

FINAL RULEMAKING

**ENVIRONMENTAL QUALITY BOARD
[25 PA. CODE CH. 93]**

Triennial Review of Water Quality Standards

The Environmental Quality Board (Board) by this order amends 25 Pa. Code, Chapter 93 relating to Water Quality Standards. The rulemaking fulfills the Commonwealth's obligations under State and Federal laws to review and revise, as necessary, water quality standards that are protective of surface waters.

This final-form rulemaking was adopted by the Board at its meeting of _____.

A. *Effective Date*

This final-form rulemaking will be effective upon publication in the *Pennsylvania Bulletin*.

B. *Contact Persons*

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C. *Statutory and Regulatory Authority*

This final-form rulemaking is being made under the authority of sections 5(b)(1) and 402 of The Clean Streams Law (35 P.S. §§ 691.5(b)(1) and 691.402), which authorize the Board to develop and adopt rules and regulations to implement The Clean Streams Law (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 Federal Clean Water Act (33 U.S.C.A. §§ 1251(a)(2) and 1313) sets forth requirements for water quality standards.

D. *Background and Purpose*

Section 303(c)(1) of the Federal Clean Water Act (CWA) requires that states periodically, but at least once every three years, review and revise as necessary, their water quality standards. This regulation constitutes Pennsylvania's current triennial review of its water quality standards.

Pennsylvania's water quality standards, which are codified in Chapter 93 (Water Quality Standards) and Chapter 16 (Water Quality Toxics Management Strategy – Statement of Policy), are designed to implement the requirements of Section 5 and 402 of The Clean Streams Law and CWA Section 303 (33 U.S.C.A. § 1313). The water quality standards consist of the designated and existing uses of the surface waters of this Commonwealth, along with the specific numeric and narrative criteria necessary to achieve and maintain those uses, and an antidegradation policy. Thus, water quality standards are instream water quality goals that are implemented by imposing specific regulatory requirements – such as treatment requirements, best management practices, and effluent limitations – on individual sources of pollution.

This final rule will revise the Chapter 93 Water Quality Standards regulations. These regulatory revisions will clarify requirements and update the regulations to be consistent with federal guidance where indicated. This regulation may affect persons who discharge wastewater into surface waters of the Commonwealth or otherwise conduct activities which may impact such waters.

The Department discussed this final-form triennial rulemaking with the Water Resources Advisory Committee (WRAC) on May 23, 2019. WRAC voted to concur with the Department's recommendation to present the final rulemaking to the Board. In addition, the Department provided to the Agricultural Advisory Board on April 25, 2019, a regulatory review that included the draft final triennial review of water quality standards.

The regulation was adopted by the Board as proposed rulemaking at its April 18, 2017 meeting, and was published in the *Pennsylvania Bulletin* on October 21, 2017 (47 Pa.B. 6609) with provision for a 70-day public comment period that was scheduled to end December 29, 2017. The Board published a correction to this notice in the *Pennsylvania Bulletin* on October 28, 2017 (47 Pa.B. 6727) to revise a printer error for one of the dates and locations of the public hearings as printed in the original Preamble. The Board held public hearings, for the purpose of accepting comments on the proposed rulemaking, on December 6, 8, and 14, 2017 at the Department's Regional Offices in Wilkes-Barre (Northeast Region - NERO), Harrisburg (Southcentral Region - SCRO), and Pittsburgh (Southwest Region - SWRO), Pennsylvania, respectively. The Board received public comments requesting the public comment period be extended, and that an additional public hearing be held in the southeast area of the Commonwealth. This request was granted and notice of this public comment period extension and additional public hearing was published in the *Pennsylvania Bulletin* on December 30, 2017 (47 Pa.B. 7852). The additional public hearing was held on January 30, 2018, at the Department's Southeast Regional Office (SERO) in Norristown, Pennsylvania. The extended public comment period ended on February 16, 2018. The Board received comments from 776 commenters including testimony from seven witnesses at the public hearings. The Board also received comments from the Independent Regulatory Review Commission (IRRC). The comments received on the proposed regulation are summarized in Section E.

The Department has considered all public comments received on the proposed rulemaking in preparing this final regulation.

Exceptions for fishable/swimmable waters

Part of the triennial review requires that states re-examine water body segments that do not meet the fishable or swimmable uses specified in CWA Section 101(a)(2) (33 U.S.C.A. § 1251(a)(2)). The Department evaluated the two Pennsylvania waterbodies where the uses are not currently met: 1) the Harbor Basin and entrance channel to Outer Erie Harbor/Presque Isle Bay (Drainage List X, § 93.9x); and 2) several zones in the Delaware Estuary (Drainage Lists E and G, §§ 93.9e and 93.9g).

The swimmable use designation was deleted from the Harbor Basin and entrance channel demarcated by United States Coast Guard buoys and channel markers on Outer Erie Harbor/Presque Isle Bay because pleasure boating and commercial shipping traffic pose a serious safety hazard in this area. This decision was further supported by a Use Attainability Analysis (UAA) study conducted by the Department of Environmental Resources (DER) in 1985. Because the same conditions and hazards exist today, no change is proposed to the designated use for Outer Erie Harbor/Presque Isle Bay. The water contact sports (WC) use remains excluded from the designated uses for this portion of Lake Erie.

In April 1989, DER cooperated with the Delaware River Basin Commission (DRBC) and the United States Environmental Protection Agency (EPA) on a comprehensive UAA study in the lower Delaware River and Delaware Estuary. This study resulted in appropriate recommendations regarding the swimmable use, which the DRBC included in its regulations for water use classifications and water quality criteria for portions of the tidal Delaware River in May 1991. The appropriate DRBC standards were referenced in §§ 93.9e and 93.9g in 1994. The WC use remains excluded from the designated uses for river miles 108.4 to 81.8 because of continuing significant impacts from combined sewer overflows (CSOs), and hazards associated with commercial shipping and navigation. However, the Board received comments indicating there are multiple instances where commenters have participated in and documented water contact and conducted paddling and kayaking on this stretch of the Delaware River and Estuary. Commenters suggested water contact is an existing use and should not be removed. Others commented that although the Department cites the CSOs as a reason for excluding water contact, this should be reconsidered noting the EPA policy on CSOs that was issued in 1994 and incorporated into the CWA in 2000. Commenters also point to Long-Term Control Plans that are now under development or in place for the CSOs in this portion of the River as a reason not to remove the water contact use. As suggested by commenters, the Department will initiate an effort with DRBC to reevaluate the applicable standards to determine if the standards should include designated use protection for water contact/swimming. An updated recommendation regarding the WC use will be considered in the next triennial review of water quality standards, following outcome of this collaboration with DRBC.

The Board also received comments on the limited uses for Zones 3 and 4, and upper Zone 5 of the Delaware Estuary, as incorporated into §§ 93.9e and 93.9g. These less restrictive uses, described in §§ 93.9e and 93.9g as WWF (Maintenance Only) and MF (Passage Only), for tidal portions of the basin, from river mile 108.4 to the Pennsylvania-Delaware state border, date back to the original Article 301 - Water Quality Criteria that were added to the Sanitary Water Board's

rules and regulations in 1967. The current designated uses within these Zones do not include propagation and thus refer to DRBC's standards which were developed to protect fish maintenance and passage only. The commenters cite recent data and observations that suggest significant improvement and recovery is occurring in propagation for some species in portions of these Zones.

Commenters also refer to the federally endangered Atlantic sturgeon (*Ancipenser oxyrinchus*) and other reproducing fish that currently live and breed in the tidal Delaware River (Zones 3, 4, and 5) indicating the need for higher dissolved oxygen (DO) standards, and immediately protecting these zones for fish propagation. Commenters acknowledge DRBC's adoption of a resolution (DRBC Res. No. 2017-4) committing DRBC to: conduct further study on the inclusion of propagation as a designated use in Zones 3 and 4 and the upper portion of Zone 5 of the Delaware Estuary; prepare a schedule for completing a full draft analysis of attainability within three and one-half years; and issue a final rule and an implementation strategy within six years of the adoption of the resolution. The commenters also refer to the Delaware Riverkeeper Network's petition to the Board to upgrade Zones 3 and 4 of the Delaware Estuary to include resident and migratory fish populations. These commenters state, however, that neither of these processes should deter the Board from fulfilling its obligation under 40 C.F.R. §131.10(h)(2)(ii) to update the applicable designated uses during the current triennial review. They suggest the available data are sufficient to establish an existing use of fish propagation in Zones 3 and 4 and the upper portion of Zone 5 of the Delaware Estuary, and therefore the commenters suggest that the Board, when issuing its final rule, should change the designated use of these portions of the Delaware Estuary to match their existing use.

As described in the Preamble to the proposed rulemaking, the demonstrated recovery in propagation for these Zones has occurred under the long-term implementation of the current criteria. So, in the short term, the existing DO criteria should provide adequate protection until more appropriate criteria can be determined. More recently, the Department has also become aware of improvements in water quality and propagation of key species through data presented from other programs, and from a report submitted to DRBC by the Academy of Natural Sciences of Drexel University (ANSDU) – *A Review of Dissolved Oxygen Requirements of Key Sensitive Species in the Delaware Estuary* (ANSDU, November 2018; https://www.nj.gov/drbc/library/documents/Review_DOreq_KeySensSpecies_DelEstuary_ANStoDRBCnov2018.pdf) – which describes the occurrence and DO requirements of select key species, including that of the endangered species, Atlantic sturgeon (*Ancipenser oxyrinchus*). This report also shows that Atlantic sturgeon are present and reproducing in these Zones of the Delaware Estuary, further reinforcing the need to reevaluate these designated uses.

Furthermore, the National Marine Fisheries Service (NMFS) recently designated the Delaware Estuary as critical habitat for the Atlantic sturgeon after having listed Atlantic sturgeon (*Ancipenser oxyrinchus*) as federally endangered in 2012 under the Endangered Species Act (82 FR 39160). Designating the Delaware Estuary as critical habitat confirms the presence, critical habitat, or critical dependence of endangered or threatened Federal or Pennsylvania species in or on a surface water. As such, the protections under § 93.4c(a)(2) become relevant for the Delaware Estuary. The protections under § 93.4c(a)(2) will be provided, on a case-by-

case basis, as National Pollutant Discharge Elimination System (NPDES) permits or other final approvals are issued or final actions are taken for activities in these waters.

As indicated in the DRBC Resolution of September 2017 (DRBC Res. No. 2017-4), the Department will continue to work with DRBC and other signatory parties in determining the appropriate DO criteria that should apply to this section of the Delaware Estuary.

E. Summary of Responses to Comments and Changes to the Proposed Rulemaking

As a result of the public hearings and extended public comment period, the Board received comments from 776 commenters, including the Independent Regulatory Review Commission (IRRC) and EPA Region 3.

A more detailed summary of the comments submitted to the Board, and the Department's responses to those comments are available in the Comment and Response document that accompanies this final-form rulemaking package.

A detailed description of the revisions to the Chapter 93 proposal follows:

§ 93.1. Definitions

The Board is adding a definition for *seven-day average*, similar to the definitions for *four-day*, *monthly*, *one-hour* and *thirty-day averages*, as currently found at § 93.1. *Seven-day average* is defined as the arithmetic average of the samples collected during a consecutive 7-day period.

§ 93.7. Specific water quality criteria—Table 3

The Board is changing the following provisions in Table 3 criteria:

Ammonia criteria: In April 2013, EPA released final recommendations for *Aquatic Life Ambient Water Quality Criteria for Ammonia—Freshwater 2013* (EPA 822-R-13-001). This document can be accessed at <https://www.epa.gov/wqc/aquatic-life-criteria-ammonia>.

These recommendations are intended as guidance to states, territories and authorized tribes in developing water quality standards to protect aquatic life from exposure to ammonia. The Department assessed the peer-reviewed technical documentation for the recommended ammonia criteria and found it was scientifically sound and appropriate for the surface waters of the Commonwealth and, as such, the Department recommended revising the Table 3 Ammonia criteria to be fully consistent with EPA's 2013 recommended *Aquatic Life Ambient Water Quality Criteria for Ammonia—Freshwater 2013* as part of triennial review proposed rulemaking.

It should be noted that during the development of this final rulemaking, EPA announced that there was a typesetting error discovered in the original EPA *Aquatic Life Ambient Water Quality Criteria for Ammonia—Freshwater 2013* document (EPA 822-R-13-001). The equation to calculate the ammonia criterion maximum concentration (CMC) where *Oncorhynchus* species are absent was missing two parentheses which are needed to correctly calculate the criterion.

This error (on page 42 of EPA's 2013 document) did not affect the results for the criterion values presented in the original 2013 document, and the equation is correct elsewhere in the original 2013 document. The new publication number for the corrected 2013 Ammonia Criteria document is EPA-822-R-18-002.

Eight commenters indicated their support for the proposed ammonia criteria.

One commenter stated that the Department's justification for recommending the ammonia criteria was the protection of mussels, and the commenter went on to cite a Pennsylvania Fish and Boat Commission (Commission) study that documents the presence of endangered mussels in only 15 of Pennsylvania's 67 counties. The commenter stated that they do not operate in any of these 15 counties and they concluded that the proposed criteria are overly restrictive because there are so many areas where endangered mussel populations are not present. This same commenter did not recommend adoption of the criteria statewide as sensitive mussel and salmonid populations do not occur throughout the Commonwealth. The commenter states that if the ammonia criteria are promulgated for the entire Commonwealth, then permittees that are not located on sensitive streams would then need to request site-specific criteria. The commenter reiterates that there are 52 counties where sensitive mussels do not exist, and therefore there may be a lot of permittees that could potentially apply for a site-specific criterion, thereby creating a significant burden to both the permittees and the Commonwealth's resources. The justification for proposing this criterion is that the newly developed federal recommendations expand the freshwater toxicity database for ammonia and the national criteria recommendations are protective of the aquatic community as a whole (i.e., not limited to sensitive freshwater mollusk species and salmonids). The Department agrees with the cited PFBC study that there are endangered mussels in 15 Pennsylvania counties, however there are approximately 65 species of sensitive unionid mussels throughout the entire Commonwealth along with other ammonia-sensitive species, and therefore the criteria should be promulgated statewide.

EPA and other commenters indicated that the proposed criterion is not consistent with how the criterion is expressed in EPA's 2013 recommended *Aquatic Life Ambient Water Quality Criteria for Ammonia—Freshwater 2013* (EPA 822-R-13-001). Based on these comments, the Board made changes in this final rulemaking to the ammonia criteria in Table 3. First, a clarification is made to the 30-day average period for the Criteria Continuous Concentration (CCC) to specify that it is to be calculated as a "rolling" average. Second, language is being modified to better describe that the highest four-day average within the 30-day averaging period should not be more than 2.5 times the CCC (e.g., 2.5×0.2 mg TAN/L at pH 9 and 20°C or 0.5 mg TAN/L) more than once in three years on average. Third, the Board changed the sample inputs for pH and TAN/L used in the above sample calculations. Finally, the Board added language describing how to determine the pH and temperature values that are used in the equations to derive the appropriate ammonia criteria.

Bacteria criteria: The Board proposed amendments to the bacteria criteria that will include replacing the current fecal coliform-based criteria for WC during the swimming season (May 1 to September 30) with the EPA's recommended 2012 *Recreation Water Quality Criteria* (RWQC) (EPA 820-F-12-058) in the Commonwealth's surface waters. The Department assessed the peer-reviewed technical documentation for EPA's recommended recreational criteria for

bacteria and found it was scientifically sound and appropriate for the surface waters of the Commonwealth. The 2012 RWQC document can be accessed at <https://www.epa.gov/sites/production/files/2015-10/documents/rwqc2012.pdf>.

Two commenters indicated their general support of the Board's proposed amendments to the bacteria criteria. One commenter expressed the need for the thoughtful promulgation of appropriate criteria designed to be protective of the recreational use. Three commenters agreed with the Board's selection of *E. coli* as the indicator of fecal contamination during the swimming season, and one commenter cited scientific studies to offer further support for the Board. EPA also was pleased that the Board is adopting *E. coli* criteria to protect recreational waters, however EPA noted that the proposed criterion is not fully consistent with the criteria expressions in the 2012 RWQC. Other commenters concurred with EPA's concerns. The Board changed language in the Table 3 Bac₁ criterion relating to the magnitude, duration, and frequency of the proposed bacteria criteria described in the geometric mean, and to include the missing reference to "colony forming units" (CFUs) to be consistent with EPA's national recommendations and criteria expression. Commenters expressed concern that natural sources of *E. coli* could make it difficult for dischargers to meet the more stringent proposed standard and they suggested that a feasibility analysis should be conducted where there are no human activities. Data indicate that using *E. coli* will not result in an uncharacteristically high number of criteria exceedances. Other commenters stated concern that some industrial sectors may not be able to meet the criteria due to the presence of bacteria that are non-human and non-fecal in origin. The Department refers to EPA publications which provide specific guidance for these concerns in its response on how to determine whether the standard is being attained where sources are characterized predominantly as non-human or non-fecal.

Many commenters expressed concern that the proposed criteria are confusing because they rely on two different indicators of fecal contamination, depending on the time of the year. It was also noted that it would be difficult to compare results and maintain consistent data year-round if the indicator is not the same year-round. Some of the commenters requested that the Board adopt *E. coli* standards that would apply year-round. The Board notes that two different indicators are already currently being used simultaneously, so there should be no added confusion. By collecting both *E. coli* and fecal coliform results, the samples could be compared to determine if there is any correlation between the two indicators. There is no change made in this triennial review for the non-swimming season part of the Bac₁ criteria. For future consideration, EPA is conducting research on a secondary contact recreational use criterion, which will apply to limited body contact, and the Department will evaluate the applicability of that criteria for Pennsylvania when it becomes available. Commenters stated that having different standards for the swimming and non-swimming seasons could be confusing to the regulated community. The existing regulations have different standards for the swimming and non-swimming seasons and there are no implementation problems.

Comments were received recommending the Board adopt a more protective risk paradigm. The 2012 RWQC provided two sets of criteria using *E. coli* as the indicator, and EPA states that adoption of either set of criteria would adequately protect the designated use of primary contact recreation.

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

Language was added to subsection (a) on final rulemaking to clarify that local water quality conditions used in calculating equation-based criteria will be gathered using Department data collection protocols.

The Board proposed to update the human health criteria in Table 5 to reflect the latest scientific information and implementation of existing EPA policies in the *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000)* (EPA-822-B-00-004). The proposed updates included new scientifically based exposure factors for body weight (80 kilograms), drinking water consumption rate (2.4 liters per day), and fish consumption rate (22.0 grams per day). After a thorough review of the 94 individual recommended criteria updates by EPA, the Board proposed to adopt the updated criteria for 73 compounds and add 11 new human health compounds to Table 5. There were ten EPA-recommended criteria that were the same as the criteria currently in Table 5, so therefore, no change was recommended for these criteria.

The Board also proposed to clarify which pollutants in Table 5 have human health criteria that will remain based on the exposure inputs of 2 liters per day of drinking water and consumption of 17.5 grams of fish per day for the protection of a 70-kilogram person, due to the unavailability of information needed to calculate criteria according to new exposure assumptions.

Based on EPA comments, several differences between the values of the proposed changes in Table 5 and the EPA-recommended values have been identified, particularly with respect to nickel, chlorophenoxy herbicide (2,4-D), 1,1-dichloroethylene, and chloroform. In response to these comments, the Board will not make the proposed regulatory amendment to nickel. It will remain at its existing value of 610 ug/L.

EPA identified that the proposed 1000 ug/L criterion for chlorophenoxy herbicide (2,4-D) was an error. EPA's recommended criterion for chlorophenoxy herbicide (2,4-D) is rounded from 1371 ug/L to 1300 ug/L. This compound has low potential for bioaccumulation (i.e., low exposure from ingestion of fish and shellfish), and EPA has not established bioaccumulation factors (BAF's) for chlorophenoxy herbicide (2,4-D) according to trophic levels due to lack of data. The Department disagrees with EPA's rounding of the criterion, as the suggested rounding does not follow the generally accepted rounding conventions. Therefore, the Board is adopting a final criterion of 1400 ug/L.

EPA recommended 300 ug/L for 1,1-dichloroethylene. Under the 1986 EPA *Guidelines for Carcinogen Risk Assessment*, 1,1-dichloroethylene is classified as a Group C compound, "possible human carcinogen". Because EPA has not identified a cancer slope factor for this compound, the Department applied a safety factor of 10 to the recommended criterion of 300 ug/L for protection from carcinogenic effects. Because the difference between the recalculated and existing criterion is insignificant, the existing criterion of 33 ug/L is considered protective. The Board inadvertently proposed 30 ug/L, but is maintaining the existing criterion.

There is a significant difference between the EPA-recommended criterion for chloroform and the Board's proposed criterion. Due to the significance of the difference between the values, and the absence of adequate documentation to support this difference, the Board is withdrawing its proposed change to chloroform. The Department will evaluate whether a change to the standard is appropriate during the next triennial review.

EPA additionally commented on 11 criteria developed by the Department for which there are currently no EPA-recommended criteria. EPA requested additional clarification as to the scientific basis for these proposed revisions, including criteria for: 1,2 cis dichloroethylene; acetone; boron; formaldehyde; methyl ethyl ketone; metolachlor; resorcinol; 1,2,3-trichloropropane; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; and xylene. EPA, however, did not comment on the proposed barium criterion. The Board is withdrawing the proposed criteria for these substances due to the limited documentation on the development and justification for revising the criteria. Instead, the Department will evaluate these criteria in the next triennial review.

EPA noted several differences between their recommended criteria and the Board's proposed criteria, which relate to significant figures. Thus, the Board modified the criteria for the following pollutants to be consistent with EPA's recommendations: 1,2-Diphenylhydrazine; cyanide; 2 methyl-4,6-dinitrophenol; acrolein; 1,3-dichlorobenzene; hexachlorocyclopentadiene; and endrin aldehyde.

EPA also commented that the Board should adopt other criteria for which EPA has published new or updated CWA section 304(a) recommendations since May 30, 2000. As revised in 2015, EPA's regulations governing water quality standards provide that "if a State does not adopt new or revised criteria for parameters for which EPA has published new or updated CWA section 304(a) criteria, then the State shall provide an explanation for why it did not when it submits the results of its triennial review to the Regional Administrator." See 40 C.F.R. § 131.20(a). See also 80 Fed. Reg. 51020, 51028 (Aug. 21, 2015), explaining that this requirement applies to "new or revised criteria for parameters for which EPA has published new or updated CWA section 304(a) criteria recommendations since May 30, 2000." Specifically, the Board did not propose criteria for the following EPA recommendations: 2016 recommended aquatic life criteria for selenium (freshwater); 2016 recommended aquatic life criteria for cadmium; 2012 recommended aquatic life criteria for carbaryl; 2004 recommended aquatic life criteria for tributyltin (TBT); or 2002 recommended human health criteria for selenium, nitrosodibutylamine (CAS No. 924163), nitrosodiethylamine (CAS No. 55185), and nitrosopyrrolidine (CAS No. 930552).

The Department will evaluate these referenced recommended criteria during the next triennial to determine appropriate recommendations for Pennsylvania waters.

Although there is no change on final rulemaking, the Board is finalizing a proposed regulation for the Chromium VI aquatic life criterion to be consistent with the EPA recommendations in *1995 Updates: Water Quality Criteria Documents for the Protection of Aquatic Life in Ambient Water* (EPA-820-B-96-001), available at <https://nepis.epa.gov/Exe/ZyPDF.cgi/20002924.PDF?Dockey=20002924.PDF>.

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

The Board received supportive comments on the proposal to add to § 93.8d(c) that the Department may require the use of the Biotic Ligand Model (BLM) for the development of new or updated site-specific criteria for copper in freshwater systems. Additionally, comments were received asking that the Board identify in the final-form regulation the circumstances when the use of the BLM will be required. EPA commented on related revisions to § 16.24 (relating to metals criteria) in the proposed Chapter 16 Water Quality Toxics Management Strategy – Statement of Policy that Pennsylvania should clarify that the BLM can be required for development of site-specific criteria. EPA also commented that Pennsylvania should consider adopting statewide freshwater copper criteria based on the BLM. The Board acknowledges the BLM is the most current science for development of the criteria for copper, as opposed to the Water-Effect Ratio (WER) methodology. Although the Board is not adopting statewide criteria based on the BLM in this rulemaking, this final rulemaking adds clarification that the BLM will be required for development of site-specific water quality criteria for copper in freshwater systems.

Corrections to Stream Drainage Lists

The Board proposed amendments to the drainage lists to clarify stream names and segment boundaries and to reformat portions of drainage lists. Reformatting large basins to consolidate portions of Chapter 93 that have the same designated use enables readers to view that entire basin within a page or two and it should also decrease the errors in the drainage lists. In addition, the Board modified stream names in the drainage lists to be consistent with the National Hydrography Dataset (NHD) flowline. The Board made corrections to the designated uses of some streams where it has sufficient documentation to demonstrate that an error has occurred and what the correct designated use ought to be, based upon previous Department recommendations. These additional changes are non-substantive because they do not change any current designated uses in the drainage lists.

A comprehensive description of the comments received and the responses that the Department provided are available in the Comment and Response Document. Numerous comments were received pertaining to these proposed corrections to the drainage lists. EPA requested clarification on several revisions to ensure that the designated use will not be altered. Commenters, in response to EPA's comment, stated that a UAA needs to be conducted every time a stream is being downgraded. Commenters further concurred with EPA's concerns about potential downgrades in Drainage Lists G, L, M, O, and R. The Department did not complete a UAA as it is not recommending any changes or less restrictive uses to the designations of any waters as a result of this rulemaking. Rather, the Department is merely correcting documented errors in the drainage lists.

§ 93.9b. Drainage List B

One commenter noted that according to the Geographic Names Information System (GNIS) data for Pennsylvania updated in July 2017, the stream source for the Lackawaxen River is the confluence of West Branch Lackawaxen River and Dyberry Creek at 41.57751° N/75.253680°

W. The NHD flowline incorrectly identifies the origin of Lackawaxen River at the confluence of West Branch Lackawaxen River and Van Auken Creek. Van Auken Creek is a tributary to West Branch Lackawaxen River and should have a 4 for hydrological order rather than a 3, as indicated in the NHD. The Department notified the United States Geological Survey, the agency that manages the NHD. The NHD Flowline has since been corrected. Corresponding corrections to § 93.9b have been made in the Annex A of this final rulemaking.

§ 93.9g. Drainage List G

Forty-five commenters requested a more thorough explanation of the Board's proposal to restore the correct designated use to the waters that are historically known in Pennsylvania as Goose Creek. Most of these commenters wanted to know if the Department has considered a UAA, as they perceived this correction to be a redesignation to a less restrictive use. A final rule was correctly published in 1985 which redesignated the aquatic life use of the basin locally known as Goose Creek from Trout Stocking (TSF) to Warm Water Fishes (WWF). The correct aquatic life designated use for the "Goose Creek" portion of Chester Creek is WWF. In the Comment and Response Document, the Department's response includes a comprehensive summary explaining how a subsequent rulemaking, which was finalized in 1997, effectively transposed the designated uses for Goose Creek and Unnamed Tributary 00605 (UNT 00605) to East Branch Chester Creek. The designation for UNT 00605 to East Branch Chester Creek is being corrected to TSF in this final rulemaking. This change is included as part of the basin designation for East Branch Chester Creek. The designation in the existing regulations appears incorrectly as WWF for 4-Westtown Run in § 93.9g.

This correction for Goose Creek in the Chester Creek basin is not a redesignation to a less restrictive use. In this most recent review, the Department is not relying on Pennsylvania's water quality standards at § 93.4(b) and does not need to complete a UAA because Goose Creek is not amended to a less restrictive use as part of this triennial review. This correction rectifies the transposition of designated uses that occurred in 1997 and restores the appropriate designation as originally published in 1985.

The Board received comments pertaining to UNT 00322 to East Branch Brandywine Creek for which the aquatic life use is currently designated High Quality Waters-TSF, Migratory Fishes (HQ-TSF, MF). The commenters questioned whether the aquatic life use of this stream was intended to be redesignated. This rulemaking does not change the designated use of UNT 00322. To clarify, UNT 00322 has the same designation (HQ-TSF, MF), and the mouth of UNT 00322 is the downstream limit of the zone that includes the basins of Shamona Creek and other tributaries, including UNT 00322 in this zone to East Branch Brandywine Creek. This is described in the Comment and Response Document that accompanies this final-form rulemaking.

Commenters noted their perception that Beaver Creek was being redesignated. The designated use of Beaver Creek is not being changed.

§ 93.9o. Drainage List O

The Board added an entry to § 93.9o for the Trout Run (stream code = 10815) basin from the water supply dam to the mouth which includes its designated aquatic life use as HQ-Cold Water

Fishes (CWF), MF as it was missing from the drainage list. The Board received a comment stating that the Department needs to provide additional documentation to support this revision as it is unclear from the information in the Preamble of the proposed rulemaking that this is the correct designation. The entire Trout Run basin, including the lower portion from the dam to the mouth, was designated as a conservation area. The Conservation Areas were generally converted to High Quality Waters use and Wilderness Trout Waters to Exceptional Value Water use in a final rulemaking in 1979. Therefore, the aquatic life use of the entire basin was established as HQ-CWF. The portion of the basin upstream of the water supply dam was then classified as a Wilderness Trout Stream, and the aquatic life use of that portion of the basin was subsequently converted to EV in 1979.

The Migratory Fishes (MF) designated use for Trout Run was added as a result of Pennsylvania's 2009 Triennial Review of Water Quality Standards. A basin-wide migratory fishes (MF) designation was added to the Atlantic slope basin (drainage lists A through O and Z) on May 16, 2009 and was published at 39 PaB 2523.

§ 93.9r. Drainage List R

One commenter noted that the proposed regulation deleted the stream name for Mill Run but did not provide any indication as to why the listing is erroneous. The stream in question is actually Mill Creek (stream code = 49706). The Preamble erroneously referred to “Mill Run” not “Mill Creek” as listed in proposed revisions to § 93.9r.

F. Benefits, Costs and Compliance

Benefits

Overall, the Commonwealth, its citizens, and natural resources will benefit from these amendments because they provide the appropriate level of protection in order to preserve the integrity of existing and designated uses of surface waters in this Commonwealth.

Protecting water quality also provides economic value to present and future generations in the form of clean water for multiple water supply uses, recreational opportunities, and human health and aquatic life protection. It is important to realize all benefits and to ensure that activities that depend on surface water or that may affect the chemical, biological and physical integrity of those waters occur in a manner that is environmentally, socially, and economically sound.

Compliance Costs

The amendments to Chapter 93 may impose additional compliance costs on the regulated community. These regulatory changes are necessary to improve total pollution control. The expenditures necessary to meet new compliance requirements may exceed that which is required under existing regulations.

Persons conducting or proposing activities or projects must comply with the regulatory requirements relating to designated and existing uses and updated water quality criteria. Persons expanding a discharge or adding a new discharge point to a stream could be adversely affected if they need to provide a higher level of treatment to meet more stringent criteria for selected

parameters. These increased costs may take the form of higher engineering, construction, or operating costs for facilities. Treatment costs and best management practices are site-specific and depend upon the size of the discharge in relation to the size of the stream and many other factors. Therefore, it is not possible to precisely predict the actual change in costs. Economic impacts would primarily involve the potential for higher treatment costs for implementing new or more stringent water quality criteria. The initial costs from technologically improved treatments or best management practices may be offset over time by potential savings from and increased value of improved water quality.

Compliance Assistance Plan

The final regulations have been developed as part of an established program that has been implemented by the Department since the early 1980s. The revisions are consistent with and based on existing Department regulations relating to compliance.

The final regulations will be implemented, in part, through the NPDES permitting program. No additional compliance actions are anticipated. Staff is available to assist regulated entities in complying with the regulatory requirements if questions arise.

Paperwork Requirements

The final regulations should have no significant paperwork impact on the Commonwealth, its political subdivisions, or the private sector.

G. *Pollution Prevention*

The Federal Pollution Prevention Act of 1990 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, or 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. This regulation has incorporated the following pollution prevention provisions and incentives:

Water quality standards are a major pollution prevention tool because they protect water quality and designated and existing uses. The final regulations will be implemented through the Department's permit and approval actions. For example, the National Pollutant Discharge Elimination System (NPDES) bases effluent limitations and best management practices on the water uses of the stream and the water quality criteria necessary to protect and maintain those uses.

H. *Sunset Review*

The Board is not establishing a sunset date for these regulations, since they are needed for the Department to carry out its statutory authority. The Department will continue to closely monitor these regulations for their 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 6, 2017, the Department submitted a copy of the notice of proposed rulemaking, published at 47 Pa.B. 6609, with related corrections and updates published at 47 Pa.B. 6727 and 47 Pa.B. 7852, to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the Senate and House Environmental Resources and Energy Committees for review and comment.

Under Section 5(c) of the Regulatory Review Act, IRRC and the Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Department has considered all comments from IRRC, the House and Senate Committees and the public.

Under Section 5.1(j.2) of the Regulatory Review Act, on _____, the final-form rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on _____, and approved the final-form rulemaking.

J. Findings of the Board

The Board finds that:

(1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §§ 1201 and 1202) and regulations promulgated thereunder at 1 Pa. Code §§ 7.1 and 7.2.

(2) A public comment period was provided as required by law. In addition, Board hearings were held. All comments were considered.

(3) This final-form rulemaking does not enlarge the purpose of the proposal published at 47 Pa.B. 6609 (October 21, 2017), 47 Pa.B. 6727 (October 28, 2017), and 47 Pa.B. 7852 (December 30, 2017).

(4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this order.

K. Order of the Board

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 Pa. Code Chapter 93, are amended to read as set forth in Annex A.

(b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for approval and review as to legality and form, as required by law.

(c) The Chairperson shall submit this order and Annex A to the Independent Regulatory Review Commission and the Senate and House Environmental Resources and Energy Committees as required by the Regulatory Review Act.

(d) The Chairperson of the Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau, as required by law.

(e) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

PATRICK McDONNELL,
Chairperson