Pennsylvania
Department of
Environmental Protection

OFFICE OF WATER PROGRAMS

BUREAU OF CLEAN WATER

RESPONSE DOCUMENT TO COMMENTS RECEIVED DURING PUBLIC PARTICIPATION OF THE 2026 PENNSYLVANIA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT, CLEAN WATER ACT SECTION 303(d) LIST AND 305(b) REPORT

2026

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INTRODUCTION

The Pennsylvania Department of Environmental Protection (DEP or Department) published notice of the draft 2026 Integrated Water Quality Report in the *Pennsylvania Bulletin* on November 29, 2025 (55 Pa.B. 8172) with a 60-day public comment period open through January 27, 2026. During the public comment period, DEP received comments from 12 commenters, including one letter submitted by 83 members of the public. This document provides DEP's responses to those comments. All comments, as submitted, are also recorded and available on DEP's eComment website.

CHESAPEAKE BAY FOUNDATION

Comment:
On behalf of the Chesapeake Bay Foundation (CBF) and its more than 200,000 members and e-subscribers, please accept these comments on the Draft 2026 Integrated Waters Report ("Report") published by the Pennsylvania Department of Environmental Protection (PADEP) on November 29, 2025 [Pa. Bulletin, 55 PA.B. 8172].

CBF is a 501(c)(3) nonprofit organization founded in 1967, with offices in Maryland, Virginia, and Pennsylvania. Our mission is to Save the Bay and its waterways by educating, uniting, and inspiring people to take action. As such, and on behalf of our members, we remain deeply committed to advancing policies and practices that strengthen the health of the Chesapeake Bay watershed and the communities that depend on it.

Established in 1986, CBF's Pennsylvania office works collaboratively with elected officials, local governments, conservation partners, and the agricultural community to protect and restore the Commonwealth's waters. Our nationally recognized watershed resiliency program has supported thousands of farmers in designing, installing, and maintaining conservation practices that measurably improve water quality.

The Integrated Waters Report: A Foundation for Informed Action
Healthy waters are the backbone of Pennsylvania's communities, economies, and ecosystems. The Report provides a comprehensive picture of the Commonwealth's water health—covering more than 86,000 miles of rivers and streams and over 161,000 acres of lakes. This resource is not merely informational; it is foundational for action. It equips watershed stewards, local governments, the regulated community, and the public with the knowledge needed to make decisions that protect and restore water quality. From guiding land use planning and zoning to informing technical reviews of clean water permits, the Report ensures that growth and development align with clean water protections. Leveraging this tool moves Pennsylvania from uncertainty to informed action— safeguarding water resources for generations to come.

Beyond documentation, the Report is indispensable for creating watershed-scale plans that restore impaired waters. These plans rely on the Report's data to identify critical source areas contributing to stream impairment and to determine the conservation practices necessary for recovery. By pinpointing

problem areas and prescribing targeted solutions, the Report enables strategic, science-based interventions that strengthen watershed resilience and accelerate progress toward clean water goals.

CBF believes the Report should do more than describe conditions—it should empower action. By providing clear, accessible, and actionable data, the Report can inform decisions, guide planning, and direct resources toward the most effective solutions. We urge PADEP to continue enhancing data usability and accessibility so that every stakeholder—from local governments to conservation partners—can turn information into meaningful, measurable improvements in Pennsylvania's waters.

Integration of the Report with the Chesapeake Bay Watershed Agreement

The Report, when viewed alongside the newly revised Chesapeake Bay Watershed Agreement ("Agreement"), provides a more integrated and actionable understanding of water quality conditions than either document conveys independently. The information presented in the Report directly supports key elements of the new Agreement, including the 2040 nutrient and sediment reduction goals and to strengthen the scientific foundation for watershed-scale prioritization. At the same time, the Agreement's consolidated outcomes framework offers a coherent structure for guiding Pennsylvania's monitoring design, prioritization of assessment units, and restoration sequencing—particularly within Bay-draining watersheds where local impairments intersect with regional load-reduction expectations. Together, these documents signal a maturing, evidence-driven system in which state-level data collection and restoration verification inform regional progress, and regional commitments reinforce methodological alignment and accountability within the Commonwealth. Recognizing and strengthening these linkages will enhance the interpretability, utility, and long-term impact of the Report as a core tool for science-based decision-making across Pennsylvania as well as within the state's portion of the Chesapeake Bay watershed.

Building on Progress: Strategic Enhancements to Maximize the Report's Impact

Notable Advancements

The Report has evolved significantly from its earlier format as two separate documents— one providing a narrative summary of water resources and the other listing waterbody conditions based on scientific assessments. Since 2018, PADEP has invested considerable effort in improving public presentation and accessibility of this information. These changes have been substantial, and we commend PADEP for its continued commitment to transparency, usability, and public engagement. Notable advancements in this draft include:

- Looking Below the Surface section
  This is an excellent enhancement that highlights the role of macroinvertebrates as indicators of water quality. By explaining how streams are assessed, it deepens public understanding and reinforces the scientific rigor behind evaluations, making the Report more accessible and informative for a broad audience.
- Restoration Priority section
  By zooming in on specific regions of Pennsylvania, this section clearly demonstrates priority areas for restoration and serves as a practical resource for local partners working at county or regional scales. This regional focus helps stakeholders align efforts and resources where they

are most needed, fostering more strategic watershed restoration initiatives.

- Graphics and accompanying data tables, generally
  The inclusion of visual tools illustrating stream and lake impairments by source and cause is greatly appreciated. These graphics provide clarity on the breadth and depth of impairment issues across the state, ultimately supporting a more informed approach to restoration decision-making.

We encourage PADEP to continue building on these advancements by further enhancing data usability and integration, ensuring that stakeholders can fully leverage this information to drive effective restoration and protection strategies.

Opportunities for Continued Improvement

To maximize the Report's value for planning, restoration, and decision-making, we recommend the following enhancements:

- Refinement of stream and lake impairment data
  The improved impairment visualizations are a significant advancement. To further enhance analytical usability, PADEP should refine the Integrated List NonAttaining spatial dataset by separating impairment sources and causes into distinct attributes rather than combining them into a single field. This refinement would enable users to query specific impairment factors, conduct more precise analysis, and support more targeted restoration strategies.

- Integration with existing Total Maximum Daily Loads (TMDLs), Watershed Implementation Plans, and other relevant documents
  Adding hyperlinks within the Report data viewer to established TMDLs for applicable stream segments would allow users to quickly determine whether a stream is impaired and whether a TMDL has been developed, including accessing the associated document. Additional linkages to Section 319 Watershed Management Plans, Advanced Restoration Plans, MS4 Pollution Reduction Plans, Rivers Conservation Plans, and Act 167 Stormwater Management Plans would further empower users with comprehensive watershed information. The Report also would benefit from a spatial feature identifying streams or watersheds with existing, draft, or anticipated TMDLs (2028–2030). Including these features would help position the Report as an integrated planning and reference tool for the Commonwealth.

- Increase transparency on restoration outcomes
  Including success metrics or case studies from prior restoration efforts—riparian buffers, stream-fencing projects, or other proven practices—would help users understand which approaches are delivering measurable results. This could be presented as an additional dataset, a narrative summary, or a supplemental information layer. Restoration prioritization should also intentionally avoid perpetuating systemic disinvestment and instead direct resources to historically underserved communities with documented impairments.

- Ensuring Interface Features Function as Intended

In the Environmental Justice section, the graphic side panel does not appear to display correctly in Microsoft Edge or Google Chrome. Ensuring consistent performance across commonly used browsers will improve accessibility, maintain data integrity, and support a reliable user experience for stakeholders statewide.

CBF believes these improvements would greatly enhance both the accessibility and the impact of the Report. They would strengthen the Report as a tool for science-based decision-making, broaden its usefulness for local and regional partners, and support more effective restoration and protection of Pennsylvania's waters.

Thank you for the opportunity to provide comments on the Draft 2026 Integrated Waters Report. We appreciate PADEP's continued efforts to present complex water quality information in a clear, actionable, and publicly accessible manner, and we look forward to collaborating on future improvements.

Response:
DEP appreciates these comments and the work that CBF does every day to advocate for and advance water quality restoration in the Chesapeake Bay watershed. DEP will take these recommendations into consideration for future Integrated Reports. DEP has fulfilled the request regarding the Integrated Report Viewer TMDL hyperlinks. Simply click on the stream and if there is a restoration plan, there will be a link connecting to the report at the bottom of the information pop-up. In 2026, DEP enhanced this capability by linking not just TMDLs but also Advance Restoration Plans (ARPs) and 4B Restoration Plans in the pop-ups of the Integrated Report Viewer (Figure 1). These hyperlinks go directly to the EPA's *How's My Waterway* application where users can view more information about the action plans and download the reports all in one location. DEP also notes that several features such as the PennEnviroScreen stopped working while embedded into the Integrated Report StoryMap. Reasons for this issue are currently unknown, but DEP is working to resolve it. The PennEnviroScreen tool is still available through the Integrated Report by clicking on the link that was made available after the public comment period on the draft Integrated Report closed.

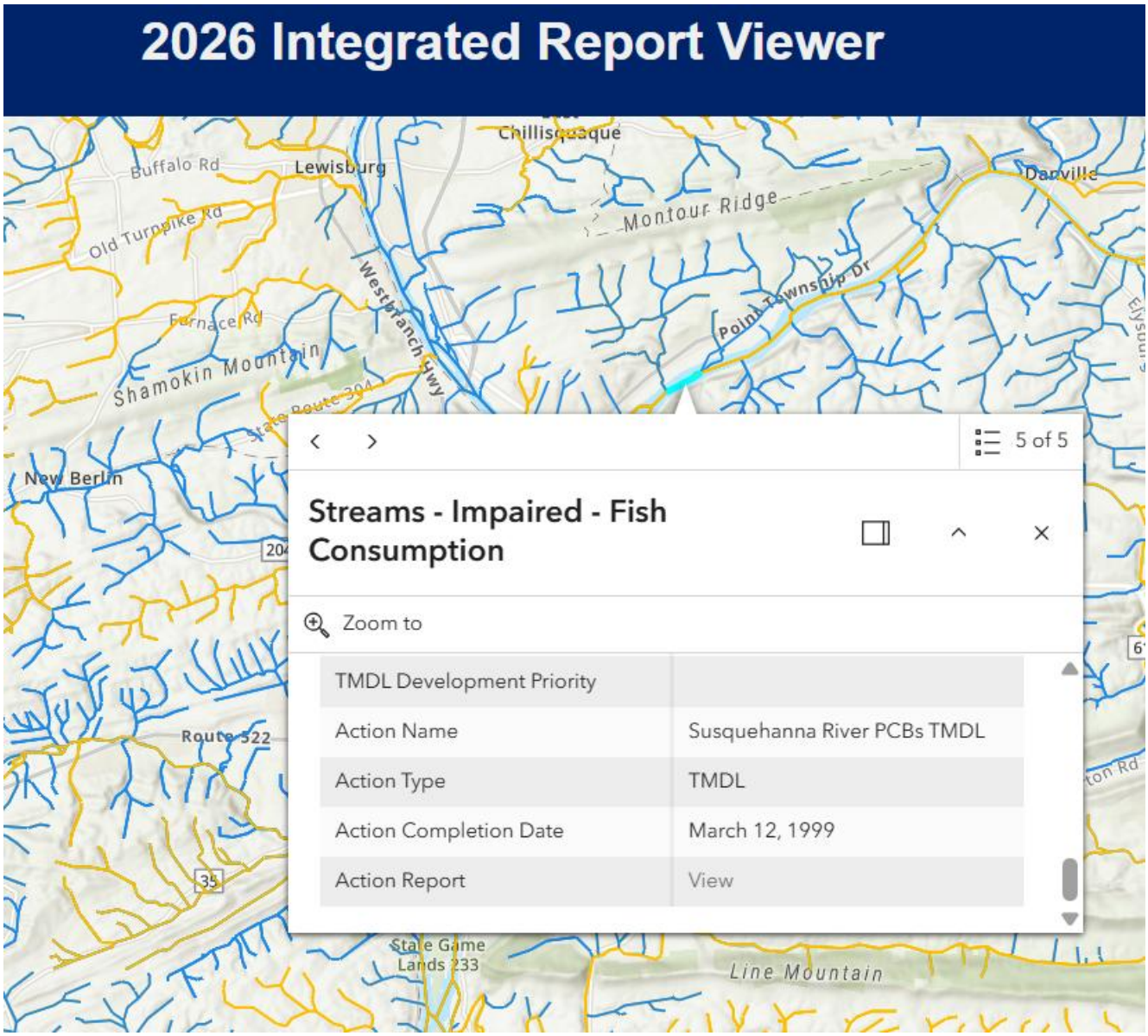


Figure 1. Screenshot of the 2026 Integrated Report Viewer showing an assessment record with a restoration plan (e.g., TMDL, APR, etc.; also referred to as “Actions” by USEPA) report link.

CHESAPEAKE CONSERVANCY

Comment:

Chesapeake Conservancy is excited to see 30+ monitoring sites collected by the Rapid Stream Delisting (RSD) Partnership within RSD catchments represented in the 2026 draft Integrated Report. The data submitted were all Tier 3, high-quality data that can be used to make assessment decisions. Several streams are seeing improving water quality over time, and we look forward to the opportunity to submit updated data in future reports. We appreciate the acknowledgement of the Rapid Stream Delisting Program within several sections of the Integrated Report and look forward to continuing to build on those efforts in the future with all partners.

Response:

DEP appreciates the work that the Chesapeake Conservancy and its partners have done in these watersheds. Over the past eight years, DEP has worked directly with the Chesapeake Conservancy to provide feedback on restoration plans and monitoring strategies. DEP believes this continued collaboration will facilitate more restorations documented in the 2028 Integrated Report.

COMMENTS ON POLYCHLORINATED BIPHENYL (PCB) POLLUTION

A total of 83 members of the public submitted the same comment regarding PCB pollution, detailed below.

Comment:
The Pennsylvania Department of Environmental Protection (DEP) must prioritize reducing polychlorinated biphenyl (PCB) pollution in the Delaware and Schuylkill Rivers. I'm disappointed that DEP's 2026 Integrated Water Quality Monitoring and Assessment Report (Integrated Report) ignores PCB pollution in Southeast PA. DEP's "TMDL Prioritization Strategy for USEPA's 2022-2032 Vision" also unfortunately downplays impairments for fish consumption (caused by PCBs) that affect millions of Pennsylvanians, including many who live in DEP designated Environmental Justice (Environmental Justice) areas.

DEP's draft Integrated Report is unacceptable because it does not prioritize any waterways in Philadelphia or Delaware Counties. This lack of prioritization is concerning because the Delaware River Basin Commission (DRBC) established Total Maximum Daily Loads (TMDL) for PCB pollution in zones 2-5 of the Delaware River in 2003. The 2003 PCB TMDL specifically stated that it "may take decades to fully achieve," but over 20 years later, DEP should be focused on a fishable Delaware River. DRBC states that, "in the waters of the Delaware River Estuary, PCBs can be found at concentrations up to 1,000 times higher than the water quality criteria."

DEP's lack of attention regarding PCB pollution in the Delaware and Schuylkill Rivers is concerning because DEP continues to list the source of PCB contamination as "unknown". Over 20 years after the publication of the PCB TMDL, contamination sources have not been identified, while DEP's own water pollution discharge reporting requirements point to specific polluters.

The PQ chemical facility in Chester, PA has reported high discharges of PCBs into the Delaware River. PCBs were banned from production in the late 1970s so PQ is either inadvertently generating PCBs or there is a historic contamination source on its property. PQ's recent reported discharge of polluted water containing 548,000 picograms per liter (pg/l) of PCBs is larger than any recent discharges from nearby water treatment plants, which are usually the largest PCB polluters. It is concerning that DEP only requires the Reworld waste incinerator in Chester, PA to sample for an extremely limited amount of the 209 different types of PCBs. The Monroe Refinery in Trainer, PA also discharges significant amounts of PCB-laden water pollution and is only required to test for PCBs once a year.

Chester city officials have publicly stated a desire to increase recreational waterfront access in Chester in order to revitalize the city's economy and create fishable waters along the Chester waterfront. This

revitalization would immensely benefit this documented Environmental Justice community.

DEP should compile an updated list of the largest industrial facilities that discharge PCB pollution into the Schuylkill and Delaware Rivers. DEP should also establish limits on PCB discharges from industrial facilities in Delaware and Philadelphia counties and take action when those limits are exceeded.

Response:
DEP remains committed to protecting and restoring all water uses across Pennsylvania. DEP takes PCB contamination very seriously, especially because of the risks these chemicals pose to human health. As a result, DEP is constantly collecting new fish tissue data, particularly where known contamination exists. The status of waters with PCB contamination is updated not only through each Integrated Report, but also through the interagency collaborative efforts that produce fish consumption advisories. This information is updated regularly and can be found on DEP's Fish Consumption Advisories webpage. For further information on some of the PCB delistings in the draft 2026 Integrated Report, see the Department's response to the Delaware Riverkeeper Newtork's comments about PCBs below. DEP's National Pollutant Discharge Elimination System (NPDES) program works to reduce and eliminate PCB pollution from point sources. Where needed, DEP will use enforcement action for regulated facilities that are not complying with their permit requirements. Additionally, DEP's Environmental Cleanup and Brownfields program works to reduce and eliminate PCB pollution from non-point sources. Through this work and work done by other organizations, the Delaware River Basin Commission has noted that PCB loadings have been reduced by approximately 70% in the Delaware River Basin.

CONSTELLATION ENERGY LLC

Comment:
Constellation Energy Generation, LLC (Constellation) submits these comments regarding the Draft 2026 Integrated Water Quality Monitoring and Assessment Report (Integrated Report). The nature of Constellation's comments discuss the basis for Pennsylvania Department of Environmental Protection's (PADEP) Integrated Report listing Conowingo Pool (also known as Conowingo Pond or Reservoir) as impaired waters (Category 5) under Section 303(d) of the Federal Clean Water Act and attributing the cause of impairment to Thermal Modifications resulting from Industrial Thermal Discharges. Specifically, comments are in response to the draft 2025 Lower Susquehanna River Aquatic Life Use (ALU) Assessment Report (ALU Assessment), presented under the 2024 to 2026 Changes Section of the Integrated Report. For the reasons set forth below, the PADEP assessment lacks the breadth of technical rigor that the Agency itself would likely require of other stakeholders. Constellation recommends PADEP complete a more representative and thorough assessment of aquatic life use and water quality in the Conowingo Pool prior to any recommendation for listing.

Sample Size and Data Quality

The first set of comments address the temporal sampling bias and deficiencies to support the draft assessment made by PADEP for the entire Conowingo Pool of the Susquehanna River from Holtwood

Dam to the State line.

1. PADEP's draft assessment of Conowingo Pool was based on data from one single date (14 August 2019) at each of the four shoreline stations (ISRLDB, 2SRRDB, 4 SRRDB, and 5SRRD), and one mid-channel temperature station reference station (3SRMID). These five sample stations encapsulate approximately 15% of the area of Conowingo Pool. A single set of samples is not representative temporally and is inconsistent with PADEP's approval and guidance of previous Constellation temperature and fish sampling activities for determining potential thermal impacts to Conowingo Dam. The data used for the 2026 Integrated Report was collected in 2019, yet Constellation's voluminous data submission of temperature and electrofishing catch collected before and after the extended power uprate (approximately 25,000 temperature measurements and 775 electrofishing samples in five years) were excluded from Tier 3 data quality consideration for determining impairment on Conowingo Pool on the basis, in part, that the data were greater than five years old. PADEP's sole source of data in the draft ALU Assessment was also older than five years.

2. Constellation's data submission included the 2014 Final Report for Thermal Studies to Support a 316(a) Demonstration and accompanying temperature and fish data from 2010 through 2013. In the 2010-2013 thermal study, the spatial and temporal distribution of fish was evaluated by monthly sampling at both thermally influenced and non-thermally influenced locations in July through October 2010 and April through October 2011-2013. In addition, winter electrofishing events were completed in January 2011 and 2013, February 2011 and 2012 and March 2013. This study included three fish sampling methods (beach seine, trawl, and electrofishing). Electrofishing was conducted at seven to ten stations based on PADEP's review and approval of the study plan, and subsequent
PADEP requests to add station(s).

3. Similarly, the Final Report for Post-EPU Thermal and Biological Monitoring included fish collected monthly by electrofishing (in addition to seines) at six stations from May through September 2016 to adequately evaluate the spatial and temporal distribution of fish in Conowingo Pool. This study was based on the Study Plan for Post-EPU Thermal and Biological Monitoring and was approved by PADEP, stating: "The Department of Environmental Protection (DEP) has reviewed your study plan submitted in accordance with Part C. I. of the above-referenced NPDES permit for biological and thermal monitoring of the impact of the EPU on the fish and macroinvertebrate populations. The plan was originally submitted on November 20, 2014, and has been revised on July 8, 2015, April 20, 2016, and April 25, 2016, in response to comments made by DEP and U.S. Fish and Wildlife Service. Based on the review, your plan is acceptable to DEP."

4. These two most recent studies that were conducted by Constellation with approval and input from PADEP for monitoring temperature and fish at many stations and multiple times within and across multiple seasons for the purpose of evaluating thermal impacts on fish in the Conowingo Pool. PADEP has not provided the scientific rationale and justification of its current evaluation standard for thermal impacts in Conowingo Pool based on fish collections by a single sampling method at four stations once from a single time event more than six years ago.

5. The data collected on August 14, 2019, and used by PADEP for the draft ALU Assessment of Conowingo Pool is more than six years old. The Clean Water Act regulations (40 CFR §122.21(r)(6) and §122.21(r)(7)) provide that site-specific data collected within the past ten years remain relevant and representative of the site. The data collected by Constellation under the PADEP-approved study plan for post-EPU thermal and biological monitoring data is also within the 10-year precedent and should have been considered by PADEP as representative of the site in addition to the data collected by PADEP.

6. PADEP's single sampling event is inconsistent with the recommended minimum sample frequency in the Biannual Integrated Report. For the Biannual Integrated Report, at least three sampling events should be collected within the assessment period for aquatic life use assessments:

> "Depending on the data available, the criterion being assessed, or the ambient conditions of the waterbody, a single observation (sample) can represent different periods of time. These factors may suggest that more than one sample needs to be collected to confidently make an assessment decision. USEPA guidance discourages rigid minimum sample size requirements and requires States to evaluate all existing, readily available, and appropriate water quality-related data for determining WQS use status (supporting/impaired) decisions (USEPA 2006, USEPA 2013). As a result of these factors and federal requirements, DEP recommends multiple sampling events for assessing any criterion but will evaluate all existing and readily available data when making assessments. More specifically, DEP encourages at least three sampling events within the criterion duration period. For example, the total iron criterion for aquatic life is written as a 30-day average, so DEP encourages at least three samples be collected within a 30-day period to compare conditions to the criterion." (page 2-95, paragraph 2)

This three-sample minimum helps ensure biological relevance and representativeness when assessing whether waters support their designated aquatic life uses. However, within the period for the draft ALU Assessment in the current Draft 2026 Integrated Report, all sampling occurred over the course of a single day. Additionally, for facility-specific data analysis, multiple years are valuable for identifying outliers; however, historical data were not used for comparison with the data collected for the draft ALU assessment.

Response:

A single set of samples was determined to be representative for the assessment, and this approach is commonly used to assess all surface waters in Pennsylvania. Under 40 C.F.R. §130.7(b)(5), federal regulations require states to assemble and evaluate all existing and readily available water quality-related data and information when developing their CWA Section 303(d) lists of impaired waters. "All existing and readily available water quality-related data and information" would certainly include a single set of samples collected by DEP. In Constellation's point number 6, regarding the number of sampling events, the quote is from the physicochemical chapter of the assessment book, which is not relevant to the biological data and assessment made on the Conowingo Pool. USEPA guidance discourages rigid minimum sample size requirements and requires States to evaluate all existing, readily available,

and appropriate water quality-related data for determining WQS use status (supporting/impaired) decisions (USEPA 2006, USEPA 2013). Additionally, the Thermal Fish Index's coefficient of variation across all sites is very small at 4.3% (TFI score ± 0.3). The coefficient of variation across sites greater than 6,000 square kilometers is even smaller, at 3.3%. This shows natural variation is expected to be very minimal if sampling would be repeated at the previous sampling locations.

The primary reasons that Constellation's data were not Tier 3 were because a Quality Assurance Project Plan (QAPP) was not provided, no quality control was described in the data submission, and the collectors did not follow DEP data collection protocols. DEP agrees that the age of this dataset should not be a reason for the data to be excluded from Tier 3 and will remove that portion of the justification in the Data Solicitation report. By not submitting quality control information, DEP is unable to know if there was intentional on unintentional biasing of the data. By not following DEP data collection protocols, the submitted data are not able to be used to calculate the TFI with assessment-level confidence. This is because the assessment method was developed based on DEP collection protocols. Regardless of this scientific rationale and justification, DEP evaluated all data submitted by Constellation, as detailed immediately below, and generally found that the data supported DEP's assessment.

Using the TFI, DEP evaluated the data submitted by Constellation including daytime electrofishing data collected from 2010 through 2016 within the Conowingo Pool. The results of DEP's evaluation of the data submitted by Constellation are consistent with the results of 2019 DEP efforts and otherwise indicate that the effort implemented by DEP is representative and sufficient to support the assessment decision. The data submitted by Constellation were collected from seven locations including from three stations described as being downstream (Down) of the PBAPS discharge and within the thermal plume (In), three stations located upstream (Up) and outside the thermal plume (Out), and one additional station, Station 217, located downstream but with no clear indication of being within or outside the thermal plume (Figure 1). Data from the three stations within the plume had higher TFI scores. The mean TFI for approximately 102 sampling events across three stations located within the thermal plume was 9.7 compared to 9.3 for approximately 97 sampling events across 3 stations outside the plume (Table 1 and Figure 2). Station 217 is located the farthest downstream and appears to be measurably influenced by the thermal plume with a TFI score of 9.6, which is comparable to all stations characterized as being within the plume. All mean TFI scores exceed the impairment threshold of 8.4.

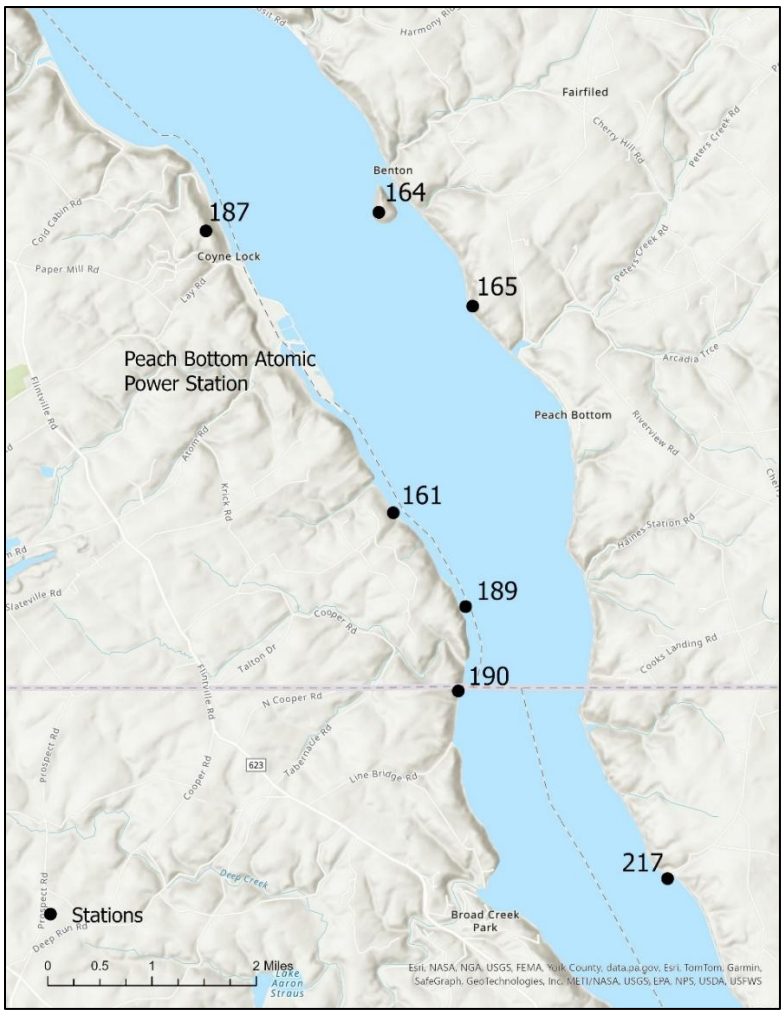


Figure 1. Constellation Electrofishing Stations, 2010 – 2016.

Table 1. TFI Scores for Constellation Electrofishing Data, 2010 – 2016.

Station[1]	Location[2]	# Samples		Mean TFI	
161	In/Down	34		9.7	
189	In/Down	34	102	9.6	9.7
190	In/Down	34		9.7	
217	Down	26		9.6	
187	Out/Up	34		9.1	
164	Out/Up	29	97	9.5	9.3
165	Out/Up	34		9.3	

[1]See Figure 1 for station locations

[2]In = within the thermal plume, Out = outside the thermal plume, Down = downstream of the thermal plume, Up = upstream of the thermal plume

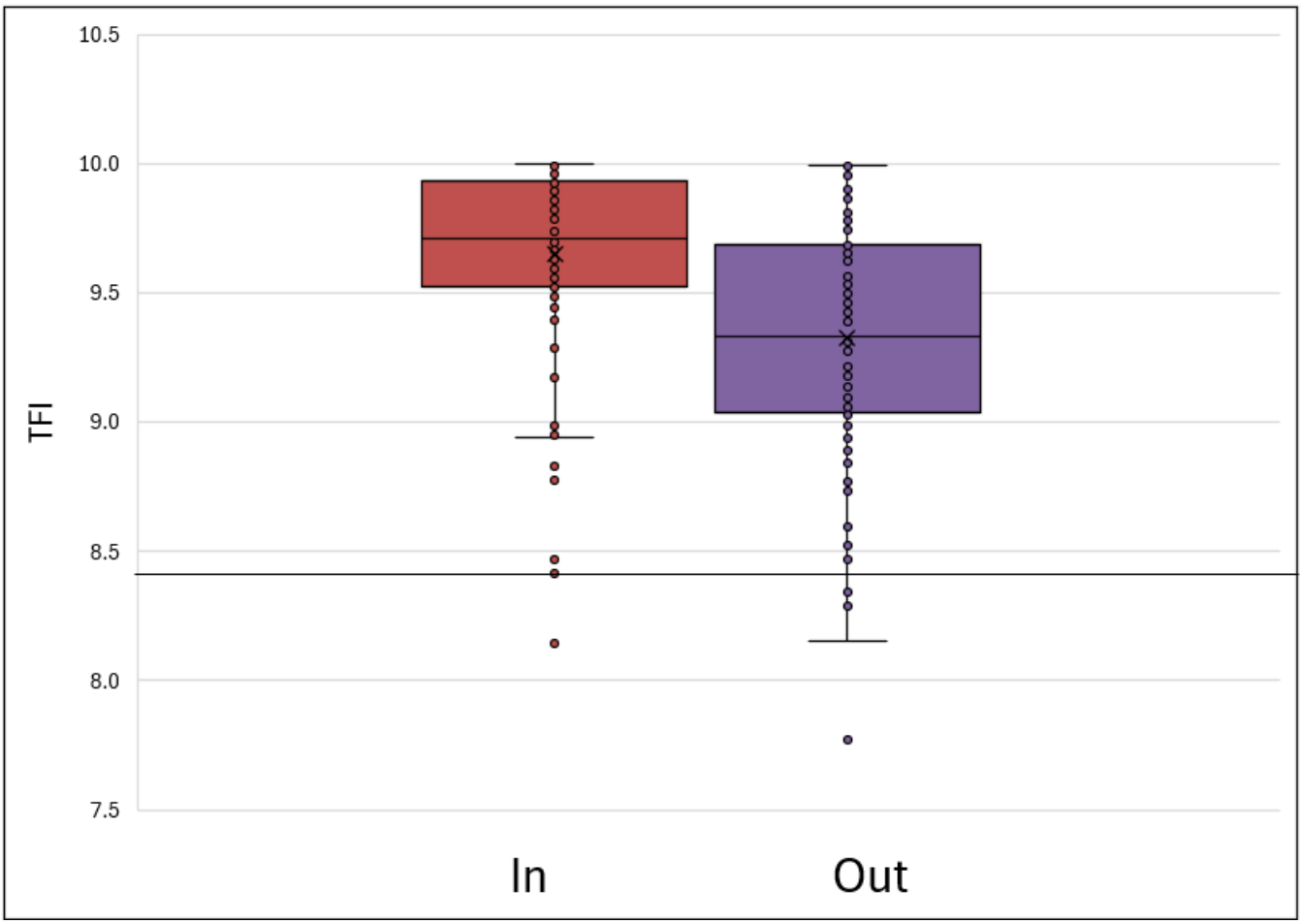


Figure 2. TFI Scores for Constellation Electrofishing Data (excluding station 217), 2010 – 2016. The black line indicates the 8.4 impairment threshold.

Comment:
Thermal Conditions and Monitoring

The comments made below pertain to thermal conditions of Conowingo Pool and thermal monitoring during the single sampling event on August 14, 2019.

7. The 24-hour average temperature at the Peach Bottom intake on August 14, 2019, was 80.6°F (27.0°C) and the previous 48-hour average intake temperature was 81.1°F 27.3°C). The thermal output and mitigation measures taken on this day complied with the NPDES Permit requirements. Cooling towers A and C with all 11 fans were in operation despite the previous 48-hour average temperature not exceeding the intake temperature of 83°F (28.3°C) for running a second cooling tower. However, the 48-hour average exceeded the 83°F threshold during August 1-5, 2019. According to the USGS Marietta Gage Station USGS-01576000, the Susquehanna River flow was approximately 13,400 cubic feet per second (cfs) on August 14, 2019.

8. PADEP's draft ALU Assessment of Conowingo Pool was based on a single sampling event that included collection of a single discrete surface water temperature measurement 'upstream' of the

Peach Bottom discharge (PADEP sample location 3SRMID, which is close to the center of the River), as well as at two shoreline locations (4SRRDB, at the Peach Bottom discharge, and 5SRRDB, located approximately 2.5 km downstream of the Peach Bottom discharge). The thermal data that led to PADEP's draft assessment that Conowingo Pool was thermally impaired due to thermal modification from Industrial Thermal Discharges were the temperature differences between the mid-channel ambient station (3SRMID) and the two downstream locations (4SRRDB and 5SRRDB), which was 12.6°F (7.0°C) and 6.1°F (3.4°C), respectively. The draft ALU Assessment described discrete surface water temperature measurements were taken at the shoreline sampling stations, but the depth of the water temperature measurement at the upstream midchannel water temperature (81°F or 27.5°C) was unclear. It would have been more appropriate to compare the surface water temperature at the two downstream shoreline locations to the upstream shoreline stations rather than a mid-channel reference station where it is deeper and subject to stronger flow and mixing. Surface water at shoreline stations is subject to stronger accumulated heat from solar radiation in comparison to a mid-channel station. In Table 3 of the draft ALU Assessment, PADEP identified solar radiation as an alternative or co-factor to explain the observed temperature differences.

Response:
Water temperature was collected approximately 0.5 meters below the surface at each location. Using the EPA Causal Analysis/Diagnosis Decision Information System (CADDIS) processes, solar radiation as a source was determined to be uncertain whereas the Industrial Thermal Discharge was determined to be likely. This is because surface water temperature increases below PBAPS discharge (Δ = 8 ºC) extending downstream ~2.5km on the RDB (Δ = 3.4 ºC) provides evidence of pollutant and spatial impacts to support cause.

Comment:
Assessment Status

9. The draft ALU Assessment found Gizzard Shad, a species that preferred warm water according to Table 2, to be the most abundant species in the electrofishing catches in Conowingo Pool during the single day sampling event. The characterization of Gizzard Shad should not be interpreted as or imply its presence and distribution is a result of thermal discharges since the species, which is native to eastern North America, was introduced to Conowingo Pool (via Conowingo Creek) in 1972 prior to the presence of electric steam power generating facilities. However, as summarized by post-EPU thermal study, the Susquehanna River and Muddy Run Reservoir support an open population of Gizzard Shad with the utilization of fishways at Conowingo, Holtwood, Safe Harbor and York Haven dams; therefore, the potential exclusion or displacement of target species by the abundance and distribution of Gizzard Shad in Conowingo Pool is not attributed to the presence of power generating facilities.

10. The Constellation data submitted were collected for several studies to fulfill PADEP's request for information and requirements set forth by the National Pollutant Discharge Elimination System (NPDES) Permit No. PA0009733, including past permit renewals and modifications. These studies were summarized in the Final Report for the Thermal Study to Support a §316(a) Demonstration and in the Final Report for Post-EPU Thermal and Biological Monitoring. The existing and readily available

data from these studies were collected following study plans that were prepared in accordance with permit requirements and with PADEP's input and approval. This data has been used to satisfy NPDES permit requirements under the PADEP's careful review and to support the PADEP's granting of a §316(a) thermal variance and its determination that the Peach Bottom thermal discharge assures the protection and propagation of a balanced, indigenous community of fish and benthic invertebrates.

Constellation recommends a more rigorous and representative assessment be completed, prior to determining the status of aquatic life use and water quality in the Conowingo Pool. Constellation looks forward to discussing our comments and to collaborate with PADEP to develop and implement a sampling plan that would build on historical data using PADEP's protocols for collecting Tier 3 data for the subsequent draft ALU Assessment and Integrated Report.

Response:
Gizzard shad presence and abundance are not specifically being used to interpret or imply the effect of thermal modification in the Conowingo Pool. Gizzard shad are present. They are the most abundant taxa found in most of DEP's 2019 samples, but also in the day-time electrofishing data found in Constellation's Final Report for Post-EPU Thermal and Biological Monitoring, and in most data collection efforts within the Conowingo Pool over the past several decades. What's interesting is that DEP's 2019 data collection effort included two stations upstream of the PBAPS discharge: one with the highest abundance of gizzard shad and the second with the lowest abundance. The remaining two stations where fish were collected, were located downstream of the discharge, and were dominated by gizzard shad, but they did not have the highest abundance. The downstream stations, those within the influence of the discharge, had higher TFI scores compared to upstream stations, which – combined with the documented water temperature changes – clearly demonstrates the PBAPS discharge is causing and contributing to the thermal modification impairment.

DEP continues to advance its scientific understanding of water quality. The TFI-based assessment method is just one more recent example beginning to be implemented across Pennsylvania. Under 40 C.F.R. §130.7(b)(5) of federal regulations, DEP must use all existing and readily available data for the development of the Integrated Report, which occurs biennially, whereas the permit renewal process occurs every five years. DEP agrees with Constellation that the data from their studies were collected following study plans that were prepared in accordance with permit requirements and with DEP's input and approval, but the TFI was not previously used or considered during the permit renewal processes. Although these regulatory processes are separate, the TFI has proven to be an effective water quality assessment tool.

DEP appreciates Constellation's participation in the draft 2026 Integrated Report and looks forward to additional cooperation in the future.

DELAWARE RIVERKEEPER NETWORK

Comment:
Thank you for your time considering Delaware Riverkeeper Network's comments, questions, and

inquiries on the Draft 2026 Water Quality Assessment report (Integrated Report) that was published in the PA Bulletin (Volume 55 Issue 48, 55 Pa.B. 8172) on November 29, 2025 with a 60 day public comment period ending January 27, 2026. The Integrated Report includes both a narrative description of Pennsylvania's water quality status and management programs (formerly the Federal Clean Water Act section 305(b) Report) and water body-specific lists depicting the status of Commonwealth surface waters as required by section 303(d) of the Federal Clean Water Act (233 U.S.C. 1313(d)). This biennial report to the EPA is a requirement of the Clean Water Act. Delaware Riverkeeper Network appreciates the work, monitoring, and assessments put in by the Dept staff to work towards the long overdue goals of the Clean Water Act. Section 303(d) of the Federal Clean Water Act and 40 CFR Part 130 (relating to water quality planning and management) require states to identify waters which do not meet applicable water quality standards, even after the appropriate pollution control technology has been applied to point sources and required best management practices are in place for nonpoint sources. The Integrated Report establishes five categories for listing waterbodies. Waterbodies that do not meet water quality standards and require a Total Maximum Daily Load (TMDL) are placed on Category 5 of the Integrated Report waterbody list1. DEP states that most of the data in this Draft 2026 Integrated Report includes information and data collected from July 1, 2023 to June 30, 2025.

Established in 1988 upon the appointment of the Delaware Riverkeeper, the Delaware Riverkeeper Network (DRN) is a nonprofit 501(c)(3) membership organization with nearly 30,000 members. DRN's professional staff and volunteers work throughout the entire Delaware River Watershed. We work throughout the four states that comprise the Watershed –including Pennsylvania, New Jersey, Delaware and New York -- and at the federal level on the issues, actions, regulations, legislation, policies, programs and decisions that impact the health of our Delaware River Watershed waterways and our ability to protect and restore them for the benefit of all.

Overall General Comments

The DEP continues to improve its interactive mapping and online GIS tools to assist the public to be able to access, query, mine and search this massive dataset which encompasses over 85,500 miles of rivers and streams and over 2,000,000 acres of lakes, bays, and wetlands for the Commonwealth. Having the ability to have tabular format downloads is an important add on feature for the interactive tool as DEP continues to refine and incorporate past comments to improve public accessibility. The demonstration video is also a helpful tutorial for first time and new users and for refreshers to the functions and capabilities of the online tools as they continue to be enhanced.

Is this the first year that freshwater wetlands are included as polygons in the Integrated Report? This wetland mapping feature is a very helpful feature that provides acreage as well as wetland type. It would be helpful in future reports to include in the pop up tables for each wetlands if the wetland is considered Exceptional Value (EV). While investigating the wetland pop up, we were unable to click on a link for the "USGS Code". The error message stated "The requested service is temporarily unavailable. It is either overloaded or under maintenance. Please try later."

The 2026 Atlas notes there are 1,591,012 acres of freshwater wetlands and 1,377 acres of tidal wetlands in the Commonwealth. By adding a data layer with EV use would assist the public and DEP

understanding if degradation is being allowed by death by a thousand cuts or with poor buffer requirements if development threatens a forested site, for example. The 2026 Atlas of PA Surface Waters Table is a helpful summary information for key attributes and PA water features. We suggest adding the type of wetlands broken out by habitat type for the atlas. We also suggest adding the summary information of designated uses and existing uses for streams in future iterations. The ability to download source data (with the "three dot square" at the top right) is a key feature for users wanting to take a deeper dive into the summary numbers and is a good addition from earlier versions.

Response:
DEP appreciates DRN's comments and dedication to the protection and restoration of the Delaware River basin. DEP has included a detailed layer of Pennsylvania wetlands in the Integrated Report since at least 2020; however, this information is limited and does not include which of those wetlands would be considered Exceptional Value Waters (EV). DEP will consider these comments in future editions of the Integrated Report and work to fix the "USGS Code" issue in the final version of the 2026 Integrated Report.

Comment:
Comments on 2026 Stream Assessment Changes Tables (with filters)
Impairments for PFAS but removal of PCBs – Dozens of segments for the Neshaminy Creek, Little Neshaminy Creek, Park Creek and some of Neshaminy's unnamed tributaries (UNT) are listed as having changes expressed as "Previously impaired, reassessed as impaired, cause change." It appears that these segments for Neshaminy Creek list the source as "unknown" but the older impaired use includes Per- and Polyfluoroalkyl Substances (PFAS) and PCBs (for fish consumption only – not listed as use impairment for PFOS) while the 2026 impairments are proposed to be changed to just PFOS, just one of many PFAS contamination. Fish consumption advisories are backed up by stream, sediment, and extensive fish tissue analysis conducted by DEP, DRBC, academia, and others. In 2017, DRN submitted a rule-making petition to DEP to urge the dire need for PA standards on PFAS and advocated for over 8 years to see PFOA and PFOS standards finally set and realized --- DEP set 14 ppt for PFOA and 18 ppt for PFOS as the PA MCLs. EPA has adopted stricter federal standards now for PFOA and PFOS and DEP will need to adopt those stricter standards going forward, and as required by federal law. These EPA standards are being phased in and are not fully phased in yet by federal rule. Trump's EPA just extended the deadline further out but DEP adopting these more scientifically defensible standards and more protective standards now will be critical https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas.

Neshaminy watershed is one of the most polluted waterways for these chemicals and restoration is greatly needed. Furthermore, please share why while PFOS are identified as a continued impaired use, why sources including the Willow Grove Naval Airforce Base and known PFOS inputs of that base are not identified as a cause in the tables? DRN helped coordinate sampling plans with EPA and local concerned residents in the Neshaminy Creek community to help advocate and show these major impairments and to assist local community members dealing with sickness and contaminated drinking water.

Knowing the large impact to aquatic life, it is paramount that DEP work with sister agencies to conduct work to set PFAS standards to protect aquatic life in the future and to expand the assessments for these toxic forever chemicals. Pennsylvania's water quality standards include narrative criteria intended to protect designated uses where numeric criteria are absent or insufficient. These narrative standards prohibit substances in concentrations that are inimical to human health, aquatic life, or that interfere directly or indirectly with designated uses.

PFAS compounds are persistent, toxic and bioaccumulate in the foodweb. Documented PFAS detections in surface waters raise serious concerns regarding drinking water sources, fish consumption, and aquatic life health. As other states have demonstrated through PFAS impairment listings and fish consumption advisories, narrative criteria serve as a necessary backstop to ensure protection of designated uses where these emerging forever chemicals persist.

Please share why DEP is able to remove PCBs for fish contamination as a cause between the assessments (mostly 2021 vs 2025 data) for the Neshaminy Creek, Little Neshaminy Creek and other tributaries – including the Delaware River Mainstem which has dense populations that suffer from a multitude of legacy Superfund and brownfield contamination and new environmental threats including refineries and that often include Environmental Justice communities. We understand from DRN's presence at DRBC's Toxics Advisory Committee meeting in January 2026 that DRBC has new data on their website for PCBs – likely for the mainstem Delaware River. It's important that agencies continue to work together to ID and clean up and restore these harms.

Neshaminy Creek, PFAS and Need for Expansion of Sampling Statewide – 2022 DRN Comment still appears to apply today - In October 2021, the DEP (along with the Departments of Agriculture and Health as well as the Pennsylvania Fish and Boat Commission) issued a "DO NOT EAT" advisory for all fish species caught in the Neshaminy Creek basin due to perfluorooctane sulfonate (PFOS), which is an environmentally widespread human-made compound that belongs to a family of chemicals known as per and polyfluoroalkyl substances (PFAS). Colloquially, these chemicals are known as "forever chemicals" due to their persistence in the environment. PFAS also bioaccumulate, which means they gradually increase in concentration within fish tissue, and, if humans are exposed to them, in human tissue as well. PFAS exposure has been tied to multiple health problems including cancers, pregnancy complications, and high cholesterol. DRN urges the Department to expand its assessment of fish tissue for PFAS contamination statewide, particularly in highly-populated areas where industrial activities are more likely to have impacted streams, and where fish consumption is likely to be highest. The Department should not limit its analysis to streams near sites with known PFAS contamination—because fire-fighting foam is a major source of PFAS contamination, there may be long-forgotten sites across the state where fires were extinguished but contamination remains. In addition, PFAS are known to spread considerable distances from the original source of contamination through various pathways such as sewage treatment plants, agricultural application of biosolids, and manufacturing with PFAS or PFAS precursor chemicals. As an illustration of the potential extent of the problem, when New Jersey's Department of Environmental Protection investigated PFAS contamination in fish tissue from 11 waterways across the state, it found that all of the waterways would likely need to have fish consumption advisories. Pennsylvanians have a constitutional right to the conservation and maintenance of public

natural resources, including fish. The Department must fulfill its duties as trustee by investigating and creating a plan to remedy the PFAS contamination of fish tissue so that current and future generations can benefit from this recreational and life-sustaining resource. This is especially important in Environmental Justice areas and areas where diverse cultures fish and eat fish from the Delaware River and tributaries.

Response:
The original listing of PCB impairment and the fish consumption advisory in the Neshaminy Creek basin were based on data collected from carp in 2002. The two most recent fish tissue samples collected from carp filets in 2015 and 2021 were below the fish consumption advisory threshold for PCBs of 0.21 ppm, indicating that PCBs were no longer a cause of impairment. As a result, the fish consumption advisory was lifted, and PCBs were delisted in the 2026 Integrated Report.

DEP agrees that PFAS contamination remains a very serious issue in some parts of Pennsylvania, including the Neshaminy Creek basin. In addition to reviewing USEPA's final recommended aquatic life use water quality criteria and draft recommended human health water quality criteria for PFAS, DEP is currently evaluating the new Great Lakes Consortium for Fish Consumption Advisories recommendations on PFOS in fish tissue. This recommendation would greatly reduce PFOS concentration recommendations for the existing fish consumption advisories, thereby providing greater protection for human health. Potential adoption of these more protective recommendations will be made available for comment during the next Assessment Methodology public participation period. For more information on PFAS, please visit DEP's Contaminants of Emerging Concern website.

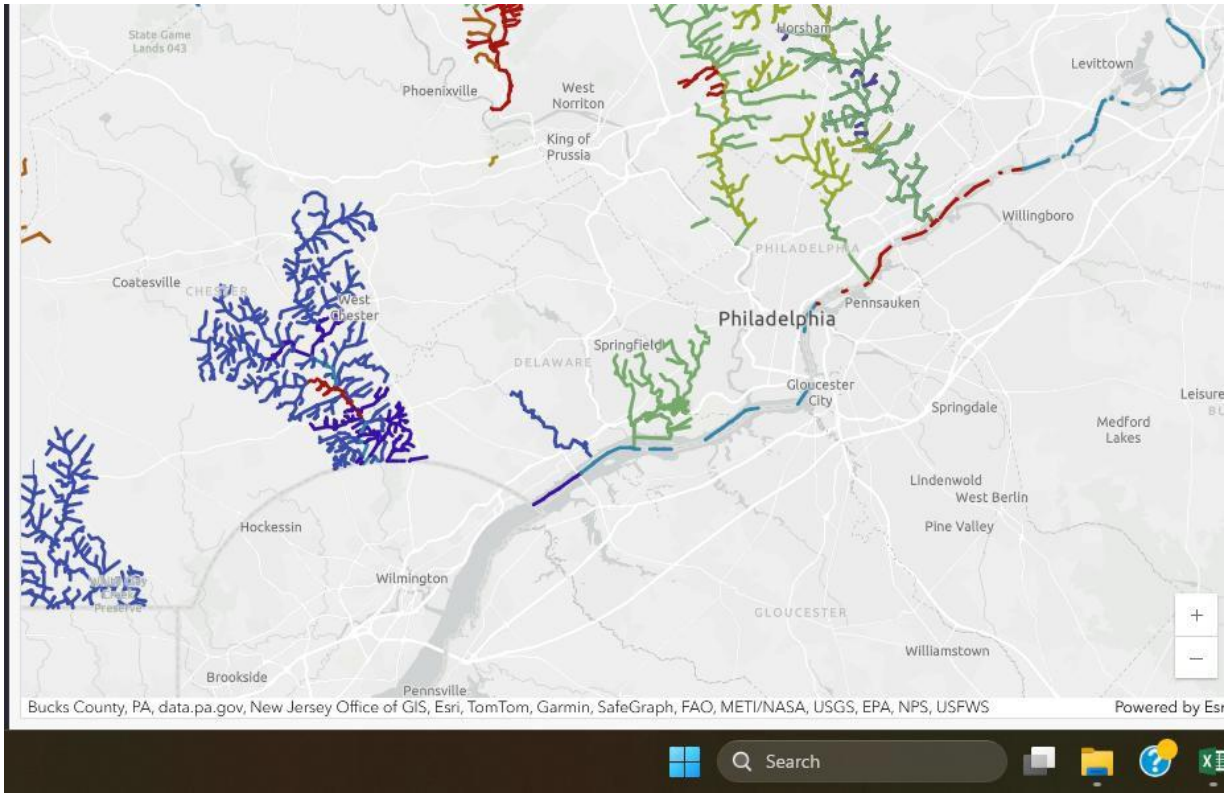
Comment:
Recreational Use Impairments and Changes
DEP has added many new assessed streams now identified as impaired for Recreation Use that had not been previously assessed --392.6 stream miles have Rec Use impairments now in 2026.

Delaware River Recreational Use Impairments --- There are 16 segments added as "Previously supported, reassessed as impaired" for the main stem Delaware River. Most new datasets incorporated are for 2025 as compared to older 2012 data when the segments were listed as Attaining. New sources of pollution include a combination of either "AGRICULTURE; URBAN RUNOFF/STORM SEWERS" (7 stream segments) or "URBAN RUNOFF/STORM SEWERS" (9 stream segments). New causes are a combination of contaminants Enterococcus, Escherichia coli (E.Coli) and/or fecal coliform. The red segments along the main stem in screenshot below depict these newly impaired areas generally from Frankford Creek up to confluence with Neshaminy Creek (intermittent sections).

The joint 2025 DRBC and DEP Delaware Estuary Bucks, Philadelphia, and Delaware Counties Water Contact Sports Use Assessment Report is extensive in detail. The Delaware River Basin Commission (DRBC) collected physiochemical and bacteriological data for the purpose of assessing the Water Contact Sports (WC) use of the Delaware Estuary (Estuary) in Bucks, Philadelphia, and Delaware Counties, in tidal Water Quality Zones (hereafter referred to as Zones) 2, 3, and 4. Data were collected

at a total of 135 sites, over 6 sampling events with each site being sampled during each sampling event, over the period spanning from June 25, 2024 through July 22, 2024. Of the 135 sites, 89 were supported by funding from the Pennsylvania Department of Environmental Protection (PADEP) and 46 were supported by funding from the New Jersey Department of Environmental Protection (NJDEP). PADEP sites were monitored for Fecal Indicator Bacteria (FIB) including Escherichia coli (E. Coli.), Enterococcus, and Fecal Coliform, as well as analysis of host organism using Quantitative polymerase chain reaction (qPCR). NJDEP sites were monitored for FIB, but not qPCR.

In March 2020, DRN and partners including Clean Air Council, Pennfuture, Environment New Jersey, and 6 other partners petitioned DRBC and the states of New Jersey and Pennsylvania to recognize primary contact recreation as a designated use for this section of the Delaware River in order to conform with the mandates of the Clean Water Act as well as to modify the water quality standards to better protect the health and safety of those who participate in activities on the river that involve direct contact with the water. It is important for those of us who enjoy the River today, and those who will enjoy the River for generations to come, to know that the DRBC and other agencies have put in place regulatory protections that will ensure the healthy water quality necessary to fully support ongoing recreational uses of the river, including those that put us in direct contact with the water and DRN looks forward to seeing this important work through to benefit all of those in this densely populated area recreating and enjoying the Delaware River. DRN may provide additional comments and data to the DEP by February 9 as part of DEP's data solicitation and advanced notice of proposed rule-making advertised in the PA Bulletin Dec 26, 2025.



Adding River Miles (RM) to the main stem Delaware River would be beneficial for the users of the online

tool.

DRN comments and concerns on ensuring recreational use is realized for primary contact recreation, which we provide multiple examples in our petition of this use, were also laid out before our petition in DRN's 2018 triennial review comments for RM 108.4 to 81.8. DRN looks forward to advancement of this much needed effort to ensure primary contact recreation is realized and CSOs cleaned up as this multi-agency effort continues.

Bacteria – to assist with consistency and data comparison throughout the year, DRN recommends the Board adopt E.coli standards consistently throughout the year. EPA has raised other important feedback pertaining to bacteria criteria in the past.

Response:
DEP appreciates DRN's comments regarding the new recreational assessments on the Delaware Estuary and the acknowledgment that this was a large effort that could not have been accomplished without the collaboration with DRBC staff. As DRN alluded to, DEP will be taking all available data, including the data collected during 2024 and 2025 efforts, to reevaluate the Water Contact Sports Use on the Delaware Estuary in the future.

DEP acknowledges the spotty display of Delaware Estuary segments in the various mapping features in the Integrated Report. DEP relies on the National Hydrologic Dataset (NHD) to display assessment decisions across Pennsylvania; however, previous commentors requested that DEP remove NHD segments that are outside the Pennsylvania state border. To meet this request, DEP clips the NHD segments across the state border, which results in some segments of the Delaware Estuary being cut off from the mapping applications. A cleaner view of DEP's assessment delineations can be found in the Delaware Estuary assessment report, which is available in the 2024 to 2026 Changes section of the Integrated Report.

Comment:
<u>PADEP Selection of What Sister Agency Data is Accepted</u>
The PADEP Data Solicitation Report lists that 2024 data collected by DRBC was used as data quality met the Tier 3 QAQC bar in order to propose listing these 16 segments of the main stem Delaware River as impaired for Recreational Use.
Yet Conservation District datasets were not accepted for analysis of proposed listings for both Pike County and Monroe County with PADEP stating that CD agency collected datasets did not meet the Tier 3 QAQC bar.

While DRN does not believe the recent PADEP SPEED permitting program is a good idea for the public trust, we are concerned that, once again having limits on agency data acceptance for listing, like that of the PCCD and MCCD even though protocols are provided by those sister agencies, will harm the streams and not provide for timely overdue listing or potential changes of these important streams. In Pike and Monroe Co. we still have some of the most pristine HQ and EV streams of the Delaware River Basin; it would behoove DEP to use agency collected data in the process.

SPEED Program - DEP allowing developers to use consultant collected data hired by applicants appears to slick the wheels of permitting applications and timelines while undermining the hard work by the Districts and other scientific and agency staff. DEP should be funded and staffed fully to ensure internal review of these applications by agency professionals is within the bandwidth of an ever more challenging and fragile environment with climate change threats and beyond. Public agencies must be strong and fully funded to ensure PA's Environmental Rights amendment, Article 1 Section 27 of the PA Constitution is upheld.

Response:
As part of the assessment process, DEP evaluates all existing relevant and readily available data, including data submitted by conservation districts. This process is described in greater detail under the Decision Framework section starting on page 1-19 of the Assessment Book. In addition, some conservation districts have gone through training and auditing by DEP and their data are directly used to make assessments. As a result of these efforts, Monroe County Conservation District's data were considered as Tier 3 and were directly used in new assessments for the 2026 Integrated Report. Pike County Conservation District's data were not Tier 3, but DEP is currently working with them to become Tier 3 submitters for the next Integrated Report.

Comment:
DEP is proposing a multitude of segments of the Tohickon Creek, named tributaries (Geddes Run, Deer Run, Wolf Run) and UNT of Tohickon Creek and UNT to Haycock Creek be proposed for Recreation Use impairments which is a change from the last integrated report. The Tinicum Conservancy and Delaware Riverkeeper Network as well as more recently the National Park Service have been working for decades to see the lower Tohickon Creek upgraded to Exceptional Value (below Nockamixon State Park Dam to its mouth with the Delaware River) – this section of the Tohickon Creek has Wild & Scenic Delaware River designation. DEP identifies new impairments are caused by "Agriculture, Urban Runoff/Storm Sewers" and Escherichia Coli (E. COLI).

DRN would like to ensure DEP is aware that there is a proposed quarry for the Upper Tohickon in an area that is largely mature forest, forested wetlands, and an important Trout Stocked Fishery (TSF). The H&K quarry proposal site in Springfield Township is in the uppermost watershed of Tohickon Creek, in the lower Delaware River Basin. Tohickon Creek mainstem flows generally west to east to its confluence with the Delaware River. An unnamed tributary to Tohickon Creek numbered 03202 and several other tributaries flow through the proposed H&K project site and would be irreversibly destroyed if this proposal is permitted. Water quality locally is generally good, although some streams in developed areas within the upper Tohickon Creek watershed are listed as not currently "attaining" (supporting) their TSF aquatic life use due to urban runoff pollution, according to the draft PADEP 2022 integrated water quality monitoring and assessment report. One stream, called Bog Run (UNT 03181 to Tohickon Creek), which is just west of Nockamixon State Park, recently was proposed by PADEP (2021) to be redesignated to EV during its evaluation of an NPDES permit application. Protecting forested headwater tributaries like the Upper Tohickon here slated for future destruction by a quarry will help ensure less degradation and impairments down the road for the Tohickon Creek watershed.

Due to time constraints, DRN did not drill down into segments being proposed for listing in this 2026 version but wanted to highlight again the continued upgrade effort for the lower Tohickon Creek which we believe is overwhelmingly deserving of EV and long overdue with the submission of the original 1995 petition by the Tinicum Conservancy and supported by the Delaware Riverkeeper Network, the National Park Service and the community. Most recent efforts on this languishing stream redesignation petition involved efforts to stop a proposed downgrade by DEP in 2019 with a report on lake level modeling and releases at the Nockamixon Dam with input from NPS, DCNR and the Tinicum Conservancy. Even if impairments in bacteria thresholds are within the Tohickon Creek, DEP should upgrade the lower Tohickon to EV and work to improve and restore conditions for this important Wild & Scenic tributary. As indicated in 2019, DRN believes DEP cannot go forward with a UAA or downgrade of the use of this highly beloved lower Tohickon Creek – EV designation is warranted and long overdue https://delawareriverkeeper.org/issues/land-protection-antidegradation/tohickoncreek/.

Response:
DEP understands DRN's perspective regarding Tohickon Creek. DEP's permitting decisions in this basin, and throughout the state, will evaluate impacts to water resources and require appropriate protections, as authorized by law. DEP will continue to evaluate appropriate designated uses in this basin as time and resources allow.

Comment:
HQ and EV Stream Impairments --- DRN has concerns about several HQ and EV watersheds in the Upper Delaware River Basin having changes of degradation now documented in the 2026 report. We understand DEP continues to assess various streams but it's concerning when long standing HQ or EV streams are seeing these declines especially considering the economic importance of these remaining anti-degradation waterways laid out in the Our Pocono Waters campaign and report. Some examples noted in the 2026 integrated report include UNT to Balls Creek and Balls Creek, UNT to Shehawken Creek and Shehawken Creek, North Br Calkins Creek and UNT to North Branch Calkins Creek, UNT to Hollister Creek and Hollister Creek. Presently those declines appear to be based on Recreational Use Impairment including:

- Balls Creek/UNT Balls Creek spanning many stream segments in Preston and Scott Townships are now recognized as impaired for Agriculture and E.Coli exceedances.

- Shehawkin Creek and UNT to Shehawkin Creek spanning many stream segments in Preston Township is also impaired by Agriculture and E.Coli exceedances.

- Calkins Creek and UNT to Calkins as well as the North Branch Calkins spans impairments throughout its watershed in Damascus Township with causes including Agriculture as well as Rural (Residential areas). Are failing septic conditions and lack of protected riparian buffers also a cause of these impairments? How will DEP ensure that these high quality watersheds are cleaned up and not further harmed? How can we avoid similar impairments from poor land use and proposed land threats that are being witnessed now in the Poconos at an alarming rate with

the onslaught of warehouses and now AI datacenters, for example? Antidegradation regulations require that streams do not degrade in water quality yet death by a thousand cuts, lack of cumulative harms assessments, poor or outdated zoning, and developer speculation is pressuring these anti deg regions where our forests, sensitive soils, and most pristine headwater streams still exist. All of these streams we note above were sampled by DRBC and DRN staff (benthic macroinvertebrates) and trained volunteer monitors (water quality) as they were watersheds where natural gas drillers were eyeing to drill in the Marcellus shale formation. The Trump administration, now once again, is calling for natural gas drilling in this area where a permanent hard fought ban was instituted.

And

Special Protection Assessed Use

DEP notes in the report that, “Until the 2026 Integrated Report, Special Protection surface water assessments (i.e., assessments of High Quality and Exceptional Value waters) were included in the Aquatic Life Use category. Moving forward, DEP will calculate assessment statistics on Special Protection surface waters separately so these critical resources can be tracked more appropriately.” It is not clear to DRN where these HQ and EV waters are assessed as we navigated the site.

DRN did not dive deeply but a query of just “Special Protection” in the Changes Table only listed UNT to Tulpehocken, Forest Hills Run, and Calley Creek as Special Protection. This listing does not seem to include all streams that would either have HQ or EV if that is what the table is to depict (see comment on some of the Upper Delaware tribs now having impairments). See Excerpt below from the DEP Table:

Stream Name	NHD Flowline COMID	Assessed Use	Change Between Integrated Reports
Unnamed Tributary to Tulpehocken Creek	26003860	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Unnamed Tributary to Tulpehocken Creek	26003874	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Unnamed Tributary to Tulpehocken Creek	26004180	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Forest Hills Run	26158230	Special Protection	Previously impaired, reassessed as impaired, source and cause change

Stream Name	NHD Flowline COMID	Assessed Use	Change Between Integrated Reports
Forest Hills Run	26158240	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Forest Hills Run	26158262	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Forest Hills Run	26158822	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Forest Hills Run	26158824	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Forest Hills Run	26158826	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Forest Hills Run	26158268	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Forest Hills Run	26158276	Special Protection	Previously impaired, reassessed as impaired, source and cause change
Valley Creek	26003218	Special Protection	Previously impaired, reassessed as impaired, source change
Forest Hills Run	26158848	Special Protection	Previously supported, reassessed as impaired
Forest Hills Run	26158290	Special Protection	Previously supported, reassessed as impaired
Forest Hills Run	26158312	Special Protection	Previously supported, reassessed as impaired
Forest Hills Run	26158852	Special Protection	Previously supported, reassessed as impaired

On a positive to impaired anti-deg waters, much and almost all of the largely forested headwaters

flowing into the Delaware River above Masthope, PA that have now been newly assessed in 2026 by DEP, are found to be supporting their current special protection uses (see screenshot and purple streams below – purple depicts streams "use not previously assessed, assessed as supporting"). These now assessed tributaries help reinforce that this region is deserving and overdue of realizing the EV petition submitted by DRN and many co-petitioners back in 2011 to upgrade the Upper Delaware River Basin in its entirety to EV status. DRN looks forward to continuing to advocate and assist DEP with seeing that regional petition for EV designation through to reality.

Response:
DEP is also concerned about degradation and impairment in Special Protection surface waters, which is why the 2026 Integrated Report is highlighting Special Protection assessments separately from the Aquatic Life assessments for the first time. By making this change, DEP is better able to communicate and track these issues across the state. Regarding the specific watersheds mentioned that are now impaired based on *E. coli*, they are likely cases where recreation has been impaired, but DEP is just now documenting them with these recent assessments.

Although Special Protection assessment layers are not specifically highlighted in the 2026 Integrated Report StoryMap, DEP displays them in the Integrated Report Viewer as a separate layer that can be turned on or off along with all other assessed use categories. When a "just Special Protection" filter is applied to the Stream 2024 to 2026 Change Table, there are 2,038 records that are displayed. It is unclear to DEP how DRN may have limited their search on this table, but DEP confirms that this table includes all Special Protection assessment changes across Pennsylvania for the 2026 Integrated Report.

Comment:
Bushkill and Little Bushkill (Northampton Co) is noted as all red on the map --- now attaining use as of 2026 though it had been impaired in the past for mercury. Will DEP please share how mercury contamination from acid deposition may have been restored since the last triennial review?

Response:
The 2021 assessment listing Bushkill Creek as impaired for mercury was an error once the assessments were validated against the current fish consumption advisory list. The assessment was mistakenly entered into the database on the Bushkill Creek in Northampton County. The data for that assessment was collected on BushKill Creek in Pike County. Therefore, mercury is being removed since there is no data to support the original listing. DEP also worked to confirm the delisting with a 2014 fish tissue sample for mercury from Bushkill Creek in Northampton County, which was below the impairment threshold of 0.26 ppm.

Comment:
The overall break down by major watershed table is helpful in understanding and comparing the major basins (see below):

Major Basin	Total Miles in	Miles	Percent	Miles	Percent

Name	Basin	Assessed	Assessed	Impaired	Impaired
Delaware	10751	10527	97.9	5207	48.4
Erie	1120	1119	99.9	534	47.7
Genessee	194	194	100	159	82
Ohio	32586	32201	98.8	11357	34.9
Potomac	3800	3789	99.7	1183	31.1
Susquehanna	37512	37296	99.4	12998	34.7

Aquatic Life Use Impairments and Changes

It is concerning that many urban streams where large populations reside and often where Environmental Justice communities live and work are still plagued with languishing impairments and pollution. Most of the changes DEP notes in regard to aquatic life are “cause changes” where streams were already impaired in past reports but where a cause change is noted and the stream is still impaired. Many of the cause changes appear to be a change in verbiage where causes are still “Urban runoff/Storm Sewers” as the with new added causes of impairment including: “Dewatering, Flow Regime Modification, Habitat alterations, and Siltation” as well as “Eutrophication” or “Dissolved oxygen” impairments (most of which are due to urban runoff and stormwater issues as well as storm sewers). Streams still impaired span a very large area with a multitude of segments in the Wissahickon, Pennypack Creek drainage, Tacony Creek drainage throughout Philadelphia and Upper Dublin, White Marsh, Cheltenham, Abington, Hatboro, Warminster, and Upper Moreland townships. For aquatic life use impairment changes from the last triennial review, DEP is proposing about 497 miles of streams are impaired for aquatic life (many of these miles of streams have been listed as impaired in past reports and for a long time). It is alarming considering the densely populated areas and vulnerable communities that live in these impaired waterways are not realizing clean up or protection at a rate needed.

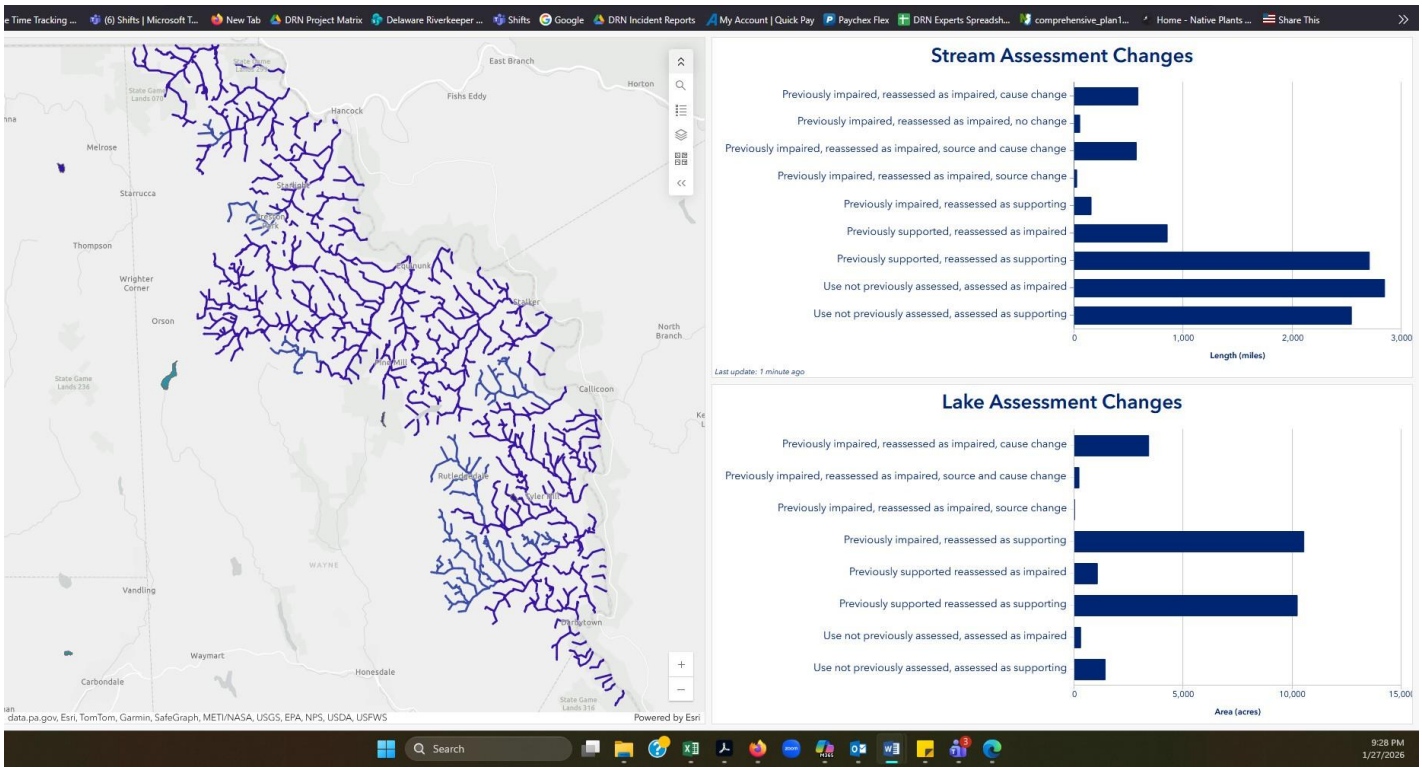
It is positive to see more refined causes on impairments identified for an UNT to the Tulpehocken Creek to include more details of pollution inputs - instead of “Unknown” new causes of existing and already established impairment include: “Agriculture, Habitat modification – other than hydromodification as well as Urban Runoff/Storm Sewers” for certain segments of the Tulpehocken to better ID where restoration is needed. The Tulpehocken Creek Watershed Association, closely affiliated with Berks Nature works to monitor, conserve, and restore the Tulpehocken Creek watershed and would be a good resource to discuss next steps and to identify specific threats. The Tulpehocken Chapter Trout Unlimited is another local informed group to assist.

DEP notes 154 stream miles were previously impaired, and now reassessed as supporting. It is alarming that there are an additional 2,845 miles of stream where the use was not previously assessed but now the 2026 assessment is showing impairment.

With so much work conducted in the Perkiomen Watershed over the years, it is alarming to see many segments within the Perkiomen that were previously supported, now reassessed as impaired (red on the map). Causes of impairment look to range from agricultural runoff to storm sewers and urban runoff. The recently Fall 2025 Perkiomen Mapping & Flood Mitigation Study may provide additional solutions to turn this degradation around.

Response:
DEP appreciates these comments and acknowledges that a lot of work has been completed in these watersheds. Unfortunately, reassessments have only confirmed impairment and refined the list of causes in many of these watersheds. DEP will continue to work collaboratively with partners through regulatory, technical assistance, and funding programs to implement water quality improvement projects and to track changes in water quality through monitoring and assessment efforts.

Comment:
On the maps, it is challenging to depict the dark blue stream segments (dark blue were the few anti-deg streams noted in the above table where “use not previously assessed, assessed as impaired”) from the purple segments. Perhaps more contrasting colors could help.



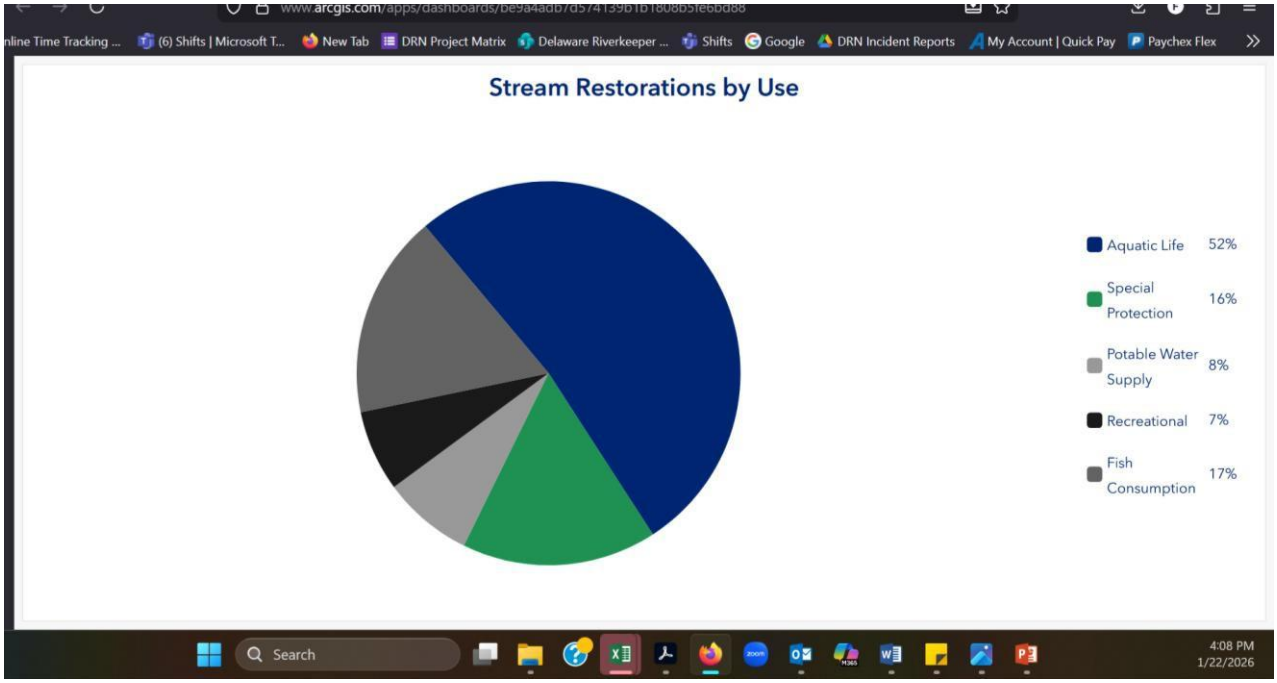
Response:
Some of the map symbologies within the Integrated Report StoryMap can be complex due to the many levels of information being presented (i.e., 2024 to 2026 Changes Map) and DEP is limited by the symbology within the StoryMap software; however, DEP will work to make symbology more distinct if possible.

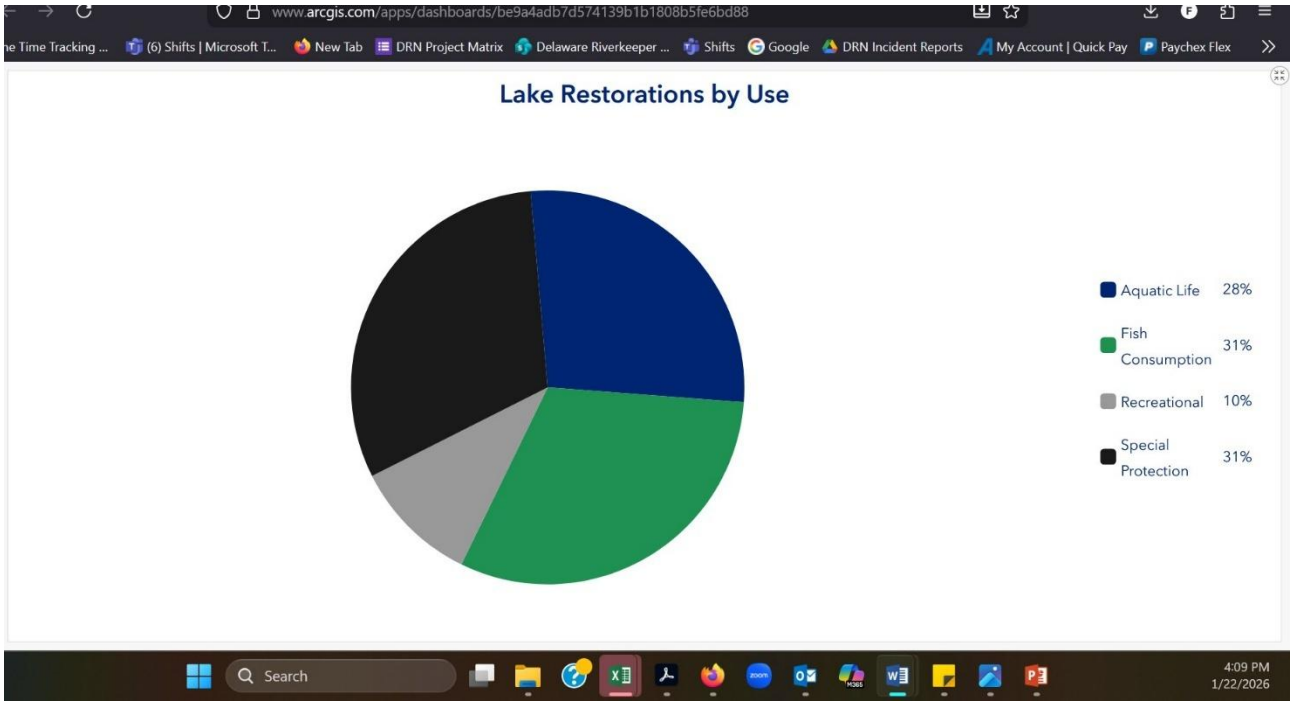
Comment:
Rising to the Challenge Tab and Climate Change ---DRN appreciates the DEP including links and information on heat and the impacts and effects of climate change as part of the assessment. DRN also reviewed and is in support of DEP’s recently created fish-based assessment method that leverages a thermal fish index to not only make Aquatic Life Use assessments but also monitor and track changes

in fish populations as climate change alters in-stream temperatures over time. For the What to Do Actions, DEP could add important measures such as planting more forests and native shade trees to the list of efforts people can do to combat heat.

Response:
DEP appreciates this comment and will consider the recommendation for future Integrated Reports.

Comment:
Restored Waters
From 2004 to 2026 DEP has recorded 1,099 miles of restored streams and 35,504 acres of restored lakes. DRN did not fully understand what DEP means my “rapid stream delisting” and we have some concerns to what this means for the actual health of the streams. DEP states rapid stream delisting couples mapping data analysis with an extensive partnership effort to delist streams on an accelerated timeframe. More information is needed to understand this process – which according to DEP – may lead to delisting of over 30 streams by 2030. The graphics, tabs and pie charts and maps within the online tool are helpful in this section.





Response:
The Pennsylvania Rapid Stream Delisting strategy is a targeted, data-driven initiative aiming to remove 30 or more agriculturally impaired streams from Pennsylvania's impaired waters list by 2030. Led by Chesapeake Conservancy and partners, it uses precise data to install best management practices (BMPs) in specific catchments within the Chesapeake Bay watershed.

Comment:
Chloride aquatic life use standard are absent once again from this triennial review – DRN believes the DEP needs to adopt chloride standards to protect aquatic life. The existing PWS criterion at point of intake of 250 mg/l maximum is not protective to the sensitive macroinvertebrates and endangered species that reside in Pennsylvania. A criterion for chloride to begin protecting Pennsylvania streams from brine wastewater from gas drilling and road salt applications would be a critical step by the state that is overdue and needed now; and the science conducted by the state and academic institutions supports establishment of this chloride criterion. The USFWS notes the same sentiment in its comments to DEP (dated 2/15/18) – FWS states there is a “need to insist on a chronic criterion for chloride to protect and prevent take of federally endangered and threatened mussels”. The USFWS goes onto note that even with there being some interactions with hardness, it is prudent that DEP implements a chloride criterion in this triennial review, regardless of the need for future modifications, to afford protection of aquatic resources. The USFWS points out EPA in 2011 developed ecoregion standards for chronic exposure (eco-region 70). USFWS also provides science from Patnode et al. 2015 that warrants a chronic criterion of either 78 ug/l chloride or 247 uS/cm to prevent take of federally endangered and threatened mussels at relevant NPDES discharges.

Nutrient standards are absent from this triennial review - Pennsylvania’s streams continue to suffer from nutrient pollution, both Nitrogen and Phosphorus, and the failure of PADEP to more rapidly adopt numeric nutrient criteria for aquatic life use exacerbates the damage that these streams suffer, and just

extends the time that these streams will be part of the long list of “impaired” waters of the Commonwealth. In July 2000, the EPA provided technical guidance for states to develop regional nutrient criteria to begin mitigating this important need yet PA continues to kick this can down the road over 17 years later. It is encouraging to see this round DEP is proposing an ammonia standard. DRN would highlight review and consideration of EPA’s recommendations outlined in their Dec. letter for ammonia pertaining to 30 day averages.

Response:
For some water quality parameters, numeric criteria are specified in Pennsylvania Water Quality Standards. For example, Pennsylvania’s Aquatic Life Use criterion for iron is 1.5 mg/L. However, there are currently no statewide numeric Aquatic Life Use thresholds for substances like chloride or nutrients. When numeric thresholds do not exist, DEP can rely on the general water quality criteria in 25 Pa. Code § 93.6 (which are also known as narrative criteria) to assess surface waters specific to these substances. An example of this strategy is the implementation of the Eutrophication Cause Method. This method leverages the general water quality criteria along with defensible scientific understanding to establish nutrient-related assessment thresholds that link impaired macroinvertebrate communities to eutrophication. Until statewide Aquatic Life Use chloride and nutrient criteria are developed or adopted, DEP will continue to develop and refine its assessment methodology to utilize the general water quality criteria.

LANCASTER COUNTY CONSERVATION DISTRICT

Comment:
Color scheme in maps for stream/lake impairment are hard to read and differentiate.

Response:
Some of the map symbologies within the Integrated Report StoryMap can be complex due to the many levels of information being presented (i.e., 2024 to 2026 Changes Map) and DEP is limited by the symbology within the StoryMap software. However, the 2026 Integrated Report Viewer clearly shows the difference between impaired and supporting streams with just two colors that were specifically selected for accessibility purposes. DEP recommends using the 2026 Integrated Report Viewer as the main source of information regarding impaired waters.

LÉON SIMMONS

Comment:
My name is Léon Simmons. I am a Pennsylvania resident writing to provide public comment on the Draft 2026 Pennsylvania Integrated Water Quality Monitoring and Assessment Report (Integrated Report), which serves as the Commonwealth's biennial update on the condition of Pennsylvania's streams and lakes and supports Clean Water Act reporting under Sections 305(b) and 303(d). I appreciate DEP's work to present the report in a digital, interactive format and to expand assessment coverage. I support a transparent, scientifically rigorous assessment process that helps the public understand whether waters are supporting or impaired for designated uses and what the likely causes

and sources of impairment are. To strengthen the Draft 2026 Integrated Report and improve usability and public confidence, I respectfully request DEP consider the following improvements in the final report and supporting materials:

Improve clarity and accessibility for the general public.
Provide a concise statewide executive summary written in plain language that highlights (a) key statewide trends, (b) the most common causes and sources of impairment, (c) major changes since the 2024 cycle, and (d) what the public can do to reduce pollution. Where technical terminology is unavoidable, include short definitions.

Increase transparency about methodology changes and "new for 2026" items.
Where assessment methods, categories, or evaluation thresholds have changed since the prior reporting cycle, clearly document those changes in a way that nontechnical readers can understand. This includes explaining how such changes may affect apparent trends (e.g., increases in assessed waters, changes in impairment status).

Ensure durable access to data and documentation.
Provide stable links to supporting datasets, change reports, and documentation used to determine status, cause, and source. Maintain a clear archive so the public can compare results across cycles and track progress over time.

Make it easier for residents to find local waters and understand actionable next steps.
Improve guidance within the interactive tools so that a resident can quickly determine: (a) whether a local stream/lake is impaired and for which uses, (b) the likely sources and causes, and (c) where to find applicable restoration plans, TMDLS (if any), or local watershed efforts and how to participate.

Strengthen the linkage between assessment results and restoration priorities.
Where practical, include a clear explanation of how assessment results inform restoration prioritization and funding decisions, and summarize how DEP collaborates with partners to restore impaired waters. If restoration metrics are reported, describe how they are calculated and verified.

Thank you for the opportunity to comment and for DEP's ongoing work to protect and restore Pennsylvania's waters. Please include my comment in the official record for the Draft 2026 Integrated Report.

Response:
DEP appreciates these comments and will consider these recommendations for future Integrated Reports. DEP’s assessment methodology public participation is a separate process from the Integrated Report, but a summary of the changes that were made between editions can be found starting on page of 1-12 of the Assessment Book. Older Integrated Reports will remain available on DEP’s website for as long as feasible. After that, DEP will maintain PDF versions of each Integrated Report available upon request.

MOUNTAIN WATERSHED ASSOCIATION

Comment:
This comment is submitted on behalf of the Mountain Watershed Association ("MWA"), home of the Youghiogheny Riverkeeper. We are a nonprofit citizen-led environmental organization focused on protection, preservation, and restoration of the Indian Creek and greater Youghiogheny River watersheds. We submit these comments on behalf of our organization and our over 2,500 members.

The Incorrect Classifications
MWA appreciates that, in the past, the Pennsylvania Department of Environmental Protection ("DEP") has conducted additional sampling and correctly updated some of the stream segments in response to our comments. However, there are still a number of issues in the 2026 Water Quality Assessment Report for a number of the tributaries to Indian Creek, Champion Creek, and Poplar Run. These concerns are outlined below.

"Nebo" Tributary to Indian Creek:
As our consultant explains, it is somewhat surprising that DEP thinks that the entire stream length of this tributary has been impaired by "Acid Mine Drainage" (AMD) from coal mining, because there has never been any surface or underground coal mining anywhere within the subwatershed of the "Nebo" tributary. The geology and coal mining history (or lack thereof) of this watershed has been studied by the Pennsylvania Geologic Survey (Shaulis, 1985) and by the PA DEP Bureau of Mining and Reclamation (Lighty et al., 1995, Lighty, 1998). There are no records or maps of local mining in DEP's District Mining Office, or at the Bureau of Mining and Reclamation (now known as the Bureau of Mining Programs), or with the DEP Bureau of Abandoned Mine Reclamation. There are no mining records for the "Nebo" watershed in DEP's eFACTS database or in the DEP mine map mylar and GIS database.

While the Department has broad discretion in conducting water quality assessments, that discretion is not unlimited. Impairment determinations must be grounded in a rational connection between observed water quality conditions and a plausible, evidence-based source. In the case of the Nebo Road tributary, that connection is absent. Mountain Watershed Association respectfully requests that the Pennsylvania Department of Environmental Protection remove Acid Mine Drainage as a listed source of impairment for the following assessed NHD flowline segments of the Nebo Road tributary to Indian Creek: 69915817, 69915815, 69915807, 69915781, and 69915725, and revise the Integrated Assessment accordingly to reflect source attributions supported by the administrative record.

"Calvary Church Road" Tributary to Indian Creek:
As described in the previous technical comments from MWA, there has also never been any coal mining in the "Calvary Church Road" tributary watershed, and therefore no source for acid mine drainage. As such, DEP should change its assessments for the five headwater flow line segments (69915625, 69915541, 69915563, 69915309, 69915381) to non impaired and Supporting Recreational Use. In the 2026 Integrated Report Viewer GIS application display the seven flowline segments, totaling 4940.9 ft. in stream length, (NHD Flowlines 69915565, 69915351, 69915465, 69915543, 69915567, 69915619, and 69915711) that have been reassessed as non impaired and Supporting Recreational Use for High

Quality Cold Water Fishes still are shown as Impaired. Please see Exhibit B for additional information and data supporting MWA's position on "Calvary Church Road" Tributary to Indian Creek.

"Puzzle Run" Tributary to Champion Creek:
DEP has not incorporated MWA's previous comments on the Department's assessment of Puzzle Run in 2020, 2022, or 2024. For 2026, DEP should consider following MWA's recommendations previously submitted as comments on the draft 2022 report. Please see Exhibit C for additional information and data supporting MWA's position on "Puzzle Run" Tributary to Champion Creek. 2022 water testing on Puzzle Run conducted by MWA is included as well in Exhibit D.

"Hopewell Road" Tributary to Indian Creek:
PA DEP should change the 2026 Water Quality Report assessment of the tributary to Indian Creek identified as the "Hopewell Road" tributary and by NHD flowlines 69916157, 69916069, 69916119, 69916149, and 69916359, from "Impaired" by "Acid Mine Drainage" due to "Metals" and "Total Dissolved Solids (TDS)," to an assessment of "Attaining" and "Supporting Stream Aquatic Life Use." The new assessment of "Attaining" should apply to all NHD flowlines of this tributary, from its headwaters to its confluence with Indian Creek. The extensive technical comment document submitted by the Mountain Watershed Association in 2022 is still valid and is resubmitted along with additional comments on the 2024 draft Water Quality Assessment Report. Please see Exhibit E for additional information and data supporting MWA's position on "Hopewell Road" Tributary to Indian Creek.

"Jockey Knob" Tributary to Poplar Run:
The report as still not correctly assessed the water quality of NHD Flowline 69916917, the "Jockey Knob" tributary to Poplar Run. This stream section remains listed as impaired for AMD and siltation but as MWA has explained in its 2020, 2022, and 2024 comments, the water quality for that stream segment is clearly unaffected by AMD, there is no new land development and the water is of good quality. MWA strongly encourages the department to revisit and review this assessment. (for more discussion and explanation please see Exhibit F, report on Jockey Knob stream segment and Exhibit D, 2022 water quality samples).

<u>Request For Future Reassessment</u>
Champion: PA-SCR-69916259:
This stream segment is currently listed as impaired for aquatic life due to metals from AMD. Indeed, this section is a main receiving waterway from the discharge from the abandoned Melcroft Mine. However, MWA helps to operate and maintain a treatment system and as such monitors water quality and macroinvertebrates upstream and downstream of the discharge.

In the past few years, MWA's upstream and downstream macroinvertebrate samples revealed IBI scores that indicate an assessment of attaining will be appropriate in the near future. For example samples during 2023 and the fall of 2024 have reflected attaining IBI scores, despite being downstream of the AMD treatment discharge point:

	Date	IBI	Status	Comments
Champ HW	2023 Spring	65.96	Attaining	All conditions met
	2023 Fall	81.34	Attaining	All conditions met
	2024 Spring	77.24	Attaining	All conditions met
	2024 Fall	62.5	Attaining	All conditions met
	2025 Spring	78.14	Attaining	All conditions met
Champ US	2023 Spring	47.75	Impaired	IBI Score is less than 50
	2023 Fall	66.81	Impaired	Beck's Index is <33 and % Sensitive is >25
	2024 Spring	39.34	Impaired	IBI Score is less than 50
	2024 Fall	35.38	Impaired	IBI Score is less than 50
	2025 Spring	62.42	Attaining	While % Sensitive is <25, Beck's index is >33
Champ DS	2023 Spring		Impaired	No IBI calculated, population below 180-220
	2023 Fall	57.44	Attaining	While % Sensitive is <25, Beck's index is >33
	2024 Spring	53.08	Attaining	While % Sensitive is <25, Beck's index is >33
	2024 Fall	58.71	Attaining	All conditions met
	2025 Spring	43.88	Impaired	IBI Score is less than 50

In addition, from 2024-2025 the aluminum levels were primarily <0.5 (with two outliers of 4.83 and 3.257). The iron was <0.3 with one outlier a 3.9 reading. Manganese was <0.05 with one outlier of 0.236. Other than the outliers The resulting numbers are the lowest detectable levels the certified laboratory can report.

In addition, the Melcroft AMD treatment system is currently in the process of undergoing a redesign. It is estimated construction will be complete by the end of 2027 and MWA so recommends the DEP conduct new sampling and a potential revision in 2028, once the treatment system is on the ground. MWA is hoping that the upstream and downstream numbers for this segment will increase significantly in the years to come, so it certainly warrants additional time, attention, and review by the department.

Response:
The “Nebo” tributary is very small and was likely included in a larger assessment made in 1998. DEP does not dispute MWA’s claims that there is no AMD in this small watershed, but there is mining activity in nearby watersheds, such as the “Calvary Church Road” tributary (Figure 1). DEP will review all of MWA’s information and recommendations listed above and prioritize reassessment as time and resources allow.

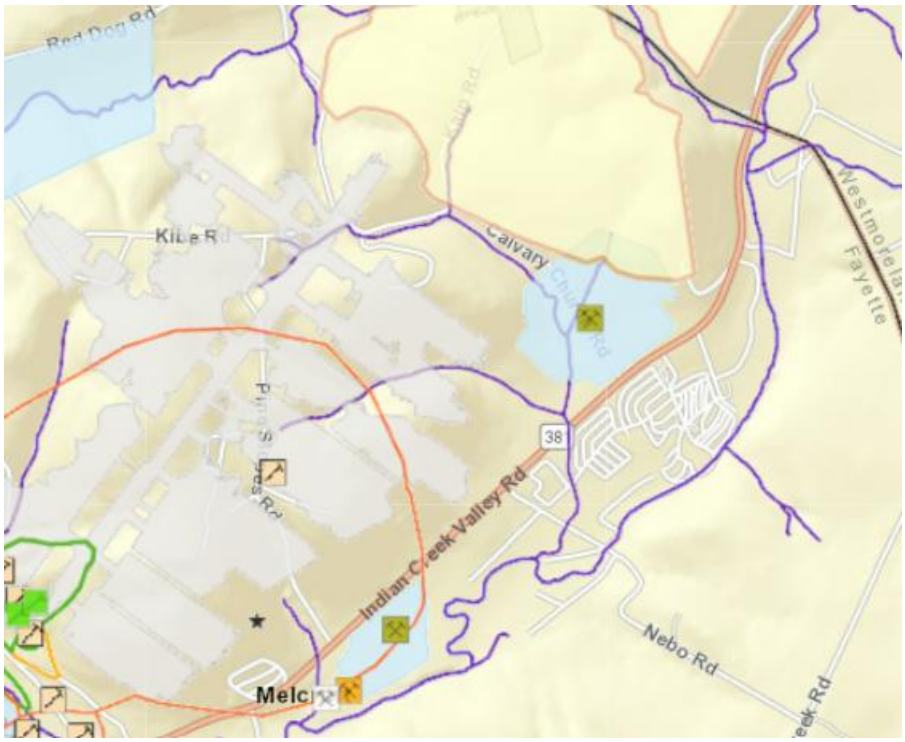


Figure 1. Screenshot of eMapPA, centered on the "Calvary Church Road" tributary. Gray polygons show digitized mined areas, blue polygons show Bituminous Surface Mine Permits, and the various squares show Mine Drainage Treatment points.

Comment:

Blue Hole

Recently, it has come to light that Blue Hole Creek—a beloved Laurel Highlands recreation destination and an Exceptional Value (EV) headwater stream—has been impacted by lead contamination. Water sampling conducted in and upstream of the Blue Hole area has documented repeated detections of lead in surface waters, raising serious concerns about water quality in a stream long prized for its ecological and recreational value.

In 2025, these concerns prompted regulatory action by the Pennsylvania Department of Environmental Protection (DEP), which issued a Notice of Violation related to lead pollution associated with activities in the Highlands area. DEP has acknowledged that contamination is present, that the source has not been fully resolved, and that further investigation, remediation, and monitoring may be necessary to address ongoing impacts.

Against this backdrop, DEP's most recent water quality assessment materials reflect increased scrutiny of Blue Hole Creek and nearby stream segments that have historically been treated as attaining their designated uses. For example, at least five stream segments: 69917231, 69917233, 69917423, 69918019, 69918185 -- all designated as exceptional value in the DEPs 2024 Water Quality Assessment, are now classified as impaired for special protection (also identified as "new assessment ID numbers": 24198, 24200, 24201).

As discussed below, MWA's independent chemical and biological monitoring supports this assessment,

documenting persistent lead detections and depressed macroinvertebrate communities that are inconsistent with conditions expected in an Exceptional Value headwater stream. MWA supports DEP's decision to recognize these impacts through its assessment process. However, assessment alone is not protective.

Given the evidence of ongoing stress, DEP must act proactively to ensure that remediation proceeds promptly and that Blue Hole Creek is reassessed as soon as recovery can be verified, rather than allowing this impairment designation to persist without a clear and enforceable path toward restoration.

MWA has conducted discrete chemical water sampling and benthic macroinvertebrate collection surveys along sections and Unnamed Tributaries (PA-SCR-69917233) to Blue Hole Creek (PA-SCR-69918019) and Fall Creek (PA-SCR-69918373) located in Middlecreek Township, Somerset County, PA. MWA is happy to share the results upon request as well as additional monitoring results provided by the surrounding community members, which MWA has been given permissions to share.

Response:
DEP appreciates MWA's attention to this matter and recognition of the new assessment on Blue Hole Creek in the 2026 Integrated Report. DEP's Water and Waste programs are working together to resolve the lead impairment and remediate the land so that Blue Hole Creek can be restored soon. DEP welcomes MWA's data and encourages submission of those data through the Existing and Readily Available Data webpage.

Comment:
Additional Request for Data
Along with the comments provided, MWA requests that all data related to recreational impairments be made available to us and the public, generally. It would be beneficial for us to know the results of DEP's testing. Additionally, unassessed sections of the Youghiogheny and Casselman should receive additional and updated monitoring. Based on MWA's sampling results, areas like Mckeesport and Connellsville have been historically high in bacteria and need to be properly monitored. Public notices of impairments need to be widespread, discharge locations need to be monitored carefully, and solutions need to be found due to our region's dependence on visitors, who perceive our rivers as clean and hospitable.

Attached as Exhibit G are the results of MWA's bacteria sampling in those areas of the Youghiogheny River, which are also large tourist attractions and strong draws for the recreational community like paddlers and boaters.

Thank you for your time and attention and the opportunity to provide comments. Please feel free to reach out with additional questions and comments.

Response:
As part of the 2026 Integrated Report, DEP created the Water Contact Sports StoryMap. This application provides background on DEP's Water Contact Sports assessment program as well as

providing the data used for assessments to the public. Those data can be explored in the Monitoring section of the StoryMap, and they can be downloaded directly here.

PENNSYLVANIA ABANDONED MINE LAND (AML) CAMPAIGN

Comment:
On behalf of the Pennsylvania AML Campaign, we respectfully submit these coordinated comments on the Draft 2026 Pennsylvania Integrated Water Quality Monitoring and Assessment Report (Integrated Report) prepared by the Pennsylvania Department of Environmental Protection (DEP) and made available for public comments. Together, our organizations represent a broad coalition working to restore waters degraded by abandoned mine drainage (AMD) and to support communities across Pennsylvania's coalfield regions.

The 2026 Integrated Report provides a strong, data-driven framework for identifying impaired waters and tracking progress toward Clean Water Act goals. We commend DEP's continued leadership on biological, chemical, and habitat assessments and the expansion of transparency around impairment causes. We also applaud the development of the interactive Integrated Report Viewer, which improves public access to assessment results and helps stakeholders better understand the 303(d) and 305(b) programs.

AMD remains one of Pennsylvania's most pervasive and persistent sources of impairment. As outlined in the report, AMD remains the second largest known impairment, preventing nearly 6,000 stream miles from attaining their designated use. The 2026 Report lists 5,663 miles of AMD impaired streams. Many of these AMD impaired streams have known sources and proven remedies, yet they remain on the non-attainment list year after year without a clear pathway toward restoration.

The 2026 Integrated Report demonstrates that AMD remediation currently provides the clearest, fastest pathway to water quality attainment. With unprecedented IIJA AML resources available, known pollutant sources, and proven engineering solutions, AMD projects consistently translate into biological recovery. The Blacklick watershed is a prime example of a stream's biological recovery after an AMD active treatment system came online.

By contrast, sediment impairments are driven by diffuse agricultural sources and have shown limited status change despite rigorous investment. A balanced strategy that increases attention to AMD solutions and investments will deliver measurable, watershed-scale results quickly. It is imperative that Pa DEP add AMD impacted watersheds to its priority watersheds. Given the level of assessment, planning, and active public engagement -- many AMD impacted watersheds would classify for the 5r classification. Yet, NONE of the 2024 Restoration Priority Watersheds are impaired by AMD.

Here are our recommendations to rapidly improve significant stream miles from impairment by addressing AMD:

1. Prioritize AMD Restoration

DEP must prioritize TMDL development and project implementation for AMD-impacted watersheds where restoration feasibility is high and where complementary funding is available. Many AMD-impaired streams have well-understood pollutant sources and proven treatment solutions, making them excellent candidates for accelerated attainment.
Despite improvements in assessment and data availability, AMD-impacted waters persist on the Integrated Report's impaired waters lists year after year. The Integrated Report should more explicitly operationalize TMDL development and implementation as a restoration roadmap for AMD projects.

The "Restoration Priorities" section of the report and the mapping tools can and should be used to identify and elevate watersheds where AMD TMDLs are needed and where restoration feasibility is high.

We encourage DEP to:

- Elevate AMD-impacted watersheds for expedited TMDL development and implementation. Given the level of assessment, planning, and active public engagement, many AMD impacted watersheds would classify for the 5r classification. Yet, NONE of the 2024 Restoration Priority Watersheds are impaired by AMD.
- Use the Integrated Report to identify clusters of AMD impairments that can be restored strategically by watershed rather than project-by-project.
- Use the Integrated Report to show AMD waters based on restoration feasibility, ecological benefit, and community impact. This strategy helps nonprofits, conservation organizations, county governments and state agencies to collaborate and move projects forward more quickly.
- Include an infographic in the "Rising to the Challenge" section featuring AMD impacted streams and where restoration efforts are occurring.
- Ensure TMDLs move beyond analysis and into a coordinated and well-communicated strategy that is funded. IIJA funds can be used for assessment, planning, development and construction. Bureaus within PA DEP need to collaborate and set comprehensive strategy together -- and in partnership with the nonprofits, local governments, and conservation districts who lead AMD restoration at the community scale.
- Update AMD progress in the "Measuring Progress" section, including updated list of all projects funded and load reductions. Currently, only Growing Greener and EPA 319 funds are listed, but not any PA DEP BAMR AMD AML grants.

When expedited AMD TMDLs are paired with funding and partners, they become powerful tools for stream recovery, rather than static regulatory documents and data tables.

2. <u>Leverage IIJA and AML Funding</u>

The Infrastructure Investment and Jobs Act (IIJA) has dramatically expanded funding for Abandoned Mine Land (AML) reclamation and AMD abatement, creating a once-in-a-generation opportunity to pair land reclamation with water quality restoration. Federal AML funding has already begun to flow into Pennsylvania, with significant allocations aimed at reclaiming legacy coalfield pollution and stimulating

economic activity in impacted regions.

To fully realize these benefits, we urge DEP to:

- Intentionally coordinate within DEP and across agencies (DCNR, PFBC) for AML project planning with water quality goals articulated in the Integrated Report. Projects that address both land and water impacts simultaneously offer amplified benefits for stream health and local economies.
- Incorporate considerations of recreational access and economic outcomes into project selection and evaluation prioritization, particularly where improved water quality can support fisheries, boating, trail development, and tourism.
- Track water quality outcomes from AML investments and incorporate these into Integrated Report progress metrics so that return on investment can be demonstrated across multiple state and federal program goals.
- Provide adequate water quality monitoring funding to NGOs and local governments for monitoring water quality improvements and track water quality outcomes from AML investments.
- Defend the IIJA funds. Recent Congressional bills have stripped PA DEP of 6.7% of their annual IIJA allocation for AML remediation. Data and mapping on where projects are planned and being implemented, along with their significant water quality improvements would help defend the funds from being raided in the future and tell the story as to WHY these funds are essential. The PA AML campaign advocated for many years to bring these much-needed funds to Pennsylvania. Without the State stepping up to defend these funds, we're concerned Congress will continue to raid funds promised for Pennsylvania.
- Identify and map AMD-impaired watersheds where AML construction projects are being built, planned or are needed -- showing where attainment will be possible over the next 14 years of remaining IIJA funding.

By intentionally aligning IIJA AML funds with AMD TMDL goals, Pennsylvania can move toward measurable stream recovery and delisting quickly. We have 14 years remaining of IIJA AML funds. DEP must double down on strategy to best utilize resources while they are available. Watersheds once thought 'too complicated to fix' or 'too polluted to fix' now have a chance at attaining their designated use. It's truly a watershed moment for the coalfield communities in Pennsylvania. DEP MUST prioritize investments in AMD remediation.

3. <u>Set a Clear AMD Restoration Strategy</u>

The coalition recommends the following strategies to strengthen AMD restoration outcomes through the Integrated Report process and in partnership with DEP BAMR:

- Implement watershed-scale restoration and mapping integrating passive and active treatment systems that are in planning, design, and construction.
- Strengthen coordination with watershed associations, nonprofits, municipal governments, and conservation districts to ensure long-term operation and maintenance of infrastructure, but also to assist with monitoring and evaluation needs as AMD projects come online.
- Incorporate AMD implementation projects into Practice Keeper.

- Better link impairment sources to restoration actions in the Integrated Report viewer, including anticipated TMDLs and areas of focus for future AMD projects and restoration plans.
- Highlight case studies where AMD cleanup has supported recreation and economic recovery in coalfield communities, also showing how quickly a stream can recover and meet attainment when treatment systems come online.
- Expand and expedite use of watershed-scale implementation plans tied to the Integrated Report's impairment data in AMD impaired waters. Prioritize watersheds where passive and active treatment systems can restore biological integrity quickly.
- Prioritize AMD abatement in watersheds where it is feasible to prevent clean water from entering mine pools and where floodplain reestablishment (and other sediment reduction strategies) would help accomplish Bay Agreement goals.
- Invest in project development capacity at the nonprofit and local government level so engineering and design keep pace with available construction funding.
- Encourage partnerships between DEP, nonprofits, watershed associations, conservation districts, and local governments to accelerate implementation.

Thank you for the opportunity to submit comments. The PA AML Campaign views the 2026 Integrated Report as not only an assessment document, but also a strategic restoration tool. With targeted AMD TMDL prioritization, coordinated use of IIJA AML funds, and good communication between agency bureaus -- Pennsylvania can make significant, measurable strides toward water quality attainment. From a performance standpoint, AMD restoration produces clearer, faster, and more defensible Clean Water Act success per dollar invested. With unprecedented resources, proven solutions, and ready partners, now is the time for Pennsylvania to double down on AMD restoration.

Response:
The Restoration Priority Watersheds document only covers what restoration plans DEP plans on developing between 2024 and 2026. To date, DEP's largest coverages of TMDLs include AMD-related pollutants, as AMD remediation has long been a high priority. DEP's latest TMDL Prioritization Strategy continues that tradition by focusing on metals impairments that have been refined to specific metals (e.g., iron, aluminum, and manganese) during more recent assessments. As new assessments identify more specific metals that need TMDL coverage, DEP will begin adding those watersheds to the list of two-year priorities for public participation in future Integrated Reports.

DEP agrees that the IIJA funds are a valuable resource that create more opportunities to restore AMD-impacted surface waters in Pennsylvania. DEP will continue to work to secure and efficiently deploy as many resources for these efforts as possible. More information on DEP IIJA funding usage related to AML programs can be found on DEP's website. As part of the Integrated Report, DEP has also created a program descriptions document, which shows how IIJA funding is used by DEP.

PHILADELPHIA WATER DEPARTMENT

Comment:
The Philadelphia Water Department (PWD) appreciates the opportunity to comment on the Pennsylvania Department of Environmental Protection (PADEP) *Draft 2026 Integrated Water Quality Monitoring and Assessment Report* and an accompanying *Delaware Estuary Water Contact Sports Use Assessment Report* prepared jointly by PADEP and the Delaware River Basin Commission (DRBC). PWD has the following comments:

Delaware Estuary Water Contact Sports Use Assessment
PWD recognizes the effort by PADEP and DRBC staff to monitor bacteria in the urban Delaware Estuary (DRBC zones 2, 3, and 4) from June 25, 2024 - July 22, 2024. Monitoring results representing this four-week snapshot in time were used to determine recreational use impairment updates for the Delaware River in the draft 2026 Integrated Report. PWD notes the recreational use assessment methodology deviated substantially from previous assessments conducted by the DRBC under Clean Water Act Section 305(b), most recently in 2024.

PWD is concerned that changes to the assessment period duration (5 years in DRBC's assessments to 4 weeks in PADEP's assessment) and distribution of sampling locations (center-channel to near-shore focus) can substantially bias assessment results. The 4-week monitoring period represents a very short snapshot in time and is not representative of typical hydrologic and water quality conditions over a longer period. Sample locations in the summer of 2024 focused primarily on near-shore sites with many located near CSO outfalls (73% within 500 feet of shore and 22% within 1,000 feet of CSO outfalls). PWD encourages PADEP to prioritize more evenly spatially distributed sampling locations to yield a more representative assessment of water quality conditions in the assessed segments of the Delaware Estuary.

Notably, DRBC has collected bacteria samples from several center-channel monitoring locations in the urban estuary approximately monthly as part of the long-running "Boat Run" monitoring program. One such sampling event occurred on July 15, 2024, but these sample results were not included in the 2024 recreational use assessment. In addition to the Boat Run sampling program, PADEP (2020) DRBC (2019-2022) and PWD (2019) have collected extensive bacteria data sets from shore- and transect-based monitoring in the urban estuary. While these data sets may not be the most recent available and/or may not have been collected strictly within a 30-day window, PWD nevertheless encourages PADEP to incorporate all data collected over a longer period to improve its understanding of the many variables affecting bacteria concentrations in the urban Delaware Estuary.

Given the high variability of bacteria levels in urban waterbodies, assessments can be better informed by larger data sets. It is important to acknowledge that bacteria monitoring results typically have much higher standard deviations compared to most other water quality constituents and are strongly influenced by hydrologic conditions, proximity to pollutant loadings, waterbody characteristics, analytical methods, and a host of other factors. It is not uncommon for quality control duplicate samples to yield results that differ by an order of magnitude. As such, larger data sets are needed to evaluate statistical confidence in results.

Response:
DEP has used DRBC's bacteria data collected for the development of the 305(b) report to make and confirm existing Pennsylvania assessments in the Delaware Estuary since at least 2012. References to these evaluations are found in previous Integrated Report data solicitation reports. During 2024, DEP and DRBC needed to complete a much more rigorous collection effort both spatially and temporally to properly assess water quality criteria intended to protect Pennsylvania's Water Contact Sports water use. The criteria have a specific duration component of 30-days, measured during the swimming season. DRBC's criteria do not specify duration, and DRBC's 5-year assessment period with no repeat samples within a 30-day period does not allow for a reliable calculation of a 30-day geometric mean. Since DRBC's current criteria lack a duration component, Pennsylvania's 30-day duration component was applied to all criteria (i.e., *E. coli*, Enterococcus, and Fecal Coliform). The collection of multiple samples over a 30-day period and calculating a geometric mean is specifically designed to address the known variability in bacteria samples.

DEP and DRBC did not target CSO outfalls and sampling conditions occurred outside of storm events, so CSOs should not have presented significant bias in the results. The results of this collaborative 2024 effort produced a much higher resolution dataset and better understanding of bacteria concentrations and variability to make assessments than any previous effort. DEP encourages PWD to submit their data through the Existing and Readily Available Data website so that DEP can evaluate the quality and representativeness of those data.

DRBC's July 15th, 2024 "Boat Run" data were not included in the assessment dataset because these collections did not follow DEP protocols, which is required to meet Tier 3 data submissions. Specifically, the Boat Run data were collected using a stainless-steel bucket that presented the risk of cross contamination between sites, whereas the DEP protocol collects samples directly in pre-fixed and pre-sterilized sample bottles. DEP did evaluate the Boat Run data and determined that the single sampling event on July 15th, 2024, did not significantly influence any geometric means or assessment results.

Comment:
PADEP guidance for bacteria and water chemistry statistical evaluations circa 2009 entitled "Chemistry Statistical Assessments" focused on collecting a minimum number of samples to support assessments based on statistical hypothesis testing (PADEP April 2009). PWD recognizes the logistical challenges of collecting representative bacteria data sets with adequate statistical power and the fact that PADEP has an obligation to assess many miles of stream segments, leading to the use of relatively small data sets for making assessment decisions. However, given the increased scrutiny and stakeholder involvement in water-based recreation activities in the Delaware estuary, additional analyses based on statistically valid sample sizes should be considered even if the data do not fit within a 30-day assessment window. A statistical hypothesis testing approach is also more in-line with PADEP methods used in other situations such as for determining remediation site soil contamination vs. background conditions.

Response:
Under 40 C.F.R. §130.7(b)(5), federal regulations require states to assemble and evaluate all existing

and readily available water quality-related data and information when developing their CWA Section 303(d) lists of impaired waters, and EPA guidance recommends no minimum sample sizes. DEP and DRBC collected enough data to adequately assess the criteria during the intense 2024 effort. DEP's guidance for bacteria and water chemistry statistical evaluations circa 2009 was superseded by a new assessment method approach that was originally published in 2013 and refined again in 2021. PWD should reference that document, located here.

Comment:
Additional Comments

1. PWD is concerned that major decision-making regarding sampling, assessment, and designated use decisions for the urban Delaware Estuary has been occurring in a "co-regulator working group" rather than the DRBC's full Water Quality Advisory Committee. PWD is a WQAC member and major stakeholder in Delaware water quality management issues. However, PWD was not invited to participate in the planning of the assessment activities that were carried out in summer 2024 by DRBC with funding from PADEP and NJDEP. We also understand that additional sampling was conducted in 2025, including in areas around zones 2 and 3. PWD encourages PADEP to work with DRBC and other basin stakeholders in a more transparent environment such as the WQAC.

Response:
DEP is ultimately responsible for the development of the 303(d) list for Pennsylvania and EPA is responsible for the review and approval of that list; no other entity shares that responsibility. However, DEP does welcome data and encourages collaboration, which is why DEP and DRBC have presented their sampling plans and the Delaware Estuary assessment report during Water Quality Advisory Committee meetings held in 2024 and 2025.

Comment:

2. PWD is concerned that, as acknowledged by PADEP, there appear to be instances of false positive results for the "swine" molecular marker when high densities of "human" marker are present. It may be premature or inappropriate to determine the cause of "agriculture" in such instances. PWD recommends that PADEP should not assign the cause of agriculture without further evidence that agricultural sources are contributing to elevated levels of fecal indicator bacteria.

Response:
As stated in the Delaware Estuary assessment report, DEP used multiple lines of evidence to arrive at source decisions where impairment existed. For example, the qPCR data were used in conjunction with land cover data to arrive at the conclusion there is likely a mixture of both agriculture and urban sources of bacterial contamination. Source decisions are subject to change as new data are collected/provided.

Comment:
Conclusion

PWD would welcome a meeting with PADEP Water Quality Division staff to discuss its monitoring and assessment methodologies and to identify opportunities for PWD to support PADEP's evaluation of waterways within and adjacent to the City of Philadelphia. For example, PWD is planning additional water quality monitoring that could support future assessments. Thank you for the opportunity to comment on the Draft 2026 Integrated Report.

Response:
DEP encourages this collaboration and has recently established a clearer process for those seeking to submit Tier 3 data. More information on that process can be found on DEP's Existing and Readily Available Data webpage.

PROTECT PT (PENN-TRAFFORD)

Comment:
Background
Protect PT (Penn-Trafford) is a nonprofit based in Harrison City, Pennsylvania. We ensure residents' safety, security, and quality of life by engaging in education and advocacy to protect the economic, environmental, and legal rights of the people in Westmoreland and Allegheny counties. Today, I am writing on behalf of our members.

In order to support the rights of our members, we regularly monitor and observe streams in our service area. We utilize various tools to measure basic water parameters, following consistent procedures. We submit these comments as community members who maintain familiarity with the conditions of local streams. Thank you for the opportunity to comment on this report.

Introduction
The comments below are based on repeated observations and measurements conducted in surface waters of SW PA. This data is based on regular visits to a set of sites in publicly accessible areas. Our comments are organized according to stream segments. We are not currently submitting our data to DEP. We are happy to share any information that gives our comments below context, including instrument specifications and sampling protocols.

- pH and conductivity measurements have been collected using a YSI Sonde EXO 3 model
- PFAS levels were collected and analyzed with the Cyclopure brand PFAS field kit
- IC and ICP-MS lab methods were used to analyze water chemistry at the Stolz lab at Duquesne University

Response:
DEP appreciates Protect PT's participation in the 2026 Integrated Report and acknowledges that these comments are not a submission of data; however, DEP will follow up if needed. DEP welcomes data submissions, as detailed on DEP's Existing and Readily Available Data webpage.

Comment:

Stream segments and comments
Pucketa Creek and tributary
Segments: 123972352, 123972348, and tributary segment 123972356

Pucketa Creek is currently identified as supporting aquatic life. We have repeatedly collected samples from segments 123972352, 123972348 in sterilized bottles and submitted them to the Stolz laboratory at Duquesne University for IC and ICP_MS analysis. On multiple occasions our results suggest that the aluminum levels of the streams may exceed the US EPA 2018 National Recommended Aquatic Life Freshwater Acute and Freshwater Chronic Criteria for aluminum (see the table below). We are aware that a true evaluation of this would require concurrent measurements of pH, total hardness, and DOC, as these influence bioavailability. We urge DEP to perform the appropriate tests at these sites to determine if the current assessment that these stream segments are not impaired is correct.

Segment	**Date**	**Aluminum (ppb)**	**pH**	**PFAS**
123972352	7/26/2023	277	N/A	N/A
123972352	3/27/2024	154	8.8	94 total ppt, PFOS 51.9
123972352	5/15/2024	58	8.8	0 total
123972348	3/27/2024	205	8.8	0 total
123972348	5/15/2024	76	9.0	N/A
123972348	7/26/2024	162	8.1	2.7 total

We have also regularly measured PFAS levels, which we are aware is not currently part of the criteria evaluated in the CWA report. However, these may be helpful as an indicator of possible causes of impairment.

- In the 10 samples collected from segment 123972352: 9/10 contained PFAS; levels ranged from 1.3 - 94.0 ppt
- In the 9 samples collected from segment 123972348: 8/9 contained PFAS; levels ranged from 1.1 - 14.4 ppt

During monitoring visits to the above segments, we regularly observe an unnamed tributary to Pucketa Creek (segment 123972356). It is currently listed as impaired by “Nutrients.” It is not clear if this designation accounts for heavy siltation of this stream. On multiple occasions we have observed a heavy layer of fine light colored sediment coating this streambed and streambanks.

Below are pictures from 8/21/2025 that illustrate this. We ask DEP to consider this observation when determining future necessary sampling or monitoring that must be done to evaluate the cause of

impairment.

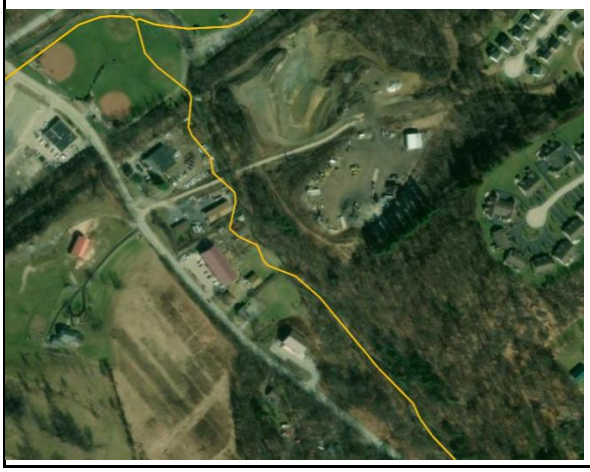
	
Photo looking downstream of confluence of unnamed tributary (left) and Pucketa Creek (right) showing coloration	Heavy coating of fine, lightcolored sediment in unnamed tributary to Pucketa Creek

Response:
DEP appreciates this information and agrees that water quality conditions have possibly changed Pucketa Creek since the 2002 assessment. DEP has not yet adopted EPA's 2018 Final Aquatic Life Criteria for Aluminum in Freshwater and the current criterion magnitude for aluminum in 25 Pa. Code Chapter 93.8(c) is 750 µg/L (ppb). DEP will take this information into consideration as it prioritizes the next round of assessments in 2026 and beyond.

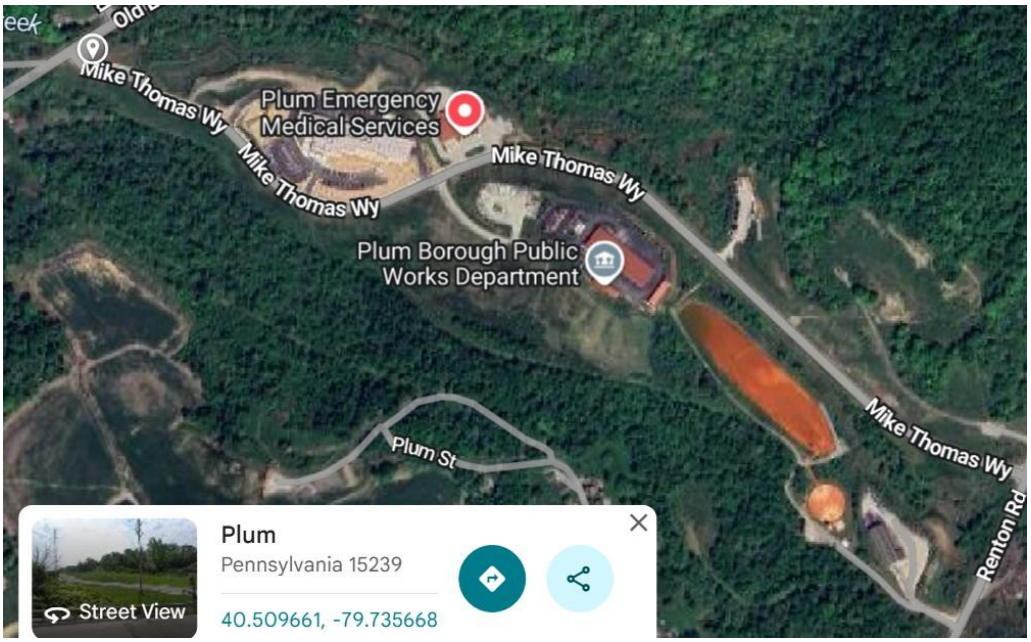
DEP is working diligently to collect more PFAS data and explore potential sources. Additional information can be found on DEP's webpage for Contaminants of Emerging Concern. The information presented by Protect PT, along with more PFAS data, will be used to prioritize PFAS assessments in the future.

Comment:
Little Plum Creek
Segments: tributary segment 123972627, 123972328, tributary segment 123973067

These segments are all listed as impaired, but sources and causes have changed. In the 2026 report, segments 123972627, 123972328 both are listed as being impacted by "URBAN RUNOFF/STORM SEWERS." However, as can be seen in the satellite images below, the area around these segments is minimally developed or hardened. Thus, we question this source designation.

Area surrounding segment 123972627	Area surrounding segment 123972328
	

Regarding segment 123972328 of Little Plum Creek, the new cause is listed as “Habitat Alterations” and “Siltation.” We collected multiple samples from this segment. When analyzed by the Stolz laboratory, results from a sample collected on 10/25/2022 showed high Sulfate levels (502 ppm). A later sample collected on 7/26/2023 showed high Chloride (2035 ppm) and Sulfate (3709 ppm) levels. This may indicate other sources of impairment. In the image below, our sample site is to the upper left (marked by a grey, circular marker). It is possible that materials stored in the facilities upstream are impacting this segment, and this source deserves evaluation.



Regarding segment 123973067 of the unnamed tributary to Little Plum Creek, the previous source of “ACID MINE DRAINAGE” has been removed. A sample collected on 7/21/2022 and analyzed via IC

and ICP_MS methods showed elevated Aluminum (60 ppm), Manganese (4 ppm), Iron (20 ppm) and Sulfate (772 ppm) levels. This is consistent with AMD sources and we suggest that this source may still be active and should not be removed until DEP does further testing of this segment.

Response:

Little Plum Creek is in the Penn Hills and Oakmont area in the suburbs of Pittsburgh. Most of the area is sewered and land cover analysis shows this watershed is 39% developed. Consequently, DEP believes Urban Runoff/Storm Sewers is an appropriate source of impairment. DEP does not dispute that there may be high metals results in some localized areas in the watershed, but AMD was not a significant contributor of impairment on a larger scale based on water chemistry collected by DEP across the watershed.

Comment:

Speers Run
Segments: tributary segment 99409794

We monitor segments of Speers Run out of concern for a trackrecord of mismanagement at the nearby Westmoreland Sanitary Landfill (WSL). This landfill has received several violations for mismanagement of leachate that resulted in pollution of waters of the commonwealth. This is especially concerning because this landfill accepts unconventional oil and gas waste, which impacts the chemical composition and toxicity of leachate.

The unnamed Tributary to Speers Run (segment 99409794) is currently listed as impaired due to pH levels as a result of AMD. This segment is located directly across from the landfill and is fed largely by a culvert that drains runoff from WSL. This culvert has received leachate pollution during episodes that have resulted in violations. Our regular visits to this site since 2023 agree with DEPs finding of AMD impact through: low pH values (4.8-6.2); high conductivity measurements (1311-2165 µs/cm); and elevated levels of Sulfate, Aluminum, Manganese and Iron.

Site ID	Date	Total PFAS (ppt)
WSL#1	10/10/2023	185.1
WSL#1	2/16/2024	23.6
WSL#1	4/23/2024	19.8
WSL#1	6/21/2024	26.6
WSL#1	8/14/2024	8.1
WSL#1	10/17/2024	0
WSL#1	12/13/2024	5.8
WSL#1	3/6/2025	43.7
WSL#1	5/15/2025	36.7

WSL#1	7/24/2025	25.3
WSL#1a	9/29/2025	9.6

We also collect samples for PFAS analysis at this segment. PFAS, as a manmade contaminant, is not indicative of AMD. As shown in the table to the left, analysis of our samples have often shown results that are higher than background levels typical in Pennsylvania streams. Because this segment is known to have been repeatedly impacted by landfill leachate, and because PFAS is a common chemical component of landfill leachate, assigning AMD as the sole source of impairment may not be fully representative of the sources that are impacting this stream. We encourage DEP to conduct further testing of this segment to determine if other sources are contributing to its impairment.

On behalf of Protect PT and our members, thank you for your consideration.

Response:
DEP appreciates this information and will take it into consideration as PFAS data collection and assessment priorities are discussed for 2026 and beyond.

THREE RIVERS WATERKEEPER

Comment:
Three Rivers Waterkeeper (3RWK) appreciates the opportunity to submit the following comments on the 2026 Pennsylvania Integrated Water Quality Report (Integrated Report). We recognize the Integrated Report as a critical accountability mechanism under CWA Sections 303(d) and 305(b), informing both federal oversight and state-level restoration priorities. The scale of this report, encompassing more than 85,000 miles of streams and rivers and millions of acres of lakes and wetlands, underscores the importance of transparency and precautionary assessments in impairment listings and restoration decisions that directly affect water quality, ecosystem health, and public safety. In addition to concerns related to impairment categorization sediment pollution, and Environmental Justice, we have concern that the Integrated Report does not adequately assess emerging contaminants such as per- and polyfluoroalkyl substances (PFAS), despite growing evidence of their persistence, bioaccumulation, and potential to interfere with designated uses.

Three Rivers Waterkeeper was founded in 2009 and serves as both a scientific and legal advocate for the Allegheny, Monongahela, and Ohio Rivers and their watersheds in Southwestern PA. These waterways are critical to the health, vitality, and economic prosperity of our region and communities. We are both a scientific and legal advocate for the community, working to ensure that our three rivers are protected and that our waters are safe to drink, fish, swim, and enjoy. We monitor and patrol our waterways, and take samples of basic parameters using our own sampling device, E. coli samples, PFAS samples and specific parameters at external laboratories. We also highlight the variety of species that live in our aquatic and riparian ecosystems. We are one of the over 300 organizations that make up the global Waterkeeper Alliance and work together to connect local communities to global environmental and advocacy resources.

Areas of Support and Positive Development

Three Rivers Waterkeeper commends DEP for several improvements and strengths reflected in the 2026 Integrated Report, such as:

- Expanded assessment coverage, including the addition of hundreds of thousands of assessment records and newly assessed stream miles and lake acres. Continued investment in public-facing tools, including the Integrated Report Viewer, StoryMaps, and linked datasets that increase transparency and usability for communities and practitioners.
- Inclusion of Environmental Justice screening tools, such as PennEnviroScreen, and explicit acknowledgment of disproportionate pollution burdens in overburdened communities.
- Recognition of climate change and extreme heat as cross-cutting stressors affecting water quality conditions statewide.

Collectively, these elements represent meaningful progress toward a more accessible, transparent, and analytical reporting process that better equips regulators, stakeholders, and communities to understand water quality conditions and restoration needs across the Commonwealth.

And

Conclusion

Three Rivers Waterkeeper supports the continued evolution of Pennsylvania's Integrated Water Quality Report and recognizes the substantial effort required to produce it. At the same time, we urge DEP to strengthen the report's role as an enforceable roadmap toward restoration by clarifying timelines and accountability for Category 5r waters, incorporating sediment impairment trend analysis into restoration planning, reducing long-standing data gaps through targeted monitoring, explicitly assessing emerging contaminants such as PFAS using available data and water quality criteria, operationalizing Environmental Justice considerations, and ensuring consistency with protective water quality standards. We appreciate the opportunity to submit comments and look forward to continued collaboration with DEP to ensure that Pennsylvania's waters fully support their designated uses and protect public health for current and future generations.

Response:

DEP appreciates Three Rivers Waterkeeper's work in protecting and restoring water quality in southwestern Pennsylvania as well as these comments on the Integrated Report. DEP continues to work internally and with partners to strengthen the feedback loops between water quality restoration initiatives and water quality monitoring and assessments.

Comment:

Ongoing Concerns with Impairment Categories and Restoration Pathways

One ongoing concern relates to the increasing reliance on Category 5r (Advance Restoration) as an alternative pathway for addressing impaired waters. Three Rivers Waterkeeper supports proactive and collaborative restoration approaches and recognizes the potential value of advancing implementation where conditions allow. However, we remain concerned that, in practice, Category 5r may be applied

without sufficiently clear guardrails to ensure transparency, accountability, enforceability, and the achievement of measurable water quality outcomes. Greater clarity around expectations, timelines, and performance benchmarks would help ensure that Advance Restoration functions as a complement to, rather than a substitute for, comprehensive and effective impairment resolution.

The Integrated Report allows impaired waters to remain outside the formal TMDL development process for extended periods, despite ongoing exceedances of water quality standards. While DEP states that TMDLs remain required if standards are not met within a “reasonable timeframe,” the report does not define that timeframe, nor does it clearly identify enforceable benchmarks for success. EPA’s National Water Quality Inventory framework reinforces that impairment listing and restoration tracking under the Clean Water Act are intended to provide clear accountability for progress toward water quality standards.

We urge DEP to define clear timelines and performance metrics for Category 5r waters, to publicly report outcomes of Advance Restoration efforts, including instances where restoration efforts do not achieve intended results, and to ensure that Category 5r does not function as a de facto delay mechanism for TMDL development. Establishing these expectations would strengthen accountability and help ensure that Advance Restoration efforts lead to timely and demonstrable improvements in water quality.

Response:
DEP has placed a focus on Advance Restoration Plans (ARPs) because ARPs can be a valuable alternative to TMDLs for addressing nonpoint sources of pollution. While TMDLs provide detailed analyses and roadmaps for reducing pollution, TMDLs typically do not directly address how those reductions get implemented for nonpoint sources. ARPs take a more comprehensive approach by intentionally considering on-the-ground collaborative implementation capacity, interest, and initiative with local landowners and local groups. By putting extra effort into attempting an ARP approach first, rather than simply writing the TMDL, there is an opportunity to reduce nonpoint source impacts and offer a better chance of making water quality improvements.

It is critical to note that, like TMDLs, ARPs prescribe pollution reduction goals but go much further by also including the elements of a comprehensive restoration plan. This includes plans to monitor and evaluate progress. In some cases, DEP may remain involved with an ARP during its implementation and take an active role in collecting monitoring data and developing progress reports. However, in other cases external groups administer ARPs without regular DEP involvement. Therefore, DEP plans to evaluate ARP status every two years concurrent with the preparation of Integrated Reports. Where necessary, DEP’s TMDL section will reach out to relevant parties (including external implementation partners and/or the Watershed Support Section in the Nonpoint Source Management Division of DEP’s Bureau of Watershed Restoration and Nonpoint Source Managment) for updates. Where it is determined that ARPs are no longer active, the watershed will be moved into a Category 5, “needs TMDL" status. Where it is determined that the ARP remains active, a few sentences will be included in the Integrated Report to justify this conclusion. Monitoring data will also be requested while making such inquiries. Based on this information, decisions can be made about the need for follow-up

assessment work to be conducted or overseen by DEP. If DEP begins to see that the ARP is not effective in restoration, then DEP has already completed much of the work needed to prepare a TMDL for that watershed.

For more information, DEP invites the Three Rivers Waterkeeper to review the following DEP developed ARPs: Trout Run in Erie Co, Hammer Creek in Lebanon Co, Baken Creek in Perry Co, Fishing Creek in Lancaster Co, and Town Run in Mifflin Co. The first triennial report developed for the Hammer Creek ARP, also available as a public document, is a good example of how progress may be tracked and evaluated on a 3-year basis.

Comment:

Sediment and Siltation Impairments

Sediment and siltation remain among the most pervasive causes of impairment across Pennsylvania watersheds, particularly in Southwestern Pennsylvania. While the Integrated Report acknowledges sediment as a leading pollutant, it does not adequately assess whether existing erosion and sediment control practices are reversing impairment trends at a watershed scale. Many streams in our region are listed as impaired due to siltation or sediment-related causes, while others suffer from sediment as a compounding stressor even when not identified as the primary cause. Without explicit trend analysis or adaptive management requirements tied to documented outcomes, reliance on existing practices risks perpetuating impairment rather than resolving it. Three Rivers Waterkeeper reiterates that erosion and sediment control policy and restoration strategies must be informed by documented impairment trends and demonstrated results, not assumptions of effectiveness, which is an issue we have raised in prior DEP rulemakings and policy reviews.

Response:

DEP recognizes the need for data-driven progress monitoring for sediment and for many other pollutants of concern. That is why DEP created a brand-new water quality trend tool for the 2026 Integrated Report. This new tool can specifically look at sediment-related parameters such as Total Suspended Solids at many sites across Pennsylvania and determine if loads are increasing or decreasing over time. Of the data that are currently available in that tool, 53% of watersheds are showing a decreasing trend, 30% are showing no significant trend, and 17% are showing an increasing trend. Over half of the sites measured are showing decreasing total suspended solids loads, suggesting that water quality control and restoration implementation programs are having a positive impact in Pennsylvania.

Comment:

Data Gaps and Category 3 Waters

We remain concerned by the persistent number of waters classified as Category 3 due to insufficient data. While the Integrated Report appropriately highlights data solicitation efforts and data acceptance protocols, ongoing limitations in monitoring capacity continue to delay both protective actions and timely restoration planning. Prolonged data gaps can leave waters vulnerable to continued degradation while postponing regulatory responses that would otherwise be triggered by impairment determinations.

In regions such as Southwestern Pennsylvania, where legacy industrial pollution, abandoned mine

drainage, and ongoing development pressures intersect, these data gaps disproportionately affect communities already experiencing cumulative environmental burdens. To address these concerns, DEP should prioritize targeted monitoring in high-risk and Environmental Justice communities and establish clear timelines for reassessing waters that have remained in Category 3 for extended periods. Strengthening these components could improve the responsiveness and effectiveness of the Integrated Reporting process.

Response:
DEP is working diligently to eliminate the extremely few waters on Category 3 of the Integrated Report. Category 3 indicates that there is insufficient available data and/or information to determine whether any designated uses are being supported. As of the 2026 Integrated Report, only 0.3% of streams miles and 0.8% of lake acres are in Category 3. Complete and accurate surface water assessments are critical to understanding water quality challenges statewide, including in Environmental Justice communities. DEP has prioritized assessments in Environmental Justice areas and will continue to do so in the future.

Comment:
PFAS, Narrative Water Quality Criteria, and Designated Use Protection
While DEP acknowledges emerging contaminants in Pennsylvania's waters, we are concerned that the Integrated report does not substantively assess available data related to per- and polyfluoroalkyl substances (PFAS) in surface waters, sediments, or fish tissue, nor does it evaluate whether documented PFAS contamination interferes with designated uses under Pennsylvania's water quality standards. This omission undermines the Integrated Report's core function under Clean Water Act Sections 305(b) and 303(d), which require a comprehensive assessment of whether waters support their designated uses and identification of waters where technology-based controls are insufficient to meet water quality standards.

Pennsylvania's water quality standards include narrative criteria intended to protect designated uses where numeric criteria are absent or insufficient. These narrative standards prohibit substances in concentrations that are inimical to human health, aquatic life, or that interfere directly or indirectly with designated uses. PFAS compounds are widely recognized for their persistence, toxicity, and bioaccumulative properties, and documented detections in surface waters raise serious concerns regarding downstream drinking water sources, fish consumption, and aquatic ecosystem health. As other states have demonstrated through PFOS-based impairment listings and fish consumption advisories, narrative criteria serve as a necessary backstop to ensure protection of designated uses where emerging contaminants pose demonstrable risks.

The continued classification of waters with known or suspected PFAS contamination as unassessed or data-limited risks delaying necessary protective actions. Where PFAS monitoring data indicate persistent contamination or the potential for bioaccumulation, the Integrated Report should trigger targeted follow-up monitoring, including fish tissue and sediment sampling, rather than deferring assessment indefinitely. Prolonged data gaps in this context may obscure designated-use impairments and postpone regulatory responses that would otherwise be required under the Clean Water Act.

Accordingly, Three Rivers Waterkeeper urges DEP to explicitly evaluate available PFAS data in the Integrated Report; assess PFAS impacts using narrative water quality criteria and designated-use analyses; initiate targeted monitoring of fish tissue and sediments where surface water PFAS detections occur; and clearly articulate how PFAS contamination will be addressed within impairment listing decisions, restoration prioritization, and TMDL development frameworks.

Response:
For some water quality parameters, numeric criteria are specified in Pennsylvania Water Quality Standards, found in 25 Pa. Code Chapter 93. For example, Pennsylvania's Aquatic Life Use criterion for iron is 1.5 mg/L. However, there are currently no Chapter 93 statewide numeric surface water criteria for substances like PFAS. When Chapter 93 numeric criteria do not exist, DEP can rely on the general water quality criteria in 25 Pa. Code § 93.6 (also known as narrative criteria) to assess surface waters specific to these substances.

DEP has evaluated existing and readily available PFAS data for the development of the 2026 Integrated Report. This data will be used to inform additional monitoring and assessment efforts. Pennsylvania is one of only a few states that have leveraged its narrative criteria to create a PFAS assessment methodology for fish consumption. DEP staff are leaders in the scientific development and understanding regarding the monitoring and source tracking of PFAS in surface waters and have produced several scientific articles in collaboration with the United States Geological Survey. More information on this work is provided on DEP's Contaminants of Emerging Concern webpage. These collaboration efforts have allowed DEP to prioritize additional PFAS monitoring in late-2025 and 2026, which are expected to lead to additional assessments in 2028.

DEP monitoring and assessment efforts are also being informed by regulatory programs including DEP's Safe Drinking Water, Land Recycling and Hazardous Site Cleanup, and NPDES programs. The data generated by these programs are more clearly identifying sources of PFAS contamination..

Comment:
Environmental Justice, Water quality Standards, Public Health, and Cumulative Impacts
Three Rivers Waterkeeper appreciates DEP's increased attention to Environmental Justice within the Integrated Report and recognizes the importance of acknowledging disproportionate pollution burdens faced by overburdened communities. However, Environmental Justice considerations remain largely descriptive rather than operational within the current framework. Both the federal Clean Water Act and Pennsylvania's Clean Streams Law establish a clear obligation to protect and restore water quality in a manner that safeguards public health, ecological integrity, and designated uses for all communities. Impairment listings, restoration prioritization, and delisting decisions should therefore more explicitly account for cumulative impacts, particularly where communities face overlapping burdens from water pollution, legacy contamination, and climate-driven stressors.

PFAS contamination also raises distinct Environmental Justice concerns, as exposure pathways through drinking water and fish consumption disproportionately affect communities with limited access

to alternative water sources or recreational substitutes. While the Integrated Report references Environmental Justice screening tools, these tools should be operationalized to prioritize PFAS monitoring and assessment in overburdened communities and watersheds already facing cumulative pollution burdens.

Consistent with the precautionary intent of Pennsylvania's water quality standards framework, assessment methodologies and restoration decisions should err on the side of protection and should not be relaxed absent clear scientific evidence that doing so will not increase harm, especially for pollutants with known acute or chronic effects. We encourage DEP to more directly integrate Environmental Justice screening tools into core decision-making processes. This may include the identification of restoration priority watersheds, the selection of waters for Category 5r designation, and the allocation of restoration funding and technical assistance. Such actions are to ensure that implementation of the Integrated Report advances both water quality objectives and the statutory intent of the Clean Water Act and the Clean Streams Law.

Response:
DEP agrees that Environmental Justice is an important factor in determining monitoring and restoration priorities. That is why DEP included statistics on sources and causes of impairment specific to Environmental Justice areas. This information will provide critical assessment-related information to the communities and to those working to restore water quality. Additionally, DEP included Environmental Justice considerations in its latest version of the TMDL Prioritization Strategy for USEPA's 2022-2032 Vision by directly integrating the Environmental Justice Mapping and Screening Tool, PennEnviroScreen, for TMDL/ARP development, which will contribute to progress towards resolving these issues. DEP also continues to prioritize projects in Environmental Justice areas through its watershed restoration programs, including funding programs like Growing Greener.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

During the comment period, the United States Environmental Protection Agency's Region III Office (EPA) made several comments on assessments and data solicitation, summarized below.

Comments on Assessments:
EPA requested clarifying information for new assessment on Mill Creek (Bucks County), Evitts Creek (Bedford County), Hungry Run (Mifflin County), Wissahickon Creek (Montgomery County), and Plum Creek (Allegheny County). Some of EPA's comments resulted in changes to the following assessments: Rocky Run (Washington County), Templeton Fork (Washington County), Enlow Fork (Washington and Greene Counties), Meadow Run (Westmoreland County), and an Unnamed tributary to Jacobs Creek (Westmoreland County). These assessments were updated in the final Integrated Report and edits were made in the cause changes report, as needed.

Comments on Data Solicitation:
After reviewing the data solicitation report, EPA requested additional technical, science-based rationale for not making assessment decisions using data submitted by Mountain Watershed Association, Neshaminy Creek Watershed Association, Mountaintop Area Joint Sanitary Authority, Trout Unlimited

Lock Haven, Alliance for Aquatic Resource Monitoring, and Monroe County Conservation District. DEP's responses for each request are discussed below.

Response:

Mountain Watershed Association

These data were categorized as Tier 1 in the data solicitation report because the QAPP was not provided, quality control was not described in the data submission, project study plan was not provided, data collection did not adhere to DEP sampling design and planning, data collection did not adhere to DEP water quality monitoring protocols for surface waters, and the collector was not audited in DEP water quality monitoring protocols for surface waters.

Per EPA guidance, "All Environmental Protection Agency (EPA) organizations performing environmental information operations (EIO) and non-EPA organizations performing EIO on behalf of EPA are required to participate in the EPA Quality Program. EPA's Quality Program supports EPA's mission to protect human health and the environment and helps ensure EIO products and services are of known and documented quality for their intended use(s)…QAPPs are required for all work performed by or on behalf of EPA involving the collection, production, evaluation, or use of environmental information and the design, construction, operation, or application of environmental technology." This is important because assessments are the collection, production, evaluation, and use of environmental information. As a result, for any submitted data to be used for assessments, they must also have an approved QAPP. DEP understands that this requirement can be daunting for data submitters, which is why DEP has created a process so that all Tier 3 data can automatically fall under DEP's QAPP, which is reviewed and approved by EPA.

Per DEP data collection protocols, sampling designs must conform to sampling sites being positioned to account for changes in water quality due to influences such as major tributaries, point and nonpoint source impacts, land cover changes, soil characteristics, and geology. Samples are collected at the limits of these changes to effectively "bracket" potential sources of water quality differences. When sampling designs are not submitted with the intended goals above identified, DEP cannot confirm the spatial extent of what those data represent. Per DEP's assessment methodology, samples need to represent at least 0.5 miles of stream length to be suitable for assessments. This is critical because DEP does not make assessment decisions for localized impacts or on small microhabitats. Well-developed sampling plans describe the representativeness of each sample and are adjusted accordingly to water quality influences within the study area. It is important to note that this issue can also impact DEP's ability to use Tier 3 data for assessments.

Water chemistry data can be highly variable depending on the specific location of sampling (i.e., shoreline, mid-channel, near the top of the water or near the bottom, etc.). DEP water chemistry and bacteriological protocols standardize spatial variability by requiring collection at either mid-channel-mid-depth, multiple transect sampling, or by isokinetic composite sampling. When DEP protocols are not followed, it is unclear specifically where the sample was collected or if any attempts at spatial standardization were attempted. This may lead to unrepresentative results and potentially erroneous conclusions.

DEP's audit process is a critical step in ensuring quality data are being used for Pennsylvania's assessments. Auditing confirms that collectors have read, interpreted, and implemented the DEP collection protocols and the approved QAPP correctly. Without conducting audits, DEP would not be able to validate data quality, which may lead to unrepresentative results and potentially erroneous conclusions. The audit process also allows DEP to confirm that sampling design and planning components are being addressed by the data submitters. For example, DEP staff routinely test understanding of water quality representativeness regarding site selection during audits. This ensures that samples are representative of the waterbody as a whole and not just a local scale impact or microhabitat, which would not be appropriate for making assessments.

Neshaminy Creek Watershed Association

These data were categorized as Tier 1 in the data solicitation report because the QAPP was not provided, quality control was not described in the data submission, project study plan was not provided, data collection did not adhere to DEP sampling design and planning, data collection did not adhere to DEP water quality monitoring protocols for surface waters, and the collector was not audited in DEP water quality monitoring protocols for surface waters.

Per EPA guidance, "All Environmental Protection Agency (EPA) organizations performing environmental information operations (EIO) and non-EPA organizations performing EIO on behalf of EPA are required to participate in the EPA Quality Program. EPA's Quality Program supports EPA's mission to protect human health and the environment and helps ensure EIO products and services are of known and documented quality for their intended use(s)…QAPPs are required for all work performed by or on behalf of EPA involving the collection, production, evaluation, or use of environmental information and the design, construction, operation, or application of environmental technology." This is important because assessments are the collection, production, evaluation, and use of environmental information. As a result, for any submitted data to be used for assessments, they must also have an approved QAPP. DEP understands that this requirement can be daunting for data submitters, which is why DEP has created a process so that all Tier 3 data can automatically fall under DEP's QAPP, which is reviewed and approved by EPA.

Per DEP data collection protocols, sampling designs must conform to sampling sites being positioned to account for changes in water quality due to influences such as major tributaries, point and nonpoint source impacts, land cover changes, soil characteristics, and geology. Samples are collected at the limits of these changes to effectively "bracket" potential sources of water quality differences. When sampling designs are not submitted with the intended goals above identified, DEP cannot confirm the spatial extent of what those data represent. Per DEP's assessment methodology, samples need to represent at least 0.5 miles of stream length to be suitable for assessments. This is critical because DEP does not make assessment decisions for localized impacts or on small microhabitats. Well-developed sampling plans describe the representativeness of each sample and are adjusted accordingly to water quality influences within the study area. It is important to note that this issue can also impact DEP's ability to use Tier 3 data for assessments.

Biological data (e.g., macroinvertebrate and fish communities) are specifically standardized with DEP data collection protocols because many of these protocols have associated assessment methods. Following DEP collection protocols for biological data is critical because assessment method metrics and indices were developed from data collected using these protocols. Consequently, not following DEP biological data collection protocols may lead to unrepresentative results and potentially erroneous conclusions.

DEP's audit process is a critical step in ensuring quality data are being used for Pennsylvania's assessments. Auditing confirms that collectors have read, interpreted, and implemented the DEP collection protocols and the approved QAPP correctly. Without conducting audits, DEP would not be able to validate data quality, which may lead to unrepresentative results and potentially erroneous conclusions. The audit process also allows DEP to confirm that sampling design and planning components are being addressed by the data submitters. For example, DEP staff routinely test understanding of water quality representativeness regarding site selection during audits. This ensures that samples are representative of the waterbody as a whole and not just a local scale impact or microhabitat, which would not be appropriate for making assessments.

Mountaintop Area Joint Sanitary Authority

These data were categorized as Tier 1 in the data solicitation report because the QAPP was not provided, quality control was not described in the data submission, project study plan was not provided, data collection did not adhere to DEP sampling design and planning, data collection did not adhere to DEP water quality monitoring protocols for surface waters, and the collector was not audited in DEP water quality monitoring protocols for surface waters.

Per EPA guidance, "All Environmental Protection Agency (EPA) organizations performing environmental information operations (EIO) and non-EPA organizations performing EIO on behalf of EPA are required to participate in the EPA Quality Program. EPA's Quality Program supports EPA's mission to protect human health and the environment and helps ensure EIO products and services are of known and documented quality for their intended use(s)…QAPPs are required for all work performed by or on behalf of EPA involving the collection, production, evaluation, or use of environmental information and the design, construction, operation, or application of environmental technology." This is important because assessments are the collection, production, evaluation, and use of environmental information. As a result, for any submitted data to be used for assessments, they must also have an approved QAPP. DEP understands that this requirement can be daunting for data submitters, which is why DEP has created a process so that all Tier 3 data can automatically fall under DEP's QAPP, which is reviewed and approved by EPA.

Per DEP data collection protocols, sampling designs must conform to sampling sites being positioned to account for changes in water quality due to influences such as major tributaries, point and nonpoint source impacts, land cover changes, soil characteristics, and geology. Samples are collected at the limits of these changes to effectively "bracket" potential sources of water quality differences. When sampling designs are not submitted with the intended goals above identified, DEP cannot confirm the spatial extent of what those data represent. Per DEP's assessment methodology, samples need to

represent at least 0.5 miles of stream length to be suitable for assessments. This is critical because DEP does not make assessment decisions for localized impacts or on small microhabitats. Well-developed sampling plans describe the representativeness of each sample and are adjusted accordingly to water quality influences within the study area. It is important to note that this issue can also impact DEP's ability to use Tier 3 data for assessments.

Biological data (e.g., macroinvertebrate and fish communities) are specifically standardized with DEP data collection protocols because many of these protocols have associated assessment methods. Following DEP collection protocols for biological data is critical because assessment method metrics and indices were developed from data collected using these protocols. Consequently, not following DEP biological data collection protocols may lead to unrepresentative results and potentially erroneous conclusions.

DEP's audit process is a critical step in ensuring quality data are being used for Pennsylvania's assessments. Auditing confirms that collectors have read, interpreted, and implemented the DEP collection protocols and the approved QAPP correctly. Without conducting audits, DEP would not be able to validate data quality, which may lead to unrepresentative results and potentially erroneous conclusions. The audit process also allows DEP to confirm that sampling design and planning components are being addressed by the data submitters. For example, DEP staff routinely test understanding of water quality representativeness regarding site selection during audits. This ensures that samples are representative of the waterbody as a whole and not just a local scale impact or microhabitat, which would not be appropriate for making assessments.

Trout Unlimited Lock Haven

These data were categorized as Tier 2 in the data solicitation report because the QAPP was not provided, quality control was not described in the data submission, and the collectors were not audited in DEP protocols prior to data collection.

Per EPA guidance, "All Environmental Protection Agency (EPA) organizations performing environmental information operations (EIO) and non-EPA organizations performing EIO on behalf of EPA are required to participate in the EPA Quality Program. EPA's Quality Program supports EPA's mission to protect human health and the environment and helps ensure EIO products and services are of known and documented quality for their intended use(s)…QAPPs are required for all work performed by or on behalf of EPA involving the collection, production, evaluation, or use of environmental information and the design, construction, operation, or application of environmental technology." This is important because assessments are the collection, production, evaluation, and use of environmental information. As a result, for any submitted data to be used for assessments, they must also have an approved QAPP. DEP understands that this requirement can be daunting for data submitters, which is why DEP has created a process so that all Tier 3 data can automatically fall under DEP's QAPP, which is reviewed and approved by EPA.

DEP's audit process is a critical step in ensuring quality data are being used for Pennsylvania's assessments. Auditing confirms that collectors have read, interpreted, and implemented the DEP

collection protocols and the approved QAPP correctly. Without conducting audits, DEP would not be able to validate data quality, which may lead to unrepresentative results and potentially erroneous conclusions. The audit process also allows DEP to confirm that sampling design and planning components are being addressed by the data submitters. For example, DEP staff routinely test understanding of water quality representativeness regarding site selection during audits. This ensures that samples are representative of the waterbody as a whole and not just a local scale impact or microhabitat, which would not be appropriate for making assessments.

Alliance for Aquatic Resource Monitoring

These data were categorized as Tier 1 in the data solicitation report because the QAPP was inconsistent with the DEP QAPP and was therefore not approved, quality control was not described in the data submission, data collection did not adhere to DEP water quality monitoring protocols for surface waters, and the collectors were not audited in DEP water quality monitoring protocols for surface waters.

Per EPA guidance, “All Environmental Protection Agency (EPA) organizations performing environmental information operations (EIO) and non-EPA organizations performing EIO on behalf of EPA are required to participate in the EPA Quality Program. EPA’s Quality Program supports EPA’s mission to protect human health and the environment and helps ensure EIO products and services are of known and documented quality for their intended use(s)…QAPPs are required for all work performed by or on behalf of EPA involving the collection, production, evaluation, or use of environmental information and the design, construction, operation, or application of environmental technology.” This is important because assessments are the collection, production, evaluation, and use of environmental information. As a result, for any submitted data to be used for assessments, they must also have an approved QAPP. DEP understands that this requirement can be daunting for data submitters, which is why DEP has created a process so that all Tier 3 data can automatically fall under DEP’s QAPP, which is reviewed and approved by EPA.

Water chemistry and bacteriological data can be highly variable depending on the specific location of sampling (i.e., shoreline, mid-channel, near the top of the water or near the bottom, etc.). DEP water chemistry and bacteriological protocols standardize spatial variability by requiring collection at either mid-channel-mid-depth, multiple transect sampling, or by isokinetic composite sampling. When DEP protocols are not followed, it is unclear specifically where the sample was collected or if any attempts at spatial standardization were attempted. This may lead to unrepresentative results and potentially erroneous conclusions.

DEP’s audit process is a critical step in ensuring quality data are being used for Pennsylvania’s assessments. Auditing confirms that collectors have read, interpreted, and implemented the DEP collection protocols and the approved QAPP correctly. Without conducting audits, DEP would not be able to validate data quality, which may lead to unrepresentative results and potentially erroneous conclusions. The audit process also allows DEP to confirm that sampling design and planning components are being addressed by the data submitters. For example, DEP staff routinely test understanding of water quality representativeness regarding site selection during audits. This ensures

that samples are representative of the waterbody as a whole and not just a local scale impact or microhabitat, which would not be appropriate for making assessments.

Monroe County Conservation District and Planning Commission

Most data collected by the Monroe County Conservation District and Planning Commission were Tier 3 and used directly to make assessments in the Integrated Report. There was one sample collected on Princess Run that DEP did not use to make an assessment decision. The reason in the data solicitation report was that this sample did not conform to DEP sampling design to “bracket” potential sources of water quality differences so DEP could not determine what that sample represented spatially. Per DEP data collection protocols, sampling designs must conform to sampling sites being positioned to account for changes in water quality due to influences such as major tributaries, point and nonpoint source impacts, land cover changes, soil characteristics, and geology. Samples are collected at the limits of these changes to effectively “bracket” potential sources of water quality differences. Per DEP’s assessment methodology, samples must also represent at least 0.5 miles of stream length to be suitable for assessments. This is critical because DEP does not make assessment decisions for localized impacts or on small microhabitats.

LITERATURE CITED

USEPA. 2006. Guidance on systematic planning using the data quality objectives process. EPA QA/G-4. U.S. Environmental Protection Agency, Office of Environmental Information, Washington, D.C.

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