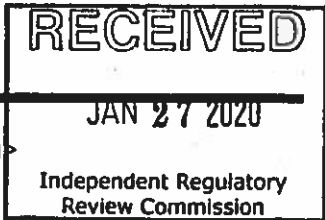


3182



**Kathy Cooper**

**From:** Chindori-Chininga, Matiiapa <Matiiapa\_Chininga@afandpa.org>  
**Sent:** Monday, January 27, 2020 12:16 PM  
**To:** IRRC  
**Cc:** Schwartz, Jerry; Senatorsantarsiero@pasenate.com; pmcdonnell@pa.gov; dmetcalf@pahousegop.com; gyaw@pasen.gov; gvitali@pahouse.net; Glendon King  
**Subject:** Final Rulemaking on the Triennial Review of Water Quality Standards #7-534 (IRRC # 3182)  
**Attachments:** AF&PA comments on Final Rulemaking on the Triennial Review of Water Quality Standards (IRRC #3182).pdf

CAUTION: **\*\*EXTERNAL SENDER\*\*** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Honorable Commissioners,

AF&PA has been working with multiple states as they go through their water quality standards triennial review process. It has come to our attention that the Independent Regulatory Review Commission will be voting on the Department of Environmental Protection's final proposed regulation concerning their Water Quality Standards on Friday, January 31<sup>st</sup>.

We believe that DEP should provide a more robust analysis of the rule's costs and benefits than has been provided, to ensure the integrity of the rulemaking process and to give a more complete picture of the potential costs and benefits of the proposed regulation to industry and The Commonwealth as a whole. To this end, we urge IRRC to give serious consideration to the issues raised in our letter and annexed comments.

Sincerely,

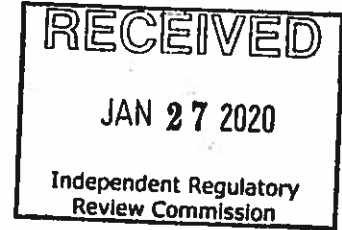
Matiiapa Chindori-Chininga  
 Manager, Environmental Policy  
[Matiiapa\\_Chininga@afandpa.org](mailto:Matiiapa_Chininga@afandpa.org)  
 Office: (202) 463-2721  
 AMERICAN FOREST & PAPER ASSOCIATION  
 1101 K Street, N.W., Suite 700  
 Washington, D.C. 20005



3182



**American  
Forest & Paper  
Association**



January 27, 2020

(Via e-mail)

Independent Regulatory Review Commission  
333 Market Street,  
14<sup>th</sup> Floor  
Harrisburg, PA 17101

**Re: Final Rulemaking on the Triennial Review of Water Quality Standards  
#7-534 (IRRC #3182)**

Dear Honorable Commissioner:

The American Forest & Paper Association (AF&PA) serves to advance a sustainable U.S. pulp, paper, packaging, tissue and wood products manufacturing industry through fact-based public policy and marketplace advocacy. Recently, AF&PA became aware that on January 31, 2020 the Independent Regulatory Review Commission (IRRC) intends to review the final rulemaking of Pennsylvania's Department of Environmental Protection (DEP) water quality standards.

By letter dated February 16, 2018 and at a hearing on the same date, AF&PA timely submitted extensive comments on the proposed rulemaking on behalf of our members in Pennsylvania who have a direct interest in this rulemaking because their water permits potentially could include limits calculated from the proposed water quality standards that are the subject of the DEP rulemaking. DEP acknowledged receipt of these comments however failed to adequately address AF&PA's comments in their Comment-Response Document. Further we submitted comments, dated November 18, 2019, to the Environmental Quality Board (EQB) in which we informed the board of the DEP's failure to adequately respond to AF&PA's comments however, the EQB voted to approve the final rulemaking. I have enclosed a copy of both sets of comments submitted to DEP and the EQB.

As DEP has failed to address AF&PA's timely comments, I respectfully request that the IRRC require the Department to fully and adequately address AF&PA's comments prior to the IRRC acting on the final rulemaking. AF&PA has been working with multiple states as they go through their water quality standards triennial review process. We believe that for the integrity of the rulemaking process, it is important for DEP to provide

detailed consideration and analysis of all the implications of the proposed changes because the issues under consideration can have enormous cost implications to industry.

By copy of this letter, we also respectfully request that the Pennsylvania House and Senate Environmental Committees require DEP to properly and fully address AF&PA's concerns and comments.

Thank you for the opportunity to comment on this final-rulemaking. If you have any questions, please contact Matiapa Chindori-Chininga at 202-463-2721 or [matiapa\\_chininga@afandpa.org](mailto:matiapa_chininga@afandpa.org) or Jerry Schwartz at 202-463-2581 ([jerry\\_schwartz@afandpa.org](mailto:jerry_schwartz@afandpa.org)).

Sincerely,



Matiapa Chindori-Chininga  
Manager, Environmental Policy

Enclosures

CC: Patrick McDonnell, Secretary, Pennsylvania Department of Environmental Protection  
The Honorable Senator Gene Yaw, Chair, PA Senate Environmental Resources and Energy Committee  
The Honorable Senator Steven J. Santarsiero, Minority Chair, PA Senate Environmental Resources and Energy Committee  
The Honorable Representative Daryl D. Metcalfe, Chair, PA House of Representatives Environment Resource and Energy Committee  
The Honorable Representative Greg Vitali, Minority Chair, PA House of Representatives Environment Resource and Energy Committee



**American  
Forest & Paper  
Association**

February 16, 2018

(Via e-mail)

Thomas Barron  
Chief, Standards Section  
Pennsylvania Department of Environmental Protection  
Rachel Carson State Office Building  
400 Market Street,  
Harrisburg, PA 17105-2063

**Re: Proposed Statement of Policy – Chapter 16 Water Quality Toxics  
Management Strategy, Department of Environmental Protection (“DEP”)  
 (“the Proposal”)**

Dear Mr. Barron:

The American Forest & Paper Association (AF&PA) serves to advance a sustainable U.S. pulp, paper, packaging, tissue and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry’s sustainability initiative - *Better Practices, Better Planet 2020*. The forest products industry accounts for approximately four percent of the total U.S. manufacturing GDP, manufactures over \$200 billion in products annually, and employs approximately 900,000 men and women. The industry meets a payroll of approximately \$50 billion annually and is among the top 10 manufacturing sector employers in 45 states.

AF&PA’s sustainability initiative - *Better Practices, Better Planet 2020* - comprises one of the most extensive quantifiable sets of sustainability goals for a U.S. manufacturing industry and is the latest example of our members’ proactive commitment to the long-term success of our industry, our communities and our environment. We have long been responsible stewards of our planet’s resources. We are proud to report that our members have already achieved the greenhouse gas reduction and workplace safety goals. Our member companies have also collectively made significant progress in each

---

1101 K Street, N.W., Suite 700 • Washington, D.C. 20005 • (202) 463-2700 • [afandpa.org](http://afandpa.org)



**BETTER PRACTICES 2020**  
**BETTER PLANET**  
Continuing AF&PA's Commitment to Sustainability

of the following goals: increasing paper recovery for recycling; improving energy efficiency; promoting sustainable forestry practices; and reducing water use. AF&PA and several of our members have a direct interest in this rulemaking because those members' facilities' water permits could include limits based on the water quality criteria in the Proposal.

**I. DEP Should Not Adopt the Proposal's Human Health Water Quality Criteria ("HHWQC") Without Undertaking Analysis of its Economic and Other Impacts**

**A. States Are Not Required to Adopt EPA's National HHWQC**

Under Section 304 of the Clean Water Act (CWA), states have the primary responsibility to develop water quality standards, including the water quality criteria that are one of the key components of those standards. This is consistent with the concept of "cooperative federalism," that underlies the CWA, and the statute envisions a process by which states adopt water quality standards to address the water quality needs of its streams, lakes, and other water bodies.

With respect to HHWQC, EPA issues national recommended HHWQC pursuant to Section 304(a) of the CWA, and states use these as the starting point for developing the water quality criteria in their water quality standards. EPA regulations (40 C.F.R. § 131.11(b)) are clear that states have three options when developing their criteria and submitting them to EPA for approval: 1) adopt the EPA national criteria; 2) modify the national criteria to reflect site-specific conditions; or, 3) develop other "scientifically defensible" criteria.

Therefore, states are not required to adopt the national criteria or to use the identical default values that EPA included in the equations to derive those national criteria. The states' criteria must protect the designated use and be based on "sound scientific rationale" (40 C.F.R. § 131.11(a)). This provides states the opportunity to work with key stakeholders and to undertake the analysis needed to appropriately adapt national criteria to the state.

**B. Risk Management Discretion**

EPA's 2000 Human Health Methodology discusses the science and policy considerations inherent in the establishment of HHWQC. For example, in Section 2.2 (Science, Science Policy, and Risk Management), EPA states:

"Risk management is the process of selecting the most appropriate guidance or regulatory actions by integrating the results of risk assessment with engineering data and with social, economic, and political concerns to reach a decision. In this Methodology, the choice of a default fish consumption rate which is protective of 90 percent of the general population is a risk management decision. The choice of an acceptable cancer risk by a State or Tribe is a risk management decision."

The Methodology then goes on to make clear that this discretion applies to other aspects of HHWQC derivation:

“Many of the components in the 2000 Human Health Methodology are an amalgam of science, science policy, and/or risk management. For example, most of the default values chosen by EPA are based on examination of scientific data and application of either science policy or risk management. This includes the default assumption of 2 liters a day of drinking water; the assumption of 70 kilograms for an adult body weight; the use of default percent lipid and particulate organic carbon/dissolved organic carbon (POC/DOC) for developing national BAFs; the default fish consumption rates for the general population and sport and subsistence anglers; and the choice of a default cancer risk level. Some decisions are more grounded in science and science policy (such as the choice of default BAFs) and others are more obviously risk management decisions (such as the determination of default fish consumption rates and cancer risk levels). Throughout the 2000 Human Health Methodology, EPA has identified the kind of decision necessary to develop defaults and what the basis for the decision was.”

In short, DEP has the discretion to consider the costs of meeting the criteria and other social costs and benefits of their adoption, as well as other relevant factors. As it undertakes the risk management inherent in establishing its HHWQC, DEP also should recognize the uncertainties and conservative assumptions involved in risk estimates.

C. The National HHWQC Are Unnecessarily Conservative and Based on Unrealistic Default Values.

EPA's national HHWQC use very conservative default values that result in unnecessarily stringent criteria because of “compounded conservatism.”<sup>1</sup> For example, the national HHWQC assume that every day, for 70 years, everyone drinks 2.4 liters (about 2.5 quarts) of water per day; this is more water than 90 percent of the people in the U.S. drink. The HHWQC also assume that each person is drinking water directly out of a lake or stream or other surface water — and that the water has not been filtered or treated to remove any pollutants. The HHWQC also assume that everyone is eating 22 grams of locally caught fish every day for 70 years, all of which are contaminated at the resulting criteria level and that none of the pollutants in the fish were lost due to preparation or cooking. Compounded conservatism means that the HHWQC assume that everyone exhibits these and all of the other default characteristics that are used to derive the national HHWQC. It is extremely unlikely that there is a significant portion of the population that exhibits most or all of these characteristics, and it strains credulity to assume that everyone has all of these characteristics. See the attached comments of AF&PA and the Federal Water Quality Coalition on EPA's proposed national HHWQC that discuss these and other issues. Those comments are incorporated by reference.

---

<sup>1</sup> See the comments filed today by the National Council for Air and Stream Improvement (NCASI) that discuss in more detail the compounded conservatism embodied in the national HHWQC and a number of other issues. Those comments are incorporated by reference.

**D. The National HHWQC Are Not Necessarily Applicable to Pennsylvania Waters**

As noted above, states may revise the national HHWQC to reflect site-specific conditions. Two values in EPA's HHWQC derivation equation in particular should be revised to reflect Pennsylvania waters. EPA's national HHWQC include a bioaccumulation factor (BAF), instead of a Bioconcentration Factor (BCF). Both Washington and Florida declined to use BAFs when they adopted their own HHWQC, noting that EPA's BAFs were developed based on a model tailored to Great Lakes waters, which EPA has consistently characterized as "unique." Washington also declined to use the national default Relative Source Contribution (RSCs), citing state-specific data of information justifying the departure from the default RSCs.

**E. The Permit Limits Resulting from Adoption of EPA's National HHWQC Can be Extremely Expensive or Impossible to Comply With**

DEP is proposing to adopt the national HHWQC EPA issued in 2015, without additional analysis or modification. Development of the national HHWQC was controversial for a variety of reasons, including consideration of the costs that could be imposed by permit limits based on those criteria. First, many of the national HHWQC are more stringent than the previous national HHWQC, in some cases, many times more stringent. For example, as indicated in the attached spreadsheet, 66 water and organism criteria and 61 organism-only criteria are more stringent than the previous criteria.

Second, a study conducted by HDR for industrial and municipal dischargers on proposed HHWQC for Washington State (attached) indicated that compliance costs for those dischargers could reach hundreds of millions of dollars or more, and that even with the expenditure of these funds for advanced treatment technologies, many of the criteria still could not be achieved. While some of the assumptions underlying the Washington criteria are different than EPA's national HHWQC, certain of the conclusions of the HDR report may still be relevant to Pennsylvania dischargers. The HDR study also documented negative environmental impacts associated with implementing proposed HHWQC for Washington, including increased energy use resulting in increased greenhouse gas emissions, and increased solid waste generation.

Finally, it is our understanding that only one state has adopted the national HHWQC as issued by EPA. Several states that are updating their HHWQC are considering undertaking analyses of many of the issues we raise in our comments and in those attached or referenced.

**II. Conclusion**

DEP should not adopt the national HHWQC as it has proposed. Instead, DEP should take the opportunity provided under EPA regulations to develop more scientifically defensible criteria that are achievable and applicable to Pennsylvania waters. In particular, DEP should undertake analysis to determine the potential technologies

February 16, 2018

Page 5

needed, and associated costs to Pennsylvania dischargers, of achieving any HHWQC it adopts. DEP also should consider using BCFs and RSCs that are applicable to Pennsylvania waters in the development of those criteria.

Thank you for the opportunity to comment on the Proposal. If you have any questions, please contact me at 202/463-2581 or [jerry\\_schwartz@afandpa.org](mailto:jerry_schwartz@afandpa.org).

Sincerely,

A handwritten signature in black ink, appearing to read "Jerry Schwartz", with a stylized flourish at the end.

Jerry Schwartz  
Senior Director  
Energy and Environmental Policy

Attachments





**American  
Forest & Paper  
Association**

November 18, 2019

(Via e-mail)

Pennsylvania Environmental Quality Board  
Rachel Carson State Office Building  
400 Market Street,  
Harrisburg, PA 17105-2301

**Re: Proposed Rulemaking on the Triennial Review of Water Quality Standards  
(Ch. 93), Environmental Quality Board ("EQB")**

Dear Honorable Chairperson:

The American Forest & Paper Association (AF&PA) serves to advance a sustainable U.S. pulp, paper, packaging, tissue and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry's sustainability initiative - *Better Practices, Better Planet 2020*. The forest products industry accounts for approximately four percent of the total U.S. manufacturing GDP, manufactures over \$200 billion in products annually, and employs approximately 900,000 men and women. The industry meets a payroll of approximately \$50 billion annually and is among the top 10 manufacturing sector employers in 45 states.

AF&PA's sustainability initiative - *Better Practices, Better Planet 2020* - comprises one of the most extensive quantifiable sets of sustainability goals for a U.S. manufacturing industry and is the latest example of our members' proactive commitment to the long-term success of our industry, our communities and our environment. We have long been responsible stewards of our planet's resources. We are proud to report that our members have already achieved the greenhouse gas reduction and workplace safety goals. Our member companies have also collectively made significant progress in each of the following goals: increasing paper recovery for recycling; improving energy efficiency; promoting sustainable forestry practices; and reducing water use.

AF&PA has been working with multiple states as they go through their water quality standards triennial review process. Our members in Pennsylvania have a direct interest in this rulemaking because their water permits could potentially include limits calculated

from the proposed Human Health Water Quality Criteria (HHWQC). We believe that for the integrity of the rulemaking process, it is important for DEP to provide detailed consideration and analysis of all the implications of the proposed changes because the issues under consideration can have enormous cost implications to industry<sup>1</sup>.

We urge EQB to reflect on the issues raised in our comments below:

**I. The National HHWQC Are Not Necessarily Applicable to Pennsylvania Waters**

**A. PA DEP Should Not Rely on National BAFs to Derive HHWQC**

As noted in AF&PA's comments to the Department of Environmental Protection dated February 16, 2018, states may revise the national HHWQC to reflect site-specific conditions. Indeed, according to EPA's 2000 Human Health Methodology, basing HHWQC on site-specific conditions is the preferred method for states to derive their HHWQC "because states and tribes are in the best position to manage and regulate their resources."<sup>2</sup>

On page 44 of the Comment and Response Document PA DEP asserts that "...bioaccumulation factors that utilize great lakes models or data are expected to be generally representative of Pennsylvania's waters." EPA's BAFs, however, were developed based on a model tailored specifically to the Great Lakes waters which per the preamble to the Final Water Quality Guidance for the Great Lakes System, have "physical, chemical and biological characteristics that make them a unique ecosystem"<sup>3</sup> (emphasis added). The technical document produced by the National Council for Air and Stream Improvement (NCASI)<sup>4</sup> outlines five assumptions used in EPA's Baseline BAF that may not be applicable to non- Great Lake waters including 1) reliance on PCB data on the food web; 2) a long history of loading of compounds; 3) assumption that there is no metabolic transformation; 4) cooler water temperature; and 5) use of national data for each trophic level. Additionally, attachments B and C outline three examples prepared by NCASI of how using different parameter values to develop criteria from those chosen by EPA in their derivation of the national recommended criteria can result in criteria that substantially differ from the EPA's.

---

<sup>1</sup> A study conducted by HDR for industrial and municipal dischargers on proposed HHWQC for Washington State (see attachment A and discussion in section I.C.ii) indicated that compliance costs for those dischargers could reach hundreds of millions of dollars. While we recognize that the under consideration in that study are not identical to those DEP has proposed, the study does indicate the potentially significant cost impacts of compliance with revised HHWQC.

<sup>2</sup> Memorandum on Policy for EPA's Review and Action on Clean Water Act Submittals. Page 5.

<sup>3</sup> Federal Register. Vol. 60, No. 56 Thursday, March 23, 1995 Rules and Regulations 15367

<sup>4</sup> Derivation of Human Health Water Quality Criteria: Review of Key Scientific and Technical Assumptions and Approaches. 2<sup>nd</sup> Edition. September 2018

## II. The Proposed Water Quality Standards Do Not Meet The Regulatory Review Act Criteria To Determine Whether The Regulation Is In The Public Interest

Per its definition of "Agency", the Regulatory Review Act<sup>5</sup> (RRA) applies to every department, agency or other authority of the state of Pennsylvania bar the Senate and House of Representatives and a few other local authorities.

### A. The Proposed Final HHWQC Are Not Appropriate For The State

Section 5.2(b)(2) of the RRA asserts that the Regulatory Review Commission shall consider the protection of the public health, safety and welfare and the effect on the Commonwealth's natural resources in determining whether a regulation is in the public interest. In their response to question 10 of the Regulatory Analysis Form (RAF) (ID number 534; IRRC number 3182), DEP asserts that "All the citizens of Pennsylvania will benefit from the regulation because it provides the appropriate level of water quality protection for all water uses". Further in their response to question 18 of the RAF, DEP asserts that "[h]ealth and welfare benefits to all citizens of the Commonwealth accrue from protecting the surface waters of the Commonwealth at the appropriate level." As briefly mentioned above, however, the national criteria aren't necessarily applicable to Pennsylvania's waters. Therefore, DEP has not shown that they are "the *appropriate level* of water quality protection for all water uses" and they would not be suited to "protecting the surface waters of the commonwealth *at the appropriate level.*" As is stated, site-specific criteria which are tailored to the unique characteristics of the state are the most scientifically defensible way to achieve this mandate.

Further, developing state-specific criteria would be consistent with the concept of "cooperative federalism," that underlies the CWA. The statute envisions a process by which states adopt water quality standards to address the water quality needs of its streams, lakes, and other water bodies and allows for states to work with key stakeholders and to undertake the analysis needed to appropriately adapt national criteria to the state. Additionally, EPA is strongly supportive of states deriving state-specific human health criteria as they emphatically stated in their recent decision to approve Idaho. For example, in Technical Support Document - EPA Approval of the State of Idaho's New/Revised Human Health Water Quality Criteria for Toxics and Other Water Quality Standards Provisions, U.S. EPA states:

"The CWA and EPA's water quality regulations are structured to provide states with flexibility to adopt the criteria they believe are most appropriately protective of not only designated uses for the waterbody to which the criteria are directly applicable, but also protective of downstream use. When adopting criteria that are protective of designated uses, the federal regulations require that states have a sound scientific rationale for their decisions and, when not adopting criteria based on CWA section 304(a) guidance, criteria are based on scientifically defensible methods and/or reflect site-specific conditions. *The regulations provide this*

<sup>5</sup> The Regulatory Review Act of Jun. 25, 1982, P.L. 633, No. 181

**flexibility to ensure that states can address the unique conditions and characteristics of the circumstances in their state** and/or of the waterbody to which the criteria will apply.” (emphasis added) Pg.40.

Finally, it is our understanding that very few states have adopted the national HHWQC as issued by EPA. We have been tracking HHWQC development in state triennial reviews since 2016. Of the several states that have undertaken those reviews, only four have adopted the EPA default HHWQC without undertaking a thorough analysis of whether those criteria are appropriate for the state’s waters and without a vigorous economic analysis. Eight states, including New York and Illinois have specifically deferred adoption to allow for greater consideration of the criteria. Additionally, In the RAF attachment – Summary: Criteria Update for U.S. EPA Region 3 and Neighboring States for Ammonia and Human Health Criteria, the Department indicates that several of Pennsylvania’s surrounding states that are updating their HHWQC as part of their triennial reviews have or, are considering deferring adoption of the criteria pending further analyses of the appropriateness of the criteria to their waters. Other states such as Delaware will be deriving their HHWQC using state-specific exposure factor values to better tailor the criteria to their communities.

**B. EQB Should Not Adopt the Proposed Final HHWQC Without Undertaking A Thorough Analysis of its Economic and Other Impacts**

PA DEP contends, in their response to question 19 of the RAF that the department is not to consider achievability or the cost of compliance when developing water quality criteria. It is clear, however that some regard must be given to the economic feasibility of regulations proposed in Pennsylvania. Section 5.2 (b)(1) of the RRA, states that in the determination of whether a proposed or final-form regulation is in the public interest the Regulatory Review Commission shall consider the economic or fiscal impacts of the regulation which include the following:

- (i) Direct and indirect costs to the Commonwealth, to its political subdivisions and to the private sector.
- (ii) Adverse effects on prices of goods and services, productivity or competition.
- (iii) The nature of required reports, forms or other paperwork and the estimated cost of their preparation by individuals, businesses and organizations in the public and private sectors.
- (iv) The nature and estimated cost of legal, consulting or accounting services which the public or private sector may incur.
- (v) The impact on the public interest of exempting or setting lesser standards of compliance for individuals or small businesses when it is lawful, desirable and feasible to do so.

To that end, the promulgating agency must complete, and submit with their rule-making package, a completed RAF which speaks to and addresses the above listed criteria. In their submission, DEP has provided no information on compliance costs, stating that those costs can only be developed on a site-specific basis. While this may be true to determine more granular costs for a specific discharger, reasonable estimate of

compliance costs for regulated entities in the state can be developed by the agency using available information. See for example the study cited in footnote 1 that assessed costs for dischargers in Washington State to comply with proposed HHWQC for that state.

DEP cites numerous potential benefits, however, of reduced cleanup or remediation costs, increased property values, lower pretreatment costs, reduced legal liability from contaminated sediments, and fewer federally mandated Total Maximum Daily Loads (TMDLs), relying on old publications, some of which are specific to the Great Lakes. We believe, however, that the opposite result is more likely. That is, if more unnecessarily stringent standards are adopted for the Commonwealth's waters, the likely result is more waters being listed as impaired and requiring TMDLs, more complicated and costly remediation and sediment cleanups, and more liability claims, not fewer.

On March 19, 2018, the Independent Regulatory Review Commission in their comments on the Department's listed response to question 19 of the RAF, noted the inadequacy of the department's estimate or lack thereof, of the costs to the regulated community of the proposed rule. The Commission specifically called on EQB to consult with members of the regulated community to gain a better understanding of the fiscal impact of this rulemaking, citing concerns from commentators regarding a lack of financial data related to costs imposed by the rulemaking. Accordingly, we request that the Board require a more robust economic analysis to be undertaken by the DEP to ascertain potential compliance costs for the regulated community.

### **III. There Is A More Scientifically Advanced Way To Calculate Human Health Criteria: Probabilistic Risk Assessment (PRA)**

As noted in AF&PA's comments to the Department of Environmental Protection dated February 16, 2018, while the U.S. EPA has taken a deterministic approach to deriving their human health criteria recommendations, they have both endorsed and used the probabilistic approach for several years<sup>6</sup>. In 2014 they published a Risk Assessment Forum White Paper on PRA and their Guidelines for Human Exposure Assessment also recognizes the value of the method<sup>7</sup>. The ability of the probabilistic approach to employ the full the range of values for parameters that determine HHWQC results in an output that outlines the full range of potential risk.<sup>8</sup> This allows for decisions about the level of protection afforded different segments of the population to be transparent, and the

---

<sup>6</sup> Schwartz, Jerry. "BNA Insights: Human Health Criteria, Fish Consumption Rates – More Important Policy Implications than Clean Water Rule?" *Bloomberg BNA: Daily Environment Report*. Issue No. 96. (2016): 2-7.

<sup>7</sup> *Supra*.

<sup>8</sup> *Supra* note 4.

transparency of the distinction between science and policy is better achieved when using PRA than when using deterministic approaches.<sup>9</sup>

For these reasons, EQB should encourage Pennsylvania DEP to consider taking a probabilistic approach to deriving the HHWQC. The many benefits of this approach have been well documented by the EPA<sup>10</sup> and as demonstrated by the Florida Department of Environmental Protection in Draft Technical Support Document: Derivation of Human Health-Based Criteria and Risk Impact Statement (2016), the necessary inputs for key parameters are available as are the computational tools to run probabilistic analyses.

#### IV. Conclusion

EQB should not approve the Departments adoption of the national HHWQC. They are not appropriate for the State and do not meet the criteria as outlined in the Regulatory Review Act to determine whether the regulation is in the public interest. Additionally, in the words of the U.S. EPA: "...states are not required to adopt the EPA's 304(a) recommended criteria, rather states are encouraged to adopt their own numeric water quality standards based on EPA's 304(a) recommended criteria, 304(a) recommended criteria that are modified to reflect site-specific conditions, or other scientifically defensible methods."<sup>11</sup>

Thank you for the opportunity to comment on this final-rulemaking. If you have any questions, please contact Matiiapa Chindori-Chininga at 202-463-2721 or [matiiapa\\_chininga@afandpa.org](mailto:matiiapa_chininga@afandpa.org).

Sincerely,



Matiiapa Chindori-Chininga  
Manager, Environmental Policy

---

<sup>9</sup> Supra.

<sup>10</sup> USEPA. 2014b. Risk Assessment Forum White Paper: Probabilistic Risk Assessment Methods and Case Studies. EPA/100/R-14/004. Office of the Science Advisor, Risk Assessment Forum.

<sup>11</sup> Technical Support Document - The EPA's Reversal of the November 15, 2016 Clean Water Act Section 303(c) Partial Disapproval of Washington's Human Health Water Quality Criteria Submitted on August 1, 2016 and Decision to Approve Washington's Criteria: 5