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PennFuture

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February 15, 2018

Via electronic mail [RegComments@pa.gov](mailto:RegComments@pa.gov)

Environmental Quality Board  
P.O. Box 8477  
Harrisburg, PA 17105-8477

Re: Comments on Proposed Rulemaking  
Triennial Review of Water Quality Standards  
47 Pa. Bull. 6609 (Oct. 21, 2017)

Dear Environmental Quality Board:

Citizens for Pennsylvania's Future (PennFuture) submits these comments to the Pennsylvania Environmental Quality Board (EQB or the Board) in response to the proposed rulemaking advancing certain amendments to Chapter 93 of the Pennsylvania Code, published in the Pennsylvania Bulletin on October 21, 2017. 47 Pa. Bull. 6609. This proposed rulemaking, known as the Triennial Review, is required by section 303 of the Clean Water Act and authorized by sections 5(b)(1) and 402 of the Clean Streams Law. See 33 U.S.C. § 1313; 35 P.S. §§ 691.5(b)(1), 691.402.

PennFuture is a public interest membership organization dedicated to leading the transition to a clean energy economy in Pennsylvania and beyond. PennFuture strives to protect our air, water and land, and to empower citizens to build sustainable communities for future generations. One focus of PennFuture's work is to improve and protect water resources and water quality across Pennsylvania through public outreach and education, advocacy, and litigation.

The objectives of the Clean Water Act (or CWA) include restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters. 33 U.S.C. § 1251(a). One mechanism the statute uses to accomplish this goal is periodic reassessment and refining of water quality standards through the Triennial Review process. 40 C.F.R. § 131.20. This helps to ensure Pennsylvania's Clean Water Act programs function to protect and to restore water quality in the state.

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**1. The water quality standard for bacteria should be consistently implemented and protective of water users.**

One specific goal of the Clean Water Act is for waters to be fishable and swimmable. *See* 33 U.S.C. § 1251(a)(2). Pennsylvanians use our rivers, streams, and lakes regularly for recreational activities that bring them into contact with the water and whatever it contains. These activities are classified as “primary contact recreation” – those for which a high degree of bodily contact with the water, immersion, and ingestion are likely, such as swimming, wading, and bathing – and “secondary contact recreation” – water-related activities that present less risk of water ingestion, such as boating or shore-based fishing. These activities can expose participants to bacteria carried to our waterways in raw sewage, animal waste, and stormwater runoff. Exposure to these bacteria can make people sick. The water quality criteria for bacteria should be set at a level to appropriately protect the waters and the people who use them.

In the Triennial Review, the Board is proposing to switch from a criterion using fecal coliform as the indicator of fecal contamination to one using *Escherichia coli* (*E. coli*) for the swimming season of May 1 to September 30, when people are most likely to engage in primary contact recreation.<sup>1</sup> Further, the Board selected the less protective *E. coli* standard of two presented by the Environmental Protection Agency (EPA)—36 versus 32 illnesses per 1,000 swimmers, without conducting a risk assessment to determine the appropriate level of risk Pennsylvanians and visitors who recreate in and on the Commonwealth’s waters should be exposed. As explained in subsection A, below, PennFuture supports the switch to *E. coli* as the indicator parameter, but recommends that the Board conduct a risk management assessment to determine the appropriate level of risk to which those who recreate in and on the Commonwealth’s waters should be exposed. A more stringent *E. coli* criteria also better pursues the Clean Water Act goal of making Pennsylvania’s waters swimmable.

For the non-swimming season, defined by the Board as October 1 through April 30, when secondary contact recreation is the norm, the Board is proposing to retain the current, fecal coliform-based criterion. In subsection B, below, PennFuture supports maintaining a bacteria criterion for the non-swimming season, but recommends that the Board retain the current, fecal coliform-based criterion only if it lacks sufficient data to derive an *E. coli*-based criterion that provides a corresponding level of protection.

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<sup>1</sup> PennFuture notes that the five-month duration of the swimming season when “primary contact” is more likely to take place is an assumption that may no longer be valid. With the current trend of warmer weather and warmer water temperatures as a result of climate change, the times of year during which primary contact recreation occurs is increasing. Therefore, as part of the next triennial review, the Pennsylvania Department of Environmental Protection (Department or DEP) and the Board should reconsider the appropriate timeframe for which primary contact standards are applicable.

**A. For the swimming season of May 1 to September 30, the Board should adopt *E. coli* criteria based on a more protective risk paradigm.**

- i. The switch from fecal coliform to *E. coli* as the indicator bacterium is well-founded.**

The transition to a new fecal indicator bacterium is supported by EPA's Recreational Water Quality Criteria (RWQC) Report published in 2012. This document provides EPA's recommended Clean Water Act §304(a) RWQC for states, lays out the science related to the 2012 RWQC, describes how these scientific findings were used during the development of the 2012 RWQC, and describes the water quality methods associated with the 2012 RWQC. This Report recommends using the fecal indicator bacteria enterococci and *Escherichia coli* (*E. coli*) as indicators of fecal contamination for fresh water. RWQC Report, p. 35. Scientific advancements in microbiological, statistical, and epidemiological methods have demonstrated that culturable enterococci and *E. coli* are better indicators of fecal contamination than the previously used general indicators, total coliforms and fecal coliforms, which Pennsylvania currently utilizes. RWQC Report, p. 2. PennFuture agrees with the Board's selection of *E. coli* as the indicator bacterium.

- ii. The Board should apply a more protective risk paradigm in determining the criteria for the swimming season.**

From May 1 through September 30, the Board proposes adopting a risk paradigm that allows for 36 illnesses per 1,000 swimmers. This proposal is one of two scenarios presented in EPA's RWQC Report—36 illnesses per 1,000 swimmers and 32 illnesses per 1,000 swimmers. RWQC Report, p. 6. To select a scenario, EPA recommends that states make a risk management decision regarding acceptable illness rates. *Id.* In undertaking this risk assessment, however, states are not limited to the two risk scenarios and associated water quality criteria for bacteria recommended by EPA. Pennsylvania is free to determine that neither of the scenarios proposed by EPA is sufficiently protective of Pennsylvania's waters, and therefore may adopt a risk management scenario and criteria for *E. coli* that is more protective than those recommended by EPA.

Without engaging in a risk management decision-making process, the Board proposes to implement the less protective of EPA's scenarios—36 illnesses per 1,000 swimmers. This puts swimmers and others engaging in primary contact activities at greater risk. Pennsylvanians and visitors who recreate in and on the Commonwealth's waters deserve protections from exposure to harmful bacteria.

The Board proposes to implement the lesser protective scenario articulated in the RWQC Report noting that

[t]he *E. coli* levels associated with this risk paradigm are . . . most closely akin to the current Department of Health (DOH) standards in 28 Pa. Code 18.28 (relating to bathing beach contamination) and the criteria that were promulgated for Lake Erie and Presque Isle under the 2004 Bacteria Rule (40 CFR 131.41 (relating to

bacteriological criteria for those states not complying with Clean Water Act section 303(i)(1)(A))];]

47 Pa. Bull. 6611. Both the DOH regulations and the 2004 Bacteria Rule setting bacteriological criteria are based on the bacteria criteria recommended by EPA in 1986.<sup>2</sup> EPA's 1986 Ambient Water Quality Criteria for Bacteria set a geometric mean value of 126 and a single sample maximum value of 235 *E. coli* per 100 mL. EPA, Ambient Water Quality Criteria for Bacteria 1986, Table 4 – Criteria for Indicator for Bacteriological Densities (Jan. 1986). Deferring to a standard selected in 2004 and itself implementing a criteria developed in 1986 does not appropriately consider the risks presented today. Advances in technologies and understanding of microbiology may influence decisionmakers' assessment of acceptable levels of bacteria present in a given waterbody. Taking into account these advances, the Board must determine what the appropriate risk paradigm is for *today*.

Further, the Board's proposed less-protective risk scenario does not advance the Clean Water Act's objective of restoring and maintaining the chemical, physical, and biological integrity of Pennsylvania's waters. A risk assessment should be undertaken to determine the appropriate risk management scenario. A more protective risk scenario would better safeguard those recreating on and in Pennsylvania's waters and facilitate improvements in water quality, and therefore should be implemented by the Board.

**B. If the data allows, the Board should replace the current fecal coliform criterion for the non-swimming season with a comparable *E. coli* criterion.**

The Board's proposed amendments only change the fecal indicator bacteria to *E. coli* between the months of May and September. For the remainder of the year, when primary contact with the water is less likely, the Board proposes to continue to use fecal coliform as the indicator. To simplify matters for all concerned, PennFuture suggests the Board switch to *E. coli* as the fecal indicator bacteria throughout the year, and to do so immediately, if possible.

The preamble to the proposed rule states that “[t]he Department conducted field studies making side-by-side sample comparisons between the current [swimming season] fecal coliform and proposed *E. coli* criteria.” 47 Pa. Bull. at 6611. If that side-by-side sampling data establishes a statistically significant relationship between fecal coliform and *E. coli* levels, the Department may be able to derive an *E. coli* criterion that corresponds to the current fecal coliform criterion of 2000 cfu/100 mL. If so, the Board should replace that fecal coliform criterion with the corresponding *E. coli* criterion as part of its final rule in the current rulemaking proceeding. This *E. coli*-based criterion for October through April, which would be subject to

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<sup>2</sup> See DEP, Rationale for the Development of Ambient Water Quality Criteria for Bacteria, p. 3 Jan. 2017 (noting that the DOH regulations are based on the previous nationally recommended 1986 bacteria criteria) *available at* [http://files.dep.state.pa.us/PublicParticipation/Public%20Participation%20Center/PubPartCenterPortalFiles/Environmental%20Quality%20Board/2017/April%2018/7-534%20Proposed%20Triennial%20Review/06\\_7-534\\_Triennial%202017\\_Bacteria\\_Rationale.pdf](http://files.dep.state.pa.us/PublicParticipation/Public%20Participation%20Center/PubPartCenterPortalFiles/Environmental%20Quality%20Board/2017/April%2018/7-534%20Proposed%20Triennial%20Review/06_7-534_Triennial%202017_Bacteria_Rationale.pdf); *and see* Water Quality Standards for Coastal and Great Lakes Recreation Waters; Final Rule, 69 Fed. Reg. 67218 (Nov. 16, 2004) (Promulgating the same bacteria criteria for coastal and Great Lakes waters as presented in EPA's Ambient Water Quality Criteria for Bacteria published in 1986).

revision upon EPA's finalization of its recommended secondary contact recreational criteria, *cf.* 47 Pa. Bull. 6611, would immediately make monitoring and reporting, and understanding the reported data, easier by using a single indicator parameter throughout the year.

Alternatively, we request the Department and Board commit to begin considering EPA's recommended secondary contact recreational criteria as soon as those criteria are finalized, even if that occurs before Pennsylvania's next triennial review.

## **2. The Board should expeditiously adopt aquatic life criteria for chloride or specific conductivity.**

For far too long, aquatic life in Pennsylvania's waters has gone largely without protection from discharges of chloride. EPA originally established national aquatic life criteria for chloride in 1988.<sup>3</sup> It took until 2010—over 20 years—for the Board to propose a rulemaking to adopt these criteria. Even then, however, the Board did not finally adopt a standard. In 2012, the Board proposed a different set of equation-based criteria for chloride that would account for the effect of the hardness and sulfate concentration on chloride toxicity, but later withdrew that proposal to allow the Department to conduct further studies. Despite the completion of additional toxicity studies and refinement of the Pennsylvania-specific equations during the development of the current Triennial Review regulatory package, “the Department is not recommending a specific chloride criterion with this proposed rulemaking.” 47 Pa. Bull. at 6612. Acceding to that recommendation, the Board continues to defer proposing aquatic life criteria for chloride.

One reason given for the further delay is EPA's publication in December 2016 of a new draft field-based method for developing aquatic life criteria for specific conductivity.<sup>4</sup> The preamble to the Board's proposed rule explains that “[s]ince conductivity is a surrogate measure for all ions present in the water, this EPA study determines that conductivity better accounts for interactions between all ions and toxicity than simply defining a relationship between only hardness and toxicity.” 47 Pa. Bull. at 6612. The EPA study, however, has not been finalized, and “[t]he Department is currently reviewing this new field-based method to determine how it applies to Pennsylvania.” *Id.*

“[E]levated levels of chloride are toxic to aquatic life in freshwater environments,” 47 Pa. Bull. at 6611, and chloride can negatively affect the fish and insect community structure, diversity, and productivity, even at lower levels. Steven R. Corsi, et. al, *A Fresh Look at Road Salt: Aquatic Toxicity and Water Quality Impacts on Local, Regional, and National Scales*, 44 *Environ. & Sci. Technol.* 7376, 7381 (2010). Inevitably, studies will be necessary to determine relationships and impacts more precisely. While those studies are being undertaken, chlorides from gas production wastewater, mine drainage, industrial facilities, road salts, and water softeners continue to impact the aquatic biological communities in Pennsylvania's waters.

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<sup>3</sup> EPA, *Ambient Water Quality Criteria for Chloride* – 1988 (Feb. 1988).

<sup>4</sup> EPA, *Draft Field-Based Methods for Developing Aquatic Life Criteria for Specific Conductivity*, EPA-HQ-OW-2016-0353, 81 *Fed. Reg.* 94370 (Dec. 2016).

Pennsylvania's adoption of aquatic life water quality criteria for chloride is long overdue. We appreciate the efforts of the Department and the Board to develop and refine such criteria. At some point, however, a decision has to be made, subject to further revision as the science inevitably evolves.

The Department and the Board should take action earlier if possible, but should commit to adopt, no later than the next triennial review, aquatic life criteria for chloride, or, as an alternative, aquatic life criteria for specific conductivity or a methodology for deriving such criteria. One way or another, however, another triennial review should not pass without Pennsylvania having criteria in place to protect the aquatic life of Pennsylvania waters from the toxic effects of chloride.

**3. The Board should adopt a designated use of fish propagation for Zones 3 and 4 and the upper portion of Zone 5 of the Delaware Estuary for fish propagation.**

The Clean Water Act states that “it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983.” 33 U.S.C. § 1251(a)(2). The current designated uses of the Delaware Estuary from river mile marker 108.4 (near Philadelphia) to the Pennsylvania-Delaware border, known as zones 3 and 4, do not include fish propagation and only protects fish maintenance and passage. But recent data and observations show that, for all species evaluated (Atlantic Sturgeon, American Shad, Striped Bass, White Perch, Bay Anchovy, Atlantic Silverside, Alewife, Blueback Herring, and Atlantic Menhaden), successful reproduction was clearly demonstrated in one or more of the compromised estuary zones. The “Existing Use” based on data collected since 2000 indicates that at least some “propagation” (i.e., spawning and/or rearing of early stage larvae and juveniles) has been achieved in these portions of the Delaware River. Delaware River Basin Commission, *Existing Use Evaluation for Zones 3, 4, & 5 of the Delaware Estuary Based on Spawning and Rearing of Resident and Anadromous Fish*, p. 30 (Sept. 30, 2015).

EPA's regulations implementing the Clean Water Act provide that “[w]here existing water quality standards specify designated uses less than those which are presently being attained, the State shall revise its standards to reflect the uses actually being attained.” 40 C.F.R. § 131.10(h)(2)(ii). *See also id.* § 131.6(a) (mandating that state water quality standards include use designations consistent with the provisions of sections 101(a)(2) and 303(c)(2) of the Clean Water Act). Because these portions of the Delaware Estuary have an existing use of fish propagation, the designated use must be upgraded to reflect that documented existing use.

PennFuture is aware of the Delaware River Basin Commission's (DRBC) adoption of a resolution committing DRBC and the member states 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.<sup>5</sup> We likewise are aware of the Delaware Riverkeeper Network's petition to this Board to upgrade Zones 3 and 4 of the Delaware Estuary to include resident and migratory fish populations.<sup>6</sup> However, 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. 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. Thus, in issuing its final rule, the Board should change the designated use of these portions of the Delaware Estuary to match their existing use.

**4. The definition of “conservation easements” used for the purposes of demonstrating that a water is an outstanding national, state, regional or local resource should mirror the definition used in Pennsylvania’s Conservation and Preservation Easements Act.**

The Triennial Review seeks comments on whether the definition of outstanding National, State, regional or local resource water in § 93.1 should be amended in the next water quality standards review to clarify how conservation easements can be considered in an evaluation for a stream redesignation. Specifically, the Department seeks comment on suggested language to guide decisions concerning which type(s) of conservation easements are appropriate for use in this stream redesignation context. 47 Pa. Bull. at 6618-19.

Demonstrating that a water is an outstanding national, state, regional or local resource water is one method in which a stream can qualify for the protections afforded by the status of exceptional value. This demonstration can be made by showing that (1) a national or state government agency has adopted water quality protective measures in a resource management plan, or (2) regional or local governments have adopted coordinated water quality protective measures along a watershed corridor. 25 Pa. Code § 93.1. “Coordinated water quality protective measures” are defined as a “[l]egally binding sound land use water quality protective measures coupled with an interest in real estate which expressly provide long-term water quality protection of a watershed corridor.” *Id.* The regulations go on to list some examples of “legally binding sound land use water quality protective measures,” such as surface or groundwater source protection zones, enhanced stormwater management measures, wetland protection zones or other measures which provide extraordinary water quality protection. *Id.*

Even when a local or regional government has established such “legally binding sound land use water quality protective measures,” those measures must be combined with a real estate interest. *Id.* Again the regulations list a number of real estate interests, including “[f]ee interests,” “conservation easements,” “government-owned riparian parks or natural areas,” and “[o]ther interests in land which enhance water quality in a watershed corridor area.” *Id.*

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<sup>5</sup> DRBC Resolution No. 2017-4 (Sept. 13, 2017), *available at* [http://www.state.nj.us/drbc/library/documents/Res2017-04\\_%20EstuaryExistingUse.pdf](http://www.state.nj.us/drbc/library/documents/Res2017-04_%20EstuaryExistingUse.pdf).

<sup>6</sup> Delaware Riverkeeper Network, Petition to Upgrade Zones 3 & 4 of the Delaware River to Include Resident and Migratory Fish Populations, filed Feb. 28, 2017, *available at* [http://www.delawariverkeeper.org/sites/default/files/EQB.DO\\_.Petition.Final%202-28-17%20w%20attachments.pdf](http://www.delawariverkeeper.org/sites/default/files/EQB.DO_.Petition.Final%202-28-17%20w%20attachments.pdf).

Including the qualifier “government-owned” in only one of the four examples (*i.e.* riparian parks or natural areas) reflects a conscious choice to require a government to hold the interest only in that specific instance, and conversely, to allow the other identified real estate interests – including conservation easements – to be held by non-government actors while still satisfying the real estate element of a coordinated water quality protective measure. *See* 1 Pa. C.S. §1921(a) (The object of all statutory interpretation is to ascertain and effectuate the intention of the General Assembly); *Commonwealth v. Fant*, 146 A.3d 1254, 1260 (Pa. 2016) (noting that arriving at the meaning of a word in the statutory context requires considering the surrounding words and provisions).

The Department seeks comments on the inclusion of new sentence at the end of the definition of “Outstanding National, State, regional or local resource water,” which would clarify that “[t]he term includes a surface water protected by one or more conservation easements situated along a watershed corridor, in a manner that provides protection to significant reaches of the corridor.” 47 Pa. Bull. at 6619. The inclusion of conservation easements to protect surface waters and establish them as outstanding national, state, regional or local resource waters comports with PennFuture’s understanding of the existing definition. However, we recommend excluding the final clause (*i.e.* “in a manner that provides protection to significant reaches of the corridor”). This language is vague. The regulations do not define what constitutes a “significant reach of the corridor” nor is it explicit in what protections are necessary.

The Department also seeks comment on a new definition of “Conservation easements” that would be added to 25 Pa. Code § 93.1. The definition provided by the Department would require that an easement used to demonstrate that a water is an outstanding national, state, local or regional water must involve a government entity as “the holder, long-term steward, or responsible beneficiary.” 47 Pa. Bull. at 6619. It further would provide that the easement “cannot be revised, rescinded, or amended by any party.” *Id.*

PennFuture finds this definition problematic for several reasons. The requirement that a government hold some interest in the easement is concerning. This is not the general practice of land trusts in establishing conservation easements and would result in many existing easements for which water quality protection is an objective to be excluded from consideration for failure to include an element that could not have been anticipated at the time of acquisition. Further, it is unclear that governments would be willing to hold or be named beneficiaries of conservation easements, particularly if they are expected to defend the easement should it be challenged. If effectual defense of conservation easements is the Department’s concern in proposing this language, it can be alleviated through other avenues. In fact, the Pennsylvania Land Trust Association (PALTA) provides resources including model conservation easements for land trusts operating in Pennsylvania, incorporating language that a holder of an easement not only accepts the benefits of the easement, but may also agree to the obligation of defending the easement.<sup>77</sup>

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<sup>77</sup> *See* PALTA Model Conservation Easement 7th ed. § 6.03(c) (The easement holder may “assert a claim, defend or intervene in, or appeal, any proceeding under Applicable Law that (1) pertains to the impairment of Conservation Objectives; or (2) may result in a transfer, Improvement, or use that violates the terms of this Grant.”) *available at* [http://conservationtools.org/library\\_items/323-Model-Grant-of-Conservation-Easement-and-Declaration-of-Covenants-7th-edition](http://conservationtools.org/library_items/323-Model-Grant-of-Conservation-Easement-and-Declaration-of-Covenants-7th-edition).

This security could also be provided through the requirement that easement holders maintain insurance.<sup>8</sup>

The proposed definition is also concerning because it prohibits the revision, rescission, or amendment of the conservation easement by any party. This is simply impractical. Circumstances change that require amendments to easement language. For example, should the Department move forward with the proposed definition, to be considered in the designation of outstanding national, state, regional or local resource water, many existing easements would need to be renegotiated and amended in order to create an interest in a governmental entity. PALTA provides guidance on how conservation easements can be amended and notes that generally, any change in the restrictive covenants must be consistent with the conservation objectives.<sup>9</sup> Where protecting, conserving, maintaining, or enhancing water quality is an objective, any amendment defeated this purpose would not be allowed. Thus, even if the conservation easement is amended, the water quality protections are maintained.

The definition proposed by the Department goes beyond the general understanding of a conservation easement, as evidenced in Pennsylvania's Conservation and Preservation Easements Act, 32 P.S. §§ 5051-5059, which defines a "conservation easement" as:

A nonpossessory interest of a holder in real property, whether appurtenant or in gross, imposing limitations or affirmative obligations, the purposes of which include, but are not limited to, retaining or protecting for the public and economic benefit the natural, scenic or open space values of real property; assuring its availability for agricultural, forest, recreational or open space use; protecting, conserving or managing the use of natural resources; protecting wildlife; maintaining or enhancing land, air or water quality or preserving the historical, architectural, archaeological or cultural aspects of real property.

32 P.S. §5053.

PennFuture suggests that if the Department seeks to clarify that waters protected by a conservation easement may be eligible for classification as an outstanding national, state, regional or local resource water, it should define "conservation easement" consistently with this statutory definition. In order to include the water quality protections necessary for outstanding national, state, regional or local resource water status, conservation easements used for this purpose should contain an objective of maintenance and enhancement of water quality. Therefore, we suggest the following definition of conservation easement for the purposes of chapter 93.1:

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<sup>8</sup> The Land Trust Alliance has helped to arrange insurance options designed specifically to meet the needs of land trusts. For example, Terra Firma insures member land trusts for the legal costs of defending conservation lands and easements. See <https://terrafirma.org/>.

<sup>9</sup> See PALTA Amending Grants of Conservation Easements; Legal Considerations for Land Trusts, *available at* <http://conservationtools.org/guides/139-amending-grants-of-conservation-easement>.

A nonpossessory interest of a holder in real property, whether appurtenant or in gross, imposing limitations or affirmative obligations, the purpose of which includes, but need not be limited to, protecting, conserving, maintaining, or enhancing water quality. A conservation easement for the purpose of this Chapter must be recorded and held in perpetuity, and must satisfy the requirements of the Pennsylvania Conservation and Preservation Easements Act, 32 P.S. §§ 5051-5059.

By addressing any concerns about enforcement of the easement restrictions and ensuring consistency with Pennsylvania's governing statute on conservation easements, PennFuture believes this definition would adequately "guide decisions concerning which types of conservation easements are appropriate for use in th[e] the stream redesignation context." 47 Pa. Bull at 6619. We ask that the Department consider this alternative definition during the next triennial review of water quality standards.

**5. The Board should adopt other criteria for which EPA has published new or updated 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[.]" 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 update CWA section 304(a) criteria recommendations since May 30, 2000").

The Board's proposed rule would not adopt a number of criteria for which EPA has published new or updated section 304(a) recommendations since May 30, 2000. Specifically, the Board's proposed rule would not adopt EPA's:

- 2016 recommended aquatic life criteria for selenium (freshwater), *see* 81 Fed. Reg. 45285 (July 13, 2016);
- 2016 recommended aquatic life criteria for cadmium, *see* 81 Fed. Reg. 19176 (Apr. 4, 2016);
- 2012 recommended aquatic life criteria for carbaryl, *see* 77 Fed. Reg. 30280 (May 22, 2012);
- 2004 recommended aquatic life criteria for tributyltin (TBT), *see* 69 Fed. Reg. 342 (Jan. 5, 2004); or

- 2002 recommended human health criteria for selenium, nitrosodibutylamine (CAS No. 924163), nitrosodiethylamine (CAS No. 55185), and nitrosopyrrolidine (CAS No. 930552).<sup>10</sup>

Even with respect to the most recent of these section 304(a) recommendations, it would seem that Pennsylvania had sufficient opportunity to evaluate EPA's recommended criteria before the Board's adoption of its proposed rule on April 18, 2017. PennFuture recommends that the Board include all of these post-2000 EPA recommended criteria in its final rule as amendments to 25 Pa. Code § 93.8c, Table 5. If the Board does not do so, in accordance with 40 C.F.R. § 131.20(a), (c), the Department must explain in the Triennial Review submission to the Regional Administrator why Pennsylvania has chosen not to adopt these section 304(a) recommended criteria.

#### **6. PennFuture supports the proposed amendments updating criteria for toxic substances.**

Toxic contaminants, particularly those that bioaccumulate, are a long-term and serious water quality concern. The Board proposes additions and amendments to the human health and aquatic life criteria for toxic substances in 25 Pa. Code § 93.8c, Table 5, that are based on "the best available scientific data and scientific judgment on pollution concentrations and their effect on human health or aquatic life." 47 Pa. Bull. at 6612.

In 2015, EPA announced its Final Updated Ambient Water Quality Criteria for the Protection of Human Health for 94 pollutants. 80 Fed. Reg. 36986 (June 29, 2015). These recommended criteria reflected the application of updated exposure factors for body weight (80 kg), drinking water consumption (2.4 liters per day) and fish consumption (22 grams<sup>11</sup> per day), as well as updated toxicity values and pollutant-specific bioaccumulation factors. Consistent with EPA's recommended values for these 94 parameters, the proposed rule would add 11 new human health compounds to Table 5, update the Table 5 criteria for 73 compounds, and leave the ten remaining criteria unchanged. 47 Pa. Bull. at 6612.

Table 5 also includes a number of criteria for toxic substances that have no EPA-recommended criteria. Where possible, the Department applied EPA's updated exposure factors<sup>12</sup> and other information to update a number of Department-developed criteria in Table 5. The proposed rule includes these updated criteria, some of which would be relaxed from their current values in Table 5, and some of which would become more stringent.

<sup>10</sup> See EPA, "National Recommended Water Quality Criteria - Human Health Criteria Table" available at <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table>.

<sup>11</sup> The preamble to the Board's proposed rule incorrectly uses kilograms (kg) as the unit for this fish consumption rate. See 47 Pa. Bull. at 6613.

<sup>12</sup> Where insufficient information is available to calculate criteria based on the updated exposure assumptions, Table 5 would be amended by including a symbol ("†") indicating that a particular criterion is based on exposure inputs of 70 kg for body weight and the consumption of 2 liters per day of drinking water and 17.5 grams per day of fish. See 47 Pa. Bull. at 6631 (acronyms and footnotes to Table 5). The preamble incorrectly states the fish consumption rate as the updated rate of 22 grams per day. See 47 Pa. Bull. at 6613.

PennFuture supports all of the Board's proposed updates to the human health and aquatic life criteria for toxic substances in 25 Pa. Code § 93.8c, Table 5.

**7. PennFuture supports the proposed amendments to the ammonia criteria.**

The Board proposes to amend the ammonia criteria to conform to EPA's final recommendations for Aquatic Life Ambient Water Quality Criteria for Ammonia—Freshwater 2013. These recommendations consider the most recent scientific research regarding the effects of ammonia on aquatic life and incorporate the latest toxicity information. PennFuture supports the Board's amendments to the ammonia criteria in 25 Pa. Code § 93.7 (Table 3) to conform to the EPA's most recent recommendations.

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Thank you for your consideration of these comments. Please feel free to contact me at 215.545.9694 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Alice R. Baker".

Alice R. Baker  
Philadelphia Staff Attorney