaughs Creek

$$= 0.00005877$$

$$= 5.88 \times 10^{-5}$$

NPDES Permit and Water Quality Standards Considerations

A study was conducted and submitted to DEP by YCWSRA for DEP to develop site-specific $AWQC_{MeHg}$ and metals translation factor for the UNT to Ebaughs Creek, York County. The site-specific $AWQC_{MeHg}$ for the UNT to Ebaughs Creek was determined to be $4 \times 10^{-5} \mu\text{g/L}$ (0.00004 $\mu\text{g/L}$), and the metals translation factor was determined to be 5.88×10^{-5} (0.0000588).

Once the site-specific $AWQC_{MeHg}$ has been incorporated into Chapter 93 and approved by USEPA, it will be used by NPDES staff to develop THg effluent discharge limitation for the UNT to Ebaughs Creek, based on application of the metals translator factor (Final f_d) developed for the receiving water.

Waterbody	BAF	$AWQC_{MeHg}$	Translator Factor (f_d)
Ebaughs Creek	$5.882398 \times 10^6 \text{ L/kg}$	$0.00004 \mu\text{g/L}$	5.88×10^{-5}

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Independent Regulatory
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October 17, 2023

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Attorney General

By: **Amy M. Elliott**
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10/13/2023

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DEPARTMENT OF ENVIRONMENTAL
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DOCUMENT/FISCAL NOTE NO. 7-571

DATE OF ADOPTION July 11, 2023

BY 
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NOTICE OF PROPOSED RULEMAKING

DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

Water Quality Standards – Site-Specific Water Quality Criteria

25 Pa. Code Chapter 93

**PROPOSED RULEMAKING
ENVIRONMENTAL QUALITY BOARD
[25 Pa. Code Chapter 93]**

Water Quality Standards – Site-Specific Water Quality Criteria

The Environmental Quality Board (Board) proposes to amend Chapter 93 (relating to water quality standards). The amendments propose revisions to § 93.8d (relating to development of site-specific water quality criteria) and the replacement of a total mercury water quality criterion with a site-specific methylmercury criterion for Ebaughs Creek in § 93.9o (relating to Drainage List O) as set forth in Annex A.

This proposed rulemaking was adopted by the Board at its meeting of July 11, 2023.

A. Effective Date

This proposed rulemaking will be effective upon final-form publication in the *Pennsylvania Bulletin*. Once approved by the United States Environmental Protection Agency (EPA), water quality standards are used to implement the Federal Clean Water Act (CWA) (33 U.S.C. §§ 1251—1389).

B. Contact Persons

For further information, contact Michael (Josh) Lookenbill, Bureau of Clean Water, 11th Floor, Rachel Carson State Office Building, P.O. Box 8774, 400 Market Street, Harrisburg, PA 17105-8774, (717) 787-9637; or Michelle Moses, Assistant Counsel, Bureau of Regulatory Counsel, 9th Floor, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-7060. Persons with a disability may use the Pennsylvania Hamilton Relay Service at (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposed rulemaking is available on the Department of Environmental Protection (Department) web site at www.dep.pa.gov (select "Public Participation," then "Environmental Quality Board," then navigate to the Board meeting of July 11, 2023).

C. Statutory Authority

This proposed rulemaking is authorized under sections 5(b)(1) and 402 of The Clean Streams Law (CSL) (35 P.S. §§ 691.5(b)(1) and 691.402), which authorize the Board to develop and adopt rules and regulations to implement the CSL (35 P.S. §§ 691.1—691.1001), and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20), which grants to the Board the power and duty to formulate, adopt, and promulgate rules and regulations for the proper performance of the work of the Department. In addition, sections 101(a)(2) and 303 of the CWA (33 U.S.C. §§ 1251(a)(2) and 1313) set forth requirements for water quality standards, which states must meet to implement the CWA in the Commonwealth. Section 101(a)(3) of the CWA declares the National policy that the discharge of toxic pollutants in toxic amounts be prohibited (33 U.S.C. § 1251(a)(3)). Section 303(c)(2)(B) directs states to adopt numeric criteria for toxic pollutants if they are present in a discharge that could be reasonably expected to interfere with a state's designated uses and as necessary to support those uses.

D. Background and Purpose

Water quality standards are in-stream water quality goals that are implemented by imposing specific regulatory requirements (such as treatment requirements, effluent limits, and best management practices) on individual sources of pollution. The water quality standards include the existing and designated uses of the surface waters of this Commonwealth, along with the specific numeric and narrative criteria necessary to achieve and maintain those uses, and antidegradation requirements.

The purpose and goals of this proposed rulemaking are: to revise the process for requesting, developing and adopting site-specific water quality criteria in § 93.8d; to delete the Statewide total mercury water quality criterion of 0.05 micrograms per liter ($\mu\text{g/L}$) for Ebaughs Creek; and to add a site-specific dissolved methylmercury water quality criterion of 0.00004 $\mu\text{g/L}$ for Ebaughs Creek in § 93.9o.

Regulations that clearly outline the site-specific criteria development process are critical to ensuring the Department receives the information necessary to determine if site-specific water quality criteria are applicable, to develop site-specific water quality criteria recommendations that are protective of surface water uses, and to incorporate the site-specific criteria into the Commonwealth's water quality standards. The proposed amendments will clarify when site-specific criteria may be requested or developed by the Department's own initiative and how a permit applicant may submit a request. Under § 93.8d(g) of the existing regulations, the Department has the authority to determine whether new Statewide criteria or modifications to Statewide criteria are appropriate. This determination may be based on the Department's initiative or a request by a permittee. The Department has the authority to develop site-specific criteria and Statewide criteria, as needed, to protect the waters of the United States and the surface waters of this Commonwealth. Due to the proposed deletion of § 93.8d(g), § 93.8d(a) is proposed to be amended to include the Department's continuing role to develop site-specific criteria on its own initiative.

Regarding the site-specific methylmercury water quality criterion for Ebaughs Creek, the York County Solid Waste and Refuse Authority (YCSWRA) has requested the Department develop a site-specific methylmercury water quality criterion for Ebaughs Creek, in lieu of applying the Statewide total mercury water quality criterion, to protect human health from the toxic effects of methylmercury and to inform their NPDES permit effluent limitations for Outfall 002. Methylmercury is a component of total mercury and represents the most toxic form of mercury to human health. Since the Department does not currently have Statewide numeric water quality criteria for methylmercury, YCSWRA's request satisfies § 93.8d(a)(3).

On March 16, 2023, the Department met with the Water Resources Advisory Committee (WRAC) to present its recommended updates to § 93.8d and the site-specific methylmercury water quality criterion for Ebaughs Creek. WRAC voted to support presentation of this proposed rulemaking to the Board. Additionally, the Department presented draft regulatory amendments to the Agricultural Advisory Board on March 15, 2023, explaining the proposed changes.

E. Summary of Proposed Rulemaking

§ 93.8d. Development of site-specific water quality criteria

The Board proposes to update § 93.8d by revising the site-specific water quality criteria development and adoption process. The proposed amendments in § 93.8d(a) clarify when site-specific water quality criteria may be requested. No significant changes were made to this existing regulation. Subsection (b) requires an applicant to provide information that demonstrates a qualifying factor, under subsection (a), is met and also requires an applicant to show that none of the factors in subsection (a.1) are applicable.

The proposed amendments in subsection (a.1) clarify the conditions under which site-specific water quality criteria may not be requested. Under § 93.8d(a.1)(1), site-specific water quality criteria may not be requested if a pollutant is a cause of nonattainment of the requested waterbody or would otherwise interfere with attainment of protected surface water uses. Under § 93.8d(a.1)(2) an applicant may not request site-specific criteria when there is impairment to the aquatic life use unless the impairment is caused by means other than a pollutant. An applicant may request site-specific criteria when a pollutant, such as sediment, ammonia or iron, is not the cause of an impairment to the aquatic life use. An applicant may request site-specific criteria if, for example, the aquatic life use impairment is caused by flow alterations or habitat modification, which do not involve pollutants. Under § 93.8d(a.1)(3), a site-specific criterion may not be requested for surface waters with an existing or designated use of High Quality Waters (HQ) or Exceptional Value Waters (EV). The existing water quality of HQ or EV waterbodies must be maintained and protected under § 93.4a (relating to antidegradation), and thus, the water quality goals for these waterbodies are already site-specific. All information needed by an applicant to determine whether to make a request for site-specific criteria under subsection (a.1) is publicly available. The applicant's documentation of its determination under subsection (a.1) will be necessary information to provide to the Department under subsection (b). Subsection (b)(5) requires an applicant to provide information that demonstrates a circumstance where a pollutant is not the cause of water use impairments or demonstrates the waterbody is not one with an existing or designated use of HQ or EV.

Subsection (b) identifies the minimum data and information that must be included with an applicant's request for site-specific criteria. The information is necessary to ensure the applicant has evaluated the qualifying factors in subsections (a) and (a.1), with a particular focus on waterbody-specific characteristics. Once an applicant qualifies to proceed with site-specific criteria development, additional data must be submitted and evaluated in accordance with subsections (c) and (c.1).

Once a site-specific water quality criterion is developed and publicly noticed for comment, the Department will prepare a rulemaking for the adoption of the new criterion into Chapter 93. All water quality criteria will be developed through rulemaking and the appropriate rulemaking processes, consistent with the Commonwealth's laws.

Site-specific water quality criteria are used to develop effluent limitations in permits. Given the need for timely permit development, the Department intends to explore all options available for expediting rulemaking procedures to promulgate site-specific water quality criteria while

maintaining robust public participation. Although § 93.8d(f)(4) is proposed for deletion, the obligation remains to promulgate site-specific criteria as regulations. The Department intends to enhance its public notices in the *Pennsylvania Bulletin* to reach a broader audience and will receive and respond to public comments on all draft site-specific water quality criteria. In addition, existing public notification and public participation processes available through the NPDES permitting process outlined in Chapter 92a (relating to National pollutant discharge elimination system permitting, monitoring and compliance) will continue.

§ 93.9o. Drainage List O

The YCSWRA owns and operates the York County Sanitary Landfill, which is a 306-acre site located in Hopewell Township, York County. Between 1974 and 1997, the landfill received municipal and industrial waste, which was placed into lined and unlined cells. The site contains approximately 135 acres of unlined landfill. Detection of volatile organic compounds (VOC) in several groundwater wells was discovered in 1983 and was associated with the unlined cells. A treatment system was installed to remove the VOCs and began operation in 1985. The system consisted of 17 extraction wells and air stripping towers. The air stripping towers discharge the treated groundwater to a surface water of this Commonwealth under NPDES permit number PA0081744. Mercury was not known to be present in the discharge when the initial permit was issued. It was later identified as a potential pollutant of concern through the Department's permit renewal application review process.

Mercury is a naturally occurring, widely distributed element that cycles between various forms in the environment through natural processes and human activities with some forms being more toxic than others. Mercury can enter surface waters through multiple pathways, including but not limited to, atmospheric deposition, stormwater runoff generated by precipitation events and NPDES-permitted activities, including treatment systems from contaminated groundwater. Total mercury includes elemental, inorganic and organic forms of mercury. Elemental and inorganic mercury do not contribute significantly to oral toxicity. These forms are poorly absorbed by the human body and do not bioaccumulate in animals if ingested (Agency for Toxic Substances and Disease Registry 1999). Methylmercury, however, has been identified by scientists as one of the most toxic forms of mercury to humans. It is an organic form of mercury that is typically formed in the environment when bacteria capable of methylation are exposed to a source of inorganic or elemental mercury and convert it to methylmercury. Methylmercury in surface waters then enters into the food web of the aquatic ecosystem and bioaccumulates in the aquatic macroinvertebrates and fish. Oral ingestion of mercury by humans occurs almost exclusively through the consumption of contaminated fish and wildlife, and nearly all of the mercury found in animal tissue is in the form of methylmercury. Observed toxicity in humans is also related to exposure amount, exposure pathway and individual susceptibility.

YCSWRA's Outfall 002 discharges treated groundwater into an unnamed tributary (UNT) to Ebaughs Creek, which is a small first-order tributary (that is, a headwater stream) with limited watershed area. The protected water uses for Ebaughs Creek include Cold Water Fishes, Migratory Fishes (CWF, MF). Based upon the Department's review of the available information, the Department has determined the primary source of mercury to Ebaughs Creek is the YCSWRA NPDES-permitted discharge and not a result of natural processes.

In accordance with § 93.8d, site-specific criteria may be established for the following three reasons: (1) to reflect conditions in a waterbody that differ from the EPA's criteria recommendations for protection of aquatic life, developed under section 304(a) of the CWA (33 U.S.C. § 1314(a)); (2) where necessary to protect more sensitive, intervening water uses as defined in Table 2, Chapter 93; and (3) where numeric criteria are necessary for a substance not currently listed in Chapter 93. Since the Department does not currently have a Statewide numeric water quality criterion for methylmercury, YCSWRA's request satisfies § 93.8d(a)(3).

YCSWRA requested the Department develop a site-specific methylmercury water quality criterion for Ebaughs Creek, in lieu of applying the Statewide total mercury water quality criterion, to inform their NPDES permit effluent limitations for Outfall 002. Methylmercury is a component of total mercury and represents the most toxic form of mercury to human health. The permit effluent limitations developed for YCSWRA will be a translation of the dissolved methylmercury water quality criterion established by this proposed rulemaking expressed as a site-specific total mercury discharge limit, as required under Federal NPDES regulations. These effluent limitations will continue to provide for control of total mercury while ensuring the toxic component, methylmercury, is not exceeded in the surface water or aquatic organisms.

YCSWRA performed a site-specific study for the collection of data necessary to develop a site-specific methylmercury water quality criterion for Ebaughs Creek that would be protective of human health. As required by § 93.8d(d), YCSWRA submitted a study plan to the Department for review, consideration and approval, and the Department approved a study plan.

Under CWA section 304(a), EPA publishes recommended water quality criteria guidance that consists of scientific information regarding concentrations of specific chemicals or levels of parameters in water that protect aquatic life and human health. The Federal water quality standards regulations require states to review, for adoption, numeric water quality criteria that are based on section 304(a) criteria recommendations developed by the EPA, consider whether to modify section 304(a) criteria recommendations to reflect site-specific conditions, or establish criteria based on other scientifically-defensible methods.

The EPA has published a section 304(a) dissolved methylmercury water quality criterion recommendation for the protection of human health that is a fish-tissue based criterion of 0.3 mg/kg (*Water Quality Criterion for the Protection of Human Health: Methylmercury*, USEPA 823-R-01-001). The EPA supports the adoption of methylmercury water quality criteria for the protection of human health because methylmercury is known to be one of the forms of mercury that is most toxic to humans. States have multiple options when developing and adopting methylmercury criteria, which may include the fish tissue recommendation, a water column criterion value based on the fish tissue recommendation, or both.

The EPA recommends that states adopt water column criteria values if adequate data is available to determine appropriate bioaccumulation factors (BAF). Bioaccumulation is the process of a chemical moving from the external environment (that is, surface water) into an organism. A BAF is a measure of how much a chemical accumulates within an organism. Thus, the Department required YCSWRA to collect fish tissue samples and surface water samples from Ebaughs Creek for the calculation of a site-specific BAF. The site-specific BAF was calculated to be 5.882398×10^{-6} liters per kilogram (L/kg). This BAF along with the human health exposure

inputs for body weight, drinking water intake rate and fish consumption rate and the provisions for developing water quality criteria found in Chapters 93 and 16 (relating to Water Quality Toxics Management Strategy—Statement of Policy) were used to convert the EPA’s fish-tissue-based ambient water quality criterion for methylmercury into a water column criterion. The proposed site-specific dissolved methylmercury criterion for Ebaughs Creek is 0.00004 µg/L. For more information, see the rationale document for *Development of a Site-Specific Methylmercury Water Quality Criterion for Ebaughs Creek*, attached to the Regulatory Analysis Form.

F. *Benefits, Costs and Compliance*

Benefits

The regulated community and the public benefit from having regulations that clearly outline the site-specific criteria development process. These proposed amendments will ensure that site-specific water quality criteria are protective of surface water uses. Further, the proposed regulations establish qualifying factors that refine who may request development of criteria and clearly identify information the requestor must submit to develop the numeric criteria. This clarity will improve processing of requests for site-specific criteria. The Department intends to further explore ways to process requests in an efficient and timely manner and to enhance public notice of draft criteria for review and comment.

The site-specific dissolved methylmercury water quality criterion contained in this proposed rulemaking would be specific to Ebaughs Creek. YCSWRA’s discharge is currently the only known discharge to Ebaughs Creek containing mercury, and YCSWRA would benefit by having a permit with effluent limitations developed based on the proposed site-specific water quality criterion. Likewise, persons proposing a new discharge to Ebaughs Creek may benefit from the methylmercury criterion if mercury is found in a proposed new discharge.

Compliance costs

The proposed amendments to Chapter 93 will not immediately impose any costs on the regulated community. When site-specific criteria are necessary either to protect more sensitive intervening uses than those uses protected by a Statewide criterion or to protect a water use from substances currently lacking numeric criteria in Chapter 93, additional costs may be incurred by persons with NPDES permits. The costs for a permittee would be associated with conducting the required studies to develop the site-specific criteria and implementing the treatment technology necessary to meet the effluent limitations based on the criteria.

In some cases, the adoption of site-specific water quality criteria may result in effluent limitations that are less stringent than those based on Statewide criteria, and therefore, reduce the need for wastewater treatment technologies to remove pollutants, resulting in cost savings for a permittee. Treatment costs are site-specific and depend upon the size and location of the discharge in relation to the size of the stream and many other factors. Furthermore, requests for site-specific criteria for a variety of pollutants may be initiated by persons with NPDES permits. It is not possible to precisely predict the costs or savings that could be incurred for any existing or new discharges to comply with any future site-specific criteria.

The expenditures necessary to meet new compliance requirements may exceed that which is required under existing regulations, but these proposed amendments are necessary to ensure existing and designated uses of surface waters of this Commonwealth are afforded the appropriate level of protection and to improve pollution control.

The proposed amendments to § 93.90 for Ebaughs Creek are specific to that waterbody. Furthermore, the proposed site-specific dissolved methylmercury water quality criterion for Ebaughs Creek would be applicable only to YCSWRA, and therefore, YCSWRA would be the only affected party. The proposed amendments will be implemented through the Department's permit and approval actions.

Compliance assistance plan

Surface waters of this Commonwealth are afforded a minimum level of protection through compliance with the water quality standards, including site-specific water quality criteria, which prevent pollution and protect existing and designated surface water uses.

The proposed amendments will be implemented through the Department's permit and approval actions. For example, the NPDES permitting program establishes effluent limitations based on the existing and designated protected water uses of the stream, and the water quality criteria developed to maintain those uses. These effluent limits are established to assure water quality is protected and maintained. Site-specific water quality criteria are protective of the water uses and are implemented in the same manner as Statewide water quality criteria.

Paperwork requirements

This proposed rulemaking should have no new direct paperwork impact on the Commonwealth, local governments and political subdivisions or the private sector. This proposed rulemaking would be implemented in accordance with existing Department regulations. A process to develop site-specific water quality criteria has been in effect for several decades. The proposed regulations refine the qualifying factors and criteria development studies that apply to a request for site-specific criteria; however, the overall paperwork impact will not change.

G. Pollution Prevention

The Federal Pollution Prevention Act of 1990 (42 U.S.C. §§ 13101—13109) established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials, and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance.

Water quality standards are a major pollution prevention tool because they protect water quality and designated and existing uses of surface waters. The proposed amendments would be implemented through the Department's permit and approval actions. For example, the NPDES

program will establish the more stringent of technology-based or water quality-based effluent limitations in permits. Water quality-based effluent limitations are determined by the existing and designated uses of the receiving stream and the water quality criteria necessary to protect those water uses. Site-specific water quality criteria are protective of the water uses and are implemented in the same manner as Statewide water quality criteria.

H. *Sunset Review*

The Board is not proposing to establish a sunset date for this proposed regulation because it is needed for the Department to carry out its statutory authority. The Department will continue to closely monitor this proposed regulation for its effectiveness and recommend updates to the Board as necessary.

I. *Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on October 17, 2023, the Department submitted a copy of this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the House and Senate Environmental Resources and Energy Committees. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act (71 P.S. § 745.5(g)), IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections must specify the regulatory review criteria in section 5.2 of the Regulatory Review Act (71 P.S. § 745.5b) which have not been met. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the rulemaking, by the Department, the General Assembly and the Governor.

J. *Public Comments*

Interested persons are invited to submit to the Board written comments, suggestions, support or objections regarding the proposed rulemaking. Comments, suggestions, support or objections must be received by the Board by December 19, 2023.

Comments may be submitted to the Board online, by e-mail, by mail or express mail as follows below.

Comments may be submitted to the Board by accessing eComment at <http://www.ahs.dep.pa.gov/eComment>.

Comments may be submitted to the Board by e-mail at RegComments@pa.gov. A subject heading of the proposed rulemaking and a return name and address must be included in each transmission.

If an acknowledgement of comments submitted online or by e-mail is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt. Comments submitted by facsimile will not be accepted.

Written comments should be mailed to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477. Express mail should be sent to the Environmental Quality Board, Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301.

K. Public Hearing

The Board will hold a virtual public hearing for the purpose of accepting comments on this proposed rulemaking. The hearing will be held at 1 p.m. on December 5, 2023.

Persons wishing to present testimony at this hearing must contact Casey Damicantonio for the Department and the Board, (717) 783-8727 or RA-EPEQB@pa.gov, at least 1 week in advance of the hearing to reserve a time to present testimony. Language interpretation services are available upon request. Persons in need of language interpretation services must contact Casey Damicantonio by 5 p.m. on November 28, 2023.

Oral testimony is limited to 5 minutes for each witness. Organizations are limited to designating one witness to present testimony on their behalf at one hearing. Witnesses may provide testimony by means of telephone or Internet connection. Video demonstrations and screen sharing by witnesses will not be permitted.

Witnesses are requested to submit a written copy of their verbal testimony by e-mail to RegComments@pa.gov after providing testimony at the hearing.

Information on how to access the virtual public hearing will be available on the Board's webpage found through the Public Participation tab on the Department's web site at www.dep.pa.gov (select "Public Participation," then "Environmental Quality Board"). Prior to a hearing, individuals are encouraged to visit the Board's webpage for the most current information for accessing the hearing.

Members of the public wishing to observe a virtual public hearing without providing testimony are also directed to access the Board's webpage.

Persons in need of accommodations as provided for in the Americans with Disabilities Act of 1990 should contact the Board at (717) 783-8727 or through the Pennsylvania Hamilton Relay Service at (800) 654-5984 (TDD) or (800) 654-5988 (voice users) to discuss how the Board may accommodate their needs.

RICHARD NEGRIN,
Chairperson

ANNEX A

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

CHAPTER 93. WATER QUALITY STANDARDS

§ 93.8d. Development of site-specific water quality criteria.

(a) The Department will consider a request for site-specific criteria, or the Department may develop site-specific criteria on its own initiative, when one or more of the following apply:

(1) There exist site-specific biological or chemical conditions of [receiving waters] the waterbody or waterbody segment which differ from conditions upon which the aquatic life water quality criteria were based.

(2) More stringent criteria are needed for a [parameter] pollutant listed in § 93.7, Table 3 (relating to specific water quality criteria) or § 93.8c, Table 5 (relating to water quality criteria for toxic substances) to protect more sensitive, intervening uses.

(3) There exists a need for a site-specific criterion for a [substance] pollutant not listed in § 93.7, Table 3 or § 93.8c, Table 5 [(relating to water quality criteria for toxic substances)].

(a.1) Site-specific criteria may not be developed when one or more of the following apply:

(1) If the request is for a waterbody or waterbody segment where a pollutant is a cause of nonattainment for any protected water use as listed in Pennsylvania's Integrated Water Quality Monitoring and Assessment Report, as amended and updated.

(2) If the request is for a waterbody or waterbody segment where an aquatic life use is not attained, unless all causes of nonattainment are due to causes other than pollutants as determined by the Department in an assessment. Assessments are publicly available on the Department's website.

(3) If the request is for surface waters with an existing or designated use of HQ or EV.

(b) The [request] applicant's demonstration for consideration of site-specific criteria, under subsections (a) and (a.1), must include the [results of scientific studies for the purpose of] following information, at a minimum:

(1) [Defining the areal boundaries for application of the site-specific criteria which will include the potentially affected wastewater dischargers identified by the Department, through various means, including, but not limited to, the total maximum daily load (TMDL) process described in Chapter 96 (relating to water quality standards implementation) or biological assessments.] (Reserved.)

(1.1) Identification of the pollutant of concern.

(2) [Developing site-specific criteria which protect the surface water's existing and designated uses.] **(Reserved.)**

(2.1) Identification of the qualifying factor or factors in subsection (a).

(3) Identification of each waterbody or waterbody segment to which the site-specific criteria would apply, including stream name, municipality or municipalities, county or counties, and all existing and designated uses of each waterbody or waterbody segment.

(4) Scientific studies, data or other information that demonstrate the qualifying factor or factors in subsection (a) are met, which may include the following:

(i) Peer-reviewed, scientific literature related to the pollutant of concern.

(ii) For a demonstration of the qualifying factor in subsection (a)(1):

(A) Department or Federal water quality criteria rationale documents and regulations related to the pollutant of concern.

(B) Water quality and other relevant data collected on each waterbody or waterbody segment which demonstrate that the conditions differ from conditions upon which the existing aquatic life water quality criteria were based.

(iii) For a demonstration of the qualifying factor in subsection (a)(2):

(A) Documentation of more sensitive, intervening water uses for each waterbody or waterbody segment.

(B) Documentation of the presence, critical habitat or critical dependence of state- or Federally-listed threatened or endangered species in or on a surface water, if applicable.

(iv) Any additional data or information as requested by the Department or that demonstrates the applicable qualifying factor is met.

(5) Information that demonstrates the factors in subsection (a.1) are not applicable.

(6) Information that demonstrates a water-quality-based effluent limitation based on a water quality criterion found in § 93.7, Table 3 or § 93.8c, Table 5 is not achievable.

(c) Based on the results of a demonstration that the request for site-specific criteria satisfies subsections (a), (a.1) and (b), the Department may require the applicant to undertake studies and submit additional information to develop site-specific criteria that includes the following, at a minimum:

(1) Definition of the areal boundaries for application of the site-specific criteria which will include a description of each waterbody or waterbody segment.

(2) Identification of all potentially affected National Pollutant Discharge Elimination System (NPDES)-permitted discharges, water withdrawals, total maximum daily loads (TMDL) and surface water assessments.

(3) All peer-reviewed scientific literature or other Department-approved data to be used in the development of the site-specific criterion. If data will be collected, a copy of the proposed plan for data collection shall be submitted for review, consideration and approval by the Department prior to commencement of data collection. [Scientific studies] Data collection shall be [performed] completed in accordance with the Department's data collection protocols and the following procedures and guidance [in the], as amended and updated: Water Quality Standards Handbook (EPA 1994), [as amended and updated, including:] "Guidance on the Determination and Use of Water-Effect Ratios for Metals" (February 1994); [and] the "Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health" (2000), and the "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses" (1985). Other guidance approved by the [department] Department, which is based on EPA-approved or scientifically defensible methodologies, may be used. The development of new or updated site-specific criteria for copper in freshwater systems shall be performed using the biotic ligand model (BLM).

(4) Copies of all reports, including toxicity test data, signed by the consultant or entity that performed the work. Signed copies shall be submitted to the Department within 60 days of completion of the tests.

(5) Any additional data or information as requested by the Department.

(c.1) If the required data and information is submitted, the Department will evaluate the information and may develop site-specific criteria for each requested waterbody or waterbody segment that protect the existing and designated uses of the surface waters in accordance with the criteria development methodologies outlined in subsection (c)(3), or other EPA-approved guidance and methods.

(c.2) The Department will incorporate all approved site-specific criteria into this chapter and maintain a publicly available table of all EPA-approved site-specific criteria.

(c.3) Site-specific criteria are not effective for Clean Water Act purposes until approved by the EPA.

(d) [Prior to conducting studies specified in subsections (b) and (c), a proposed plan of study shall be submitted to the Department for review, consideration and approval.] (Reserved.)

(e) [Signed copies of all reports including toxicity test data shall be submitted to the Department within 60 days of completion of the tests.] (Reserved.)

(f) [If the Department determines that site-specific criteria are appropriate in accordance with subsection (a), the Department will do the following:

(1) Publish the site-specific criterion in the *Pennsylvania Bulletin*, along with other special conditions under § 92a.82(b)(3) (relating to public notice of permit applications and draft permits) and provide for public participation and public hearing in accordance with §§ 92a.81, 92a.82, 92a.83 and 92a.85.

(2) Maintain a publicly available online table of site-specific criteria.

(3) Submit the methodologies used for site-specific criteria development to the EPA’s Regional Administrator for review and approval, within 30 days of Department’s final action.

(4) Prepare a recommendation to the EQB in the form of proposed rulemaking, incorporating that criterion for the water body segment.] (Reserved.)

(g) [If the Department determines that new Statewide criteria or modifications to Statewide criteria are appropriate, the Department will prepare a recommendation to the EQB in the form of proposed rulemaking, incorporating the criteria into this chapter. The new criteria and changes to the criteria will become effective following adoption by the EQB as final rulemaking and publication in the *Pennsylvania Bulletin*.] (Reserved.)

(h) A person challenging a Department action under this section shall have the burden of proof to demonstrate that the Department’s action does not meet the requirements of this section.

§ 93.9o. Drainage List O.

Susquehanna River Basin in Pennsylvania
Susquehanna River

Stream	Zone	County	Water Uses Protected	Exceptions To Specific Criteria
* * * * *				
3—Stone Run	Basin (all sections in PA)	Chester	TSF, MF	None
2—Deer Creek	Basin (all sections in PA), <u>Source to Ebaughs Creek</u>	York	CWF, MF	None
<u>3—Ebaughs Creek</u>	<u>Basin (all sections in PA)</u>	<u>York</u>	<u>CWF, MF</u>	<u>Delete Mercury Human Health = 0.05 µg/L</u> <u>Add Methylmercury Human Health = 0.00004 µg/L</u>

<u>2—Deer Creek</u>	<u>Basin (all sections in PA), Ebaughs Creek to Mouth</u>	<u>York</u>	<u>CWF, MF</u>	<u>None</u>
1—Chesapeake Bay (MD)				

* * * * *



October 17, 2023

David Sumner
Executive Director
Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17120

Re: Proposed Rulemaking: Water Quality Standards – Site-Specific Water Quality Criteria (#7-571)

Dear Mr. Sumner:

Pursuant to Section 5(a) of the Regulatory Review Act, please find enclosed a copy of the Water Quality Standards – Site-Specific Water Quality Criteria proposed rulemaking for review by the Independent Regulatory Review Commission (Commission). This proposal is scheduled for publication in the *Pennsylvania Bulletin* on November 4, 2023, opening a 45-day public comment period that will close on December 19, 2023. A virtual public hearing is scheduled for December 5, 2023. The Environmental Quality Board adopted this proposal on July 11, 2023.

This rulemaking proposes to amend the Department of Environmental Protection's water quality criteria regulations to revise the process for requesting, developing and adopting site-specific water quality criteria and change the water quality criterion for Ebaughs Creek from the Statewide total mercury water quality criterion of 0.05 micrograms per liter ($\mu\text{g/L}$) to site-specific dissolved methylmercury water quality criterion of 0.00004 $\mu\text{g/L}$.

As set forth in the Regulatory Review Act, the Department will consider any comments and recommendations made by the Commission, as well as the House and Senate Environmental Resources and Energy Committees and the public, prior to final adoption of the enclosed rulemaking.

Please contact me by e-mail at laurgriffi@pa.gov or by telephone at 717.772.3277 if you have any questions or need additional information.

Sincerely,

A handwritten signature in blue ink that reads "Laura E. Griffin".

Laura Griffin
Regulatory Coordinator

Enclosures

**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO THE
REGULATORY REVIEW ACT**

I.D. NUMBER: 7-571

SUBJECT: Water Quality Standards – Site-Specific Water Quality Criteria

AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

TYPE OF REGULATION

RECEIVED

X Proposed Regulation

Final Regulation

Final Regulation with Notice of Proposed Rulemaking Omitted

120-day Emergency Certification of the Attorney General

120-day Emergency Certification of the Governor

Delivery of Tolled Regulation

a. With Revisions

b.

Without Revisions

Independent Regulatory
Review Commission

October 17, 2023

FILING OF REGULATION

DATE

SIGNATURE

DESIGNATION

*HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES &
ENERGY*

10/17/2023 Hayley Shupe
(via electronic delivery)

MAJORITY CHAIR Representative Greg Vitali

10/17/2023 Michele Musgrave
(via electronic delivery)

MINORITY CHAIR Representative Martin Causer

*SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES &
ENERGY*

10/17/2023 Matt Osenbach
(via electronic delivery)

MAJORITY CHAIR Senator Gene Yaw

10/17/2023 Emily Eyster
(via electronic delivery)

MINORITY CHAIR Senator Carolyn Comitta

INDEPENDENT REGULATORY REVIEW COMMISSION

10/17/2023 _____

EXECUTIVE DIRECTOR David Sumner

ATTORNEY GENERAL (for Final Omitted only)

10/17/2023 Adeline Gaydosh
(via electronic delivery)

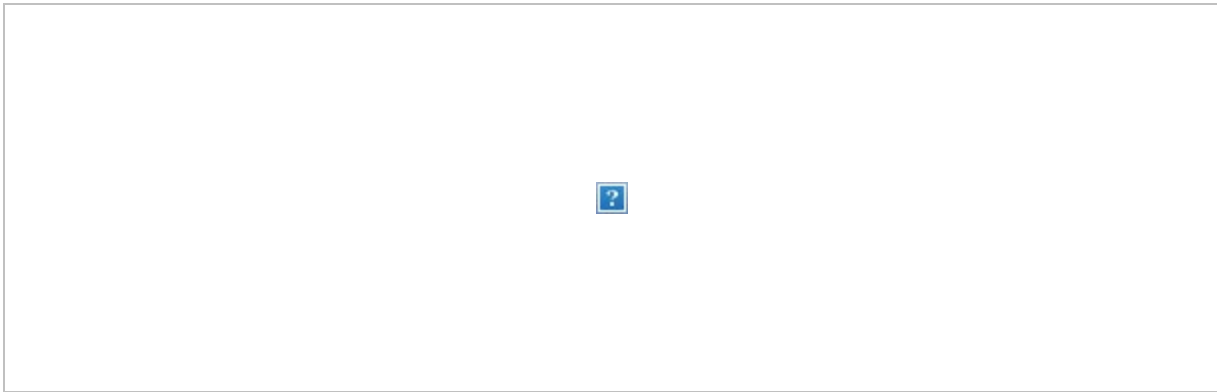
LEGISLATIVE REFERENCE BUREAU (for Proposed only)

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From: [Shupe, Hayley](#)
To: [Griffin, Laura](#); [Michele Musgrave](#); [Franzese, Evan B.](#)
Cc: [Thrush, Ezra](#); [Reiley, Robert A.](#); [Nezat, Taylor](#)
Subject: RE: Delivery of Proposed Rulemaking - Water Quality Standards: Site-Specific Water Quality Criteria (7-571)
Date: Tuesday, October 17, 2023 8:55:47 AM
Attachments: [image001.png](#)

Independent Regulatory
Review Commission
October 17, 2023

Received thank you.



From: Griffin, Laura <laurgriffi@pa.gov>
Sent: Tuesday, October 17, 2023 8:49 AM
To: Michele Musgrave <Mmusgrav@pahousegop.com>; Franzese, Evan B. <EFranzese@pahouse.net>
Cc: Thrush, Ezra <ezthrush@pa.gov>; Reiley, Robert A. <rreiley@pa.gov>; Nezat, Taylor <tnezat@pa.gov>; Shupe, Hayley <HShupe@pahouse.net>
Subject: Delivery of Proposed Rulemaking - Water Quality Standards: Site-Specific Water Quality Criteria (7-571)
Importance: High

Good morning,

Pursuant to Section 5(a) of the Regulatory Review Act, please find attached the Water Quality Standards - Site-Specific Water Quality Criteria Proposed Rulemaking (#7-571) for review by the House Environmental Resources and Energy Committee. The rulemaking documents are attached in a compressed folder and the cover letters for Representatives Vitali and Causer are attached separately.

A copy of the transmittal sheet is attached for your records – all ERE Committee chairs are receiving the rulemaking electronically.

Please confirm receipt of this rulemaking by replying to all recipients.

Thank you,
Laura

Laura Griffin | Regulatory Coordinator
Department of Environmental Protection | Policy Office
Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17101
Phone: 717.772.3277 | Fax: 717.783.8926
(she/her/hers) | laurgriffi@pa.gov
www.dep.pa.gov

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Review Commission

October 17, 2023

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From: [Michele Musgrave](#)
To: [Griffin, Laura](#); [Franzese, Evan B.](#)
Cc: [Thrush, Ezra](#); [Reiley, Robert A.](#); [Nezat, Taylor](#); [Shupe, Hayley](#)
Subject: RE: [EXTERNAL]: Delivery of Proposed Rulemaking - Water Quality Standards: Site-Specific Water Quality Criteria (7-571)
Date: Tuesday, October 17, 2023 8:57:46 AM

Received thanks!

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Michele Musgrave
Administrative Assistant II
Representative Martin Causer
Environmental Resources &
Energy Committee
Room 47 East Wing
PO Box 202067
Harrisburg, PA 17120-2067
717-787-5075

Independent Regulatory
Review Commission

October 17, 2023

From: Griffin, Laura <laurgriffi@pa.gov>
Sent: Tuesday, October 17, 2023 8:49 AM
To: Michele Musgrave <Mmusgrav@pahousegop.com>; Franzese, Evan B. <EFranzese@pahouse.net>
Cc: Thrush, Ezra <ezthrush@pa.gov>; Reiley, Robert A. <rreiley@pa.gov>; Nezat, Taylor <tnezat@pa.gov>; Shupe, Hayley <HShupe@pahouse.net>
Subject: [EXTERNAL]: Delivery of Proposed Rulemaking - Water Quality Standards: Site-Specific Water Quality Criteria (7-571)
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RECEIVED

Thank you,
Laura

Independent Regulatory
Review Commission
October 17, 2023

Laura Griffin | Regulatory Coordinator
Department of Environmental Protection | Policy Office
Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17101
Phone: 717.772.3277 | Fax: 717.783.8926
(she/her/hers) | laurgriffi@pa.gov
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To: [Griffin, Laura](#)
Cc: [Thrush, Ezra](#); [Reiley, Robert A.](#); [Code&Bulletin](#)
Subject: [External] Re: Delivery of Proposed Rulemaking - Water Quality Standards: Site-Specific Water Quality Criteria (7-571)
Date: Tuesday, October 17, 2023 9:31:02 AM

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Good morning, Laura,

Thank you for sending these documents. As indicated they will be published in the 11/4 issue of the *Pennsylvania Bulletin*.

Have a terrific day!
Adeline

Adeline Gaydosh | Legal Assistant
agaydosh@palrb.us | 717.783.3984
Legislative Reference Bureau
Pennsylvania Code & Bulletin Office
647 Main Capitol Building
Harrisburg, PA 17120

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Independent Regulatory
Review Commission

October 17, 2023

From: Griffin, Laura <laurgriffi@pa.gov>
Sent: Tuesday, October 17, 2023 9:03 AM
To: Code&Bulletin <codeandbulletin@palrb.us>; Bulletin <bulletin@palrb.us>
Cc: Leah Brown <lbrown@palrb.us>; A.J. Mendelsohn <amendelsohn@palrb.us>; Adeline E. Gaydosh <agaydosh@palrb.us>; Thrush, Ezra <ezthrush@pa.gov>; Reiley, Robert A. <rreiley@pa.gov>
Subject: Delivery of Proposed Rulemaking - Water Quality Standards: Site-Specific Water Quality Criteria (7-571)

Good morning,

Please see the attached documents, including Word versions of the Preamble and Annex A, for Proposed Rulemaking – Water Quality Standards: Site-Specific Water Quality Criteria (#7-571), for publication on **November 4, 2023**.

A cover letter and the transmittal sheet confirming receipt of the rulemaking by the House and Senate ERE Committees is attached (all chairs are accepting electronic delivery).

Please confirm that you received the rulemaking documents for publication.

Thank you!
Laura

Laura Griffin | Regulatory Coordinator
Department of Environmental Protection | Policy Office
Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17101
Phone: 717.772.3277 | Fax: 717.783.8926
(she/her/hers) | laurgriffi@pa.gov
www.dep.pa.gov

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Independent Regulatory
Review Commission
October 17, 2023

Connect with DEP on: [Twitter](#) | [Facebook](#) | [LinkedIn](#) | [YouTube](#) | [Instagram](#)

From: [Eyster, Emily](#)
To: [Griffin, Laura](#); [Osenbach, Matt](#)
Cc: [Thrush, Ezra](#); [Reiley, Robert A.](#); [Nezat, Taylor](#); [Troutman, Nick](#)
Subject: Re: Delivery of Proposed Rulemaking - Water Quality Standards: Site-Specific Water Quality Criteria (7-571)
Date: Tuesday, October 17, 2023 8:55:15 AM

Received. Thank you Laura!

Emily Eyster
Legislative Director, Office of Senator Carolyn T. Comitta
Executive Director, Senate Environmental Resources and Energy Committee
Cell: (717) 756-4702
Phone: (717) 787-5709
www.pasenatorcomitta.com

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Independent Regulatory
Review Commission

October 17, 2023

From: Griffin, Laura <laurgriffi@pa.gov>
Sent: Tuesday, October 17, 2023 8:48 AM
To: mosenbach@pasen.gov <mosenbach@pasen.gov>; Eyster, Emily <Emily.Eyster@pasenate.com>
Cc: Thrush, Ezra <ezthrush@pa.gov>; Reiley, Robert A. <rreiley@pa.gov>; Nezat, Taylor <tnezat@pa.gov>; Troutman, Nick <ntroutman@pasen.gov>
Subject: Delivery of Proposed Rulemaking - Water Quality Standards: Site-Specific Water Quality Criteria (7-571)

■ EXTERNAL EMAIL ■

Good morning,

Pursuant to Section 5(a) of the Regulatory Review Act, please find attached the Water Quality Standards - Site-Specific Water Quality Criteria Proposed Rulemaking (#7-571) for review by the Senate Environmental Resources and Energy Committee. The rulemaking documents are attached in a compressed folder and the cover letters for Senators Yaw and Comitta are attached separately.

A copy of the transmittal sheet is attached for your records – all ERE Committee chairs are receiving the rulemaking electronically.

Please confirm receipt of this rulemaking by replying to all recipients.

Thank you,
Laura

Laura Griffin | Regulatory Coordinator

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Department of Environmental Protection | Policy Office
Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17101
Phone: 717.772.3277 | Fax: 717.783.8926
(she/her/hers) | laurgriffi@pa.gov
www.dep.pa.gov

Independent Regulatory
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October 17, 2023

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From: [Osenbach, Matt](#)
To: [Griffin, Laura](#)
Cc: [Eyster, Emily](#); [Thrush, Ezra](#); [Reiley, Robert A.](#); [Nezat, Taylor](#); [Troutman, Nick](#)
Subject: Re: Delivery of Proposed Rulemaking - Water Quality Standards: Site-Specific Water Quality Criteria (7-571)
Date: Tuesday, October 17, 2023 8:53:30 AM

Message received.

Thanks Laura!

Matt Osenbach

Director, Environmental Resources & Energy Committee

Office of State Senator Gene Yaw (R-23)

362 Main Capitol Building, Senate Box 203023

Harrisburg, PA 17120

T: (717) 787-3280

F: (717) 772-0575

www.SenatorGeneYaw.com



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October 17, 2023

On Oct 17, 2023, at 8:50 AM, Griffin, Laura <laurgriffi@pa.gov> wrote:

CAUTION : External Email

Good morning,

Pursuant to Section 5(a) of the Regulatory Review Act, please find attached the Water Quality Standards - Site-Specific Water Quality Criteria Proposed Rulemaking (#7-571) for review by the Senate Environmental Resources and Energy Committee. The rulemaking documents are attached in a compressed folder and the cover letters for Senators Yaw and Comitta are attached separately.

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Thank you,
Laura

Laura Griffin | Regulatory Coordinator
Department of Environmental Protection | Policy Office

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400 Market Street | Harrisburg, PA 17101
Phone: 717.772.3277 | Fax: 717.783.8926
(she/her/hers) | laurgriffi@pa.gov
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<7-571_WQS SSC_Proposed.zip>
<Comitta_7-571_WQS SSC_Proposed.pdf>
<Yaw_7-571_WQS SSC_Proposed.pdf>
<7-571_WQS SSC_Proposed_Transmittal Sheet.doc>

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October 17, 2023