Sept. 12, 2016

Submitted Electronically

Hon. Patrick McDonnell
Acting Secretary
Pennsylvania Department of Environmental Protection
Rachel Carson Building
400 Market Street
Harrisburg, PA 17101

Re: 2016 Draft Pennsylvania Integrated Water Quality
Monitoring and Assessment Report

Dear Secretary McDonnell:

These comments are submitted on behalf of the Lower Susquehanna Riverkeeper and Lower Susquehanna River Association, Inc. (formerly known as Stewards of the Lower Susquehanna, Inc.) regarding DEP's "2016 Draft Pennsylvania Integrated Water Quality Monitoring and Assessment Report: Clean Water Act Section 305(b) and 303(d) List" which was issued by DEP on or about July 29, 2016, and published in the PA Bulletin on July 30 (hereinafter the "Draft Listing Document").

The Lower Susquehanna Riverkeeper Association, its members, and their representative, Lower Susquehanna Riverkeeper Michael R. Helfrich, work to protect and improve the ecological and aesthetic resources of the 9, 215 square miles of the Lower Susquehanna and Juniata Watersheds. Our members and staff are fishermen, boaters, naturalists, business owners, and other citizens that utilize the Susquehanna for recreational purposes, including for its designated use as a Warm Water Fishery, and have an expectation that all water quality standards will be met, both numeric and narrative, for the protection of our resources and to the benefit of our families, communities, and all future generations.

Introduction

The Draft Listing Document discusses the current state of the Susquehanna River in detail, and recognizes that many portions of the main stem and its tributaries are impaired, i.e., not meeting applicable water quality standards, either because numerical or narrative criteria are not being met or because designated uses are not being achieved.

In very brief summary (we discuss the issue in detail later on) the Draft Listing Document states that

> Prior to 2005, no substantial disease-related YOY [young of the year] SMB [smallmouth bass] mortality events were documented in the Susquehanna River, but beginning in 2005, dead and dying YOY SMB were observed in greater numbers particularly in the middle Susquehanna (between Sunbury and York Haven, Pennsylvania). Since that time, SMB data indicate that the rates of reproduction, growth, and recruitment of younger fish into older age classes are lower than years prior to 2005. Growing concern over the health and abundance of SMB has spurred an unprecedented amount of research and public interest. (p. 32).

The high level of public concern was no surprise, since the Susquehanna's SMB fishery has provided enormous recreational and economic value to the Commonwealth for decades, and has enjoyed a world-wide reputation. The SMB is also by far the most important recreational aquatic organism in the "warm water fishery", which is a designated use which is protected by the applicable water quality standards, discussed below.

These problems led directly to the multi-agency "Causal Analysis of the Smallmouth Bass Decline in the Susquehanna and Juniata Rivers" (the "CADDIS Report), released by DEP in October, 2015. The Draft Listing Document relies heavily on that report in discussing the enormous decline in the SMB population in the Susquehanna, and the symptoms of serious illness found in samples of the SMB. As the Draft Listing Document acknowledges, that report identified emerging contaminants such as endocrine disrupting compounds and herbicides as likely causes of the decline.

Despite the severe damage to the SMB, which is clearly related to water quality, the Draft Listing Document does not list the main stem of the Susquehanna as "impaired" under Section 303(d) of the Clean Water Act. Given the facts that the Draft Listing Document itself admits, as well as the other facts relevant to this issue, this proposed conclusion is contrary to the text of the Clean Water Act, EPA's implementing regulations, EPA's practice and guidance, and comparable Pennsylvania's Clean Streams Law and implementing regulations.

We will discuss next the relevant legal authority, and then discuss the facts that justify an impairment listing. Specifically, we request that the Lower Susquehanna River from Sunbury to the Holtwood Dam, a stretch of approximately 98 miles, be listed as "impaired" for Aquatic Life Use, and an impaired Warm Water Fishery in particular, in the Final Listing Document. In fact, most if not all of this stretch is already impaired for fish consumption, and in some locations for recreational use. A listing for impairment of Aquatic Life Use will ensure that the Susquehanna, and its warm water fishery, will continue to get high priority attention for studies to identify the cause and remedy the problem, which is important because this will likely take many years to accomplish.

I. THE LEGAL REQUIREMENTS FOR LISTING A WATER BODY AS "IMPAIRED"

A. The Clean Water Act

The federal Clean Water Act, 33 U.S.C. 1251 *et seq.,* (CWA) was enacted in 1972 "to restore and maintain the chemical, physical and biological integrity of the Nation's waters." 33 U.S.C. 1251(a). Among its goals are attaining a level of "water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water." *Id.* at 1251(a)(2). Although the original goal for water quality restoration by July 1, 1983 proved to be overly optimistic, this remains a bedrock goal of the Act. The Act established a federal-state partnership for accomplishing these goals, and called for broad and timely public participation in their implementation. *Id* at 1251(b) and (e).

One of the core elements of the CWA is the establishment and achievement of water quality standards ("WQS") under Section 303, 33 U.S.C. 1313. [1] As any reader of this letter is likely to know, water quality standards are set under Section 303(a) – (c). The standards must be "consistent with the applicable requirements of this Act", Sec. 303(a)(B)(3), and "shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based on such uses." Sec. 303(c)(2)(A). They "shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of [the CWA]". In establishing uses, states must "take[ing] into consideration [the water body's] use and value for public water supplies, propagation of fish and wildlife, [and] recreational purposes…" Sec. 303(c)(2)(A).

The "criteria" specify those levels of any pollutant that might be in the water and might cause or contribute to nonattainment of the WQS which may not be exceeded in order to maintain compliance with the standard. They may be expressed in numeric or narrative form. Sec. 303(2)(B); 40 CFR 130.7(b)(3). There is a third element often included in defining water quality standards, namely the CWA's "anti-degradation policy" designed to preserve the quality of

[1] For convenience, statutory references will be to the Section of the Act without the parallel citation to the U.S. Code.

waters which already exceed the use and criteria elements. CWA Sec. 303(d)(4)(B).

States are required to periodically review their waterbodies and submit to EPA a prioritized list of those waterbodies, or portions of them, which are not currently meeting water quality standards. Sec. 303(d) (the "impaired waters" list). It is this listing process that is at issue in this matter, and is the subject of PADEP's Draft Listing Document.

Listing does not have any immediate regulatory impact. Instead, it prompts further scientific analyses and planning to address the problems that have been identified. Following listing and any appropriate further study, for each waterbody or segment which is not in compliance with an applicable water quality standard, the state must develop a total maximum daily load ("TMDL") which establishes pollutant-specific loading quantities which may not be exceeded and still meet the WQS. The state then establishes loading allocations for sources of releases that are affecting the waterbody which may not be exceeded, and an implementation time table. Section 303(d) and 40 CFR 130.7(a) and (b),[2]

B. <u>EPA's Regulations Make Clear That the Listing Requirement is Triggered Solely by Nonattainment of WQS.</u> Nothing in the Law, or EPA's Implementing Regulations and Guidance Contains any Requirement That a State Must Be Able to Identify the Pollutants that are Causing the Non-attainment of WQS, or the Sources from which They Are Being Discharged, <u>Nor May Lack of that Information Be Used to Delay Listing.</u>

EPA's implementing regulations at 40 CFR Part 130 describe this listing process. Like the statute, they require that a state must list a waterbody as "impaired" whenever any water quality standard is not being attained, even if the cause is not definitively known. They then state in 40 CFR 130.7(b):

> (3) For the purpose of listing waters under 130.7(b), the term "water quality standards applicable to such waters" and "applicable water quality standards" refer to those water quality standards established under section 303 of the Act, including numeric criteria, **narrative criteria, waterbody uses,** and anti-degradation requirements." [Emphasis added].

The words in bold are critical. They reflect EPA's determination, which is entirely consistent with the statute, that if "narrative criteria" or "waterbody uses" are not

[2] If a state fails to submit to EPA a list and/or WQS which EPA determines will achieve the goals of the CWA, EPA may perform these functions. (CWA Sec. 303(d)).

being achieved, then the waterbody or segment must be listed *at that stage*. Nothing in the statute or these regulations either requires or allows a state to delay listing until the cause of the pollutant is determined. In fact, waters often may fail to achieve narrative standards or designated uses even though the cause is not precisely known.[3]

C. EPA's Guidance and Practice Confirm That Failure to Attain a WQS by Itself Requires Listing

In its April, 1991, *Guidance for Water Quality-based Decisions: The TMDL Process* (EPA Doc. 440/4-91-001), EPA describes the process of identifying and listing impaired waters starting on page 11:

> The water quality-based approach to pollution control begins with the identification of problem waterbodies. State water quality standards form the basis and "yardstick" by which States can assess the water-body status and implement needed pollution controls. State water quality standards include three elements: designated uses for the waterbody, criteria (physical, chemical and biological) to protect the designated uses, and an anti-degradation statement. **States need to identify those waters not meeting any one of these components of water quality standards.** [Id. P.11, emphasis added}.
>
> Lack of information about certain types of pollution problems (for example, those associated with nonpoint sources or with certain toxic pollutants) should not be used as a reason to delay implementation of water quality-based controls. [Id, p.2.]

The first step in addressing water quality standards which are not being met is the listing of the waterbody or segment as impaired. Appendix C to this EPA guidance document provides a list of conditions a state should consider in a use impairment determination. The first two are:

1. Waters where fishing or shellfish bans and/or advisories are currently in effect or anticipated.

2. Waters where there have been repeated fishkills or where abnormalities (cancers, lesions, tumors, etc.) have been observed in fish or other aquatic life during the last ten years.

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[3] In fact, PADEP's lists of impaired waters, both the complete list and the prioritized list (Appendix H to the Draft Listing Document) frequently list a water body or segment as impaired, and show the cause or source as "unknown". See discussion of this on page 7, below.

These examples are directly applicable to conditions in the Lower Susquehanna River, where fishkills, fishery depletion, and abnormalities including tumors, cancers, and intersex symptoms have been widely observed, as described more fully bellow. The examples also strongly suggest that in determining whether a designated use such as Warm Water Fishery is impaired, it is not necessary to establish that all or most species that make up that fishery are impaired; it is enough if there have been "repeated fishkills" or "abnormalities" such as "cancers, lesions, tumors, etc.)" As discussed below, this is relevant in determining how much damage to the warm water fishery must be shown to demonstrate impairment.

In its guidance issued in September, 2013, with respect to the 303(d) lists for 2014, EPA stated that where a water quality designated use was not being achieved, the waterbody "must be included on the State's Section 303(d) list even if the specific pollutant causing the water quality standard exceedance [noncompliance] is not known at the time."[4] Evidence to support a 303(d) listing based on "narrative criteria and/or designated use impairment can include documentation of fish kills (aquatic life use)" and other reported "adverse impacts" on organisms.[5] As discussed below, earlier this year EPA followed precisely this course in partially approving and partially disapproving West Virginia's list of impaired waters.

The reason for this statutory and regulatory scheme is clear. Listing triggers the process of gathering information regarding the identity of the pollution that is causing nonattainment of the standards, and locating the sources so that a TMDL can be prepared, and loading allocations can be developed. If a state could delay listing of an impaired waterbody simply because it did not know the identity of the pollutant causing the nonattainment, it could escape doing anything that would lead to the achievement of WQS, including development and implementation of a TMDL. This is clearly not what Congress intended when it established the ambitious goals of the CWA to restore the health of our nations waters.

D. Listing by West Virginia of Use-Impaired Waters, Without Knowing the Cause, Was Recently Approved by EPA and Further Supports Listing the Lower Susquehanna Even if PADEP is Unable at This Time to Identify the Cause.

On May 11, 2016, EPA Regional Administrator Shawn Garvin wrote to Randy C. Hoffman, Secretary, West Virginia Department of Environmental Protection, approving West Virginia's 303(d) listing of certain water bodies, and disapproving the state's failure to include additional waterbodies because it failed

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[4] Memorandum from Denise Keehner, Director of EPA's Office of Wetlands, Oceans and Watersheds, *Information Concerning 2014 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions* (Sept. 3, 2013), p. 4.
[5] *Id* at p.4.

to consider all available information. With respect to the approved impairment listings, EPA said:

> For WQLSs identified on West Virginia's 2014 Section 303(d) list as violating West Virginia's narrative water quality criteria as applied to aquatic life, the impairing pollutant frequently is unknown because the impairment is identified by a direct measure of the biological community. Therefore, the Section 303(d) list identifies many WQLSs based upon failure to achieve the narrative water quality criteria as applied to aquatic life without identifying the cause of the impairment. WVDEP anticipates that the cause of biological impairments will be determined during TMDL development.[6]

Similarly, here in Pennsylvania, as discussed below, the Susquehanna River is clearly impaired for its Aquatic Life Warm Water Fishery use, and should be included on DEP's 303(d) priority list even though the precise cause of the impairment may not be known. The fact that identification of the cause may not be made until completion of the further studies that will be part of the TMDL development process is not a valid reason not to list this impaired water body now.

E. <u>PADEP's Listing Guidance is Consistent with EPA's Guidance, Making Clear That a Waterbody That is Not Achieving a Designated Use Should Be Listed as Impaired.</u>

As part of its guidance for evaluating and listing impaired waters PADEP has issued an "Information Sheet: 303(d) List & Existing and Readily Available Water Quality Data and Information" which among other things describes conditions which trigger 303(d) listing. One of these, item 2 on page 2, is entitled "Beneficial Use Impaired." It states in pertinent part:

> Listing a waterbody due to use impairment requires information that shows the use is not being supported and that this failure is due to degraded water quality. Examples:... A waterbody designated as a cold water fishery has exhibited a documented decline in biomass due to excessive sediment deposits that have inhibited or precluded spawning.

Under this Guidance evidence of an impaired use or failure to achieve a narrative water quality standard is an "impairment" of the water quality which calls for 303(d) listing. While the "example" in the second sentence does include a cause, that is not essential to listing, which is more broadly described in the first sentence which provides the actual guidance. In fact, consistent with this entire discussion, PADEP has listed waterbodies as impaired even though the listing

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[6] Enclosure 1 to the EPA letter, entitled *Review of West Virginia's 2014 Section 303(d) List and Decision Rationale,* p.10.

document itself states that the cause or source are unknown. *See, e.g.,* Draft Listing Document at p. 47 and Table 3, line 1; Table 4, line 7; and Table 6, line 1; and Appendix H to the Draft Listing Document at pp. 8, 9 and 11 (among many others) listing stream segments with "cause unknown"; and the longer "2016 Pennsylvania Integrated Water Quality Monitoring and Assessment Report – Streams, Category 5 Waterbodies, Pollutants Requiring a TMDL", pp. 2-7 (among many others), listing waterbodies and segments with "source unknown".

Clearly the absence of an identifiable cause or source has not prevented PADEP from listing a waterbody or segment as "impaired", and this should be no obstacle to listing the Lower Susquehanna as impaired now.

II. THE LOWER SUSQUEHANNA RIVER SHOULD BE LISTED AS IMPAIRED BECAUSE THERE IS SUBSTANTIAL EVIDENCE THAT ITS DESIGNATED WARM WATER FISHERY USE HAS BEEN SIGNIFICANTLY IMPAIRED SINCE 2005.

A. Applicable Water Quality Standards.

The Susquehanna River in Pennsylvania is protected for Aquatic Life, which includes the following uses: warm water fishery, cold water fishery, migratory fish and trout stocking.[7] It is also protected for recreational use and fish consumption. The WQS include certain pollutant-specific criteria to support these uses. The main focus of these comments is the protection of the Aquatic Life use, and specifically the warm water fishery.

Pennsylvania's regulations define the use for "warm waters fishes", as follows:

> ...maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat. [8]

The smallmouth bass is a vital, and indeed dominant, part of this warm water use. It is indigenous to a warm water habitat. It is hard to imagine how anyone could not observe the well-documented decline of the smallmouth bass population in the Susquehanna River below Sunbury, which has been taking place over more than a decade, as well as the widespread evidence of tumors, lesions and intersex abnormalities discussed below, and not conclude that this body of water is impaired for warm water fishes.

B. The Comprehensive CADDIS Report Documents Significant

[7] 025 Pa. Code sections 93.3, 93.4, and 93.6 through 93.9.
[8] 025 Pa. Code section 93.3 (table 1).

And Continuing Damage to the Warm Water Fishery's Most Important Species, the Smallmouth Bass.

The "Causal Analysis of the Smallmouth Bass Decline in the Susquehanna and Juniata Rivers" (the CADDIS" Report), released by DEP in October, 2015, was a thorough and well-documented analysis of the sharply declining population of smallmouth bass, both young-of-year ("YOY") and adult, since 2005. This study was carried out by multiple agencies and organizations, and brought together significant expertise. It focused primarily on the segment of the Susquehanna between Sunbury, where the West Branch enters the Susquehanna and levels of fish disease and mortality rise, and York Haven. Analyses were made of extensive data, including various media, fish and other organisms, and environmental behavior, in an effort to identify and evaluate possible causes of the significant mortality.

That this study was undertaken reflects the importance of the Susquehanna River, and the smallmouth bass fishery in particular, to Pennsylvania and the downstream Chesapeake Bay watershed. For many years before 2005 the smallmouth bass fishery was enormously productive. It has been a very significant economic booster, and people have come from around the world to fish here. It has been described as a "world class recreational fishery".[9] In 1991 and 1993 the annual catch rates were around 28 million. By 2005 it had dropped to around 6 million, and in recent years it has hovered around 2 million or less.[10]

In addition, tumors, lesions, intersex conditions (such as immature female eggs appearing in male testes), and other adverse health effects are being found increasingly in the smallmouth bass population. John Arway, Executive Director of the Pennsylvania Fish and Boat Commission, which participated in the CADDIS study, stated recently of this fishery:

> The average catch rate of adult Smallmouth Bass is five times less than what it was prior to 2005. Young-of-year (YOY) Smallmouth Bass average catch rates are 1/3 of what they were prior to 2002. Bacterial infections plague more than 20% of the YOY bass that are collected in nursery areas. Melanosis (black spots) began appearing on adult bass after the 2005 fish kill, and anglers report more fish with black spots every year. High rates of intersex conditions have been found at sampling locations.[11]

Similar findings were noted in the CADDIS Report itself. *See* pp. 6 and 11-16.

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[9] See PADEP press release of December 14. 2015, on the CADDIS Report, quoting John Arway.

[10] See John Arway, *Straight Talk,* scheduled for publication in Pennsylvania Angler and Boater September/October 2016, prepublication available on the PFBC web page www.fishandboat.com.

[11] Id.

The principal objective of the CADDIS study was to identify and evaluate possible causes of these symptoms and the dramatic decline of the smallmouth bass population from 2005 to the present. Fourteen potential causes were identified and evaluated. Of these the authors concluded that two are "Likely Causes", namely (1) endocrine disrupting chemicals and herbicides, and (2) pathogens and parasites with other stressors. Eight possible causes were found to be "uncertain", and the rest were unlikely. The authors recommended additional research.

The fact that the exact cause of the severe damage to the smallmouth bass fishery has not yet been determined should not prevent PADEP from including the Lower Susquehanna on its CWA 303(d) priority list of impaired waters. Based on the law, regulations and guidance discussed above, because the impairment is clear, the lower Susquehanna must be listed now.

C. PADEP's Draft Listing Document Acknowledges the Fact That The Aquatic Life Use of the Lower Susquehanna is Impaired, and Its Failure to Include it on its 303(d) List of Impaired Waters <u>is a Serious Mistake and Contrary to Law.</u>

DEP's Draft Listing Document contains a discussion of the severely impaired condition of the smallmouth bass population in the Lower Susquehanna and the resulting impairment of the warm water fishery use (pp. 31-38; see especially p. 32). The document notes that 68.2 stream miles of the Susquehanna are listed as impaired for recreational use due to high levels of fecal coliform bacteria. The entire stretch from Sunbury to the Maryland/Pennsylvania line is listed as impaired for fish consumption (pp. 33-34). However, these segments are not among PADEP's "priority" listings set forth on Appendix H to the Listing Document, apparently because these uses can be addressed without the need for a TMDL.

On page 34 DEP acknowledges that "There is a great deal of interest as to how the Department will assess the Susquehanna River in the 2016 Integrated Report for the Aquatic Life Use, especially in relation to the decline in SMB." The draft notes the extensive sampling undertaken and evaluated in the CADDIS report, and then says that monitoring since 2012 "has not detected water quality criteria violations, with the exception of bacteria." DEP notes a 2.3 mile segment impaired for metals, then says: "The aquatic life use is unassessed for the remaining portions of the River."

The document then states that some of the tributaries have Aquatic Life use impairments, but it is not stated how these conclusions were reached. It then adds that many of the tributaries to the impounded lower reaches have "significant Aquatic Life and Recreational Use impairments" and have been "appropriately listed for these lower Susquehanna River sub-basins." (Id, p, 35). It is not stated where these impaired "lower Susquehanna River sub-basins" are listed, nor exactly how impairment of the Aquatic Life use was determined.

DEP then states on p. 38 that "At this time, the Department does not deem it appropriate to assess the Susquehanna River for Aquatic Life" and lists 4 reasons. This follows a discussion of the further sampling and analysis which must be done before any determination of an impairment of the Aquatic Life use is made – at a time when PADEP's personnel and budget have been severely cut.

Those 4 reasons are:

- Water quality data shows attainment of water quality criteria.
- "Emerging contaminants" (like herbicides and endocrine disruptors) are at higher concentrations in the tributaries than in the main stem where the highest levels of diseased YOY are seen. There should be high levels of disease in the tributaries.
- It is unknown at what concentrations the "emerging contaminants" might cause disease.
- Preliminary analyses of macroinvertebrates and fish do not indicate "major issues occurring to fish." However, more analysis is needed.

The first point appears to refer to specific parameters such as DO, pH or metals. While this statement is not entirely factual (DO readings have been recorded at levels well below healthy levels for warm water fish) these parameters are not the sum of what EPA states must be evaluated. It is the "use" component of the water quality standard – specifically the Aquatic Life use for a warm water fishery – that is not being achieved. Compliance with a numeric criterion has little if any significance where the primary warm water fish species is being decimated.

As to the second point, it is quite possible that young fish are exposed to contaminants in a tributary and do not develop visible signs of disease until they are in the main stem. In any case, the presence of high levels of emerging chemicals in tributaries suggests that those tributaries should <u>also</u> be listed.

The third and fourth points simply suggest that more study is needed. Placing the main stem of the Susquehanna, and any highly contaminated tributaries, on the 303(d) list will enable PADEP to give these areas the highest priority for further study in the competition for limited resources (both funding and personnel). This is exactly why Congress wanted waterbodies with impaired uses to be listed.

This failure to recognize a clearly demonstrated impairment of the Aquatic Life use, and the prospect of years of studies which may or may not happen in time to save this important fishery, is why the CWA and EPA's regulations and guidelines require listing before the cause of impairment is identified. Listing is designed to spur more funding for the critical studies designed to find the cause and control the pollution sources on route to a TMDL.

<u>CONCLUSION</u>

As explained above, the Clean Water Act and its implementing regulations require that when a river segment is no longer meeting a designated use, it must be listed as "impaired" under Section 303(d). There is no question that the main stem of the Susquehanna River from Sunbury to the Holtwood Dam is not attaining the Aquatic Life use, especially in light of the severe impairment to the star species of its warm water fishery, the smallmouth bass, since at least 2005. Under these circumstances PADEP is required to list this stretch of the Susquehanna as "Impaired" for Aquatic Life Use.

PADEP personnel have suggested at a meeting with us on August 9 that listing of the Susquehanna is not necessary because PADEP is already engaged in studies designed to determine the cause of the decimation of the smallmouth bass, and there is nothing more they can do even if it is listed. We commend PADEP for the CADDIS study and the continuing studies which it is conducting. But this misses the point of the CWA 303(d) listing process, which is to ensure that the impaired waterbody continues to receive priority attention through further study, development of a TMDL, the setting of loading allocations and pollution controls, and eventual achievement of water quality standards, including the designated uses. Completion of the studies and development and implementation of a TMDL typically takes more than a decade. This work will extend beyond the careers of current elected officials, appointed secretaries, and even some PADEP personnel. The listing ensures that the public does not have to count on promises from individuals, but a well-defined process that will lead to the protection and improvement of the designates warm water fishery use. Congress established the 303(d) listing process to place restoration of the nation's waters above the vicissitudes of politics, and to ensure that restoration is achieved as soon as possible. That is why PADEP should adhere to the listing requirement and list the Susquehanna River from Sunbury to the Holtwood Dam as impaired for Aquatic Life use.

We appreciate this opportunity to comment on PADEP's draft listing document, and would be happy to discuss any aspect of it.

Respectfully submitted,

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