

Regulatory Analysis Form

(Completed by Promulgating Agency)

INDEPENDENT REGULATORY REVIEW COMMISSION

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

(1) Agency

Environmental Protection

(2) Agency Number: 7

Identification Number: 534

IRRC Number: 3182

(3) PA Code Cite:

25 Pa Code, Chapter 93

(4) Short Title:

Water Quality Standards – Triennial Review

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

Primary Contact: Laura Edinger; 717.783.8727; ledinger@pa.gov

Secondary Contact: Jessica Shirley; 717.783.8727; jessshirley@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)

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. Further, states are required to protect existing uses of their waters. This regulation is undertaken as part of the Department of Environmental Protection's (Department) ongoing review of Pennsylvania's water quality standards.

The rulemaking: updates and revises Section 93.1 and Table 3 in Section 93.7 by updating the aquatic life criterion for ammonia and the Bac₁ criterion for recreational use; deletes references to Appendix A, Table 1A in Sections 93.8a(b) and 93.8c(a) since Table 1A is being deleted from Chapter 16; removes reference to the Federal regulation at 40 CFR 131.32(a) in Section 93.8a(j)(3) since this federal promulgation had been removed by the United States Environmental Protection Agency (EPA); updates Sections 93.8c(a) and 93.8c(b) to clarify that the criteria in Table 5 may apply to the Great Lakes System for those substances not listed in Table 6; updates toxic substances at Section 93.8c, Table 5, using the latest scientific information and policies developed by EPA under the CWA, section 304(a); clarifies the use of the Biotic Ligand Model (BLM) for the development of new or updated site-specific criteria for copper in freshwater systems in Section 93.8d(c); and identifies a new on-line resource at Section 93.8d(f)(2), that represents the publicly available list of site-specific criteria that have been developed and are being used by the Department in permitting and other pollution control measures.

There are also corrections to the water quality standards chapter (Chapter 93) for typographical and translation errors, and missed references associated with prior rulemaking and/or publication activities. This

includes corrections to use designations and stream entries found in Drainage Lists at Sections 93.9b – 93.9g, 93.9j – 93.9t, 93.9v – 93.9x, and 93.9z, to read as set forth in Annex A, for revisions which are not being addressed by separate stream redesignation rulemakings. These changes to the drainage lists are presented to clarify stream names, segment boundaries, reformat the drainage lists, and to correct typographical and other errors.

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

The Pennsylvania Clean Streams Law (CSL), Act of June 22, 1937 (P.L. 1987, No. 394) as amended, 35 P.S. §§ 691.5 (b)(1) and 691.402.

Section 1920-A of The Administrative Code of 1929, as amended, 71 P.S. § 510-20.

Sections 101(a)(2) and 303(c) of the federal CWA, 33 U.S.C.A. §§ 1251(a)(2) and 1313(c).

(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.

Section 303(c) of the federal CWA and 40 CFR Part 131 require states to develop water quality standards that consist of designated uses, water quality criteria, and antidegradation requirements. Such standards must “protect the public health or welfare and enhance the quality of water.” In addition, such standards must take into consideration water uses including public water supplies, propagation of fish and wildlife, recreational purposes, agricultural purposes, and industrial purposes.

EPA urged the Department in a letter dated January 21, 2013 to include the federally recommended ammonia and recreational water quality criteria into the Commonwealth’s water quality standards. Also, EPA specifically mentioned in their May 22, 2014 approval letter in reference to the 2013 Pennsylvania Triennial Review of water quality standards that the Department “will address the issues of total dissolved solids, most notably chlorides, ammonia, and recreational criteria” during the next triennial review.

In addition, it is the duty of the Department, pursuant to section 5 of the state Clean Streams Law, to consider water quality management, pollution control in the watershed as a whole, as well as the present and possible future uses of waters in adopting regulations.

(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.

Section 303(c)(1) of the federal CWA and 40 CFR 131.20 require that states review their water quality standards and modify them, as appropriate, at least once every three years. This regulation fulfills this requirement for Pennsylvania’s triennial review of water quality standards, which is based upon recognition that the science of water quality is constantly advancing. The purpose of this regulation is to ensure that the Commonwealth’s water quality standards are based on current science and methodologies as well as current EPA mandates, recommendations, and guidance. The federal mandate for states to develop water quality criteria is found at section 303(c)(2)(A) of the CWA.

The purpose of developing water quality standards is to protect the uses and users of Pennsylvania’s surface waters. 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; fish consumption; irrigation for crops; aquatic life uses; recreation; and industrial water supplies. All the citizens of this Commonwealth will benefit from the regulation because it provides the appropriate level of water quality protection for all water uses.

By protecting the water uses, and the quality of the water necessary to maintain the uses, benefits may be gained in a variety of ways by all citizens of the Commonwealth. For example, clean water used for drinking water supplies benefits consumers by lowering drinking water treatment costs and reducing medical costs associated with drinking-water illnesses. Additionally, by maintaining water quality standards, clean surface water is available for irrigation of crops and livestock and for use in industrial processes. Clean surface waters benefit the Commonwealth by providing for increased tourism and recreational use of the waters. Clean water also provides for increased wildlife habitat and more productive fisheries.

(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 changes in this rulemaking 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 at section 303(c) of the federal CWA and 40 CFR Part 131. If other states or tribes have not yet adopted similar CWA Section 304(a) criteria, they will be required to consider these criteria during their next triennial review. The amendments will not put Pennsylvania at a competitive disadvantage to other states.

See attached Table – *Summary: Criteria Update for U.S. EPA Region 3 and Neighboring States*, for Ammonia and Human Health Criteria.

(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 state regulations are affected by this rulemaking.

State agencies that may cause pollution in surface waters could possibly be affected by this regulation. For example, if an agency's activity involves the discharge of pollutants into surface waters, the discharge must meet the water quality standards identified by this regulation.

(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 Water Resources Advisory Committee (WRAC) was briefed on the scope of the draft proposed regulation at the February 18, 2015 meeting, and was provided ongoing updates on the review and regulatory development at the August 12 and November 18, 2015 meetings. WRAC was also provided a draft of the proposed regulatory amendments in January 2016, so they could consider the amendments and make recommendations at the March 24, 2016 meeting, when WRAC voted to concur with the Department's recommendation to move the rulemaking forward for consideration by the Environmental

Quality Board (Board). In addition, the Department provided to the Agricultural Advisory Board (AAB) on February 25, 2016, a regulatory review that included the triennial review of water quality standards.

Also, the Department provided to the Citizens Advisory Council (CAC) on June 21, 2016, an overview of the draft proposed regulation. Later in 2016, the draft proposed regulatory language was amended to remove the chloride criterion. The status of the draft regulatory language was discussed again with WRAC at WRAC's March 29, 2017 meeting, informing WRAC members that the proposal would be moving forward to the Board, as modified without containing a chloride criterion recommendation.

The public was afforded the opportunity to comment on this rulemaking during a 70-day public comment period which closed on February 16, 2018. In addition, public hearings were held on December 6, 8, and 14, 2017 and January 30, 2018. Comments were received from 776 commenters. A detailed discussion of the comments received during the public comment period and the Department's responses are provided in the Comment and Response Document that accompanies this final rulemaking.

The Department discussed this final-form rulemaking with 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.

(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?

Persons with existing or proposing new or expanded activities or projects which result in discharges to waters of the Commonwealth will be required to implement treatment of effluent or best management practices (BMPs) and the appropriate protections to meet the water quality standards established by this regulation. Such treatment and practices may result in higher design, engineering, construction, and treatment costs. However, it is not possible to identify the total number of persons, businesses, and organizations that will be affected by the regulation, or the potential associated costs. It is not possible to predict the future business decisions of existing or potentially new entities that choose to conduct activities that will be affected by these regulations. Therefore, it is not possible or practicable to quantify the technology needs and BMP costs that may be associated with these future activities. This rulemaking does, however, establish a clear and appropriate set of goals, objectives, and targets to which these persons, businesses, and organizations can plan and design towards.

Ammonia is present in raw sewage and is currently treated and removed by many wastewater treatment plants. Ammonia is also used in agriculture in connection with fertilizers. It is also found as part of metal finishing, pharmaceuticals production, processing of crude oil, and corrosion protection. No impact or minimal impact is expected from changes to the ammonia aquatic life use criterion for the great majority of point source discharges in Pennsylvania. In those cases, where additional treatment for ammonia may be needed, minimal cost impact is expected because ammonia is highly treatable. Treatment usually involves only time allowed for biological degradation and exposure to atmospheric oxygen.

Bacteria are common one-celled organisms and are a natural component of surface waters. While most are not harmful to humans, some can cause illness and disease. Fecal coliforms, including *E. coli*, are commonly found in the gastrointestinal tract and feces of warm-blooded animals, and are therefore indicators of fecal contamination from human and animal wastes. Waterborne pathogenic diseases that may coincide with fecal contamination include ear infections, dysentery, typhoid fever, viral and bacterial

gastroenteritis, and Hepatitis A. All point source discharges in Pennsylvania containing treated sewage already are required to disinfect their wastewater prior to discharge. Disinfection practices such as chlorination, ozonation, or ultraviolet light are used to kill or deactivate microorganisms. There will be little cost associated with the new bacteria criteria since disinfection is already a required part of treatment at these facilities.

The human health criteria rationale and technical documents referenced in #28 explain the types of industries that may be affected by changes to the toxics criteria.

This rulemaking will be implemented through the Department's permit and approval actions.

(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.

All persons, groups, or entities with proposed or existing point source discharges containing the pollutants that are included in this final rulemaking into surface waters of the Commonwealth must comply with the regulation.

Also, see response #15.

(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.

All citizens of the Commonwealth, both present and future, will benefit from having clean water that is protected and maintained. Any reduction in the total toxic load in Pennsylvania waterbodies is likely to have a positive effect on the human health of Pennsylvanians. This will translate into a yet unknown economic benefit through avoided cleanup or remediation costs that would have been incurred later in time, as well as avoided costs for the treatment and caring for persons with diseases and disabilities that can be reasonably attributed to environmental contaminants in surface water.

Reduced toxics in Pennsylvania's waterways will likely increase recreational fishing and tourism to swimming and fishing locations throughout the state. Additionally, cleaner rivers and fish may lead to increased birding and wildlife viewing opportunities, as the benefits of cleaner water and less contaminated fish work themselves up the food chain, resulting in substantial economic benefits. Persons who recreate on the waters and who fish, both for sport and consumption, will benefit from better water quality protection.

A reduction in toxics found in Pennsylvania's waterways may lead to increased property values for properties located near rivers or lakes. The study, *The Effect of Water Quality on Rural Nonfarm Residential Property Values*, (Epp and Al-Ani, American Journal of Agricultural Economics, Vol 61, No. 3 (Aug. 1979)), used real estate prices to determine value of improvements in water quality in small rivers and streams in Pennsylvania. Water quality, whether measured in pH or by the owner's perception, has a significant effect on the price of adjacent property. Their analysis showed a positive correlation between water quality and housing values. They concluded that buyers are aware of the environmental setting of a home and that differences in the quality of nearby waters affects the price paid for a residential property.

A 2006 study from the Great Lakes region ("*Economic Benefits of Sediment Remediation*," <http://www.nemw.org/Econ>) estimated that property values were significantly depressed in two regions associated with toxic contaminants (PAHs, PCBs, and heavy metals). The study showed that a portion of

the Buffalo River region (approx. 6 miles long) had depressed property values of between \$83 million and \$118 million for single-family homes, and between \$57 million and \$80 million for multi-family homes as a result of toxic sediments. The same study estimated that a portion of the Sheboygan River (approx. 14 miles long) had depressed property values of between \$80 million and \$120 million as the result of toxics. While this study related to the economic effect of contaminated sediment in other waters in the Great Lakes region, the idea that toxic pollution depresses property values is easily transferable to Pennsylvania. A reduction in toxic pollution in Pennsylvania's waters has a substantial economic benefit to property values in close proximity to waterways.

There are economic benefits to be gained by maintaining clean water for potable and other water supply uses. Water suppliers, and their customers, may benefit from lower pretreatment costs if water is withdrawn that meets surface water quality standards. Assuring the availability of clean water will cut down on the costs to consumers for purchasing household pretreatment/water filtration systems and bottled water (*see "The Real Cost of Bottled Water,"* San Francisco Chronicle, Feb. 18th, 2007, which estimates the cost of bottled water to be anywhere between 240 and 10,000 times more expensive than tap water). An additional benefit to greater reliance on tap water is the reduction of containers that need to be recycled or disposed of in landfills. Persons may incur a cost benefit by reducing their dependence on bottled waters and household water filtration systems based on their confidence in source water quality.

By controlling toxics at the point of discharge, users downstream will not have to bear the costs associated with cleaning up someone else's discharge before the water can be used. For example, fewer toxics in surface waters may reduce costs incurred by downstream surface water users who have to pre-treat water for industrial or commercial use (i.e. food processors). Also, reductions at the point of discharge reduce the costs for water suppliers who will have to treat water that is high in toxics at their intakes to meet drinking water standards. Passing on the treatment to water suppliers will increase costs to drinking water customers. Any intervening water uses such as irrigation and fish consumption, between the point of discharge and the point of use, will be protected by limiting the amount of toxics that may be discharged. Under these scenarios, multiple surface water users will benefit—industrial, agricultural, commercial, and potable water users.

There are also economic benefits to be gained by having clearly defined remediation standards for surface waters. Under Pennsylvania's Land Recycling and Environmental Remediation Standards Act, liability relief is available, by operation of law, if a person demonstrates compliance with the environmental remediation standards established by the law. Surface water quality criteria are used to develop remediation standards under the law. Persons performing remediation depend upon these criteria to obtain a liability relief benefit under the law. An article in the Duquesne University Law Review discusses the importance of liability limitation as "vital to the participation in the remediation process" ("*COMMENT: Pennsylvania's Land Recycling Program: Solving the Brownfields Problem with Remediation Standards and Limited Liability,*" Creenan, James W. and Lewis, John Q., Duquesne University Law Review, 34 *Duq. L. Rev.* 661 (Spring 1996)). The article recognizes that "liability protection provides the missing ingredient—financial incentive—for undertaking the cleanup of an industrial site." Industrial land redevelopers will benefit from these regulations by having financial certainty when choosing a surface water cleanup standard and by being eligible for liability relief under state law.

Also, see response #15.

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

Health and welfare benefits to all citizens of the Commonwealth accrue from protecting the surface waters of the Commonwealth at the appropriate level. The benefits from substantial revenue and jobs associated with popular fisheries, and other industries that rely on clean water, outweigh the cost and adverse effects associated with selective effluent treatment technology and BMPs for those who cause pollution of the surface waters.

Section 4 of the Pennsylvania Clean Streams Law (Declaration of Policy) clearly states “clean, unpolluted streams are absolutely essential if Pennsylvania is to attract new manufacturing industries and to develop Pennsylvania’s full share of the tourist industry.” 35 P.S. 691.4(1).

Overall, the benefits to the citizens of the Commonwealth will accrue from protecting the surface waters of the Commonwealth for a multitude of water uses. Pennsylvania’s surface waters, through the water quality standards program, are protected for a variety of water uses—drinking water supplies for humans, livestock and wildlife; fish consumption; irrigation for crops; aquatic life uses; recreation; industrial water supplies and special protection. This regulation is necessary to protect the water resources from the threat of toxic substances.

Protection of water quality, up front, reduces the need for costly remedial measures that are often difficult to retrofit. In addition, maintenance of water quality eliminates the need for spending taxpayer dollars to meet additional regulatory obligations such as federally mandated total maximum daily loads (TMDLs). If a waterbody becomes impaired and is not meeting its protected water uses, the Commonwealth will be obligated to develop TMDLs and impose more stringent water quality standards. By maintaining the appropriate water quality to protect the uses, this additional cost can be avoided.

Adverse effects associated with the adoption of new criteria may take the form of additional treatment requirements. Sometimes these requirements require costly upgrades. If new criteria apply to a facility and if treatment requirements require significant and costly changes operationally, there are regulatory mechanisms in place, through the NPDES permitting program, to manage an appropriate schedule for meeting the new standards.

Also, see response #15 and #17.

(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.

In accordance with the Federal Clean Water Act, the Department is not to consider achievability or the cost of compliance when developing water quality criteria. As for implementation of these criteria, please consider the following:

Where a water quality standard exists for a pollutant, and in the Department’s judgment the discharge of such pollutant from a point source will be at a concentration that has the reasonable potential to exceed that standard, the Department is required to establish monitoring requirements and/or water quality-based effluent limitations for the pollutant in an NPDES permit. These effluent limitations are calculated based on the water quality criteria. However, there are factors that may be considered by the Department under the Clean Water Act that may result in the modification of such effluent limitations or the deadline by which compliance with limitations must be achieved. Based on site-specific evaluations and economic

considerations, effluent limitations developed based on new water quality criteria may be modified, or more time for compliance may be granted under applicable regulations.

Accurate costs and savings, however, cannot be determined at this time since such cost analysis is based on site-specific considerations that must be evaluated on a case-by-case basis. Specific estimates of costs and savings cannot be determined because each activity that will result in pollution to waters in this Commonwealth must be reviewed based on site-specific considerations. These site-specific considerations include, but are not limited to the size, flow volume, and the chemical, biological, and physical properties of both the receiving water and the effluent discharge. These unique parameters result in site-specific requirements. National Pollutant Discharge Elimination System (NPDES) permits and other approvals will be required for discharges to waters of this Commonwealth using the water quality uses and criteria identified in the final regulations of this rulemaking.

Information on the analytical laboratory costs, based on the analytical method used, can be obtained from the National Environmental Methods Index (NEMI) web-site. This web-site can be used to access most EPA approved analytical methods (www.nemi.gov).

(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 governments by this regulation. This final rulemaking is based on and will be implemented through existing Department programs, procedures, and policies. However, certain municipalities or municipally-owned entities that discharge pollutants to surface waters may be affected by this regulation as described in #15. The costs associated with permits and performance or design requirements will be site-specific and will be based on effluent limitations or BMPs and the appropriate protections for a particular waterbody.

A municipality may derive additional revenue and employment from the tourism industries that are attracted to recreation associated with protected and improved surface waters, such as anglers, boaters, swimmers, and others interested in outdoor recreation.

(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 state governments by this regulation. This final rulemaking is based on and will be implemented through existing Department programs, procedures, and policies. However, certain state agencies or state-owned entities that discharge pollutants to surface waters may be affected by this regulation as described in #15. The costs associated with permits and performance or design requirements will be site-specific and will be based on effluent limitations or BMPs and the appropriate protections for the particular waterbody.

The state may derive additional revenue and employment from the tourism industries that are attracted to recreation associated with the surface waters, such as anglers, boaters, swimmers, and others interested in outdoor recreation.

Also, see response #17.

(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.

Each activity that will result in pollution to waters of this Commonwealth requires a review that is based on site-specific considerations, including the specific pollutant(s) expected or known to be in the discharge to waters of this Commonwealth. Existing Department procedures will be used to implement this regulation.

Persons with existing or proposing new or expanded activities or projects which result in discharges to waters of the Commonwealth will be required to implement treatment of effluent or BMPs and the appropriate protections to meet the water quality standards established by this regulation.

(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.

N/A

(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 Year (2019-20)	FY +1 Year (2020-21)	FY +2 Year (2021-22)	FY +3 Year (2022-23)	FY +4 Year (2023-24)	FY +5 Year (2024-25)
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					
Local Government	“	“	“	“	“	“
State Government	“	“	“	“	“	“
Total Revenue Losses	“	“	“	“	“	“

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

Program	FY -3 (2016-17)	FY -2 (2017-18)	FY -1 (2018-19)	Current FY (2019-20)
160-10381 Enviro Protection Operations	\$86,462,000	\$89,215,000	\$93,190,000	\$84,523,000
161-10382 Enviro Program Management	\$26,885,000	\$29,413,000	\$30,932,000	\$28,420,000

(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.

Persons with proposed or existing discharges into surface waters of the Commonwealth must comply with the regulation. Also, see response #15.

(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 activity that will result in pollution to waters of this Commonwealth requires a review that is based on site-specific considerations. NPDES permits and other approvals will be required for discharges to surface waters, using the water quality criteria and standards identified in the regulations. Existing Department procedures will be used to implement this final-form regulation.

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

Each activity that will result in pollution to waters of this Commonwealth requires a review that is based on site-specific considerations. NPDES permits and other approvals will be required for discharges to surface waters, using the water quality criteria and standards identified in the regulations. Existing Department procedures will be used to implement this final-form regulation.

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

There were no non-regulatory alternatives or less intrusive methods available to consider in order to achieve the purpose of this regulation.

In addition to the flexibility afforded by the regulatory mechanisms in the NPDES permitting program, the water quality regulations include a provision that allows for the development of site-specific water quality criteria, in lieu of the statewide criteria, under certain circumstances. In particular, in accordance with §93.8d(a), if site-specific biological or chemical conditions of the receiving waters differ from the conditions upon which the statewide criteria are based, or there exists a need for a site-specific criterion for a substance not listed in §93.8c, Table 5, the Department will consider a request for site-specific criteria. A discharger has the opportunity to weigh the costs of developing a site-specific standard against the usage of an existing statewide standard.

(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.

There are no such provisions in this rulemaking.

(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.

There were no alternative regulatory schemes to consider in achieving the correct level of protection for the waters of the Commonwealth. This rulemaking reflects the results of a periodic and ongoing scientific evaluation of regulatory criteria, as required by all states under the federal CWA.

As noted in #9, EPA urged the Department in a letter dated January 21, 2013 to include the federally recommended ammonia and recreational water quality criteria into the Commonwealth's water quality standards. Also, as noted in #9, EPA specifically mentioned in their May 22, 2014 approval letter in reference to the 2013 Pennsylvania Triennial Review of water quality standards that the Department "will address the issues of total dissolved solids, most notably chlorides, ammonia, and recreational criteria" in their next triennial review.

(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.

This rulemaking does not establish or revise compliance or reporting requirements for small businesses. There was no less stringent compliance or reporting requirements to consider in this case. Any water quality criteria that are less stringent than those recommended by the Department and accepted by the Board in the rulemaking would not be protective enough for the waters of the Commonwealth and would negate the benefits listed in #17. The rulemaking reflects the results of a scientific evaluation of regulatory criteria.

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

There were no non-regulatory alternatives available to consider in this case. Schedules of compliance and reporting requirements to meet the standards of this final rulemaking may be considered when permit or approval actions are taken, in accordance with 25 Pa. Code Chapter 92a. They are not considered as part of this scientific evaluation of the correct water quality criteria needed to protect surface waters.

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

Schedules of compliance and reporting requirements to meet the standards of this final rulemaking may be considered when permit or approval actions are taken. They are not part of this scientific evaluation and establishment of the correct water quality criteria needed to protect surface waters.

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

The regulations represent performance standards. They identify the instream goals for water quality protection and do 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.

Please see the attached rationale documents for criteria development and specific literature reviews and citations.

In addition to attached rationale documentation, more reference material can be accessed as described below:

The Department assessed the peer-reviewed technical documentation for the recommended ammonia, recreational, and human health criteria and found it was scientifically sound.

The EPA ammonia criterion document can be accessed at <https://www.epa.gov/wqc/aquatic-life-criteria-ammonia>.

The EPA recreational criteria document can be accessed at <https://www.epa.gov/sites/production/files/2015-10/documents/rwqc2012.pdf>.

The EPA human health criteria document can be accessed at <https://www.epa.gov/sites/production/files/2015-10/documents/human-health-2015-update-factsheet.pdf>.

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

- A. The length of the public comment period:** 118 days, including public comment period extension.
- B. The date or dates on which any public meetings or hearings will be held:** Hearings held on December 6, 8, and 14, 2017, and January 30, 2018
- C. The expected date of delivery of the final-form regulation:** Quarter 4, 2019
- D. The expected effective date of the final-form regulation:** Upon publication in the Pennsylvania Bulletin as final-form rulemaking for CSL permit and approval actions, or as approved by EPA for purposes of implementing the CWA .
- E. The expected date by which compliance with the final-form regulation will be required:** Upon issuance or renewal of NPDES permits or other approvals of the Department.
- F. The expected date by which required permits, licenses or other approvals must be obtained:** When permits or approvals are issued or renewed.

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

This regulation will be reviewed on a triennial basis, as required at least once every three years, in accordance with the federal CWA. As newer science is developed, the standards will be updated.