pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF WATER PROGRAMS

BUREAU OF CLEAN WATER

2026 DATA SOLICITATION REPORT

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INTRODUCTION

Section 303(d) of the federal Clean Water Act (CWA) requires Pennsylvania to identify all its water quality limited waterbody segments. According to 40 CFR section 131.3, a “water quality limited segment” is any segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of technology-based effluent limitations required by sections 301(b) and 306 of the CWA. These waterbodies appear on Category 5 in the Pennsylvania Department of Environmental Protection’s (DEP) Integrated Water Quality Monitoring and Assessment Report (Integrated Report). As part of this ongoing effort, DEP utilizes outside sources of data and information.

For the 2026 Integrated Report, the data solicitation process was posted on the DEP website with a link titled “Existing and Readily Available Data”. Information on the website includes data submission instructions and forms. The deadline to submit data for the 2026 Integrated Report was June 30, 2025; data submitted after the deadline will be considered for the 2028 Integrated Report.

For any given Integrated Report cycle, DEP reviews all existing and readily available information provided by the public that has been submitted through the data solicitation process. Submitted data are then categorized in one of three tiers under the data acceptance policy, which is described below. Data in Tier 3 are included in the DEP assessment database to prepare the Integrated Report. Data in Tiers 1 or 2 will need further evaluation to determine how they can be used. DEP has seen a steady rise in data solicitations from outside sources since 2022. Twenty-one separate outside sources submitted water quality data to DEP for consideration in the 2026 Integrated Report.

Tier 1: These are educational or environmental screening data that have known quality and study plan but do not follow DEP or EPA quality assurance plans (QAPP). These data will not be used for regulatory assessment purposes but can be used by DEP to highlight areas of interest for future monitoring efforts.

Tier 2: These are data with clearly defined QAPP but may not have followed approved data collection protocols. These data may not be used for regulatory assessment purposes but can be used for other purposes such as trend or performance analysis.

Tier 3: These are assessment-level data that have approved QAPP, followed appropriate study designs, and DEP water quality monitoring protocols for surface waters. Individuals seeking to provide DEP with Tier 3 data must also be audited by DEP staff in DEP water quality monitoring protocols for surface waters before submitting data.

DATA SUBMISSIONS

Interstate Basin Commission 305(b) and 604(b) Reports

DEP evaluated the data and assessments in the CWA Section 305(b) reports finalized by the Ohio River Valley Water Sanitation Commission and the Delaware River Basin Commission. Where applicable, the results of these reports were consistent with DEP’s current assessments, so the reports were not discussed in further detail herein.

DEP evaluated CWA Section 604(b) federal pass-through grant reports from the Susquehanna River Basin Commission for bacteriological, potable water supply (PWS), and lake data collections in 2023 and 2024. These data met Tier 3 requirements, so stream assessments were created for various tributaries to the West Branch Susquehanna River and lake assessments were created for Curwensville Lake, Lofty Reservoir, and Colyer Lake. Additionally, DEP evaluated bacteriological data from CWA Section 604(b) federal pass-through grant work by the Delaware River Basin Commission data collection in 2024. These data also met Tier 3 requirements, so new Recreation Use (RU) assessments were created for the Delaware River Estuary.

DEP Act 54 Reports

Bituminous underground mining activities in Pennsylvania are regulated by DEP under the Bituminous Mine Subsidence and Land Conservation Act (BMSLCA) of 1966 which calls for protection of structures, including buildings, homes, and cemeteries. BMSLCA was amended in 1980 and again in 1994. The 1994 amendment, known as Act 54, included provisions for protection and restoration of water supplies affected by mining and additional remedies for structural damage. It also required regular assessment of the underground mining regulatory program. The specific regulations pertaining to this program are codified in 25 Pa. Code Chapters 86 and 89.

Under the Act 54 amendments to BMSLCA, DEP is required to compile data and report findings regarding the effects of underground mining on land, structures, and water resources. This review is done with assistance from professionals with appropriate expertise as stipulated by Act 54. A report is prepared and presented to the Governor, General Assembly, and the Citizens Advisory Council (CAC) every five years.

DEP's Bureau of Clean Water reviewed the current Act 54 report (2019) and compared the data to assessments currently in the Integrated Report. Overall, assessments within the Integrated Report were consistent with the findings in the Act 54 report. Impairments associated with subsurface mining were concentrated in Greene and Washington counties. Watersheds with the most stream-miles impaired by subsurface mining were Dunkard Creek, Dyers Fork, Enlow Fork, and Whiteley Creek (Table 1). DEP's Bureau of Clean Water staff are continuing to work with DEP's Bureau of District Mining staff to update assessments based on the information presented in the current Act 54 report.

Table 1. Miles of subsurface mining impairment for each watershed within Greene and Washington Counties.

Watershed	Miles of Subsurface Mining Impairment
Dunkard Creek	25.5
Dutch Run	2.1
Dyers Fork	19.2
Enlow Fork	16.6
Frosty Run	4.9
Robinson Fork	7.3
Rocky Run	1.4
Smith Creek	2.9
Templeton Fork	2.2
Whiteley Creek	19.4

Lancaster County Conservation District (LCCD)

LCCD submission included the 2023 *Lancaster County Rapid Stream Delisting Catchment Monitoring Plan* with station location maps, benthic macroinvertebrate, physical habitat, in-situ field water chemistry (temperature, pH, conductivity, dissolved oxygen, and turbidity), and continuous instream monitoring (CIM) (temperature, pH, conductivity, dissolved oxygen, turbidity, total dissolved solids, and salinity) data. The benthic macroinvertebrate, physical habitat, and in-situ field water chemistry data was collected in spring of 2023 at 7 monitoring stations located in Eshelman Run, Pequea Creek, Cocalico Creek, and Conestoga River watersheds. The CIM data was collected at 15 monitoring stations located in Lancaster County to characterize stream load reductions related to agriculture runoff. Each station sampled was part of a LCCD Water Quality Monitoring Action Team for focus of stream restoration Best Management Practices (BMP) to track water quality progress. The data were collected as part of the Chesapeake Conservancy's Rapid Delisting Strategy, which aims to improve water quality with improvement projects in small watersheds that are impaired by agriculture with the overall goal to support the removal of streams from the 303(d) list of impaired waters in the next 10-12 years. The streams included are priority watersheds for this strategy. Data collection was implemented according to DEP's *Water Quality Monitoring Protocols for Surface Waters*.

The data were categorized as Tier 1 and are therefore not sufficient to make surface water assessments. The data do not meet Tier 3 because: QAPP was inconsistent with DEP QAPP; quality control was not described in the data submission; CIM data did not adhere to DEP *Continuous Physicochemical Data Collection Protocol*, sampling design and planning did not adhere to DEP sampling design and planning; and the collectors were not audited in DEP water quality monitoring protocols for surface water prior to data collection. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. The data indicated stream conditions and water quality was consistent with the current ALU assessments. The report and data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Pike County Conservation District (PCCD)

PCCD submission included the 2023 *Pike County Water Quality Report*, Quality Assurance Plan, station location maps, and benthic macroinvertebrate, fish, physical habitat, and in-situ field water chemistry (temperature, pH, conductivity, dissolved oxygen, and alkalinity) data collected in spring of 2023 and 2024. The PCCD surface water quality monitoring program measures water quality trends with focus on point and non-point sources of pollution throughout the county. The report detailed the water quality of streams surveyed in the county. The 2023 data was collected at 10 monitoring stations located in Big and Little Bushkill Creek, Lackawaxen River, Hornbecks Creek, Sawkill Creek, Adams Creek, Toms Creek, Walker Lake Creek, and Dwarfs Creek. The 2024 data was collected at 9 monitoring stations located in Dingmans Creek, Raymondskill Creek, Bushkill Creek, Masthope Creek,

Saw Creek, Rosetown Creek, Shohola Creek, Pond Eddy Creek, and Westfalls Creek. Data collection was implemented according to DEP's *Water Quality Monitoring Protocols for Surface Waters*.

The data were categorized as Tier 1 and are therefore not sufficient to make surface water assessments. The data do not meet Tier 3 because: QAPP was inconsistent with DEP QAPP; quality control was not described in the data submission; data collection did not adhere to DEP water quality sampling design and planning; and the collectors were audited in DEP water quality monitoring protocols for surface water only prior to 2024 data collection. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. The data indicated stream conditions and water quality was consistent with the current ALU assessments. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Indiana County Conservation District (ICCD)

ICCD submission included the 2022 *Yellow Creek Watershed Assessment Report*, station location maps, and fish, in-situ field (flow rates, pH, conductivity, temperature, and alkalinity) and discrete physicochemical (pH, conductivity, alkalinity, net acidity, and total metals) water chemistry data collected from November 2019 to May 2021. The report was prepared by Hedin Environmental for Blacklick Creek Watershed Association (BCWA) and ICCD. The report detailed the proposed aluminum, manganese, iron, sulfate, alkalinity, and acidity load reductions; and the acid mine drainage (AMD) treatments and reclamation efforts for improving water quality in the basin. In-situ field and discrete physicochemical water chemistry data was collected quarterly at various stations in November 2019, February 2020, September 2020, and May 2021. Flow and discrete physicochemical water chemistry data was collected monthly at various stations from November 2020 to May 2021. The data was collected at 12 monitoring stations located in the Yellow Creek basin. Data was also collected at numerous AMD discharges and passive treatment system discharges throughout the basin. Discrete physicochemical water chemistry samples were analyzed by DEP Bureau of Laboratories (BOL).

The data were categorized as Tier 1 and are therefore not sufficient to make surface water assessments. The data do not meet Tier 3 because: QAPP was not provided; 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. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. The AMD treatments are improving water quality in Yellow Creek basin. The data indicated stream conditions and water quality was consistent with the current ALU assessments. Further water quality data collection is warranted to refine surface water assessments in the Yellow Creek headwaters upstream of Yellow Creek State Park. The report and data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for*

Surface Waters and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Clearfield County Conservation District (CCCD)

CCCD submission included the 2024 *Morgan Run Watershed Improvement Plan* (WIP) and Trout Unlimited (TU) *Biological Assessment of Morgan Run*, station location maps, fish, benthic macroinvertebrate, in-situ field (flow rates, pH, conductivity, and temperature) and discrete physicochemical (pH, conductivity, alkalinity, net acidity, iron, manganese, aluminum, sulfates, and total suspended solids) water chemistry data collected in 2023. The WIP report detailed the proposed aluminum, manganese, iron, sulfate, alkalinity, and acidity load reductions; and the acid mine drainage (AMD) treatments and reclamation efforts for improving water quality in the basin. The TU report detailed the biological data and AMD sources. In-situ field and discrete physicochemical water chemistry data was collected monthly for 6 months. The data was collected at 4 monitoring stations located in Morgan Run and at 6 treated and untreated AMD discharges throughout the basin. Discrete physicochemical water chemistry samples were analyzed by BOL accredited G&C Coal Analysis Lab. Morgan Run *Quality Assurance Project Plan, DCN 230100* was referenced in the WIP but not included in the submission.

The data were categorized as Tier 1 and are therefore not sufficient to make surface water assessments. The data do not meet Tier 3 because: QAPP was not provided; quality assurance 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. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. The AMD treatments are improving water quality in Morgan Run. The data indicated stream conditions and water quality was consistent with the current assessments. The report and data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Monroe County Conservation District and Planning Commission (MC)

MC submission included the 2023 and 2024 *Monroe County Water Quality Study*, *Quality Assurance Plan*, station location maps, and benthic macroinvertebrate, physical habitat, in-situ field (temperature, pH, conductivity, and dissolved oxygen), and discrete physicochemical (aluminum, calcium, chloride,

iron, magnesium, hardness, alkalinity, ammonia, dissolved nitrate-nitrite, phosphorus, dissolved Solids, and pH) water chemistry data collected in spring of 2023 and 2024. The report detailed the water quality of streams surveyed in the county. The data was collected at 72 monitoring stations located in Buckwa Creek, Princess Run, Pohopoco Creek, Broadhead Creek, Pocono Creek, McMichael Creek, Bushkill Creek, and Cherry Creek basin. Data collection was implemented according to DEP's *Water Quality Monitoring Protocols for Surface Waters*.

The data were categorized as Tier 3. Assessments were created for Tier 3 data that represented water quality greater than a half mile. DEP assessment 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. The Tier 3 data was entered in DEP internal databases; and where appropriate, the data was used in surface water assessments and to highlight areas of interest for future monitoring efforts. Resulting assessments were as follows:

<u>Buckwa Creek and Princess Run</u>
Water quality data collected at 5 monitoring stations indicated Princess Run basin from UNT 3830 to mouth; and Buckwa Creek from Princess Run to UNT 3819 was supporting. The new assessment was the same as the previous supporting assessment for these reaches.

<u>Pohopoco Creek and Tributaries</u>
Water quality data collected at 6 monitoring stations indicated Pohopoco Creek basin from source to Sugar Hollow Creek; Jonas Creek basin from source to ComID 26286201; Middle Creek basin from Dotters Creek to mouth; and Pohopoco Creek basin from and including UNT 4004 to UNT 3986 was supporting. The new assessments were the same as the previous supporting assessment for these reaches.

<u>Broadhead Creek and Tributaries</u>
Water quality data collected at 30 monitoring stations indicated Buck Hill Creek basin from and including UNT 5027 to Griscom Creek; Indian Creek basin from source to mouth; Sambo Creek mainstem from UNT 64629 to UNT 4926; and Marshall Creek basin from source, not including Pond Creek, to mouth was supporting. The new assessments were the same as the previous supporting assessment for these reaches. The Mill Creek, Swiftwater Creek, Butz Run, Cherry Creek, and Broadhead Creek data was within six years from the current assessment and was consistent with the current assessment created in 2024 for these reaches. Therefore, a new assessment was not created.

Water quality data collected at 1 monitoring station at Sambo Creek upstream of the mouth was collected using DEP *Wadeable Riffle-Run Stream Macroinvertebrate Data Collection Protocol*. DEP considers Sambo Creek mainstem from UNT 4926 to King Street as low gradient and from King Street to mouth as high gradient. DEP recommends using DEP *Wadeable Multihabitat Stream Macroinvertebrate Data Collection Protocol* at the upstream reaches and collectors be audited in such protocol. Water quality data collected at 1 monitoring station indicated Princess Run was impaired. These mainstem reaches of Princess Run and Sambo Creek did not conform to DEP sampling design to "bracket" potential sources of water quality differences. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality

for these reaches. The Sambo Creek and Princess Run data was not sufficient to make a new assessment. Therefore, a new assessment was not created.

Pocono Creek and Tributaries

Water quality data collected at 5 monitoring stations were too close to an impoundment to accurately characterize water quality greater than a half mile upstream. The data did not conform to DEP sampling design, which requires “bracketing” potential sources of water quality differences. Therefore, a new assessment was not created. DEP recommends collecting data greater than a half mile upstream and downstream of impoundments to characterize the water quality for these reaches.

Water quality data collected at 2 monitoring stations indicated Pocono Creek mainstem from Wolf Swamp Run to UNT 4827 was supporting. The new assessment was the same as the previous supporting assessment for these reaches. Water quality data collected in 2023 and 2024 at 1 monitoring station indicated Pocono Creek mainstem from Scott Run to UNT 4811 was impaired based on the 2023 data and supporting based on the 2024 data. The new supporting assessment was created using the 2024 Pocono Creek data, which was consistent with the current assessment.

McMichael Creek and Tributaries

Water quality data collected at 2 monitoring stations indicated McMichael Creek mainstem from UNT 4910 to UNT 4903 was supporting. The new assessment was the same as the previous supporting assessment for these reaches. Water quality data collected at 1 monitoring station (McMichael Creek mainstem at Hickory Valley Road) was insufficient to create an assessment. The data did not conform to DEP sampling design to “bracket” potential sources of water quality differences, so a new assessment was not created. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Water quality data collected at 2 monitoring stations indicated Appenzell Creek was supporting. The data was within six years from the current assessment and was consistent with the current assessment created in 2024 for these reaches. Therefore, a new assessment was not created.

Bushkill Creek

Water quality data collected at 2 monitoring stations indicated Bushkill Creek basin from Saw Creek to Sandhill Creek was supporting. The new assessment was the same as the previous supporting assessment for these reaches.

Chesapeake Conservancy (CC)

Chesapeake Conservancy submitted water quality data on behalf of the Lancaster County Conservation District (LCCD), Pennsylvania State University Southeast Agricultural Research and Extension (PSUAG) in Lancaster County, and Chesapeake Conservancy. The submission included benthic macroinvertebrate, physical habitat, and in-situ field water chemistry (temperature, pH, conductivity, dissolved oxygen, and turbidity) data collected in 2023–2024. The LCCD collected data at 16 monitoring stations located in Lancaster County. The PSUAG collected data at 5 monitoring stations located in the Chiques Creek basin. The CC collected data at 36 monitoring stations located in Snyder and Union County. The data were collected as part of the Chesapeake Conservancy’s Rapid Delisting Strategy, which aims to improve water quality with improvement projects in small watersheds that are impaired by agriculture with the overall goal to support the removal of streams from the 303(d) list of impaired waters within the next 10-12 years. The streams included are priority watersheds for

this strategy. Best Management Practices (BMP) characterized Indian Spring Run, Indian Run, and Dellinger Run water quality improvements in Lancaster County.

The PSUAG data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: QAPP was not provided; quality assurance was not described in the data submission; station location maps were not provided; project study plan was not provided; sampling design and planning was not provided; and the collectors were not audited in DEP *In-Situ Field Meter Protocol, Transect, and Vertical Profile Data Collection Protocol*.

The LCCD data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: QAPP was not consistent with DEP QAPP, quality assurance was not described in the data submission; sampling design and planning did not adhere to DEP sampling design and planning; DEP water quality monitoring protocols for surface waters were not followed; and the collectors were not audited in DEP water quality monitoring protocols for surface waters.

The PSUAG and LCCD data indicated stream conditions and water quality was consistent with the current ALU assessments. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

The CC data were categorized as Tier 3. Assessments were created for Tier 3 data that represented water quality greater than a half mile. DEP assessment 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. All CC data were entered in DEP internal databases; and where appropriate, the data was used in assessments and to highlight areas of interest for future monitoring efforts. Resulting assessments were as follows:

<u>West Branch Mahantango Creek and Tributaries</u>

Water quality data collected in 2024 at 2 monitoring stations indicated the West Branch Mahantango Creek from source to UNT 17484 was impaired. Water quality data collected at 2 monitoring stations indicated West Branch Mahantango Creek basin, including UNT 17484 from UNT 17485 to mouth, to UNT 17480 was impaired. The new assessment kept the existing sources and causes and added Agriculture – Habitat Alterations.

North Branch Mahantango Creek and Tributaries

Water quality data collected in 2025 at 1 monitoring station indicated the North Branch Mahantango Creek from source, not including UNT 17425, to UNT 17424 was impaired. The new assessment source and cause was the same as the previous assessment for these reaches. Water quality data collected at 1 monitoring station indicated North Branch Mahantango Creek mainstem from UNT 17422 to UNT 17420 showed water quality had improved since the 2022 assessment, but DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring station to characterize the water quality for these reaches. Water quality data collected at 1 monitoring station indicated North Branch Mahantango Creek mainstem from UNT 17420 downstream to UNT 17419 was impaired. The new assessment source and cause was the same as the previous assessments for these reaches.

Water quality data collected in 2024 at 2 monitoring stations indicated Potato Valley Run basin from source to mouth was impaired. The new assessment source and cause was the same as the previous assessment for these reaches.

Tributaries to Susquehecka Creek

Water quality data collected in 2024 at 2 monitoring stations indicated UNT 17729 basin and Dry Run from source to UNT 17725 was impaired. The new assessments kept the existing sources and causes and added Agriculture – Habitat Alterations.

Tributary to Buffalo Creek

Water quality data collected in 2024 at 1 monitoring station indicated UNT 19073 from source to Pleasant Grove Road was impaired. The data were within six years from the current assessment and were consistent with the current assessment created in 2022 for these reaches. Therefore, a new assessment was not created.

Winfield Creek

Water quality data collected in 2025 at 6 monitoring stations indicated Winfield Creek from source to mouth was impaired. The data was within six years from the current assessment and was consistent with the current assessment created in 2024 for these reaches. Therefore, a new assessment was not created.

Turtle Creek and Tributaries

Water quality data collected in 2025 at 1 monitoring station indicated UNT 18710 basin from source to mouth was impaired. Water quality data collected in 2025 at 3 monitoring stations indicated Turtle Creek basin from comID 66921223, not including UNT 18704, to and including UNT 18702 was impaired. The new assessments kept the existing sources and causes and added Agriculture – Habitat Alterations.

Stillhouse Hollow and Herod Run

Water quality data collected in 2025 at 3 monitoring station indicated Stillhouse Hollow basin from source, not including UNT 15440 and UNT 15439, to mouth; and Herod Run mainstem from UNT 15446 to mouth was impaired. The data was within six years from the current assessment and was consistent with the current assessment created in 2024 for these reaches. Therefore, a new assessment was not created.

Warriors Mark Run

Water quality data collected in 2025 at 3 monitoring station indicated Warriors Mark Run Right Branch basin from source to Warriors Mark Run was impaired. The new assessments kept the existing sources and causes and added Agriculture – Habitat Alterations.

Halfmoon Creek and Tributaries

Water quality data collected in 2025 at 2 monitoring stations indicated Halfmoon Creek basin from source, not including UNT 15743, to UNT 15741 was impaired. The data was within six years from the current assessment and was consistent with the current assessment created in 2024 for these reaches. Therefore, a new assessment was not created. Water quality data collected in 2025 at 4 monitoring stations indicated Halfmoon Creek basin, including UNT 15741, to and including UNT 15731 was impaired. The new assessments kept the existing sources and causes and added Agriculture – Habitat Alterations.

National Park Service Middle Atlantic Network (MIDN)

MIDN submission included the 2018 *Protocol Implementation Plan for Benthic Macroinvertebrate Monitoring in the Mid-Atlantic Network* with station location maps, benthic macroinvertebrate, physical habitat, and in-situ field water chemistry (temperature, pH, dissolved oxygen, and conductivity) data collected in 2021–2024. The data was collected at 7 stations located in Rock Creek, Marsh Creek, Willoughby Run, and Plum Creek in Adams County, Valley Creek in Chester County, and UNT 1601 and French Creek in Berks County. The data were collected as part of the Mid-Atlantic Network Natural Resource Inventory and Monitoring Program (I&M) to provide baseline water quality conditions, as well as the status and trends of ecosystems within national parks. The streams included are priority watersheds for this strategy. Data collection adhered to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP.

The in-situ field water chemistry data were categorized as Tier 2 because the collectors were not audited in *In-Situ Field Meter Protocol, Transect, and Vertical Profile Data Collection Protocol*. The benthic macroinvertebrate and habitat data were categorized as Tier 3. Select Tier 3 data represented water quality greater than a half mile and were used for assessments. DEP assessment 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. The data was entered in DEP internal databases; and where appropriate, the data was used in surface water assessments and to highlight areas of interest for future monitoring efforts. Resulting assessments were as follows:

UNT 1601 to French Creek

Water quality data indicated UNT 1601 basin from source to the mouth was impaired. The new assessment sources and causes were the same as the previous assessment for these reaches.

French Creek

Water quality data collected at French Creek downstream of Hopewell Lake was collected using DEP *Wadeable Riffle-Run Stream Macroinvertebrate Data Collection Protocol*. DEP considers these reaches to be low gradient. The data was not sufficient to make a new assessment. DEP recommends

using DEP *Wadeable Multihabitat Stream Macroinvertebrate Data Collection Protocol* and collectors be audited in such protocol. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring station to characterize the water quality for these reaches.

Rock Creek

Water quality data indicated Rock Creek from UNT 59145 to UNT 59142 was impaired. The new assessment sources and causes were the same as the previous assessment for these reaches.

Valley Creek

Water quality data indicated Valley Creek from UNT 00994 to UNT 00993 was impaired. The new assessment sources and causes were the same as the previous assessment for these reaches.

Marsh Creek

Water quality data collected at Marsh Creek 0.2 miles downstream of a low-head dam does not represent water quality greater than half mile. The data was not sufficient to make a new assessment. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Plum Run

Water quality data collected at Plum Run was collected using DEP *Wadeable Riffle-Run Stream Macroinvertebrate Data Collection Protocol*. DEP considers these reaches to be low gradient. The data was not sufficient to make a new assessment. DEP recommends using DEP *Wadeable Multihabitat Stream Macroinvertebrate Data Collection Protocol* and collectors be audited in such protocol. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring station to characterize the water quality for these reaches.

Willoughby Run

Water quality data collected at Willoughby Run was collected using DEP *Wadeable Riffle-Run Stream Macroinvertebrate Data Collection Protocol*. DEP considers these reaches to be low gradient. The data was not sufficient to make a new assessment. DEP recommends using DEP *Wadeable Multihabitat Stream Macroinvertebrate Data Collection Protocol* and collectors be audited in such protocol. DEP assessment 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. DEP recommends collecting data

greater than a half mile upstream and downstream of the monitoring station to characterize the water quality for these reaches.

Susquehanna River Basin Commission (SRBC)

SRBC submitted water quality data on behalf of SRBC and Pennsylvania State University Southeast Agricultural Research and Extension (PSUAG) in Lancaster County. The submission included benthic macroinvertebrate, physical habitat, and in-situ field water chemistry (temperature, pH, dissolved oxygen, and conductivity) data collected in 2022–2023 and SRBC QAPP. The SRBC data was collected at 41 monitoring stations and PSUAG data at 8 monitoring stations located in Lancaster County. Benthic macroinvertebrate and in-situ field water chemistry data collection adhered to DEP's *Water Quality Monitoring Protocols for Surface Waters*. Physical habitat data submission differed from DEP *Stream Habitat Data Collection Protocol*. Physical habitat data submission characterized 11 parameters while DEP protocol characterized 12 parameters. SRBC embeds "Grazing and Disruptive Pressure" into the "Vegetative Protection" and "Riparian Vegetative Zone Width" parameters while DEP collects "Grazing and Disruptive Pressure", "Vegetative Protection", and "Riparian Vegetative Zone Width" as 3 distinct parameters. DEP recommends adopting DEP *Stream Habitat Data Collection Protocol*.

The PSUAG data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The PSUAG data do not meet Tier 3 because: QAPP was not provided; and the collectors were not audited in DEP water quality monitoring protocols for surface waters. The physical habitat data were categorized as Tier 2 because physical habitat data collection was not consistent with DEP *Stream Habitat Data Collection Protocol*. The SRBC benthic macroinvertebrate and in-situ field water chemistry were categorized as Tier 3. Select Tier 3 data represented water quality greater than a half mile and were used for assessments. DEP assessment 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. The SRBC data was entered in DEP internal databases; and where appropriate, the data was used in surface water assessments and to highlight areas of interest for future monitoring efforts. Resulting assessments were as follows:

<u>Conestoga River</u>

Water quality data collected in 2022 at 12 monitoring stations indicated Conestoga River basin from source to Muddy Creek was impaired. The data was within six years from the current assessment and consistent with the current assessment created in 2024 for these reaches. Therefore, a new assessment was not created.

<u>Tributaries to Calico Creek</u>

Water quality data collected in 2022 at 5 monitoring stations indicated Indian Run, Middle Creek, Meadow Run basin from source to mouth was impaired. The data was within six years from the current assessment and consistent with the current assessment created in 2022 for these reaches. Therefore, a new assessment was not created.

<u>Tributary to Rife Run</u>

Water quality data collected in 2023 at 1 monitoring station indicated UNT 07993 basin from source to mouth was impaired. The new assessment sources and causes were the same as the previous assessment for these reaches.

Little Conestoga Creek

Water quality data collected in 2022 at 13 monitoring stations indicated Little Conestoga Creek basin from source to mouth, not including West Branch Conestoga Creek basin from UNT 7563 to mouth, was impaired. The data was within six years from the current assessment and consistent with the current assessment created in 2026 for these reaches. Therefore, a new assessment was not created.

West Branch Little Conestoga Creek

Water quality data collected in 2023 at 1 monitoring station indicated West Branch Little Conestoga Creek basin from source to UNT 07563 was impaired. The new assessments kept the existing sources and causes and added Agriculture – Habitat Alterations.

Indian Run

Water quality data collected in 2022 at 3 monitoring stations indicated Indian Run basin, from and including UNT 7545, to UNT 7543 was impaired. The data was within six years from the current assessment and consistent with the current assessment created in 2026 for these reaches. Therefore, a new assessment was not created.

Pequea Creek

Water quality data collected in 2023 at 1 monitoring station indicated Pequea Creek, from and including UNT 7545, to mouth was impaired. The new assessment sources and causes were the same as the previous assessment for these reaches.

Indian Springs Run

Water quality data collected in 2023 at 1 monitoring station indicated Indian Springs Run basin from UNT 7540, including UNT 7539, to mouth was impaired. The new assessment sources and causes were the same as the previous assessment for these reaches.

Tributaries to Susquehanna River

Water quality data collected in 2023 at 5 monitoring stations indicated Manns Run, Witmers Run, Stamans Run, and Strickler Run basin was impaired. The new assessment sources and causes were the same as the previous assessment for these reaches. The addition of Agriculture – Habitat Alterations was added to the new Strickler Run assessment.

Shawnee Run

Water quality data collected in 2022 at 1 monitoring station indicated Shawnee Run basin was impaired. The data was within six years from the current assessment and consistent with the current assessment created in 2022 for these reaches. Therefore, a new assessment was not created. Data collected by DEP in 2025 that was not processed and data collected by SRBC in 2022 will be used in combination to delineate a new future assessment.

Alliance for Aquatic Resource Monitoring (AALARM)

AALARM submission included the 2022 Chesapeake Monitoring Cooperative (CMC) *Non-Tidal Monitoring Quality Assurance Project Plan* (QAPP), the 2023 *Stream Team Monthly Monitoring Manual*, the 2024 *Antietam Watershed Association (AWA) Water Quality Monitoring Manual*, and the 2024 *Johnston Run Water Quality Monitoring Manual*, and the 2025 *LeTort Spring Water Quality Monitoring Manual* with station location maps, in-situ field (temperature, pH, conductivity, alkalinity, and turbidity)

and discrete physicochemical (dissolved nitrite-nitrate and ortho-phosphorus) water chemistry data collected from 2020–2024. AALARM focuses as support center for community organizations interested in watershed assessment, protection, and restoration. The AWA manual documented surface water quality monitoring procedures to measure water quality trends with focus on involving the community in watershed protection through conservation projects, land use planning, and educational programs. The AWA data was collected at 30 monitoring stations for seven water chemistry parameters (alkalinity, dissolved oxygen, nitrate, orthophosphate, pH, turbidity, and temperature). The Johnston Run and LeTort Spring manual documented surface water quality monitoring procedures to measure water quality health. The Johnston Run data was collected once a month, during the second weekend of the month, at 5 monitoring stations for six water chemistry parameters (temperature, conductivity, turbidity, total dissolved solids, and dissolved nitrite-nitrate and ortho-phosphorus). The LeTort Spring data was collected once a month, during the second weekend of the month, at seven monitoring stations for eight water chemistry parameters (temperature, pH, dissolved oxygen, conductivity, turbidity, total dissolved solids, and dissolved nitrite-nitrate and ortho-phosphorus).

The data were categorized as Tier 1 and are therefore not sufficient to make surface water assessments. The data do not meet Tier 3 because: QAPP was inconsistent with DEP QAPP; quality assurance 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. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. The manuals and data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Trout Unlimited Lock Haven (TU)

TU submission included the 2024 *Bull Run-Fishing Creek Watershed Improvement Plan* with station location maps, fish, benthic macroinvertebrate, in-situ field (flow rates, pH, conductivity, and temperature) and discrete physicochemical (pH, total nitrogen, nitrite, nitrate, total phosphorus, potassium, sulfate, total suspended solids, total dissolved solids, calcium, magnesium, chloride, sodium, and total alkalinity) water chemistry data collected in 2023. The report detailed the sediment load reductions using "Model My Watershed" (MMW) and Best Management Practices (BMP) for improving water quality in the Bull Run basin. The data was collected at 20 monitoring stations located in the basin. Currently existing BMPs show an estimated 11% sediment load reduction, which was the same as the proposed MMW sediment load reduction. Sampling design, planning, and data collection were implemented according to DEP's *Water Quality Monitoring Protocols for Surface Waters*. Discrete physicochemical water chemistry samples were analyzed by BOL accredited Pace Analytical Services, LLC.

The data were categorized as Tier 2 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: QAPP was not provided; quality assurance was not described in the data submission; and the collectors were not audited in DEP water quality monitoring protocols for surface waters. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. The report and data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Mountaintop Area Join Sanitary Authority (MAJSA)

MAJSA submission included a station location map and benthic macroinvertebrate data collected in March 2023. The submission detailed the reintroduction and relocation of pollution sensitive benthic macroinvertebrate taxa to Big Wapwallopen Creek. The data was collected at 8 monitoring stations located in Big Wapwallopen Creek.

The data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: QAPP was not provided; quality assurance was not described in the data submission; project study plan was not provided; project sampling, design and planning was not provided; 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. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. The data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Conemaugh Valley Conservancy (CVC)

CVC data submission included the 2023 and 2024 CVC and Blacklick Creek Watershed Association benthic macroinvertebrate Index of Biologic Integrity (IBI) data and station location map. Data included in-situ field water chemistry pH readings for Elk Creek from 1989–1993 and 2012–2016 and IBI scores retrieved from DEP benthic macroinvertebrate viewer for North Branch Blacklick Creek. The data submission detailed the acid mine drainage (AMD) reclamation and improving water quality in Blacklick

Creek basin. The data was collected at 7 monitoring stations located in the North Branch Blacklick Creek basin.

The data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: select data was greater than 5 years old; QAPP was not provided; quality assurance was not described in the data submission; project study plan was not provided; project sampling, design and planning was not provided; data collection did not adhere to DEP water quality monitoring protocols surface waters; and the collectors were not audited in DEP water quality monitoring protocols for surface waters. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. The data indicated stream conditions and water quality was consistent with the current ALU assessments. The data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. Further water quality data collection is warranted to refine surface water assessments in the Blacklick Creek basin. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

White Clay Creek Watershed Association (WCCWA)

WCCWA submission included the *White Clay Creek Watershed Association Water Quality Monitoring Plan* and QAPP, and publication submitted in *Water Research X* with station location maps, bacteriological data collected from 2016-2024, in-situ field (temperature, pH, conductivity, and dissolved oxygen), and discrete physicochemical (chloride, dissolved nitrate nitrite, dissolved ortho phosphorus) water chemistry data collected from 2019-2024. The monitoring plan documented surface water quality monitoring procedures to measure water quality trends in the White Clay Creek basin. Data was collected at 22 monitoring locations located in the basin. The data and the publication detailed bacteriological and nutrient pollution throughout the basin. Bacteriological samples were analyzed by Stroud Water Research Center laboratory that is non-accredited by BOL. Discrete physicochemical water chemistry samples were analyzed by BOL accredited Brandywine Science Center.

The data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: select data are greater than 5 years old, quality control was not described in the data submission; bacteriological samples were not analyzed by a BOL accredited lab; DEP water quality data collection protocols for surface waters were not identified or followed; and the collectors were not audited in DEP water quality monitoring data collection protocols for surface waters. The data was consistent with the current RU and ALU assessments. The report and data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Adams County Watershed Alliance (ACWA)

ACWA submission included the *Watershed Alliance of Adams County Pathogen Initiative*, station location maps, and bacteriological data collected in 2021–2024 throughout Adams County streams. The bacteriological data was collected at 5 monitoring stations in 2021, 21 stations in 2022, 3 stations in 2023, and 5 stations in 2024. The initiative detailed water quality monitoring procedures to measure bacteriological pollution in Adams County streams. The data indicated microbial source tracking (MST) for human, bovine, and poultry as potential sources of bacteria. Data collection was implemented according to DEP's *Bacteriological Data Collection Protocol*. Bacteriological samples were analyzed by BOL accredited Laboratory Analytical Services. Microbial source tracking (MST) samples were analyzed by Jonah Ventures, a laboratory in Colorado that is non-accredited by BOL.

The data were categorized as Tier 1 data and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: QAPP was not provided; quality control was not described in the data submission; date and time collected was not provided for all data; MST bacteriological samples were not analyzed by a BOL accredited laboratory; and the collectors were not audited in DEP water quality monitoring data collection protocols for surface waters. The report and data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Neshaminy Creek Watershed Association (NCWA)

NCWA data submission included the 2023 benthic macroinvertebrate data and station location maps. The data was collected at 5 monitoring stations located in the Neshaminy Creek basin.

The data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: QAPP was not provided; quality assurance was not described in the data submission; project study plan was not provided; sampling design and planning was not provided; DEP water quality monitoring data collection protocols for surface waters were not identified or followed; and the collectors were not audited in DEP water quality monitoring protocols for surface waters. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. The data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP recommends adhering

to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations in order to characterize the water quality for these reaches.

Constellation Energy

Constellation Energy submission included the Peach Bottom Clean Energy Center, formally referred to as Peach Bottom Atomic Power Station (PBAPS) Norman and Associates, Inc. and ERM, Inc. 2011 *Study Plan for Thermal Studies to Support a 316(a) Demonstration*, the 2014 *Final Report for Thermal Studies to Support a 316(a) Demonstration*, the 2016 *Study Plan for Post-EPU Thermal and Biological Monitoring*, the 2017 *Final Report for Post-EDU Thermal and Biological Monitoring*, the 2014 and 2016 DEP comment response cover letter for past NPDES permits and 316(a) thermal variance with fish, benthic macroinvertebrate, physical habitat, and in-situ field water chemistry (temperature and dissolved oxygen) data collected from the Susquehanna River Conowingo Pond. The data was collected at 22 monitoring stations in 2010–2013 and 14 monitoring stations in 2016. The submission also included approved water quality study plans in accordance with the NPDES permits and DEP review. The reports detailed the water quality before and after implementation of the Extend Power Uprate (EPU), three cooling towers, and 316(a) thermal variance; and protection and propagation of a balanced and indigenous fish and benthic macroinvertebrate community. Data collection was implemented according to DEP's 2008 *Multihabitat Stream Assessment Protocol* and 2013 *Habitat Assessment Protocol and Biological Field Methods*.

The data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: the data was greater than five years old, QAPP was not provided; quality assurance was not described in the data submission; and the collectors were not audited in DEP water quality monitoring protocols for surface waters. The data indicated fish communities were consistent with statewide responses to physical and thermal habitats. The reports and data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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.

Mountain Watershed Association (MWA)

MWA submission included the MWA comments for the 2024 Integrated Report submitted to DEP in December 2023 with study maps, and discrete physicochemical water chemistry (pH, conductance, iron, aluminum, potassium, sulfate, total suspended solids, total dissolved solids, calcium, magnesium, chloride, sodium, zinc, acidity, and total alkalinity) data collected in 2020 and 2022. Discrete physicochemical water chemistry samples were analyzed by BOL accredited Geochemical Testing laboratory.

The data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: QAPP was not provided; quality assurance was not described in the data submission; project study plan was not provided; project sampling, design, and planning was not provided; 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. Coinciding benthic macroinvertebrate, physical habitat, and discrete physicochemical water chemistry data are helpful to make surface water assessments. DEP recognizes that the results of data submitted by MWA differed from current ALU assessments in some locations. As a result, the MWA data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.

Whitney Jaeger

Whitney Jaeger's data submission included one bacteriological sample collected on 6/27/2024 at one monitoring location located in Birch Run, Chester County. The data indicated bacteriological indicators were present in surface water and microbial source tracking (MST) indicated the potential sources of bacteria were from human, bovine, and poultry. The bacteriological sample was analyzed by Jonah Ventures, a laboratory in Colorado that is non-accredited by BOL.

The data were categorized as Tier 1 and are therefore not sufficient to make water quality assessments. The data do not meet Tier 3 because: QAPP was not provided; quality control was not described in the data submission; a station location map was not provided; project study plan was not provided; sampling design and planning was not provided; DEP water quality monitoring data collection protocols for surface waters were not identified or followed; the collector was not audited in DEP water quality monitoring protocols for surface waters; and bacteriological sample was not analyzed by a BOL accredited laboratory. The data will be used by DEP to highlight areas of interest for future monitoring efforts. DEP recommends adhering to DEP's *Water Quality Monitoring Protocols for Surface Waters* and QAPP and be audited in such data collection protocols, so that future data submissions could be categorized as Tier 3. DEP assessment 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. DEP recommends collecting data greater than a half mile upstream and downstream of the monitoring stations to characterize the water quality for these reaches.