# Compilation of Public Comments on EPA's Identification of 346 Additional Water Quality Limited Segments to Include on West Virginia's 2018-2020-2022 Clean Water Act Section 303(d) List

On June 1, 2023, the EPA partially approved and partially disapproved West Virginia's Combined 2018-2020-2022 Clean Water Act Section 303(d) list of water quality-limited segments because West Virginia did not use certain water quality information and therefore did not identify certain water quality-limited segments.

On July 19, 2023, EPA posted on the Federal Register and its website its analysis and identification of 346 additional water quality-limited segments for inclusion on West Virginia's Combined 2018-2020-2022 Section 303(d) list. EPA also noted 27 water quality-limited segments that West Virginia included on its list as impaired, but that EPA would consider to be meeting applicable water quality standards. Public comments on EPA's action were accepted until October 18, 2023.

EPA received 291 sets of comments from 300 organizations and individuals. Table 1, below, summarizes the comment submitters. Copies of all individual comments received and an example of the mass mailer are posted below.

EPA will consider all comments, make adjustments to its action based on comments if appropriate, provide responses, and transmit West Virginia's Final Combined 2018-2020-2022 Section 303(d) list of water quality-limited segments to West Virginia (including any additional segments identified by EPA).

**Table 1: Summary of Comment Submitters**

| Commentor | Quantity |
|---|---|
| **Organizations** | **29** |
| West Virginia State Government | 3 |
| Mining Regulated Community | 3 |
| West Virginia Municipal Water Quality Association | 1 |
| Environmental Organizations (geographically widespread) | 15 |
| Local Watershed Associations | 7 |
| **Individuals** | **271** |
| Mass Mailers | 255 |
| Unique comments from individuals | 16 |
| **Total Commentors** | **300** |
| **Total Sets of Comments Received** | **291** |

# West Virginia State Government

west virginia department of environmental protection

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Harold Ward, Cabinet Secretary
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October 18, 2023

Mr. Gregory Voigt
Mail Code 3WD42
USEPA Region 3 Water Division
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2029

Dear Mr. Voigt:

This letter and attachments are submitted as comments to the proposed United States Environmental Protection Agency (USEPA) action advertised in the Federal Register *Clean Water Act: Identification of Water Quality-Limited Segments to be Added to the West Virginia's Section 303(d) List*, Doc. 2023-15325, dated July 18, 2023. For the reasons set forth below, the WVDEP and the State of West Virginia oppose the USEPA's unlawful usurpation of West Virginia's approved program.

This comment arises from a June 1, 2023 letter from Regional Administrator Ortiz to Cabinet Secretary Harold Ward (the "Ortiz letter"). In his letter, Regional Administrator Ortiz explained that the USEPA had reviewed the WVDEP's submission and supporting documentation pursuant to Section 303(d) of the Clean Water Act and, based on that review, partially approved and partially disapproved of the WVDEP 2018/2020/2022 303(d) list of impaired waters. While the WVDEP appreciates the opportunity to submit three cycles of listing decisions in one 303(d) list and appreciates the recognition of our efforts to transform our data management strategy to fit within the USEPA ATTAINS reporting system, West Virginia strenuously objects to the USEPA's decision to partially disapprove of the West Virginia 2018/2020/2022 303(d) list.

The Ortiz letter included four enclosures. Enclosure 1, the rationale for USEPA's action, describes the main points for the partial disapproval and sets forth the intention to add water quality-limited waters to the 303(d) list. Enclosure 2 provides a rationale recommending the removal of certain segments from the 303(d). The USEPA listed the assessment units to be added in Enclosure 3 and suggested removal of assessment units in Enclosure 4. WVDEP staff have reviewed Enclosures 1-2, and closely examined the assessment units listed in Enclosures 3-4. West Virginia's comments on each are taken in turn below.

***1. The USEPA's rationale, contained in Enclosure 1, for its partial disapproval of West Virginia's 303(d) submission is flawed because it mistakenly – or intentionally – disregards the fact that the WVDEP's analysis evaluated all existing and readily available data.***

*Available Data*

Enclosure 1 includes the rationale for the USEPA's partial disapproval and attempts to provide a Statutory and Regulatory Background (40 CFR Part 130.7). The rationale specifically provides that USEPA's proposed action is a result of WVDEP's alleged decision to not evaluate all existing and readily available data (40 CFR§130.7 (b)(5)), specifically those related to the narrative criterion for aquatic life in certain waters, without providing a rationale for that decision (40 CFR§130.7 (b)(6)(iii)). The USEPA further clarified that the rationale to not use all existing and readily available data must be "technical, science-based," citing several cases in which courts ruled against USEPA's approval of lists when states failed to provide adequate rationale.

Here, the WVDEP supports the development and use of two indices of biotic integrity (IBIs), one based on family-level identification of benthic macroinvertebrates, the "West Virginia Stream Condition Index" ("WVSCI") and a second index based on genus-level identification, the "Genus Level Index of Most Probable Stream Status" ("GLIMPSS").

Regarding 40 CFR §130.7(b)(5), the USEPA's assertion that the WVDEP did not evaluate "all existing and readily available data" focuses on calculated IBI scores from the GLIMPSS. Enclosure 1 states "WVDEP did not use certain biological data reported in the [Integrated Report] for purposes of identifying [Water Quality Limited Segments] on its 2018-2020-2022 Section 303(d) list" (pg. 6). Later, Enclosure 1 states "WVDEP did not provide a technical, science-based rationale for not using certain genus level macroinvertebrate data as described in Section III below" (pg. 8).

The USEPA's disapproval of West Virginia's list ignores the fact that the State uses the very data the USEPA claims West Virginia does not use. The USEPA's GLIMPSS IBI is simply one application of the genus-level identification of benthic macroinvertebrates. Since 1996, the WVDEP has invested significant resources in the collection of benthic macroinvertebrates and identification of those to a genus level. West Virginia's genus-level data collection and analysis unquestionably constitutes the analysis of "available data" or "biological data" required by law and that these data were not omitted in the preparation of the State's 303(d) list.

For example, among other applications, genus level data are used in stressor identification (SID) analyses. As described in the WVDEP's *Aquatic Life Use Assessment and Biological Stressor Identification Procedure*, the SID process informs the assessment procedure. Thus, the genus level data are evaluated and used in listing decisions. Please refer to **Attachment 1** for the specific ways genus-level data are used other than in the GLIMPSS IBI calculation.

Lastly, the USEPA utterly disregards the fact that the WVDEP uses GLIMPSS scores as an additional line of evidence in its assessment procedure to validate impairment decisions. Here, it is clear that the USEPA's partial disapproval does not rest on whether the readily available data are used, but rather or not the WVDEP has the discretion to develop an assessment procedure for the narrative criteria and whether that assessment procedure must include calculated scores from a specific genus-level IBI. Enclosure 1 describes differences in the WVSCI and GLIMPSS IBIs and provides statistical support for the GLIMPSS; however, the rationale does not establish the authority to require the WVDEP to use a specific, calculated genus-level IBI score preferred by the USEPA, opposed to a family-level IBI score in listing decisions. There is simply no authority for the USEPA's naked overreach into the realm of decision-making explicitly reserved to the States.

*Narrative Water Quality Standards for Biological Criteria*

As part of its continuing effort to comply with State and federal law, the WVDEP adopted narrative water quality standards protective of biological conditions and identified biosurvey methods to measure attainment and impairment of the narrative criterion. To this end, the WVDEP has consistently utilized the WVSCI IBI since 1996 (with the exception of the 2012 303(d) list following the passage of legislation

that directed the WVDEP to reevaluate its assessment procedure) to measure attainment of the narrative water quality criteria codified in 47CSR§2-3.2.e and 47CSR§2-3.2.i. to be protective of the Designated Use Category B- Propagation and maintenance of fish and other aquatic life (47CSR§2-6.3).

Based on WVSCI, the final draft WV 2018-2020-2022 303(d) list includes roughly 6,700 miles of stream (excluding 207 miles associated with USEPA 2014 additions using GLIMPSS) that are biologically impaired. The WVDEP has prepared TMDLs to address stress to aquatic life in >4,000 miles of these streams. In addition to the collection of benthic macroinvertebrates and assessment using the WVSCI IBI, the WVDEP devotes resources to monitor streams, lakes, and wetlands for pollutants that impact Designated Use B- Propagation and maintenance of fish and other aquatic life (47CSR§2-6.3). Independent of a WVSCI score, waters that exceed chemical numeric criteria are listed and TMDLs are developed to be protective of Designated Use B. TMDL projects have been completed in every major HUC 8 watershed area in the State, most of which are comprehensive TMDLs that prescribe reductions to all sources of common pollutants such as total iron (including sediment reductions) and fecal coliform throughout the entire watershed. Notwithstanding these efforts, the 303(d) list contains 2,955 miles of biological impaired streams that still require TMDL development.

Further, the WVDEP uses the WVSCI not only for 303(d) listing decisions, but also for determining permit compliance as described in the *Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards,* 47 C.S.R. 2 §§ 3.2.e and 3.2.i. for more than 10 years. Remaining consistent with our NPDES permitting program is another reason for the agency's decision to use WVSCI to measure the narrative standard.

As shown above, the WVDEP has met the obligations established by 40 CFR § 130.7 and related USEPA biological criteria guidance – and continues to do so – for nearly *30* years by using the WVSCI IBI and applying numeric water quality standards. Nothing in the USEPA's rulemaking record supports deviating from a process used with success for almost three decades.

*WVDEP responsibilities to federal and state policies*

When discussing the validity of the WVDEP assessment procedure in Enclosure 1, the USEPA relies upon several of its own guidance documents regarding measures of the narrative criteria. Those guidance documents are not Congressionally-authorized imperatives or legally binding regulations. They are mere *guidance*. In the absence of federal authority, the WVDEP has a nondiscretionary duty to balance the USEPA's guidance with the State law passed by the West Virginia Legislature.

In 2010, the West Virginia House of Delegates passed House Concurrent Resolution No. 111 (HCR 111, 2010), *"urging the USEPA to interpret the WV Water Pollution Control Act in the manner that will faithfully balance the protection of the environment with the need to maintain and expand opportunities for employment, agriculture and industry as set forth in the Legislatures state of public policy as contained in the West Virginia Pollution Control Act* [WV Code §22-11-2(a)]." The HCR 111 continued by citing language from the Federal Water Pollution Control Act, "*..it is the policy of* [United States] *Congress to recognize, preserve, and protect the primary responsibilities and rights of the States to prevent, reduce, and eliminate pollution, to plan the development and use of land and water resources...*" (33 U.S.C. 1251 et seq., Sec 101(b)), as authority for the Legislature resolving "*That any interpretation and implementation of West Virginia's narrative water quality standards is the responsibility of the West Virginia Department of Environmental Protection,"* and *"That the requirements of the narrative criteria are met when a stream (a) supports a balanced aquatic community that is diverse in species composition; and (b) contains appropriate trophic levels of fish (in streams with sufficient flows to support fish populations); and (c) the aquatic community is not composed only of pollution tolerant species, or the aquatic community is composed of benthic invertebrate assemblages sufficient to perform the biological functions necessary to support fish communities within the assessed reach (or, if the assessed reach has insufficient flows to support a fish community, in those downstream reaches where fish are present).*"

In response to HCR 111 the WV Legislature passed legislation codified in WV Code §22-11-7(b) that directs the WVDEP to evaluate the holistic health of the aquatic ecosystem, including assessments of the fish community in addition to benthic macroinvertebrates. In the *Justification and Background for Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i* (August 10, 2010), the WVDEP endeavored to integrate the requirements of the Clean Water Act, USEPA guidance, and the policies of the State of West Virginia. Ultimately, the WVDEP established an approach for measuring compliance of the biological condition requirements in mining NPDES permits through a holistic approach to evaluate aquatic ecosystems.

This holistic approach to evaluating the aquatic ecosystem in mining permits is reflected in the WVDEP's *Aquatic Life Use Assessment and Biological Stressor Identification Procedure*, in which WVDEP 303(d) list decisions are not based on only one benthic macroinvertebrate sample, but instead rely on validation of attainment and impairment through a stressor identification process or follow up monitoring. USEPA has asserted that WVDEP's validation process contradicts USEPA guidance where a single benthic sample can be used for an assessment. WVDEP disputes this assertion based on USEPA's August 13, 1991, memorandum distributing the *Policy on the Use of Biological Assessment and Criteria in the Water Quality Program* (May 1991), which describes three assessment methods: chemical criteria, toxicity testing, or biocriteria. While the policy points out that any of the three methods can be applied independently (or singularly), the guidance recognizes the limitations of biosurveys, encouraging the consideration of "*various components (e.g., algae, invertebrates, fish,)*" and recommends coupling biosurveys with physiochemical measurements and objective assessment of habitat quality. The guidance describes how to proceed when assessment results are suspected to be inaccurate and states "*the assessment may be repeated using more intensive and/or accurate methods*."

The 1991 guidance concludes by establishing the States' role in implementing the policy stating: "*Therefore, States must take the primary responsibility for adopting their own standard biosurvey methods, integrating them with other techniques at the program level, and applying them in appropriate combination on a case-by-case basis*." In this instance, the USEPA rebukes the State of West Virginia for doing just that. The WVDEP took primary responsibility for adopting its own standard biosurvey methods, integrating them with other techniques at the program level, and applying them and now, nearly 30 years after approving them and accepting WVSCI IBI results since the mid-1990s, the USEPA oversteps its authority to complain that, in 2023, it suddenly no longer approves of the method. Such action is expressly forbidden by the Supreme Court of the United States. *See West Virginia v EPA,* 597 U.S. --, 142 S.Ct. 2587 (2022).

Lastly, the USEPA's action here entirely disregards the authority and responsibility given to States when ranking TMDL priorities. 40 CFR § 130.7(b)(4) establishes the States' role in ranking TMDL priorities. Enclosure 1 acknowledges the considerable discretion given to States to set TMDL priority ranking and lists several factors to consider, among others including state or national policies and priorities (pg. 9). 303(d) listings directly result in the requirement to develop TMDLs, thus creating legal and financial liabilities for the State and stakeholders. As a result, the WVDEP, not the USEPA, is responsible for deciding how to measure narrative water quality criteria for purposes of this action.

*Regarding 40 CFR§130.7 (b)(6)(iii) and Thresholds*

GLIMPSS aside, the USEPA also provided feedback regarding the WVDEP's assessment procedure relative to the use of WVSCI scores. Given the WVDEP's choice to use the WVSCI IBI as the measure for biotic integrity and the narrative water quality criteria, WVDEP understands USEPA's concerns that certain waters that fell below the attainment threshold of 72 were omitted from the 303(d) list. However, with the West Virginia Legislature's position on aquatic ecosystems and the USEPA's 1991 *Policy on the Use of Biological Assessment and Criteria in the Water Quality Program* in mind, the WVDEP assessment procedure uses a multiple threshold approach to integrate additional data (e.g., physiochemical, habitat) and assure quality.

Using the agency's *Aquatic Life Use Assessment and Biological Stressor Identification Procedure* (August 2021) a WVSCI score of 50 was chosen as a threshold for automatic impairment. Any score of <50 results in an impairment determination. However, the WVDEP would prefer requiring validation of impairment through the stressor identification process for any benthic sample scoring <72. With that said, the WVDEP will remove the automatic impairment threshold and perform stressor identification for those scores <50 in the future.

With respect to the second threshold, in which a second sample is needed any time there is an initial score of WVSCI 61-71.99, repeating the survey in those instances does not contradict the USEPA's 1991 policy, but rather recognizes cautions expressed in the policy. If a second score falls in the same range, the GLIMPSS score is used as a line of evidence to validate impairment. While the WVDEP maintains that developing an assessment procedure is within the agency's discretion, in a desire to address concerns from the USEPA and the public, the WVDEP conducted further investigation into the basis for the thresholds.

The WVDEP established the second threshold, WVSCI =61, based on precision estimate calculated from the root mean square error of all reference samples collected within April 2007-October 2016, demonstrating variability at reference stations. The result of these calculations at the 90% Confidence Interval is 9.3. The WVSCI score of 61 was inadvertently used as the second threshold in the assessment procedure. Upon further consideration, WVDEP has determined this threshold should be 62.7. **Attachment 2** provides a list of twelve assessment units scoring ≥61 and <62.7 not previously listed, awaiting a second sample to validate the listing decision. Stressor identification has been performed for these samples and WVDEP requests the addition of these assessment units to ATTAINS, in Category 5 (303(d) list) or in Category 4A, as indicated in the table. The assessment procedure will be corrected.

***2. The USEPA's Enclosures 2 and 4 recommend removing impaired assessment units in conflict with WVDEP's assessment procedure***

With respect to Enclosures 2 and 4, the WVDEP reviewed the assessment units on Enclosures 4 to identify the reasons for USEPA's recommendations for the removal of assessment units. During the review, WVDEP found that there are seven instances in which the conversion of assessment units inadvertently resulted in erroneous listings. In addition, one assessment unit was included in error when according to the assessment procedure, a passing GLIMPSS score should have indicated attainment. Please refer to **Attachment 3** for specific details and remove only these instances in the 303(d) within ATTAINS before finalizing. In accordance with the WVDEP's *Aquatic Life Use Assessment and Biological Stressor Identification Procedure*, the USEPA must retain the remaining 18 assessment units from Enclosure 4 on the 303(d) list regardless of their GLIMPSS IBI score.

***3. Miscellaneous Technical Matters.***

Regardless of whether the USEPA or a court of competent jurisdiction agrees with the foregoing, there are a number of technical matters that require attention. The WVDEP reviewed the assessment units in Enclosure 3 to identify the reasons for the proposed additions of assessment units as impaired. There appears to be four main scenarios for differences between the USEPA's and WVDEP's lists. Each scenario is summarized below, and additional information is provided in Attachment 4.

- In the first scenario, WVDEP omitted five assessment units on the 303(d) list *in error* when considering its own aquatic life assessment procedure using WVSCI. These five assessment units should be added to the 303(d) list based on the WVDEP assessment procedure.

- In the second scenario, after further investigation, WVDEP found that nine assessment units that are proposed for listing should not be considered because the samples were non-comparable. Additional details for these instances are provided in Attachment 4.

- In the third scenario, the USEPA has chosen to list three assessment units based on the lower of two scores when same day duplicates were collected from a station. WVDEP insists that the higher of the scores prevail in these instances.

- The last scenario is those assessment units where USEPAs recommended addition using GLIMPSS scores calculated from genus level data collected year-round. Assessment units in this scenario fall into two groups.

    - There are 165 assessment units for which stressor identification has been performed and linked to existing pollutant TMDLs. WVDEP asks for existing pollutant TMDLs to be considered when assigning Parameter Categories. A table in Attachment 4 lists assessment units in which there are pollutant TMDLs to address identified stressors. WVDEP requests that USEPA assign a Parameter Category 4A to these assessment units.

    - While WVDEP strongly disagrees with the action, the remaining 149 assessment units would be assigned Parameter Category 5. There are either no stressors identified or no pollutants TMDLs to resolve all stressors in these assessment units.

In addition to the Attachments, WVDEP staff have prepared a spreadsheet with details on stressor identification, applicable TMDLs, and parameter categories for use in finalizing ATTAINS for each assessment unit from USEPA's Enclosures 3-4. The spreadsheet will be shared electronically.

Thank you for your attention to this matter. Should you have any questions, please do not hesitate to contact me at (304) 926-0499 extension 43830 or at Katheryn.D.Emery@wv.gov; or contact my staff, Mindy Neil at (304) 926-0499 extension 43885 or at Mindy.S.Neil@wv.gov.

Sincerely,

Katheryn D. Emery, P.E.
Director DWWM

Attachments
Ec: Harold Ward, Cabinet Secretary, WVDEP
Adam Ortiz, Regional Administrator, USEPA Region 3
Catherine Libertz, Director of Water, Division USEPA Region 3

# Attachment 1: Uses of Genus Level Identification of Benthic Macroinvertebrate Data

**Watershed Assessment Branch**
**Uses of Genus Level Identification of Benthic Macroinvertebrate Data**

**Background**

In 1996, WVDEP Watershed Assessment Branch (WAB) began collecting benthic macroinvertebrate samples intensively from streams and rivers throughout the state. To date (6/15/2023), over 12,200 benthic macroinvertebrate samples have been collected from 7,485 stations and 4,105 waterbodies. During the first three years following 1996, the samples were identified to the family level of taxonomy. In 1999, WAB began identifying the samples to genus level because it recognized that finer resolution data offered increased sensitivity and accuracy for a variety of applications such as stressor identifications, intermittent stream determinations, and sample comparability evaluations. Genus level data is also useful in biological restoration studies of streams when post-treatment samples produce genera not previously observed. These genera would not be available for use with coarser family level identifications.

**Biological Stressor Identification**

Biological assessment tools such as the West Virginia Stream Condition Index (WVSCI) may be useful in determining attainment of an aquatic life use threshold, however they do not necessarily identify potential stressor(s) to aquatic life. WAB performs stressor identification by analyzing existing quantitative and qualitative water quality data with the objective of identifying causes of stress and impairment to the benthic macroinvertebrate community. To help identify sources of pollution and diagnose stressors, WAB used genus level data to develop several diagnostic tools for stressor identification.

1. Observed/Expected (O/E) Sensitive Taxa Stressor Model – a model where certain benthic taxa are observed much less frequently than expected and are considered sensitive to a specific stressor (examples: acidity, sediment, organic enrichment). This model was developed using genus level data of benthic macroinvertebrate samples.

2. O/E Opportunistic Taxa Stressor Model - a model where certain benthic taxa are observed much more frequently than expected and are considered opportunistic to a specific stressor (examples: acidity, sediment, organic enrichment). This model was developed using genus level data of benthic macroinvertebrate samples.

3. Percent Model Affinity (PMA) Stressor Model – a model that estimates the similarity of any benthic sample to the average composition of a specific stressor population of benthic macroinvertebrates. That stressor population to which a sample has the highest PMA model value would provide a line of support for that stressor as a potential cause of stress. This model was developed using genus level data of benthic macroinvertebrate samples.

4. Dirty Null Models – diagnostic tools that use weighted averaging regression models to develop indicators of stress based on benthic macroinvertebrate responses to specific stressors. Version 1.0 includes similarity and probability models for organic enrichment, AMD/metals, sedimentation, ionic strength, and reference. Version 2.0 added acid deposition as a distinct stressor.

5. Stressor presence/absence diagnosis based on specific benthic genera – uses individual taxa as indicators of stress, and specific stressors. Examples include the caddisfly *Diplectrona* which increases in abundance in the presence of acid metals, and the aquatic beetle *Stenelmis* which indicates the presence of excess sediments. This method requires expertise and experience with life histories, habits, and tolerances of macroinvertebrates.

**Flow Permanence, Comparability, and Biological Restoration**

1. Identification of Intermittent/Perennial Streams – flow permanence studies are conducted by WAB to determine if streams support aquatic life and to evaluate their flow status as defined by the water quality standards of West Virginia (47CRS2). Genus and family-level benthic macroinvertebrate data is used to determine flow status as wet-weather (ephemeral), intermittent, or perennial. These surveys are conducted primarily at the request of the DEP's Office of Water Resources Permitting Section. Because genus level data more precisely identifies organisms as compared to family, it also more precisely identifies their flow requirements. Therefore, studies of flow permanence can be made with greater accuracy.

2. Comparability Determination of Benthic Samples – WAB conducts comparability evaluations of benthic samples by reviewing onsite information about the condition of the stream and the sampling conditions on the day a sample was collected. Genus-level data more precisely indicates the presence of potential comparability influences such as ponds, scour events, and drought. Importantly, these comparability studies ensure that only comparable benthic samples are used for aquatic life use attainment assessments.

3. Biological Restoration Studies – WAB routinely assists other DEP offices (OSR, AML, WIB) with biological restoration studies. Past and current studies include the installation of treatment facilities for acid mine drainage abatement and natural stream channel design activities for habitat improvements. All of these studies include benthic macroinvertebrate sampling and most include sampling fish communities. Finer taxonomic resolution, including genus- level data for benthic macroinvertebrates and species-level for fish, significantly improves WAB's ability to measure restoration success. Biologists look for indicator genera, or species with fish samples, in post treatment samples and with that information can report important benchmarks in the status of biological recovery. These genera/species would not be available for use with coarser family level identifications.

## Attachment 2: Assessment Units with WVSCI ≥61 and <62.7

The following table provides those assessment units in which WVSCI scores were ≥61 and <62.7 and a stressor identification has been performed. Please add these assessment units to ATTAINS in the IR Category listed. In those instances where Category 4A is listed, biological impairment should be associated with pollutant TMDLs in ATTAINS. One additional assessment unit, WV-PSB-105_06 (North Fork/South Branch Potomac River), scored <62.7, but no stressors were identified. WVDEP requests that USEPA assign a Parameter Category 3 for WV-PSB-105_06 in ATTAINS for insufficient data.

| AU_ID | ASSESSMENT_UNIT_NAME | Stressors | Parameter Category |
|---|---|---|---|
| **WV-BS-18-C_01** | Wildcat Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-AC-2_01** | McComas Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-AY-42_02** | Joes Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-CS-8_01** | Sycamore Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGL-112-E-11_01** | Harmon Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-75_01** | Fourteenmile Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-89_04** | Big Ugly Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-99-A-4_01** | Marsh Fork | Sediment, Organic Enrichment | 4A |
| **WV-OL-15-R_01** | Road Fork | Sediment, Organic Enrichment | 4A |
| **WV-OUS-7_01** | Butter Run | Sediment, Organic Enrichment | 5 |
| **WV-PNB-14-AW_01** | Beaver Run | Sediment | 5 |
| **WV-OGL-69_01** | Furnett Creek | Sediment | 4A |
| **WV-PSB-105_06** | North Fork/South Branch Potomac River | None identified | 3 |

## Attachment 3: Evaluation of Enclosure 4

**WVDEP Inclusions in Error**

One assessment unit was listed for impairment, even though a GLIMPSS score >100 was to be used as an arbiter when two WVSCI scores were between 61-72. WVDEP requests that this stream be removed from the 303(d) list to correct the error.

| AU_ID | ASSESSMENT_UNIT_NAME | Parameter Category |
|---|---|---|
| **WV-OT-24-AI_01** | Raccoon Creek | 2 |

In addition, WVDEP implemented a new assessment unit schema in the 2018/2020/2022 list and conservatively applied impairment to any new assessment unit that had been included as impaired before. Often in the previous methodology, an entire stream would be listed if only one station existed. In five instances all new assessment units of those entire streams were listed as impaired, even when there were data collected from the specific assessment unit that demonstrated attainment using the agency's assessment procedure. These instances also have GLIMPSS >100. WVDEP requests that these streams be removed from the 303(d) list.

| AU_ID | ASSESSMENT_UNIT_NAME | Parameter Category |
|---|---|---|
| **WV-KG-55_08** | Meadow River | 2 |
| **WV-KU-26-N-2_01** | Left Fork/Longbottom Creek | 2 |
| **WV-MC-123-B_01** | Smoky Hollow | 2 |
| **WV-MT-62-V_03** | Sand Run | 2 |
| **WV-MT-72_07** | Middle Fork River | 2 |

Two additional assessment units for which USEPA recommends delisting were also included by WVDEP as a result of applying the AU conversion rule. WVDEP does not possess benthic data within the WVSCI index period, so consider these assessment units to have no or too few data to assess. WVDEP requests that USEPA recategorize these assessment units as Category 3.

| AU_ID | ASSESSMENT_UNIT_NAME | Parameter Category |
|---|---|---|
| **WV-MT-72-AV_01** | Three Forks Run | 3 |
| **WV-MT-72-BC_01** | Pleasant Run | 3 |

## Attachment 4: Evaluation of Enclosure 3

**WVDEP Omissions in Error**

WVDEP omitted five assessment units that should have been listed using the agency's aquatic life assessment procedure. When finalizing a list of impaired streams, WVDEP flagged these streams as having too few data to make a final decision or as attaining. These flags were assigned in error. WVDEP requests that these streams be added to the 303(d) list in order to correct these errors and assigned to the Parameter Categories shown in the table below.

| AU_ID | ASSESSMENT_UNIT_NAME | Stressor | Parameter Category |
|---|---|---|---|
| **WV-BS-9-J_01** | Sulphur Fork | Sediment, Organic Enrichment | 4A |
| **WV-KNG-271_01** | Brush Run | Organic Enrichment | 4A |
| **WV-MT-34_05** | Sandy Creek | Sediment, Organic Enrichment, Metals Precipitation | 4A |
| **WV-OGU_03** | Guyandotte River (upper) | Sediment, Organic Enrichment, Ionic strength | 5 |
| **WV-OGU-28-AB_01** | Slickrock Branch | Sediment | 4A |

**WVDEP Assessed Noncomparable**

When reviewing the USEPA proposed additions to the 303(d) List, WVDEP identified nine assessment units where the stations and samples should be considered noncomparable to the IBIs (i.e., WVSCI and GLIMPSS). Noncomparability calls are most often based on streams where there are impoundments upstream or in streams heavily influenced by limestone geology. The developed IBIs do not address the variation in benthic communities resulting from upstream impoundments or limestone. WVDEP continues to collect data in these scenarios in hopes of developing an assessment tool. These streams should not be added to the 303(d) List. WVDEP requests that USEPA recategorize these assessment units as Parameter Category 3.

| AU_ID | ASSESSMENT_UNIT_NAME | Comparability Comments | Parameter Category |
|---|---|---|---|
| **WV-BST-35-AF-11_01** | Spring Branch | Downstream of impoundment | 3 |
| **WV-OGL-10_04** | Mud River | Downstream of impoundment | 3 |
| **WV-OGU-1-Z_01** | Lower Dempsey Branch | Downstream of impoundment | 3 |
| **WV-OGU-77_02** | Horse Creek | Downstream of impoundment | 3 |
| **WV-OLK_12** | Little Kanawha River | Downstream of impoundment | 3 |
| **WV-OMN-13-R_01** | Bogart Run | Low flow | 3 |

| AU_ID | ASSESSMENT_UNIT_NAME | Comparability Comments | Parameter Category |
|---|---|---|---|
| **WV-PL-23-AU_03** | Mill Creek | Limestone stream | 3 |
| **WV-PU-1-AS-3-H_01** | UNT/Crooked Run RM 4.31 | Downstream of impoundment | 3 |
| **WV-PU-1-CX-6-F_01** | Trout Pond Run | Downstream of impoundment | 3 |
| **WV-PU-49-AP_01** | Shawan Run | Downstream of impoundment | 3 |

**Duplicate Data**

WVDEP requests that USEPA consider the higher of the scores on same day duplicate samples and consider these attaining. WVDEP requests that USEPA assign these assessment units as Parameter Category 2.

| AU_ID | ASSESSMENT_UNIT_NAME | Parameter Category |
|---|---|---|
| **WV-BST-102_01** | Sandy Huff Branch | 2 |
| **WV-OLK-31-K-94_01** | Big Run | 2 |
| **WV-PSB-79_07** | South Fork/South Branch Potomac River | 2 |

**USEPA Proposed Action – Assign Parameter Category 4A**

The following table provides the assessment units for which WVDEP had determined existing pollutant TMDLs would resolve stress to aquatic life. WVDEP requests that USEPA assign Parameter Category 4A for these assessment units if these are added.

| AU_ID | ASSESSMENT_UNIT_NAME | Stressors | Parameter Category |
|---|---|---|---|
| **WV-BS-16_02** | Hurricane Creek | Sediment, Organic Enrichment | 4A |
| **WV-BS-16_03** | Hurricane Creek | Sediment, Organic Enrichment | 4A |
| **WV-BS-16-A_01** | Hattons Branch | Sediment | 4A |
| **WV-BS-18-B_01** | Powder Mill Branch | Sediment, Organic Enrichment | 4A |
| **WV-BS-18-F_01** | Long Branch | Sediment | 4A |
| **WV-BS-8_03** | Whites Creek | Sediment, Organic Enrichment | 4A |
| **WV-BS-8-G_01** | Hensley Branch | Sediment, Organic Enrichment | 4A |

| AU_ID | ASSESSMENT_UNIT_NAME | Stressors | Parameter Category |
|---|---|---|---|
| **WV-BS-9-G_01** | Odell Fork | Sediment, Organic Enrichment | 4A |
| **WV-BST_03** | Tug Fork | Sediment, Organic Enrichment | 4A |
| **WV-BST-106-Y_01** | Wolfpen Branch | Sediment, Organic Enrichment | 4A |
| **WV-BST-12_02** | Lost Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-174_01** | Little Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-18_01** | Camp Creek | Sediment | 4A |
| **WV-BST-2_03** | Mill Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-25_01** | Silver Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-27_01** | Stonecoal Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-2-S_01** | Left Fork/Mill Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-2-T_01** | Right Fork/Mill Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-32_01** | Upper Burning Creek | Sediment | 4A |
| **WV-BST-35-K-1_02** | Right Fork/Laurel Fork/Pigeon Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-35-S-15_01** | Simmons Fork | Organic Enrichment | 4A |
| **WV-BST-83-A_01** | Greenbrier Fork | Sediment, Organic Enrichment | 4A |
| **WV-BST-98-AD_01** | Atwell Branch | Sediment, Organic Enrichment | 4A |
| **WV-BST-98-AT_02** | War Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-98-BL_01** | Vall Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-98-BO_03** | Beech Fork | Sediment, Organic Enrichment | 4A |
| **WV-BST-98-O_01** | Beartown Branch | Sediment, Organic Enrichment | 4A |
| **WV-BST-98-W_03** | Bradshaw Creek | Sediment, Organic Enrichment | 4A |
| **WV-BST-98-Z_01** | Little Slate Creek | Sediment | 4A |
| **WV-BST-98-Z_02** | Little Slate Creek | Sediment, Organic Enrichment | 4A |
| **WV-KC-27-CE-15_01** | Sycamore Creek | Organic Enrichment | 4A |
| **WV-KE_08** | Elk River | Organic Enrichment | 4A |

| AU_ID | ASSESSMENT_UNIT_NAME | Stressors | Parameter Category |
|---|---|---|---|
| **WV-KE_10** | Elk River | Organic Enrichment | 4A |
| **WV-KE-108-D_01** | Rush Fork | Organic Enrichment | 4A |
| **WV-KE-108-G_01** | Moore Fork | Organic Enrichment | 4A |
| **WV-KE-13_04** | Little Sandy Creek | Sediment | 4A |
| **WV-KE-29-Y_01** | Right Fork/Big Sandy Creek | Organic Enrichment | 4A |
| **WV-KG-139-AQ-1_01** | UNT/Tea Creek RM 1.29 | Acidity, Dissolved Metals | 4A |
| **WV-KG-180_01** | Big Run | Acidity, Dissolved Metals | 4A |
| **WV-KG-33_01** | Peters Creek | Organic Enrichment | 4A |
| **WV-KL-40-A_01** | UNT/Little Buffalo Creek RM 1.17 | Organic Enrichment | 4A |
| **WV-KL-57-AD_05** | Pocatalico Creek | Sediment, Organic Enrichment | 4A |
| **WV-KL-57-BX_01** | Rush Creek | Sediment, Organic Enrichment | 4A |
| **WV-KL-74_03** | Davis Creek | Sediment, Organic Enrichment | 4A |
| **WV-KNG-212_01** | Knapp Creek | Organic Enrichment | 4A |
| **WV-KNG-212_03** | Knapp Creek | Organic Enrichment | 4A |
| **WV-KNG-212_04** | Knapp Creek | Organic Enrichment | 4A |
| **WV-KNG-84_01** | Second Creek | Organic Enrichment | 4A |
| **WV-KNL-83-S_01** | Mill Creek | Organic Enrichment | 4A |
| **WV-KNU-66-K_01** | Crooked Creek | Organic Enrichment | 4A |
| **WV-KU-39-BM-11_01** | Painter Creek | Sediment | 4A |
| **WV-MC-27-I-4_01** | Little Laurel Run | Acidity, Dissolved Metals | 4A |
| **WV-MC-27-J_04** | Little Sandy Creek | Organic Enrichment | 4A |
| **WV-MT_05** | Tygart Valley River | Organic Enrichment | 4A |
| **WV-MT_15** | Tygart Valley River | Organic Enrichment | 4A |
| **WV-MT-207_03** | Mill Creek | Organic Enrichment | 4A |
| **WV-MT-34_01** | Sandy Creek | Sediment, Organic Enrichment | 4A |
| **WV-MT-34_04** | Sandy Creek | Sediment | 4A |
| **WV-MT-34-N-1_01** | UNT/UNT RM 0.56/Sandy Creek RM 10.47 | Acidity, Dissolved Metals | 4A |
| **WV-MT-62-AB-1_01** | UNT/Childers Run RM 0.40 | Sediment, Organic Enrichment | 4A |
| **WV-MT-72-AE_01** | Laurel Creek/Middle Fork River | Sediment, Organic Enrichment | 4A |
| **WV-MW-27-L_01** | Flag Run | Sediment, Organic Enrichment | 4A |
| **WV-MY-169-A-4_01** | UNT/Laurel Run RM 2.39 | Sediment, Acidity | 4A |

| AU_ID | ASSESSMENT_UNIT_NAME | Stressors | Parameter Category |
|---|---|---|---|
| **WV-OGL-10_01** | Mud River | Sediment, Organic Enrichment | 4A |
| **WV-OGL-108_01** | Abbott Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-AY_06** | Trace Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-AY-40_01** | Hayzlett Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-AY-42_01** | Joes Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-AY-42-F_01** | Tango Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-AY-46_01** | Dry Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-BA-1_01** | Straight Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-BL-10_01** | Davis Trace Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-DC_01** | Bear Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-Q_01** | Big Cabell Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-10-R_01** | Edmonds Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-112_03** | Big Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-112-E_01** | North Fork/Big Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-112-I-7_01** | Dog Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGL-129_01** | Caney Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-135-G_01** | Butch Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGL-136_01** | Big Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-140_01** | Peach Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-23-B_01** | Upper Heath Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-30-C_01** | UNT/Trace Creek RM 2.88 | Sediment, Organic Enrichment | 4A |
| **WV-OGL-75-A_01** | Lick Branch | Sediment, Organic Enrichment | 4A |

| AU_ID | ASSESSMENT_UNIT_NAME | Stressors | Parameter Category |
|---|---|---|---|
| **WV-OGL-75-F_01** | Sulphur Spring Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGL-89-B_01** | Pigeonroost Creek | Sediment | 4A |
| **WV-OGL-89-G_01** | Laurel Creek | Sediment | 4A |
| **WV-OGL-96_01** | Little Harts Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-99-A_02** | West Fork/Big Harts Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGL-99-A-5_01** | Workman Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGL-99-B_01** | Big Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-99-K-6_01** | Ivy Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGL-99-M_01** | Hoover Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGL-99-Q_01** | Bulwark Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGU-107-A_01** | Bearhole Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGU-108_01** | Pinnacle Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGU-118_02** | Cabin Creek | Organic Enrichment | 4A |
| **WV-OGU-128_03** | Barkers Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGU-132_03** | Slab Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGU-132-E_01** | Cedar Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGU-132-H_01** | Marsh Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGU-140_03** | Devils Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGU-142-K_01** | Mullens Branch | Sediment | 4A |
| **WV-OGU-28_01** | Huff Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGU-34_03** | Elk Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGU-48_01** | Neds Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGU-54-D_01** | Lizard Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGU-54-M-3_01** | Kezee Fork | Sediment | 4A |

| AU_ID | ASSESSMENT_UNIT_NAME | Stressors | Parameter Category |
|---|---|---|---|
| **WV-OGU-54-T_01** | Pad Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGU-70-X_05** | Laurel Fork | Sediment, Organic Enrichment | 4A |
| **WV-OGU-70-X-19-A_01** | Tom Bailey Branch | Sediment, Organic Enrichment | 4A |
| **WV-OGU-94_01** | Turkey Creek | Sediment, Organic Enrichment | 4A |
| **WV-OGU-95_01** | Skin Fork | Sediment, Organic Enrichment | 4A |
| **WV-OL-12-M_01** | Trace Fork | Sediment, Organic Enrichment | 4A |
| **WV-OL-12-Q-2_01** | UNT/Bear Hollow Creek RM 1.20 | Sediment, Organic Enrichment | 4A |
| **WV-OL-15_02** | Eighteenmile Creek | Sediment | 4A |
| **WV-OLK-142-AC_01** | Bull Run | Sediment, Organic Enrichment | 4A |
| **WV-OLK-149_07** | Leading Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-149-AC_04** | Fink Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-149-J_02** | Horn Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-14-P_01** | Sycamore Run | Sediment, Organic Enrichment | 4A |
| **WV-OLK-177_02** | Oil Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-178-L_01** | O'Brien Fork | Sediment, Organic Enrichment | 4A |
| **WV-OLK-194_02** | Falls Run | Organic Enrichment | 4A |
| **WV-OLK-25_01** | Slate Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-E_03** | Goose Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-E-17_01** | Long Run | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-H_01** | Lick Run | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-K_03** | South Fork/Hughes River | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-K_06** | South Fork/Hughes River | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-K-39_01** | Lamb Run | Sediment, Organic Enrichment | 4A |

| AU_ID | ASSESSMENT_UNIT_NAME | Stressors | Parameter Category |
|---|---|---|---|
| **WV-OLK-31-K-4_01** | Big Island Run | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-K-44-U_01** | Right Fork/Spruce Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-K-55_02** | Slab Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-K-69_01** | Otterslide Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-K-87_01** | Freds Run | Organic Enrichment | 4A |
| **WV-OLK-31-L-30_03** | Bonds Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-L-30-B-24_01** | UNT/Hushers Run RM 7.84 | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-L-30-K_01** | Comfort Run | Organic Enrichment | 4A |
| **WV-OLK-31-L-51_01** | Beason Run | Sediment, Organic Enrichment | 4A |
| **WV-OLK-31-L-84_01** | Straight Run | Sediment, Organic Enrichment | 4A |
| **WV-OLK-43_02** | Tucker Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-45_05** | Reedy Creek | Sediment, Organic Enrichment | 4A |
| **WV-OLK-55-AJ_02** | Right Fork/Spring Creek | Sediment, Organic Enrichment | 4A |
| **WV-OMN-13-BK-5_03** | Elk Fork | Organic Enrichment | 4A |
| **WV-OMN-13-DW_03** | Buckeye Creek | Sediment | 4A |
| **WV-OMS-44-E_01** | Long Run | Sediment | 4A |
| **WV-OMS-46-B_04** | North Fork/Lee Creek | Sediment, Organic Enrichment | 4A |
| **WV-OT_10** | Twelvepole Creek | Sediment, Organic Enrichment | 4A |
| **WV-OT-24_05** | Beech Fork | Sediment, Organic Enrichment | 4A |
| **WV-OT-24-AU_01** | Right Fork/Beech Fork | Sediment, Organic Enrichment | 4A |
| **WV-OT-45_03** | East Fork/Twelvepole Creek | Sediment, Organic Enrichment | 4A |
| **WV-OT-45-AK-9_01** | Trace Fork | Sediment, Organic Enrichment | 4A |
| **WV-OT-45-AN-6_01** | Big Laurel Creek | Sediment, Organic Enrichment | 4A |
| **WV-OT-45-BM_01** | Open Fork | Sediment | 4A |
| **WV-OT-45-BY_01** | Caney Fork | Sediment | 4A |

| AU_ID | ASSESSMENT_UNIT_NAME | Stressors | Parameter Category |
|---|---|---|---|
| **WV-OT-46_07** | West Fork/Twelvepole Creek | Sediment, Organic Enrichment | 4A |
| **WV-OT-46-BQ_01** | Wiley Branch | Sediment, Organic Enrichment (both with weak indicators) | 4A |
| **WV-OT-46-BS_01** | Sweetwater Branch | Sediment, Organic Enrichment (weak overall evidence of any stressor) | 4A |
| **WV-OT-46-CZ_01** | Dingess Trace Branch | Sediment, Organic Enrichment | 4A |
| **WV-OUS-21-F-9_01** | Weidman Run | Organic Enrichment | 4A |
| **WV-PNB-14-AI_03** | Cabin Run | Organic/Enrichment | 4A |
| **WV-PSB-98_05** | Lunice Creek | Organic Enrichment | 4A |
| **WV-PSB-98-S_03** | North Fork/Lunice Creek | Organic Enrichment | 4A |
| **WV-PU-1-DA_05** | Lost River | Organic Enrichment | 4A |
| **WV-OLK-31-L_07** | North Fork/Hughes River | Sediment, Organic Enrichment | 4A |

WEST VIRGINIA LEGISLATURE
STATE CAPITOL
CHARLESTON, WEST VIRGINIA 25305

October 17, 2023

Michael S. Regan, Administrator
U.S. Environmental Protection Agency, Region 3
Four Penn Center
1600 JFK Boulevard
Philadelphia, Pennsylvania 19103-2029

**Re: Comments of the West Virginia Legislature regarding EPA's Partial Approval and Partial Disapproval of West Virginia Department of Environmental Protection's Clean Water Act Section 303(d) List of Impaired Waters, filed May 5, 2023.**

Dear Administrator Regan:

Enclosed with this letter you will find the Comments of the West Virginia Legislature regarding EPA's Partial Approval and Partial Disapproval of West Virginia Department of Environmental Protection's Clean Water Act Section 303(d) List of Impaired Waters, filed May 5, 2023.

Respectfully submitted,

The Honorable Craig P. Blair
Senate President

The Honorable Roger Hanshaw
House Speaker

cc: Harold D. Ward, Secretary, West Virginia Department of Environmental Protection
The Honorable Patrick Morrisey, Attorney General of the State of West Virginia

# COMMENTS OF THE WEST VIRGINIA LEGISLATURE

## REGARDING EPA'S PARTIAL APPROVAL AND PARTIAL DISAPPROVAL OF THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S CLEAN WATER ACT SECTION 303(d) LIST OF IMPAIRED WATERS, FILED MAY 5, 2023.

The United States Environmental Protection Agency (EPA) has determined that the portion of West Virginia Department of Environmental Protection's (WVDEP) final 2018-2020-2022 Integrated Report constituting West Virginia's Section 303(d) list does not fully satisfy the requirements of Section 303(d) of the Clean Water Act (CWA) and EPA's implementing regulations. For the reasons stated herein, the West Virginia Legislature respectfully disagrees and urges EPA to further review the submittals and find them in compliance under all statutory and regulatory requirements.

The applicable federal statute, being 33 USC § 1313(d), states in part:

> (d) Identification of areas with insufficient controls; maximum daily load; certain effluent limitations revision.
>
> (1) (A) Each State shall identify those waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301(b)(1)(B) [33 USCS § 1311(b)(1)(A), (B)] are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. [Emphasis added.]

Another applicable federal statute in the same Chapter, being 33 USC § 1370, states:

> § 1370. State authority
>
> Except as expressly provided in this Act [33 USCS §§ 1251 et seq.], nothing in this Act [33 USCS §§ 1251 et seq.] shall (1) preclude or deny the right of any State or political subdivision thereof or interstate agency to adopt or enforce (A) any standard or limitation respecting discharges of pollutants, or (B) any requirement respecting control or abatement of pollution; except that if an effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance is in effect under this Act [33 USCS §§ 1251 et seq.], such State or political subdivision or interstate agency may not adopt or enforce any effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance which is less stringent than the effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance under this Act [33 USCS §§ 1251 et seq.]; or (2) be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States. [Emphasis added.]

Finally, the applicable federal statute authorizing regulations, being 33 USC § 1313(b), states in part:

> (b) Proposed regulations.
>
> (1) The Administrator shall promptly prepare and publish proposed regulations setting forth water quality standards for a State in accordance with the applicable requirements

of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 [enacted Oct. 18, 1972], if—

(A) the State fails to submit water quality standards within the times prescribed in subsection (a) of this section.

(B) a water quality standard submitted by such State under subsection (a) of this section is determined by the Administrator not to be consistent with the applicable requirements of subsection (a) of this section.

(2) The Administrator shall promulgate any water quality standard published in a proposed regulation not later than one hundred and ninety days after the date he publishes any such proposed standard, unless prior to such promulgation, such State has adopted a water quality standard which the Administrator determines to be in accordance with subsection (a) of this section. [Emphasis added.]

In simpler terms, if EPA wants to establish standards which use a particular methodology, it must do so through its authority to make regulations or it is usurping State authority to establish the methodology.

The applicable federal regulation, being 40 C.F.R. § 130.7, states:

§ 130.7 Total maximum daily loads (TMDL) and individual water quality-based effluent limitations.

(a) General. The process for identifying water quality limited segments still requiring wasteload allocations, load allocations and total maximum daily loads (WLAs/LAs and TMDLs), setting priorities for developing these loads; establishing these loads for segments identified, including water quality monitoring, modeling, data analysis, calculation methods, and list of pollutants to be regulated; submitting the State's list of segments identified, priority ranking, and loads established (WLAs/LAs/TMDLs) to EPA for approval; incorporating the approved loads into the State's WQM plans and NPDES permits; and involving the public, affected dischargers, designated areawide agencies, and local governments in this process shall be clearly described in the State Continuing Planning Process (CPP).

(b) Identification and priority setting for water quality-limited segments still requiring TMDLs.

(1) Each State shall identify those water quality-limited segments still requiring TMDLs within its boundaries for which:

(i) Technology-based effluent limitations required by sections 301(b), 306, 307, or other sections of the Act;

(ii) More stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the Act, or Federal authority (law, regulation, or treaty); and

(iii) Other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters.

(2) Each State shall also identify on the same list developed under paragraph (b)(1) of this section those water quality-limited segments still requiring TMDLs or parts thereof within its boundaries for which controls on thermal discharges under section 301 or State or local requirements are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish and wildlife.

(3) For the purposes of listing waters under § 130.7(b), the term "water quality standard applicable to such waters" and "applicable water quality standards" refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.

(4) The list required under §§ 130.7(b)(1) and 130.7(b)(2) of this section shall include a priority ranking for all listed water quality-limited segments still requiring TMDLs, taking into account the severity of the pollution and the uses to be made of such waters and shall identify the pollutants causing or expected to cause violations of the applicable water quality standards. The priority ranking shall specifically include the identification of waters targeted for TMDL development in the next two years.

(5) Each State shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list required by §§ 1A130.7(b)(1) and 130.7(b)(2). At a minimum "all existing and readily available water quality-related data and information" includes but is not limited to all of the existing and readily available data and information about the following categories of waters:

(i) Waters identified by the State in its most recent section 305(b) report as "partially meeting" or "not meeting" designated uses or as "threatened";

(iv) Waters identified by the State as impaired or threatened in a nonpoint assessment submitted to EPA under section 319 of the CWA or in any updates of the assessment.

(6) Each State shall provide documentation to the Regional Administrator to support the State's determination to list or not to list its waters as required by §§ 130.7(b)(1) and 130.7(b)(2). This documentation shall be submitted to the Regional Administrator together with the list required by §§ 130.7(b)(1) and 130.7(b)(2) and shall include at a minimum:

(i) A description of the methodology used to develop the list; and

(ii) A description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5); and

(iii) A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in § 130.7(b)(5); and

(iv) Any other reasonable information requested by the Regional Administrator. Upon request by the Regional Administrator, each State must demonstrate good cause for not including a water or waters on the list. Good cause includes, but is not limited to, more recent or accurate data; more sophisticated water quality modeling; flaws in the original analysis that led to the water being listed in the categories in § 130.7(b)(5); or changes in conditions, e.g., new control equipment, or elimination of discharges.

(c) Development of TMDLs and individual water quality based effluent limitations.

(1) Each State shall establish TMDLs for the water quality limited segments identified in paragraph (b)(1) of this section, and in accordance with the priority ranking. For pollutants other than heat, TMDLs shall be established at levels necessary to attain and maintain the applicable narrative and numerical WQS with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. Determinations of TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters.

(2) Each State shall estimate for the water quality limited segments still requiring TMDLs identified in paragraph (b)(2) of this section, the total maximum daily thermal load which cannot be exceeded in order to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal water quality criteria for protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in the identified waters or parts thereof.

(e) For the specific purpose of developing information and as resources allow, each State shall identify all segments within its boundaries which it has not identified under paragraph (b) of this section and estimate for such waters the TMDLs with seasonal variations and margins of safety, for those pollutants which the Regional Administrator identifies under section 304(a)(2) as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish and wildlife. However, there is no requirement for such loads to be submitted to EPA for approval, and establishing TMDLs for those waters identified in paragraph (b) of this section shall be given higher priority. [Emphasis added.]

Another portion of the applicable federal regulation, being 40 C.F.R. § 130.0, states:

§ 130.0 Program summary and purpose.

(a) This subpart establishes policies and program requirements for water quality planning, management and implementation under sections 106, 205(j), non-construction management 205(g), 208, 303 and 305 of the Clean Water Act. The Water Quality Management (WQM) process described in the Act and in this regulation provides the

> authority for a consistent national approach for maintaining, improving and protecting water quality while allowing States to implement the most effective individual programs. The process is implemented jointly by EPA, the States, interstate agencies, and areawide, local and regional planning organizations. This regulation explains the requirements of the Act, describes the relationships between the several components of the WQM process and outlines the roles of the major participants in the process. The components of the WQM process are discussed below.
>
> (b) Water quality standards (WQS) are the State's goals for individual water bodies and provide the legal basis for control decisions under the Act. Water quality monitoring activities provide the chemical, physical and biological data needed to determine the present quality of a State's waters and to identify the sources of pollutants in those waters. The primary assessment of the quality of a State's water is contained in its biennial Report to Congress required by section 305(b) of the Act.
>
> (c) This report and other assessments of water quality are used in the State's WQM plans to identify priority water quality problems. These plans also contain the results of the State's analyses and management decisions which are necessary to control specific sources of pollution. The plans recommend control measures and designated management agencies (DMAs) to attain the goals established in the State's water quality standards.
>
> (d) These control measures are implemented by issuing permits, building publicly-owned treatment works (POTWs), instituting best management practices for nonpoint sources of pollution and other means. After control measures are in place, the State evaluates the extent of the resulting improvements in water quality, conducts additional data gathering and planning to determine needed modifications in control measures and again institutes control measures. [Emphasis added.]

EPA's current regulations recognize the State's right to establish the methodologies in question. Currently, this Legislature is not aware of any federal statute or regulation change which has altered this arrangement. As it is the State's role in the political process to define the methodologies for evaluation of the state's waters which are to be included on the 303(d) list, the West Virginia Legislature and the WVDEP has defined the process in statute, by rule, and through a resolution which expressed the intention of the legislative body. The current West Virginia Code §22-11-7b which was approved by the Governor on April 26, 2017, under Enrolled Senate Bill 687 from the 2017 legislative session states in part:

> §22-11-7b. Water quality standards; implementation of antidegradation procedures; procedure to determine compliance with the biologic component of the narrative water quality standard.
>
> (a) All authority to promulgate rules and implement water quality standards is vested in the Secretary of the Department of Environmental Protection.
>
> (c) In order to carry out the purposes of this chapter, the secretary shall promulgate legislative rules in accordance with the provisions of article three, chapter twenty-nine-a of this code setting standards of water quality applicable to both the surface waters and

groundwaters of this state. Standards of quality with respect to surface waters shall protect the public health and welfare, wildlife, fish and aquatic life and the present and prospective future uses of the water for domestic, agricultural, industrial, recreational, scenic and other legitimate beneficial uses thereof. The water quality standards of the secretary may not specify the design of equipment, type of construction or particular method which a person shall use to reduce the discharge of a pollutant.

(d) The secretary shall establish the antidegradation implementation procedures as required by 40 C. F. R. 131.12(a) which apply to regulated activities that have the potential to affect water quality. The secretary shall propose for legislative approval, pursuant to article three, chapter twenty-nine-a of the code, legislative rules to establish implementation procedures which include specifics of the review depending upon the existing uses of the water body segment that would be affected, the level of protection or "tier" assigned to the applicable water body segment, the nature of the activity and the extent to which existing water quality would be degraded. Any final classification determination of a water as a Tier 2.5 water (Water of Special Concern) does not become effective until that determination is approved by the Legislature through the legislative rule-making process as provided in article three, chapter twenty-nine-a of the code.

(f) The secretary shall propose rules measuring compliance with the aquatic life component of West Virginia's narrative water quality standard requires evaluation of the holistic health of the aquatic ecosystem and a determination that the stream: (i) contains appropriate trophic levels of fish, in streams that have flows sufficient to support fish populations; and (ii) the aquatic community is composed of benthic invertebrate assemblages sufficient to perform the biological functions necessary to support fish communities within the assessed reach, or, if the assessed reach has insufficient flows to support a fish community, in those downstream reaches where fish are present. The secretary shall propose rules for legislative approval in accordance with the provisions of article three, chapter twenty-nine-a of this code that implement the provisions of this subsection. Rules promulgated pursuant to this subsection may not establish measurements for biologic components of West Virginia's narrative water quality standards that would establish standards less protective than legislatively-approved rules that existed at the time of enactment of the amendments to this subsection by the Legislature during the 2012 regular session. [Emphasis added.]

Pursuant to WVDEP's authority granted in West Virginia Code §22-11-7b, the agency promulgated proposed rules which were then reviewed and authorized by the West Virginia Legislature. These are found in West Virginia's Code of State Rules, being 47 CSR 02, which became effective on February 28, 2022, and states in part:

§47-2-3. Conditions Not Allowable In State Waters.

3.1. Certain characteristics of sewage, industrial wastes, and other wastes cause pollution and are objectionable in all waters of the State. Therefore, the secretary does hereby proclaim that the following general conditions are not to be allowed in any of the waters of the State.

3.2. No sewage, industrial wastes or other wastes present in any of the waters of the State shall cause therein or materially contribute to any of the following conditions thereof:

3.2.e. Materials in concentrations which are harmful, hazardous or toxic to man, animal or aquatic life;

3.2.i. Any other condition, including radiological exposure, which adversely alters the integrity of the waters of the State, including wetlands; no significant adverse impact to the chemical, physical, hydrologic, or biological components of aquatic ecosystems shall be allowed.

Moreover, the West Virginia Legislature clearly expressed its will and intent when it provided additional guidance to WVDEP in House Concurrent Resolution No. 111, which was adopted by both houses of the West Virginia Legislature on March 13, 2010, and subsequently communicated to EPA. A copy of this resolution is attached hereto.

As discussed above and in previous years, the issues raised by EPA concerning methodology for Clean Water Act 303(d) listing is a matter of public policy which was reserved to the States. The West Virginia Legislature has the authority and the duty under the CWA to establish the public policy and has done so in compliance with the CWA. This Legislature believes that EPA is usurping our state's authority through an informal process that requires formal rulemaking and is therefore violating this state's and its citizens' due process rights.

This Legislature is confident that WVDEP has satisfied all statutory and regulatory requirements, both state and federal, and provided EPA more than adequate technical, science-based rationales which are legally required of it concerning the State of West Virginia's narrative water quality criteria as applied to aquatic life.

Thus, pursuant to the authority discussed above, the West Virginia Legislature urges the EPA to acknowledge and determine, after further review, that the submittals as filed on May 5, 2023, are in full compliance under the statutory and regulatory requirements imposed by the CWA and the laws of the State of West Virginia. If and when EPA formally promulgates through proper rulemaking procedures a required scientific methodology, West Virginia's Legislature and its Executive Branch stand ready to revisit these issues pursuant to our duties and obligations to our citizens and the nation.

# State of West Virginia
# Legislative Resolution

**HOUSE CONCURRENT RESOLUTION NO. 111**

(By Delegates Butcher, Cann, Givens, Manchin and Shott)

[Adopted by the Legislature March 13, 2010.]

Urging the United States Environmental Protection Agency to interpret the West Virginia Water Pollution Act in the manner that will faithfully balance the protection of the environment with the need to maintain and expand opportunities for employment, agriculture and industry as set forth in the Legislature's statement of public policy as contained in the West Virginia Water Pollution Control Act.

WHEREAS, In enacting the Federal Water Pollution Control Act Congress declared that "it is the policy of Congress to recognize, preserve and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use of land and water resources...." ; and

WHEREAS, As an exercise of its sovereign and primary right to plan the development and use of its lands and water resources the West Virginia Legislature previously enacted Chapter 22 Article 11 of the 1931 Code of West Virginia as amended, the West Virginia Water Pollution Control Act, and in that enactment declared it to be "the public policy of the State of West Virginia to maintain reasonable standards of purity and quality of the water of the state consistent with (1) public health and enjoyment thereof; (2) the propagation and protection of animal, bird, fish, aquatic and plant life; and (3) the expansion of employment opportunities, maintenance and expansion of agriculture and the provision of a permanent foundation for healthy industrial development."; and

WHEREAS, The State of West Virginia has developed and implemented environmental protection performance and permitting standards to adequately protect the waters of the State consistent with this statement of public policy; and

WHEREAS, Such standards have been promulgated by the West Virginia Department of Environmental Protection and the Legislature and submitted to and approved by the United States Environmental Protection Agency pursuant to the federal Clean Water Act; and

WHEREAS, These environmental protections and permitting measures include narrative water quality standards codified at 47 CSR 2-3; and

WHEREAS, West Virginia's narrative standards must be implemented and interpreted in a manner that is protective of aquatic communities consistent with the Legislature's statement of public policy and applicable laws; and

WHEREAS, The State of West Virginia has not adopted subcategories of special use to protect a certain species of mayfly but protects the aquatic community consistent with the Legislature's statement of public policy; and

WHEREAS, West Virginia's economic stability relies on the accurate implementation of applicable laws as enacted by the Legislature; and

WHEREAS, The current method in which the United States Environmental Protection Agency is interpreting the West Virginia Water Pollution Control Act is hindering economic development within the state which directly affects the employment opportunities available to all West Virginians; and

WHEREAS, The West Virginia Legislature would not enact legislation that would have a detrimental effect on the industrial progression of the state and cause or contribute to environmental degredation; therefore, be it

*Resolved by the Legislature of West Virginia*:

That any interpretation and implementation of West Virginia's narrative water quality standards is the responsibility of the West Virginia Department of Environmental Protection; and, be it

*Further Resolved*, That the requirements of the narrative criteria are met, when a stream (a) supports a balanced aquatic community that is diverse in species composition; and (b) contains appropriate trophic levels of fish (in streams with sufficient flows to support fish

populations); and (c)the aquatic community is not composed only of pollution tolerant species, or the aquatic community is composed of benthic invertebrate assemblages sufficient to perform the biological functions necessary to support fish communities within the assessed reach (or, if the assessed reach has insufficient flows to support a fish community, in those downstream reaches where fish are present); and, be it

*Further Resolved*, That interpretation of West Virginia's narrative water quality standards must faithfully balance the protection of the environment with the need to maintain and expand opportunities for employment, agriculture and industry as set forth in the Legislature's statement of public policy as contained in the West Virginia Water Pollution Control Act; and, be it

*Further Resolved*, That the West Virginia Legislature encourages the United States Environment Protection Agency to change their current interpretation of the West Virginia Water Pollution Control Act to include the intent of the 72nd and subsequent Legislatures; and be it

*Further Resolved*, That the Clerk of the House of Delegates forward a certified copy of this resolution to the West Virginia Department of Environmental Protection, the United States Environmental Protection Agency, the Huntington District of the United States Army Corps of Engineers, and other appropriate state and federal agencies.

State of West Virginia
Office of the Attorney General

Patrick Morrisey
Attorney General

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October 18, 2023

***SUBMITTED VIA EMAIL***

Mr. Gregory Voigt
voigt.gregory@epa.gov
Mail Code 3WD42
U.S. Environmental Protection Agency
Region 3 Water Division
Four Penn Center
1600 John F. Kennedy Blvd.
Philadelphia, PA 19103–2029

**RE: Clean Water Act: Identification of Water Quality-Limited Segments To Be Added to West Virginia's Section 303(d) List**

Dear Mr. Voigt,

As the Attorney General of West Virginia, I write to submit comments on the above referenced action by the United States Environmental Protection Agency ("EPA").

Under Section 303(d) of the Clean Water Act, each State identifies water quality-limited segments for which existing technology-based pollution controls are not stringent enough to attain or maintain State water quality standards.[1] For these segments, the State is required to prepare total maximum daily loads.[2] West Viginia submitted its list on May 5, 2023. On July 19, EPA published a notice of partial disapproval of West Virginia's list, adding 346 segments.[3]

[1] 33 U.S.C. § 1313(d).
[2] *Id.*
[3] 88 Fed. Reg. 46156 (July 19, 2023).

EPA's action is mistaken policy and arbitrary and capricious. The basis of the disapproval is a difference in how certain data is considered in the process. The State should be able to make such decisions in the Section 303(d) process, and EPA has not justified its action with a reasoned basis.

EPA should act consistent with the cooperative federalism structure and intent of Congress in the Clean Water Act. At the same time that Congress crafted the statute's federal programs to "restore and maintain … the Nation's waters," it "recognize[d], preserve[d], and protect[ed]" the States' "primary responsibilities and rights" over their "land and water resources." 33 U.S.C. § 1251(b). This partnership makes sense: the States' authority to regulate intrastate lands and waters "is perhaps the quintessential state activity," *FERC v. Mississippi,* 456 U.S. 742, 767 n.30 (1982). Congress did not override this traditional authority in the Clean Water Act. Instead, it followed its usual practice of "purposeful and continued deference to state water law." *California v. United States,* 438 U.S. 645, 653 (1978). Nothing in the Act alters the baseline rule that waters within a State's borders are that "State's legitimate legislative business." *S.D. Warren Co. v. Me. Bd. of Env't Prot.,* 547 U.S. 370, 386 (2006). The Section 303(d) process should be implemented according to this cooperative federalism framework.

In fact, Congress drafted the Section 303(d) process to reflect this same federalism-forward approach. Though the Administrator has authority to approve state water lists, 33 U.S.C. § 1313(d)(2), Congress emphasized that *the States* develop those lists in the first place: "Each *State* shall identify" affected waters. *Id.* § 1313(d)(1)(A)-(B) (emphasis added). Then "[e]ach *State*" shall establish or estimate total maximum daily loads to protect water quality. *Id.* § 1313(d)(2)(C)-(D) (emphasis added). Setting aside West Virginia's judgment too quickly here disrespects the State's traditional powers over water management and Congress's decision how to allocate responsibility in this important area.

So EPA should respect the State's role in making these sorts of decisions. West Virginia is committed to maintaining the ecological integrity of its intrastate streams. EPA's proper role is limited to ensuring that the State considers all the available data and information.

And the statutory division makes sense: The State remains best positioned to fulfill its role as the party responsible for assessing the impairment of its own waters. Differences in judgment may result from the fact that WVDEP is closer to the ground. That's why it is especially important for EPA to justify its decisions. Yet here, for instance, the agency hasn't adequately explained its about-face from previously allowing West Virginia to use the Stream Condition Index to assess macroinvertebrate data at the family level. Especially where EPA acknowledges that any disagreement between this assessment and the one EPA prefers are near the attainment threshold—that is, in "edge" cases instead of areas of clear noncompliance—the agency needs to do more to show why it purports to substitute its judgment for the State's. In other words, the dispute does not rise to a level where EPA should override the State's central role in the Section 303 process.

As West Virginia's Attorney General, I urge EPA to reverse course and affirm West Virginia's Section 303(d) listing. This dispute does not rise to the level that warrants EPA overruling the State.

Thank you for your time and consideration.

Sincerely,

Patrick Morrisey
West Virginia Attorney General

# Mining Regulated Community

# West Virginia Coal Association

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**October 18, 2023**

**Mr. Gregory Voigt**
**Mail Code 3WD42**
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**Four Penn Center**
**1600 John F. Kennedy Blvd.**
**Philadelphia, PA 19103–2029.**
***Via Electronic Mail:*** ***voigt.gregory@epa.gov***

**Re: FRL–10978–01–R3 Comment**
**Clean Water Act: Identification of Water Quality-Limited Segments To Be Added to West Virginia's Section 303(d) List**

**Dear Mr. Voight:**

Pursuant to the Federal Register Notice published on July 19, 2023, the West Virginia Coal Association (WVCA) offers the following comments regarding the United States Environmental Protection Agency's (US EPA's) proposed partial disapproval of the Clean Water Act Section 2018-2020-2022 Section 303(d) List (the 2022 303(d) List) prepared by the West Virginia Department of Environmental Protection (WVDEP).

*In addition to consideration of these comments relative to the proposed West Virginia over-listing action, please regard this submission as a formal request under the Freedom of Information Act (5 U.S.C. §552 et. seq.) for information regarding specific instances where EPA has forcibly over-listed other states using benthic assessment information or mandated the use of specific benthic methodologies in the development of impaired stream listings.*

WVCA is a trade association representing the interests of companies engaged in the mining of coal within the State of West Virginia. WVCA's producing membership accounts for more than 80 percent of West Virginia's underground and surface production of both thermal and metallurgical coal. WVCA also represents approximately 150 associate members that supply an array of services to the mining industry, including permitting, environmental, and engineering consulting firms; mining equipment manufacturers; coal transportation companies; coal consumers and land and mineral holding companies. WVCA's primary goal is to enhance the viability of West Virginia coal as a source of domestic energy by facilitating environmentally responsible coal mining through reasonable, equitable, and achievable state and federal policy and regulation. WVCA is the largest state coal trade association in the nation.

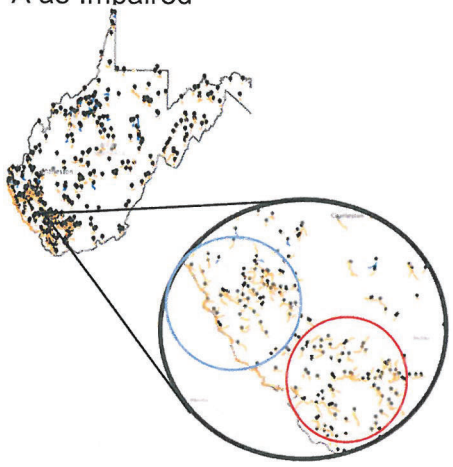
## 1.0 Introduction

On June 1, 2023, the US EPA partially approved and partially disapproved West Virginia's Combined In its transmittal letter, US EPA stated that the partial disapproval is based on "WVDEP's decision not to evaluate all existing and readily available data regarding whether certain waters are achieving West Virginia's narrative water quality criteria." (Cover Letter, p. 1). EPA's rationale is set forth in Enclosure 1 to its correspondence. Specifically, US EPA states that West Virginia failed to use genus level macroinvertebrate data in determining whether to list streams on the 2022 303(d) List (Enclosure 1, pp 10-11).

US EPA published its decision to partially disapprove the 2022 303(d) list in the Federal Register on July 19, 2023 (88 FR 46156). This publication requested public comment on US EPA's identification of additional water quality-limited segments for inclusion in the 2022 303(d) List. Again, EPA reiterated that 40 CFR § 130.7 "requires states to assemble and evaluate all existing and readily-available water quality data and to use that data to identify water quality-limited segments still requiring TMDLs" (88 FR 46156).

US EPA proposes to add 346 streams and to remove 27 streams from the 2022 303(d) List. These are listed in Enclosures 3 and 4 to its correspondence dated June 1, 2023. US EPA based its decisions upon genus level macroinvertebrate data provided by the WVDEP to US EPA in support of its 2022 303(d) List. One hundred and eighty of these 346 streams (55%) are in just three watersheds -- the Upper and Lower Guyandotte and the Tug Fork watersheds, all of which are in southern West Virginia.

**Figure 1:** Location of Streams Listed by US EPA as Impaired



The central issue in this matter is whether US EPA has the authority to require WVDEP to make its 303(d) listing determinations based on genus level macroinvertebrate data. We contend that US EPA has abused its discretion in overstepping the data decisions made by WVDEP in listing West Virginia streams based primarily upon family level macroinvertebrate data.

## 2.0 Regulatory Background

### 2.1 Narrative Criteria

According to the requirements of the federal Clean Water Act and the West Virginia Water Pollution Control Act (WV WPCA), WVDEP has developed water quality standards that are set forth in 47 CSR 2. The water quality standards include both numeric and narrative criteria to protect the existing and designated uses of waters of the State. Whereas the numeric criteria provide concentrations of pollutants that are not to be exceeded to protect aquatic life and human health, the narrative criteria provide a description of conditions that are not allowed in waters of the State. In pertinent part, the narrative criteria in 47 CSR § 2-3.2 state the following:

> 3.2. No sewage, industrial wastes or other wastes present in any of the waters of the state shall cause therein or materially contribute to any of the following conditions thereof:
>
> 3.2.e. Materials in concentrations which are harmful, hazardous or toxic to man, animal or aquatic life;
>
> 3.2.i. Any other condition, including radiological exposure, which adversely alters the integrity of the waters of the State including wetlands; **no significant adverse impact to the chemical, physical, hydrologic, or biological components of aquatic ecosystems shall be allowed**.

(Emphasis added).

### 2.2 303(d) Listing

The 303(d) List receives its name from the applicable section of the Clean Water Act, which states the following:

> (d) Identification of areas with insufficient controls; maximum daily load; certain effluent limitations revision
>
> (1)(A) Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.[1]

This process is further defined under the applicable regulations in 40 CFR § 130.7:

> (b) Identification and priority setting for water quality-limited segments still requiring TMDLs.
>
> (1) Each State shall identify those water quality-limited segments still requiring TMDLs within its boundaries for which:

[1] 33 USC §1313(d)

(i) Technology-based effluent limitations required by sections 301(b), 306, 307, or other sections of the Act;

(ii) More stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the Act, or Federal authority (law, regulation, or treaty); and

(iii) Other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters.[2]

The regulations also define the information that must be considered in preparing the 303(d) list:

(5) **Each State shall assemble and evaluate all existing and readily available water quality-related data** and information to develop the list required by §§ 130.7(b)(1) and 130.7(b)(2). ...[3]

Each State is required to provide documentation to support its 303(d) listing decisions to US EPA for review:

(6) Each State shall provide documentation to the Regional Administrator to support the State's determination to list or not to list its waters as required by §§ 130.7(b)(1) and 130.7(b)(2). This documentation shall be submitted to the Regional Administrator together with the list required by §§ 130.7(b)(1) and 130.7(b)(2) and shall include at a minimum:

(i) A description of the methodology used to develop the list; and

(ii) A description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5); and

(iii) A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in § 130.7(b)(5); and

(iv) Any other reasonable information requested by the Regional Administrator. Upon request by the Regional Administrator, each State must demonstrate good cause for not including a water or waters on the list. Good cause includes, but is not limited to, more recent or accurate data; more sophisticated water quality modeling; flaws in the original analysis that led to the water being listed in the categories in § 130.7(b)(5); or changes in conditions, e.g., new control equipment, or elimination of discharges.[4]

Finally, the regulations specify the procedure by which US EPA reviews the 303(d) List:

(2) The Regional Administrator shall either approve or disapprove such listing and loadings not later than 30 days after the date of submission. **The Regional Administrator shall approve a list** developed under § 130.7(b) that is submitted after the effective date of this rule only **if it meets the requirements of § 130.7(b).**

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[2] 40 CFR §130.7(b)(1)
[3] 40 CFR §130.7(b)(5)
[4] 40 CFR §130.7(b)(6)

> If the Regional Administrator approves such listing and loadings, the State shall incorporate them into its current WQM plan. **If the Regional Administrator disapproves such listing and loadings, he shall,** not later than 30 days after the date of such disapproval, **identify such waters in such State and establish such loads for such waters as determined necessary to implement applicable WQS**. The Regional Administrator shall promptly issue a public notice seeking comment on such listing and loadings. After considering public comment and making any revisions he deems appropriate, the Regional Administrator shall transmit the listing and loads to the State, which shall incorporate them into its current WQM plan.[5]

**2.3 Determination of Biological Impairment.**

As set forth in 47 CSR § 2-3.2, the narrative criteria in the West Virginia water quality standards protect the biological community in West Virginia waters from *"significant adverse impact."* The term "significant adverse impact" is not defined in 47 CSR 2 with regard to stream biology. ***However, any interpretation of West Virginia's narrative criteria must be consistent with the public policy goals of the West Virginia Legislature.***

In 2010, the Legislature unanimously adopted House Concurrent Resolution No. 111 regarding the intent of the state's narrative criteria. The Legislature determined that the requirements of the state's narrative criteria are satisfied when a stream segment:

> (a) supports a balanced aquatic community that is diverse in species composition; and (b) contains appropriate trophic levels of fish (in streams with sufficient flows to support fish populations); and (c) the aquatic community is not composed only of pollution tolerant species or the aquatic community is composed of benthic invertebrate assemblages sufficient to perform the biological functions necessary to support fish communities within the assessed reach (or, if the assessed reach has insufficient flows to support a fish community in those downstream reaches where fish are present).[6]

The Legislature also reminded WV DEP that any interpretation and/or implementation of the narrative criteria must remain faithful to the guiding principles of the WV WPCA:

> ... the agency's interpretation of West Virginia's narrative water quality standards must faithfully balance the protection of the environment with the need to maintain and expand opportunities for employment, agriculture and industry as set forth in the Legislature's statement of public policy as contained in the West Virginia Water Pollution Control Act.[7]

WVDEP has also recognized the limited scope and regulatory applicability of narrowly-focused measurements like the GLIMPSS and the WVSCI:

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[5] 40 CFR §130.7(d)(2)
[6] House Concurrent Resolution No. 111, adopted unanimously by the West Virginia Legislature during the 2010 Regular Session.
[7] *Id.*

> These tools are just that, tools. ***They are not stand-alone determinants of compliance with the narrative criterion.*** Any application of these assessment tools in determining compliance with the narrative criterion must faithfully apply the language of the standard itself, which prohibits significant adverse impacts on the biologic component of the aquatic ecosystem (emphasis added).[8]

With respect to the GLIMPSS specifically, WV DEP stated: " ... West Virginia does not use ... GLIMPSS in its assessment of the biologic health of West Virginia streams."[9]

WV DEP also addressed the narrow scope of the WVSCI and similar tools like the GLIMPSS and their limited use for any determination concerning the state's narrative standard in a letter to the U.S. Army Corps of Engineers: "Where the only impacts to this component of the ecosystem are diminished numbers of certain genera of mayflies, without evidence that this has had any adverse impact of any significance on the rest of the ecosystem, the State cannot say there has been a violation of its narrative standard."

In 2010, WVDEP developed an additional internal document to guide the state agency's actions with respect to the narrative criteria. Consistent with the instructions of the Legislature, WVDEP acknowledged the limited applicability of the insect-only assessment methods:

> Through adoption of H.C.R. 111, the West Virginia Legislature has given [WV] DEP direction as to how it should implement its narrative water quality standards. [WV] DEP has determined that "significant adverse impact" is more than a change in the numbers or makeup of the benthic macro invertebrate community in a segment of a water body downstream from a point source discharge. **It is, instead, a material decline in the overall health of an aquatic ecosystem.** A goal of the CWA and WV WPCA is to protect the aquatic ecosystem as a whole; it is a holistic standard that requires a holistic approach to ecosystem assessment. In contrast to numeric water quality criteria, which can be applied by analysis of samples of water taken at any discharge or monitoring point in a stream, compliance with a standard that protects the aquatic ecosystem must be assessed in the broader area comprising the ecosystem. **An ecosystem does not exist at a single point and, accordingly, its health cannot be assessed at a single point.**
>
> Thus, [WV] DEP's Guidance follows long-standing EPA guidance, which indicates that bio surveys cannot fully characterize an entire aquatic community and its many attributes, and accordingly suggests, "State standards should contain biological criteria that consider various components (e.g., algae, invertebrates, fish) and attributes that (measures of structure and/or function) of the larger aquatic community.[10]

In 2017, the West Virginia Legislature passed Senate Bill 687, which modified the WV WPCA to clarify the conditions under which the narrative criteria are satisfied with regard to biological conditions. Specifically, W.

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[8] Statement by Randy Huffman, Cabinet Secretary, West Virginia Department of Environmental Protection, to U.S. Senate Committee on Environment and Public Works, Subcommittee on Water and Wildlife, June 25, 2010.
[9] *Id.*
[10] West Virginia Department of Environmental Protection, "Narrative Water Quality Standard Interpretive Policy Justification Document", August 12, 2010.

Va. Code §22-11-7b(f) codifies the "procedure to determine compliance with the biologic component of the narrative water quality standard" as follows:

> (f) The secretary shall propose rules measuring compliance with the **aquatic life component of West Virginia's narrative water quality standard requires evaluation of the holistic health of the aquatic ecosystem** and a determination that the stream: (i) contains appropriate trophic levels of fish, in streams that have flows sufficient to support fish populations; and (ii) the **aquatic community is composed of benthic invertebrate assemblages sufficient to perform the biological functions necessary to support fish communities** within the assessed reach, or, if the assessed reach has insufficient flows to support a fish community, in those downstream reaches where fish are present.

## 3.0 Technical Background

### 3.1 Biological Metrics in West Virginia

Two methodologies have been developed to assess biological data in West Virginia. The West Virginia Stream Condition Index (WVSCI) was published in 2000 and is based on a family-level stream scoring technique. The Genus-Level Index of Most Probable Stream Status (GLIMPSS) is a newer assessment methodology based on a genus-level stream scoring technique.

The central issue in this matter is whether family level biological data or genus level biological data is to be used in impairment determinations for West Virginia waters. To be clear, both assessment methodologies utilize exactly the same biological data collected by scientists utilizing the Watershed Assessment Branch Sampling SOPs (standard operating procedures) developed by the WVDEP.[11] Benthic macroinvertebrate procedures are set forth in Chapter 5 of the SOPs. The sampling methodology is based upon US EPA's *Rapid Bioassessment Protocols for Use in Wadable Rivers and Streams, Second Edition*, July 1999 (EPA 841-B-99-002). Importantly, WVDEP and US EPA agree on sampling methodology or laboratory processing of benthic macroinvertebrate samples. The SOPs specify that all aquatic macroinvertebrate taxa should be identified to the genus level or

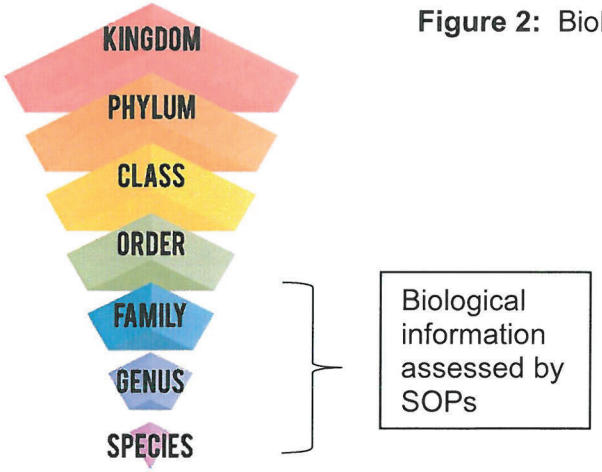



**Figure 2:** Biological Taxonomic Groups

[11] https://dep.wv.gov/WWE/watershed/Pages/WBSOPs.aspx

lowest practical taxon including insects, snails, clams, crustaceans (including crayfish), and worms." (SOPs, pp. 5-21 to 5-22). Biological taxonomic groups are arranged as follows:

WVSCI and GLIMPSS are procedures or indices used to interpret the biological data generated under the SOPs. Whereas WVSCI breaks the assessment level to family level taxa, GLIMPSS focuses on genus level taxa. WVSCI is a statewide index, whereas GLIMPSS provides different indices based on season and ecological region (seagion). The goal of both procedures is to create a scoring mechanism for benthic samples to determine the overall health of the macroinvertebrate community at a monitoring station. The metrics used to score streams under WVSCI and GLIMPSS are summarized in Tables 1 and 2:

**Table 1:** WVSCI Metric Calculations (Family Level)

| Metric | Description |
|---|---|
| % Top 2 Dominant Taxa | Sum of top two species ÷ total number c<br>Points calculated by (100-Score) ÷ 62.7 x 100 |
| % Chironomidae | Midge family- No. Chronomidea ÷ total No. specimens<br>Points calculated by(100- Score) ÷ 98.43 times 100 |
| % EPT Abundance | Score is sum of EPT species ÷ total specimens x 100<br>Points calculated by (100-Score) ÷ 89.3 x 100 |
| HBI (Family Level) | Score is total specimens x tolerance factor ÷ total individuals<br>Points calculated by (10-Score) ÷ 7.39 x 100 |
| EPT Taxa Richness | Score is sum of all families from E15 to E26<br>Points calculated by (Score ÷ 13) x 100 |
| Total Taxa Richness | Score is sum of all families<br>Points calculated by (Score ÷ 22) x 100 |

**Table 2:** GLIMPSS Metric Calculations (Genus Level)

| | Spring Mountai | Summer Mtn <60 | Summer Mtn >60 | Spring Plateau | Summer Plateau | Winter Plateau |
|---|---|---|---|---|---|---|
| No. Intolerant Taxa HBI <3 | | | | | ✓ | |
| No. Intolerant Taxa HBI <4 | ✓ | ✓ | ✓ | ✓ | | ✓ |
| No. Ephemeropteran Genera | ✓ | ✓ | | ✓ | ✓ | ✓ |
| No. Plecopteran Genera | ✓ | ✓ | | ✓ | | ✓ |
| No. Trichopteran Genera | ✓ | | | | | |
| No. EPT Taxa | | | ✓ | | | |
| No. Shredders | | ✓ | | | | |
| No. Clingers | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| No. Scrapers | ✓ | | | | ✓ | |
| No. Total Taxa | | ✓ | | | ✓ | |
| % Ephemeroptera | ✓ | | | | | |
| % Chironomidae | | | ✓ | | ✓ | |
| % Chironomidae + Annelida | ✓ | | | ✓ | | ✓ |
| % EPT minus *Cheumotopsyche* | | ✓ | ✓ | ✓ | ✓ | ✓ |
| % 5 Dominant Taxa | ✓ | ✓ | ✓ | | ✓ | |
| HBI (Genus Level) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

☐ Positive scoring metric (increases with improving water quality)

☐ Negative scoring metric (decreases with improving water quality

Each metric is assigned a weight in the scoring for the procedure. The scores are not directly comparable across indices. While WVSCI scores range from 0 to 100, GLIMPSS scores are expressed as a percentage of the threshold value for the seagion. The threshold value for WVSCI is 72, indicating that streams above 72 are considered unimpaired. The threshold value for each seagion is different, but the acceptable percentage of threshold value is constant at 100%.

### 3.2 The Role of Reference Streams

Both WVSCI and GLIMPSS are based on the use of reference conditions to set the threshold values for impairment. "Reference conditions represent the characteristics of stream reaches that are least disturbed by human activities and are used to define benchmarks for chemical, biological, and habitat conditions for a region."[12] By definition, reference streams are intended to be "a population of sites or streams with similar physical characteristics and minimal human impact."[13] Reference stream characteristics are defined in Table 3:

**Table 3:** Summary of WVDEP Reference Site Selection Criteria

| Parameter and Criterion | Explanation |
|---|---|
| D.O. > 5.0 mg/l | Taken from "WV Water Quality Standards" (47CSR2). |
| pH between 6.0 and 9.0 S.U. | Taken from "WV Water Quality Standards" (47CSR2). |
| Conductivity < 500 µmhos/cm | A value > 500 may indicate the presence of dissolved ions exceeding the background levels for the area. |
| Fecal coliform bacteria < 800 colonies/100 ml | Fecal coliform bacteria data is used as a means of flagging a site for further investigation before it can be considered a reference site. |
| Epifaunal substrate/ available fish cover ≥ 11 | Lowest score possible for sub-optimal rating - USEPA-RBP habitat score - 0 to 20 point scale. |
| Channel alteration ≥ 11 | |
| Sediment deposition ≥ 11 | |
| Bank vegetative protection (right bank ≥ 6 & left bank ≥ 6) | Lowest score possible for marginal rating - US EPA-RBP habitat score - 0 to 10 point scale for each bank. |
| Undisturbed riparian vegetative zone width (right bank ≥ 6 & left bank ≥ 6) | |
| Total habitat score ≥ 130 | Mid suboptimal score - U.S. EPA-RBP habitat score - 0 to 200 point scale. |
| No known point source discharges upstream of assessment site (*i.e.*, NPDES) | Based on GIS coverage and field reconnaissance to identify point source discharges |
| Evaluation of anthropogenic activities and disturbances at the assessment site | Based on visual inspection and GIS coverage of number and type of disturbance(s, best professional judgment is employed to make reference site inclusions |
| No obvious sources of NPS (Non-Point Source) pollution near assessment site | Obvious sources of NPS are documented within the assessment area and upstream of the assessment site. Best professional judgment is employed to make reference site inclusions based on the type and intensity of the NPS. |
| No known violations of state water quality criteria | Because of their toxicity, metals are the primary consideration when evaluating data for violations. If there is a violation of a water quality criterion as set forth in 47CSR2, the site is eliminated from reference site consideration |

Reference streams are the best, most pristine streams in West Virginia. Each time WVDEP conducts biological stream sampling, all surface waters that meet reference conditions are added to the list of reference streams. In other words, WVDEP continues to add our best waters to the list of reference streams.

[12] *The West Virginia GLIMPSS: Genus Level Index of Most Probable Stream Status*, USEPA (2011), p. 11.
[13] *Id.*

*The identification of reference streams should be inherently good.* ***This is not the case***. The threshold for impairment – whether GLIMPSS or WVSCI -- is based on the fifth percentile of scores for reference streams. For simplicity, let's assume that WVDEP has identified 100 reference streams. The WVSCI (or GLIMPSS) scores for the 100 streams are ranked from highest to lowest. To set the threshold for impairment is set at the WVSCI score for the fifth stream from the bottom of the list. For WVSCI, the impairment threshold is 72, meaning that five percent of reference streams have a WVSCI score at or lower than 72. However, this number can change over time.

By definition, both WVSCI and GLIMPSS assume that 5% of our best streams are biologically impaired. These streams would be listed as impaired on the 303(d) list. This has nothing to do with a scientific determination that these streams are not meeting biological function. Indeed, these streams have either little or no human impacts. None of them have point source or nonpoint sources of pollution. They all have good habitat for insects and little channel alteration, sediment deposition, and vegetative protection. All parameters must meet numeric water quality standards. If a TMDL were pursued for these streams, no stressor could possibly be identified.

## 4.0 Discussion

### 4.1 WVDEP has satisfied the requirement to "assemble and evaluate all existing and readily available water quality-related data."

US EPA's partial disapproval of the West Virginia 2022 303(d) list is based on WVDEP's alleged failure to "evaluate all existing and readily available water quality-related data" in identifying streams for biological impairment. ***This is factually incorrect and fundamentally misleading.***

As required by 40 CFR §130.7(b)(6), WVDEP provided a detailed package of information to US EPA to support its 2022 303(d) list. In fact, the only area where US EPA disagreed with WVDEP's listing rationale and justification involved the determination of biological impairment. Not only did WVDEP provide both WVSCI and GLIMPSS scores to US EPA in support of its listing determination, but it also provided all of the individual metrics utilized to calculate these indices. *It is impossible* for WVDEP to have prepared either the WVSCI or GLIMPSS scores without considering every piece of laboratory data generated by the scientists who identified the macroinvertebrates, down to the lowest possible taxonomic level, as required by the SOPs.

***Neither GLIMPSS nor WVSCI constitutes data.*** They are *indices* that attempt to place a *weight* on the biological data in comparison to reference streams. These reference streams are, by definition, waters with no anthropogenic impacts. As described in greater detail in Section 3.2 herein, these metrics are designed to assume that five percent of these reference streams are biologically "impaired," even with no indication that a "significant adverse impact" has occurred to the "biological component of the aquatic ecosystem" as contemplated by the narrative criteria.

In contravention to WVDEP's methodology developed for biological listing decisions, US EPA elevated the genus-level biological compared to family-level biological data. This is inconsistent with the statutory language of the WVWPCA, which clearly states that a stream is in compliance with the biological component of the narrative criteria if "the aquatic community is composed of benthic invertebrate assemblages sufficient to perform the biological functions necessary to support fish communities." This does not require that specific genera of bugs be present in certain numbers that exist in the best streams in West Virginia with no anthropogenic activities.

WVDEP provided the rationale its 2022 303(d) listing decisions in the *2018/2020/2022 West Virginia Integrated Water Quality Monitoring and Assessment Report* (the 2022 Integrated Report). Biological impairment data is discussed in Section 5.4 of the Integrated Report, and the assessment methodology for determining biological impairment is provided in Appendix A to the Integrated Report. Moreover, all of the biological data considered by WVDEP was provided to US EPA via ATTAINS, which is US EPA's electronic system to track 303(d) submissions.

States are required by 40 CFR §130.7(b)(5) to "assemble and evaluate" all available data. Clearly, West Virginia assembled and evaluated all of the data provided to US EPA via ATTAINS. This includes benthic macroinvertebrate data, along with classification of the biological data by both WVSCI and GLIMPSS indices. US EPA simply disagrees with the weight that WVDEP assigned to the genus-level data versus family-level calculations in making its listing decisions.

### 4.2 US EPA has exceeded its authority in requiring West Virginia 303(d) listings to be based upon GLIMPSS.

As set forth in Section 3.2 herein, the fundamental difference between WVSCI and GLIMPSS is that WVSCI groups biological data into metrics based on family-level taxonomy, whereas GLIMPSS groups biological data intro metrics based on genus-level taxonomy. Both are simply scoring mechanisms that attempt to evaluate individual benthic counts on a more holistic basis.

***The federal regulations do not impose any specific evaluation methodologies in making listing decisions, nor do any federal requirements specify that States must utilize genus-level indices for biological data assessment.*** West Virginia describes in detail the rationale for considering WVSCI scores in nearly all circumstances to make listing decisions. West Virginia also describes how GLIMPSS scores are utilized to supplement listing decisions where stream classification data is not conclusive regarding biological integrity.

US EPA provides biennial guidance documents regarding Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act (the IR Guidance). The 2022 IR Guidance does not discuss the role of biological assessment methodologies in 303(d) listing determinations. The most

recent statement by US EPA regarding assessment of the narrative criteria is provided in the 2016 IR Guidance, which states "several States have biological narratives that require an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms, having species composition, diversity, population densities and functional organization similar to that of reference conditions." (p. 14) *It does not require States to develop a particular "biological narrative," nor does it speak on the weight of genus versus family-level metrics.*

The 2006 IR Guidance provides the most detailed statements regarding use of bioassessment data in 303(d) listing decisions. The document does not contain any reference to genus versus family level indices. Instead, the document provides States with broad discretion in developing metrics to assess biosurvey data:

> EPA encourages the use of biosurvey data in concert with other specified and supplemental indicators for making an aquatic life use attainment determination. Properly developed biosurvey data can provide direct evidence of aquatic life use support. **States may develop, consistent with their assessment methodology and water quality standards, their own bioassessment approach to assessing aquatic life use support.** CALM and the 2003 *Elements of a State Water Monitoring and Assessment Program*, recommend the use of at least two assemblages (e.g., fish and macroinvertebrates) in such assessments (See Table 5-1 taken from *Elements of a State Water Monitoring and Assessment Program*).

(2006 IRG, p. 53; emphasis added).

Neither the CWA nor the implementing regulations require States to place any particular weight on genus versus family-level biological metrics. EPA has exceeded its statutory and regulatory authority by requiring WVDEP to utilize a genus-level biological index for assessing West Virgnia waters.

EPA has undertaken this federal action to place streams on the 303(d) list using these insect scores alone. In effect, **EPA's actions with respect to this proposed 303(d) listing action effectively converts an unendorsed *methodology,* the GLIMPSS, into a *water quality standard*.** By doing so, EPA has elevated the role of the GLIMPSS in the water quality standards program to a level never contemplated nor sanctioned by the West Virginia Legislature. Hence EPA's proposed listing action is clearly contrary to rulemaking requirements of both the CWA and the WV WPCA *and will have the result of creating an illegitimate water quality standard for the State of West Virginia.*

The Clean Water Act intended for States to have primary authority for setting priorities its waters:

> **(b)Congressional recognition, preservation, and protection of primary responsibilities and rights of States**
>
> It is the policy of the Congress to recognize, preserve, and protect **the primary responsibilities and rights of States** to prevent, reduce, and eliminate pollution, **to plan the development and use (including restoration,**

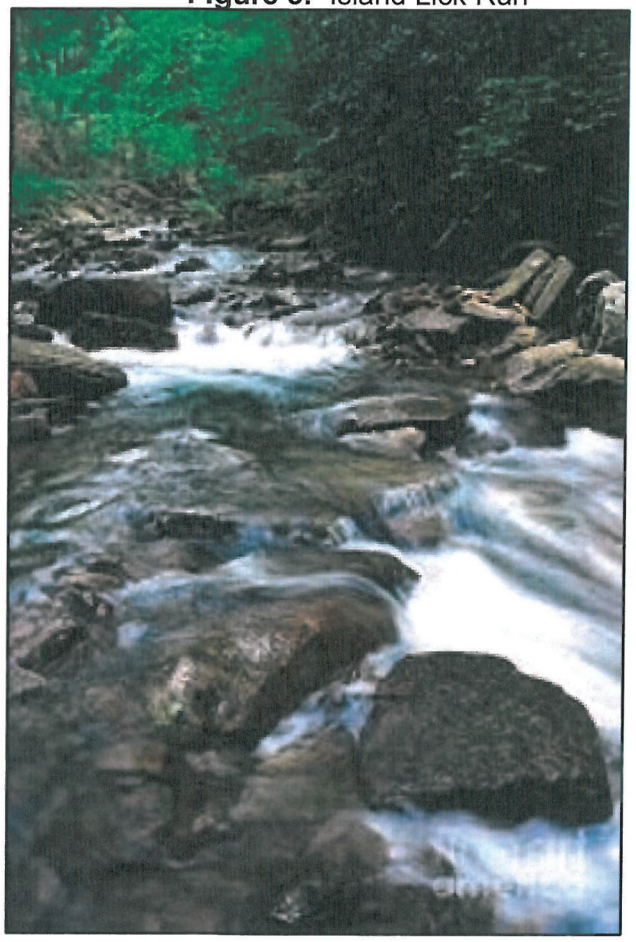
**preservation, and enhancement) of land and water resources,** and to consult with the Administrator in the exercise of his authority under this chapter.[14]

### 4.3 US EPA's listing decisions affect highly valued streams in West Virginia.

Though most of the stream segments listed by US EPA are in areas with both historic and modern anthropogenic impacts, several streams are also listed in valued and protected areas of the State. The Monongahela National Forest spans nearly one million acres and was originally established to conserve headwater streams and reestablish the forest that had been almost entirely clear cut at the turn of the 20th century. It includes wilderness and recreational areas such as Dolly Sods, Roaring Plains, Otter Creek Wilderness, and Cranberry Wilderness. It is regarded as one of the most pristine places in the Mountain State, with miles of trails, backcountry wilderness areas, and cold mountain trout streams. Several of the streams listed by US EPA fall within the boundaries of Monongahela National Forest or other state parks.

Island Lick Run bisects Watoga State Park, West Virginia's largest park. A single paved road runs along the length of the stream until it meets the Greenbrier River. Watoga Lake is upstream, which is regularly stocked with trout, and a group of cabins. The entire stream, both above and below the lake, has been classified as impaired. The watershed is very densely forested and with very few anthropogenic activities within the boundaries of the park, aside from recreation. This is evident in the water chemistry collected by WVDEP for the stream, which shows circumneutral pH, conductivity under 50 µmhos/cm, low fecal coliform counts, and low concentrations of nutrients, ions, and metals.

**Figure 3:** Island Lick Run



Barrenshe Run is a tributary of the Cranberry River near Richwood, WV. The Woodbine Picnic Area is at the intersection of Barrenshe Run and the Cranberry River. The stream is located entirely in the National Forest, very close to the borders of the Cranberry Wilderness Area. Other than one country club, the area surrounding the stream is entirely densely forested with only a few small roads. There is very little disturbance in this area apart from outdoor recreation such as hiking or fishing. Barrenshe Run's water chemistry data again shows excellent water quality with low or no metals and nutrients, low conductivity, high

[14] 33 U.S. Code § 1251(b)

dissolved oxygen, and circumneutral pH. Despite this, and the two streams receiving WVSCI scores of 80.76 and 90.12 respectively, both were still classified as slightly impaired by GLIMPSS and therefore listed by US EPA.

### 4.4 Fine differences between WVSCI and GLIMPSS are most evident near the compliance thresholds.

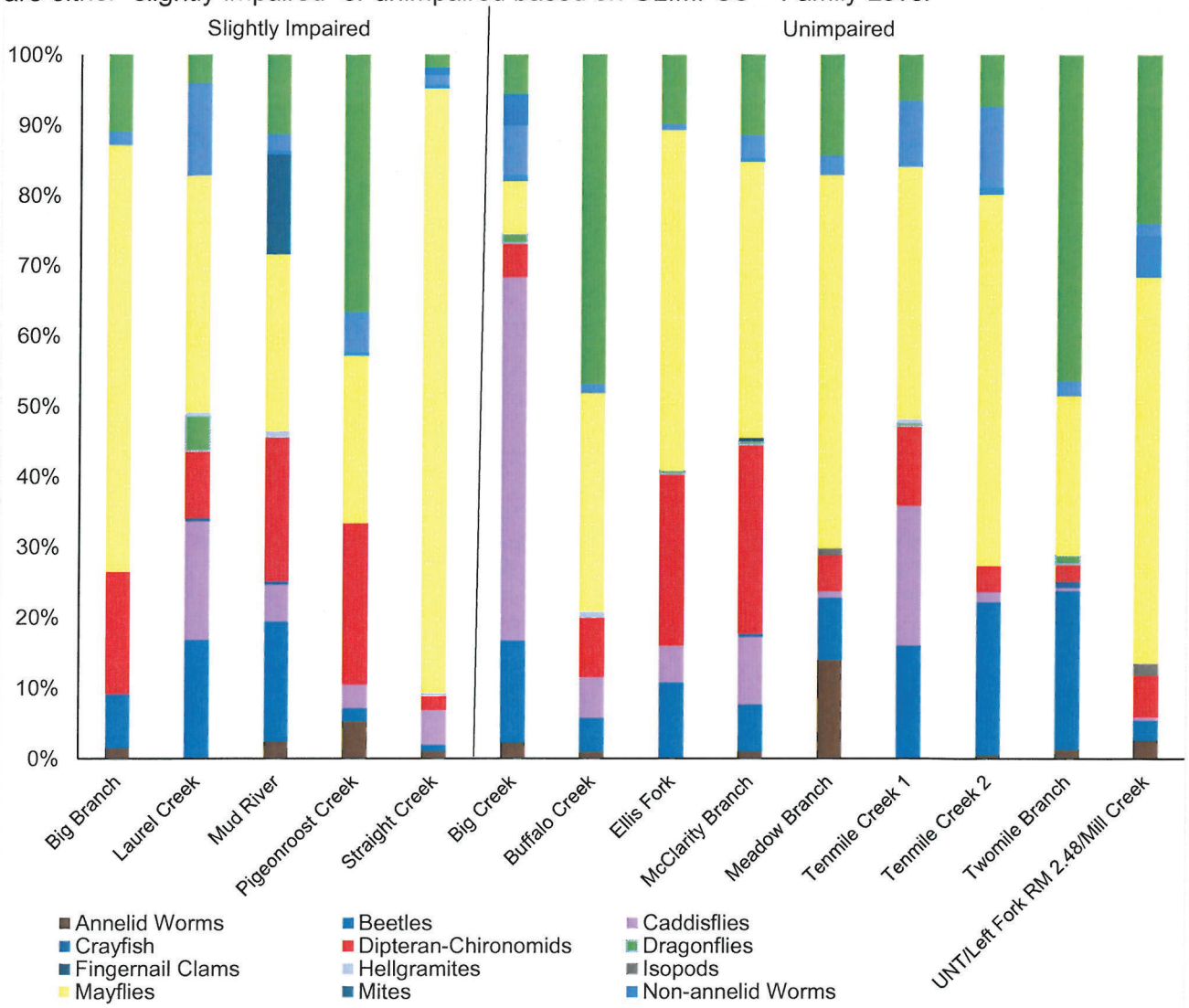
WVSCI and GLIMPSS use the exact same sample of benthic macroinvertebrates; the two indices differ only in taxonomic resolution and in the metrics used to calculate the final score. Despite a strong correlation between WVSCI and GLIMPSS scores, disagreement between the two methods is most notable around the threshold of impairment for either method and for larger streams.

- **Streams near the impairment threshold:** More than half (56%) of streams identified by US EPA as impaired had a GLIMPSS score between 90% and 99% of the GLIMPSS threshold and were therefore considered "slightly impaired". Twenty-seven of these streams received a score above 99% of the GLIMPSS threshold.
- **Larger rivers**: Likely because of habitat and flow differences compared to reference streams, 46 of the streams identified by US EPA as impaired had GLIMPPS scores below 100% of the threshold value. Nearly half of these had a score between 90% and 99% of the GLIMPSS threshold and were therefore considered "slightly impaired".
- **Slight changes to population**: Using the spreadsheet for calculation of GLIMPSS scores, slight changes were made to the population in several impaired streams to determine the impact on GLIMPSS scores. For example, if a particular sample had just one more mayfly, it could increase the overall percentage of the GLIMPSS threshold as much as 0.90%; this would mean that at least 27 of the streams EPA listed would have been in attainment if a single additional mayfly had been encountered in the sampling.

Because of the higher taxonomic resolution of GLIMPSS, slight shifts in macroinvertebrate assemblages can be detected due to anthropogenic activities. This does not mean that the streams are not meeting the West Virginia narrative criteria, as clarified in the WV WPCA.

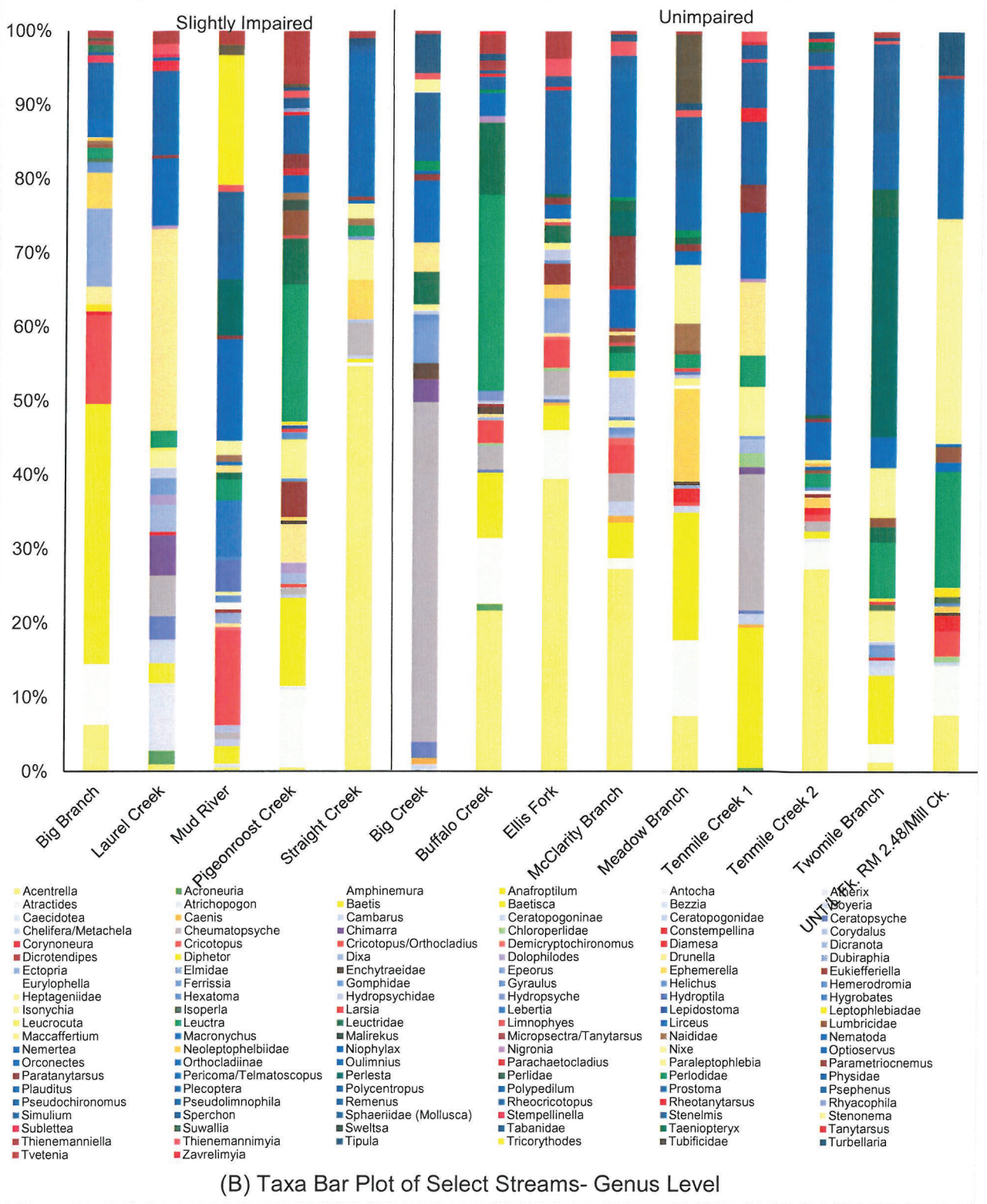
In an effort to elucidate any clear differences between unimpaired streams and those streams considered "slightly impaired" by GLIMPSS, community composition was compared between fourteen stream segments in the Lower Guyandotte watershed, shown in Figures 4 and 5 below. All fourteen stream segments have a WVSCI score of at least 72. Five of these segments received a score between 90-99% of the GLIMPSS threshold and the remaining nine received a score of 100-110% of the GLIMPSS threshold.

**Figure 4:** Bar plots comparing community composition between sites in the Lower Guyandotte Watershed that are either "slightly impaired" or unimpaired based on GLIMPSS – Family Level




(A) Taxa Bar Plot of Selected Steams- Order Level (Common Names)

**Figure 5:** Bar plots comparing community composition between sites in the Lower Guyandotte Watershed that are either "slightly impaired" or unimpaired based on GLIMPSS – Genus Level




(B) Taxa Bar Plot of Select Streams- Genus Level

When comparing the composition and diversity of those streams just above the threshold of impairment and those streams just below the threshold, no clear differences emerged.

In ecology, beta diversity is the ratio between regional and local species diversity. It can be calculated from species inventory data. In its simplest form, beta diversity is calculated as $\beta = \gamma/\alpha$, where gamma diversity ($\gamma$) is the total species diversity of a landscape (in this case, the total number of species between two sites) and alpha diversity ($\alpha$) is the mean species diversity per site. Beta diversity was calculated between the sites to quantify dissimilarity between the two groups and is shown below in Figure 6.

**Figure 6:** Beta diversity matrix quantifying dissimilarity between the "slightly impaired" streams and streams meeting attainment.

| | Big Branch | Laurel Creek | Mud River | Pigeonroost Creek | Straight Creek | Big Creek | Buffalo Creek | Ellis Fork | McClarity Branch | Meadow Branch | Tenmile Creek 1 | Tenmile Creek 2 | Twomile Branch | UNT/Left Fork RM 2.48/Mill Creek |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Big Branch | | | | | | | | | | | | | | |
| Laurel Creek | 0.35 | | | | | | | | | | | | | |
| Mud River | 0.21 | 0.3167 | | | | | | | | | | | | |
| Pigeonroost Creek | 0.22 | 0.24 | 0.47 | | | | | | | | | | | |
| Straight Creek | 0.41 | 0.51 | 0.55 | 0.74 | | | | | | | | | | |
| Big Creek | 0.42 | 0.38 | 0.53 | 0.50 | 0.42 | | | | | | | | | |
| Buffalo Creek | 0.33 | 0.39 | 0.50 | 0.46 | 0.30 | 0.50 | | | | | | | | |
| Ellis Fork | 0.27 | 0.30 | 0.43 | 0.41 | 0.27 | 0.27 | 0.27 | | | | | | | |
| McClarity Branch | 0.22 | 0.27 | 0.31 | 0.28 | 0.14 | 0.20 | 0.22 | 0.33 | | | | | | |
| Meadow Branch | 0.24 | 0.40 | 0.43 | 0.40 | 0.18 | 0.37 | 0.33 | 0.37 | 0.69 | | | | | |
| Tenmile Creek 1 | 0.40 | 0.32 | 0.54 | 0.53 | 0.37 | 0.35 | 0.38 | 0.37 | 0.53 | 0.56 | | | | |
| Tenmile Creek 2 | 0.28 | 0.44 | 0.49 | 0.46 | 0.22 | 0.42 | 0.37 | 0.40 | 0.48 | 0.31 | 0.46 | | | |
| Twomile Branch | 0.31 | 0.38 | 0.49 | 0.46 | 0.28 | 0.36 | 0.37 | 0.37 | 0.43 | 0.33 | 0.36 | 0.50 | | |
| UNT/Left Fork RM 2.48/Mill Creek | 0.45 | 0.52 | 0.55 | 0.57 | 0.40 | 0.47 | 0.46 | 0.49 | 0.60 | 0.55 | 0.47 | 0.48 | 0.58 | |

Values range between 0-1. Zero would indicate that the two streams have no dissimilarity or that they share identical communities. One would indicate that the streams share no like genera between them. The two streams that were most dissimilar (0.74), Straight Creek and Pigeonroost Creek were both slightly impaired, whereas the two most similar (0.14) were Straight Creek (impaired) and McClarity Branch (unimpaired). There is no distinction between the communities present in these two groups of streams, despite the difference in their GLIMPSS scores.

### 4.5 Many of the streams listed for biological impairment in southern West Virginia are affected by fecal coliform. TMDLs are not necessary or helpful in resolving pollution from sewage.

Untreated or undertreated sewage is one of the largest aquatic pollutants on a global scale. In West Virginia, and especially in small rural communities with streamside residential development in southern West Virginia, straight pipes and faulty septic systems are common. Nearly 67% of McDowell County homes have no form of wastewater treatment.[15] Additionally, an estimated 18,500 miles of the 55,000 stream miles in the state of West Virginia are impaired due to high levels of fecal coliform bacteria from untreated sewage.

Aside from the direct effects of organic enrichment from sewage effluent, there are a slew of other negative impacts. The increase nutrient load can lead to benthic algal growth which can in turn cause shifts in the functional groups in the benthic community. Many sensitive taxa such as certain mayflies are also sensitive to the increased nitrogenous compounds in stream. Dissolved oxygen has also been shown to decrease with increasing bacterial activity associated with sewage in streams, further limiting the diversity of the benthic community. Aside from physiochemical alterations, household wastewater also contains a complex suite of microcontaminants including cleaners and soaps, pharmaceuticals, personal care products, microplastics, viruses and pathogenic bacteria- all of which negatively impact the biodiversity and quality of the instream macroinvertebrate assemblages.

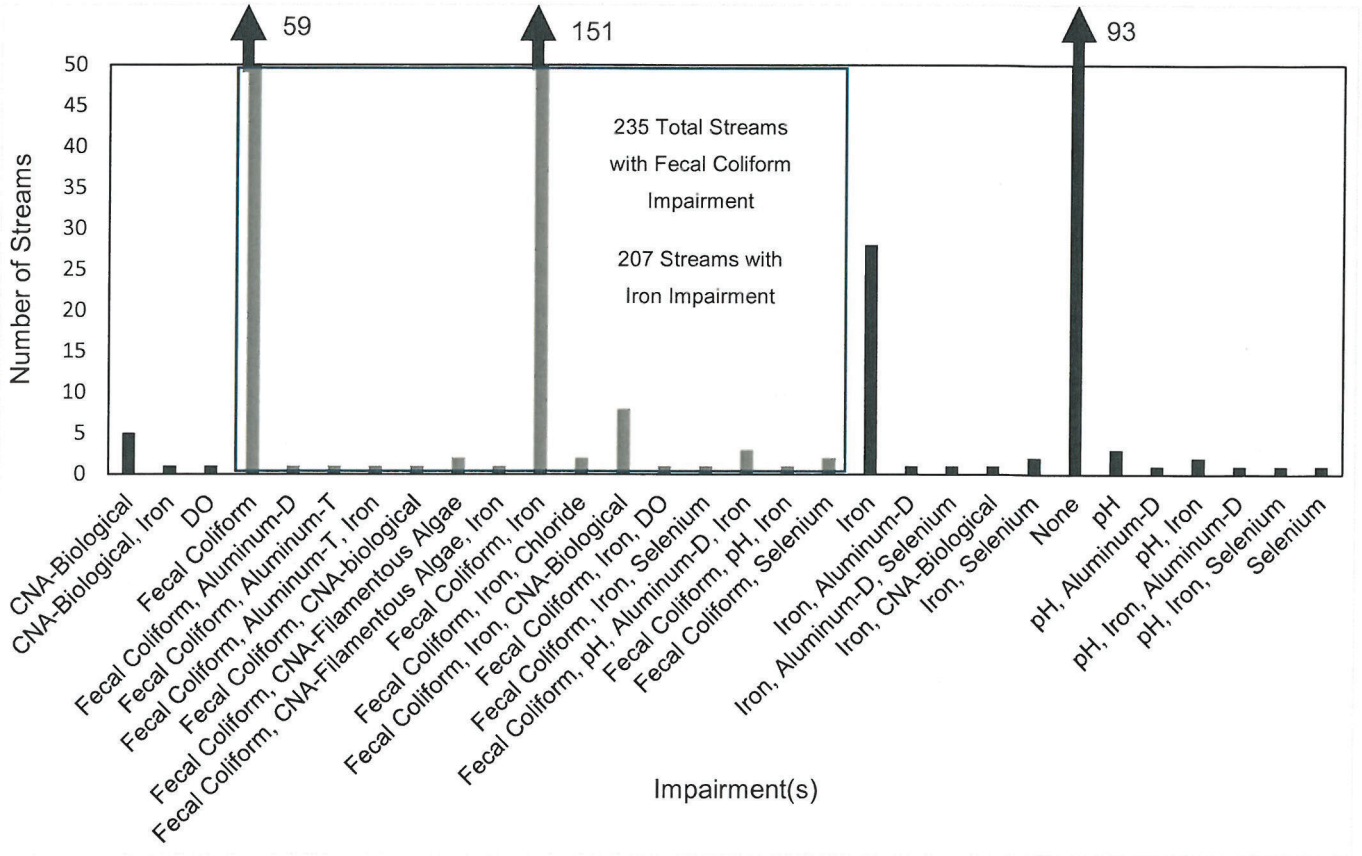
Of the 180 stream segments listed by EPA in southern West Virginia, 137 of them (77%) are already considered impaired for fecal coliform. Of the 346 streams that were overlisted by EPA, 235 were already listed by WV DEP for fecal coliform impairment, highlighted in green in Figure 6 below. Additionally, 207 were listed for iron impairment. Often, iron impairment is indicative of

[15] https://wvpublic.org/part-ii-is-there-something-in-the-water-southern-w-va/#:~:text=At%20the%20WV%20Water%20Research,water%20to%20take%20a%20shower

sedimentation due to high concentrations of iron in West Virginia's soils.[16] Sedimentation in streams can occur from many anthropogenic activities which cause channel or bank erosion.

Excess sediment will fill the interstitial spaces between rocks in the stream substrate, effectively eliminating important benthic habitat and decreasing overall diversity and quality of the macroinvertebrate assemblage. In addition to habitat loss, excess fine sediment has been shown to increase drift because of substrate instability, inhibit oxygen uptake because of deposition of gills or other respiratory organs, and affecting both the quality of periphyton for grazers and prey availability for predaceous taxa. [17]

**Figure 6:** Existing impairments in streams overlisted for biological impairment by EPA.




[16] Tetra Tech, Inc., "USEPA Approved Total Maximum Daily Loads for the Upper Guyandotte River Watershed, West Virginia", (March 2021) pg. 25

[17] Harrison, Evan & Norris, Richard & Wilkinson, Scott. (2007). The impact of fine sediment accumulation on benthic macroinvertebrates: implications for river management. Proceedings of the 5th Australian Stream Management Conference

Certain patterns are associated with increased both organic enrichment and sediment deposition in streams. Generally, overall biodiversity decreases and the number of more tolerant organisms such as chironomid larvae and annelids will increase. More sensitive taxa including Ephemeroptera, Plecoptera, and Trichoptera (EPT) will decrease with the exception of a few distinct genera - namely *Cheumatopsyche* (a caddisfly) and *Baetis* (a mayfly). These two genera are widely regarded as pollutant tolerant despite being caddisflies and mayflies. *Cheumatopysche* are excluded from overall "%EPT" metrics for all seasons/regions except for "Spring Mountain", which doesn't utilize a "%EPT" metric at all. This genus would be included using the WVSCI methodology, as it is a ubiquitous genus found in both impaired and healthy streams.

The 303(d) listing process is to identify streams where traditional pollution control measures are insufficient to meet water quality standards. Specifically, 40 CFR §130.7(b)(1) specifies that states must "identify those water quality-limited segments still requiring TMDLs within its boundaries for which ... pollution control requirements ... required by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters." The regulations do not require listing where other pollution control requirements have not been fully implemented. Accordingly, these streams should be excluded from listing for biological impairment, as it is redundant to existing stream listings for fecal coliform or iron impairment.

### 4.6 The Sensitivity of GLIMPSS Yields Unreliable Results

GLIMPSS is an extremely sensitive index, and because of this it creates highly variable results. *This is only one of the numerous reasons that GLIMPSS should not be used to make stream listing decisions.* The EPA proposed stream listing contains fifty-eight duplicate samples that were collected at the same location either on the same date or within one year of the initial sampling data. In all instances, US EPA based its proposed listing on the *LOWER* of the two samples, even though thirteen of these samples would have resulted in an attainment determination based on GLIMPSS if the higher of the two concentrations had been utilized. These are listed in Table 4:

**Table 4:** Streams sampled <365 days where one sample meets GLIMPSS attainment threshold

| EPA Selected GLIMPSS Score | Stream Name | Maximum GLIMPSS Score | Minimum GLIMPSS Score | Most Recent Sample Date | Oldest Sample Date | Date Difference |
|---|---|---|---|---|---|---|
| 96.47 | Guyandotte River (Upper) | 131.01 | 96.47 | 8/26/2015 | 8/26/2015 | 0 |
| 88.61 | South Branch Potomac River | 123.26 | 88.61 | 7/5/2016 | 7/5/2016 | 0 |
| 91.79 | Open Fork | 120.91 | 91.79 | 6/28/2017 | 6/28/2017 | 0 |
| 91.93 | Sweetwater Branch | 119.2 | 91.93 | 6/22/2017 | 6/22/2017 | 0 |
| 85.84 | South Fork/S.B. Potomac River | 118.53 | 85.84 | 8/23/2016 | 8/23/2016 | 0 |
| 96.57 | Big Run | 103.88 | 96.57 | 5/21/2015 | 5/21/2015 | 0 |
| 92.64 | Sandy Huff Branch | 101.62 | 92.64 | 5/8/2019 | 5/8/2019 | 0 |
| 90.34 | UNT/Slab Fork RM 7.96 | 123.86 | 90.34 | 7/3/2018 | 5/23/2018 | 41 |
| 84.03 | Noseman Branch | 136.44 | 84.03 | 6/28/2016 | 4/26/2016 | 63 |
| 99.37 | Big Springs Branch | 101.88 | 99.37 | 4/19/2016 | 8/10/2015 | 253 |
| 81.23 | Trace Fork | 102 | 81.23 | 6/8/2017 | 8/31/2016 | 281 |
| 81.48 | Georges Creek | 108.12 | 81.48 | 5/10/2016 | 7/29/2015 | 286 |
| 83.2 | Goose Creek | 102.16 | 83.2 | 8/26/2015 | 9/23/2014 | 337 |

Seven of these samples were collected on the same day and therefore were duplicate samples. Duplicate samples taken in the same stream on the same day varied up to 34%, For duplicate samples, the second kick would have been in a less desirable location, as optimal habitat would have been selected for the initial macroinvertebrate collection process. Despite understanding this weakness in collecting samples from the same location, US EPA chose the lower of the two values as the representative concentration. This demonstrates poor judgment by US EPA and hints at an intention to relegate streams to an impairment status whenever possible.

For streams collected within a year, benthic scores varied as much as 52% between samples at the same location (see Noseman Branch in Table 4). The average difference for the 58 samples in this category is 18%. Yet US EPA attempts to require WVDEP to make stream listing decisions on a single GLIMPSS sample, contending the data is sufficient to indicate impairment. With this much variability, it would be impossible to know whether a stream is impaired based on a single sample.

For streams with drastic differences in GLIMPSS scores within the same year, several factors could influence the overall score. Strong precipitation events can temporarily increase sediment loads in streams, especially in watersheds with more disturbance and therefore more impervious surfaces, which leads to increased runoff. This in turn leads to degraded insect scores because of temporary habitat loss. However, these degraded conditions are clearly temporary based on the wide range of GLIMPSS scores taken sometimes only a few months apart, many of which have scores both greatly above and below the attainment threshold.

Equally important, 61 of the streams US EPA has identified for listing based on WVSCI were sampled in June. Mayflies (Ephemeroptera) are critical to the scoring mechanism for GLIMPSS. It is entirely likely that these streams were designated as impaired based on the lack of mayflies, which as adults are winged insects that live for only 24-48 hours. The entire life cycle lasts for a year, and it would be difficult to identify nymphs for some time after the mayfly completes her life cycle in May. If the timeframe is extended to include May and June, 141 of the 357 streams identified by US EPA as impaired could be affected. This is a realistic scenario, as the biologist would have to sample the site before or during the emergence of the adult mayflies in May or sufficiently later in June that the nymphs are of sufficient size to be identified.

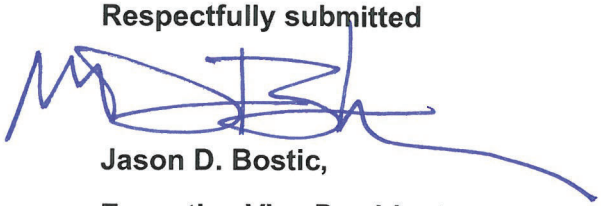
**5.0 Conclusion**

While GLIMPSS may be useful to assess genera present on a given day or for monitoring variation over time, it is not a useful regulatory tool when considered in isolation. WVDEP recognizes the limitations of GLIMPSS and has selected WVSCI as the primary metric for listing determinations. Importantly, WVDEP calculates and utilizes GLIMPSS according to its assessment methodology to enhance its stream listing decisions for waters with a single WVSCI score below 72.

WVDEP has the authority to develop and implement a stream listing methodology for biological impairment. No federal statute or regulation requires the use of a genus-level metric to make decisions for 303(d) listing under the narrative criterion. While WVDEP collects data for each biological sample down to the genus level, it is the State's right to determine the use that is to be made of that data. ***In West Virginia, the Legislature has directed WVDEP on multiple occasions to focus on the functionality of State waters. This does not mesh with use of a genus-level metric dependent on the number or percentage of highly sensitive insects that may only be present in pristine waters with no anthropogenic activity.***

WVCA respectfully requests that US EPA withdraw its partial disapproval of the 2022 303(d) list and to acknowledge the primacy of West Virginia in setting priorities for West Virginia waters.

**Respectfully submitted**



**Jason D. Bostic,**

**Executive Vice President**

METALLURGICAL
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October 18, 2023

*Submitted Via Email (voigt.gregory@epa.gov) and U.S. Mail*

Mr. Gregory Voigt
EPA Region 3 Water Division
Mail Code 3WD42
1600 John F. Kennedy Blvd.
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 Comment - Identification of Water Quality Limited Segments to be Added to West Virginia's Section 303(d) List, 88 Fed. Reg. 46,156 (July 19, 2023)

Dear Mr. Voigt:

Please accept this letter on behalf of the Metallurgical Coal Producers Association (MCPA) in opposition to the above-referenced proposal from the U.S. Environmental Protection Agency (EPA). MCPA is a non-profit organization made up of metallurgical coal producers and those who support its producing members' operations. While coal has traditionally been understood through the thermal coal lens of power plants and light bulbs, MCPA seeks to expand the general public's understanding of metallurgical coal and its critical benefit to our everyday lives. Bridges, automobiles, and common products like kitchen appliances are made possible by metallurgical coal. By looking at coal through another lens and helping to create a link between metallurgical coal and its many end uses, MCPA strives to broaden the understanding of how coal powers our lives.

As required by Section 303(d) of the Clean Water Act (CWA), West Virginia Department of Environmental Protection (DEP) submitted its most recent list of impaired waters to EPA for review on May 5, 2023. DEP's list was derived using "existing and readily available data" based on a methodology that DEP developed in its sound technical discretion. For this reason, EPA had a statutory obligation to approve DEP's list. Instead, EPA has proposed to partially disapprove it using a different technical approach than the state, resulting in the addition of a number of impaired segments that EPA, but not DEP, believes to be impaired.

EPA's proposal is just the latest in a long-running saga over differences in technical judgment between EPA and DEP. But just like prior proposals, EPA cannot lawfully maintain its position. Over a decade ago, EPA funded and helped with the technical development of a set of metrics known as the West Virginia Stream Condition Index (WVSCI) to assess the biological condition of stream segments. DEP continues to faithfully use and apply the WVSCI for its CWA 303(d) assessment and listing decisions. More

recently, EPA worked with DEP to develop a different set of metrics known as the Genus-Level Index of Most Probable Stream Status (GLIMPSS). DEP uses GLIMPSS for assessment and listing purposes as part of an overall technical approach that integrates the best of WVSCI and GLIMPSS. In its current methodology, DEP applies a zone of uncertainty to certain marginal WVSCI scores that reflects the inherent "noise" in the tool. Within this zone, DEP uses GLIMPSS data to better predict the attainment or impairment status of specific stream segments. DEP also uses GLIMPSS data as part of the stressor identification process for developing total maximum daily loads (TMDLs) for waters listed as biologically impaired. DEP's methodology and approach are well-grounded in the technical literature, are based on DEP's superior understanding of the state's water environment and are products of its sound technical judgment under the CWA.

EPA contends that DEP must use GLIMPSS data for *all* stream segments, not just those that fall within the zone of uncertainty using the WVSCI. But the statute does not allow EPA to substitute its technical judgment for that of DEP. Instead, EPA has long maintained that states should use reasonable discretion to interpret and apply their own water quality standards for assessment and listing purposes, especially where – as here – the standards are narrative (instead of numeric) and thus compel some exercise of interpretation and judgment.

Indeed, EPA's own regulations require states to assess the condition of their waters to determine segments where effluent limitations and other required pollution controls are not stringent enough to implement water quality standards established by the state and approved by EPA. 40 CFR 130.7(b)(1). Toward that end, states must provide the methodology they used to identify their impaired waters, along with their rationale for excluding certain data from the assessment process. 40 CFR 130.7(b)(6). This is precisely what DEP did in its most recent submittal to EPA.

There is also a process in EPA's regulations for a further exchange of technical information where EPA has questions about a state's decision-making. In these situations, EPA may request that a state demonstrate "good cause" for not including particular water segments, for example, based on more recent data, more sophisticated modeling, or changes in condition. 40 CFR 130.7(b)(6)(iv). However, EPA ignored that process here, depriving DEP of any opportunity to address particular questions that EPA may have had with its methodology, and instead partially disapproving DEP's list solely because EPA disagreed with that methodology. EPA's approach reflects bad judgment and bad public policy.

As a matter of law, neither the WVSCI nor GLIMPSS is itself a water quality standard. Neither has been vetted through the regulatory process or reviewed and approved by EPA as an "applicable" water quality standard for CWA purposes. Instead, both the WVSCI and GLIMPSS are assessment *tools* that can be used to help understand the biological condition of waterbodies. As tools, they both have strengths and weaknesses that need to be appropriately balanced and managed. DEP has done so by integrating both WVSCI and GLIMPSS data, where appropriate, into its assessment and listing decisions. DEP's approach is entitled to deference from EPA and cannot simply be displaced by EPA's own preferred methodology or approach. For these reasons, MCPA urges EPA to rescind its proposed denial and additions to DEP's 303(d) list and instead approve the state's list as submitted.

Please feel free to contact me (304-993-8917 / ben@metcoalproducers.com) or our environmental affairs director and general counsel, Brooks Smith (804-836-7331 / brooks.smith@troutman.com) with any questions.

Sincerely,

Benjamin R. Beakes
President

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*Vice President, Environmental & Sustainability*

October 18, 2023

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Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd.
Philadelphia, PA 19103-2852
***(via eMail)***

**Re: FRL-10978-01-R3 Comment**
***Proposed Additions to the West Virginia 303(d) List***

Mr. Voigt,

CONSOL Energy Inc. ("CONSOL") is submitting comments in response to the Environmental Protection Agency's ("EPA") Federal Register notice of July 19, 2023, which announced that EPA had identified "water quality-limited segments" for inclusion on the West Virginia Department of Environmental Protection ("WVDEP") §303(d) list.

CONSOL is a publicly traded, Canonsburg, Pennsylvania based producer and exporter of high-quality bituminous coal, for use in industrial, power generation, and metallurgical applications. CONSOL's operations in West Virginia include the Itmann Mine, which has the capacity to produce roughly 900 thousand tons per annum of premium, low-vol metallurgical coal, various coal assets and reserves, and multiple water treatment facilities associated with former coal mining operations, with 454 total employees working in the state. CONSOL maintains facilities in watersheds containing streams identified by the EPA for inclusion on West Virginia's §303(d) list.

EPA's Federal Register notice included additional information detailing the general process for identifying and placing waters on the Clean Water Act § 303(d) list (Enclosure 1) and EPA's process for proposing to add over 300 streams to West Virginia's list of impaired waters despite WVDEP's decision that they should not be so listed (Enclosure 2). EPA's decision to add streams over WVDEP's objection is based on EPA's claim that WVDEP was obligated to use genus level information collected on aquatic insect populations rather than the family level information that WVDEP has incorporated into the West Virginia Stream Conditions Index ("WVSCI"). EPA goes further, and claims that WVDEP was obligated to adopt another biological

index which relies on genus level data, the GLIMPSS[1] to assess compliance with West Virginia's narrative water quality criteria and for the proposed listing of 346 additional streams. EPA does not cite nor is there evidence that it has conducted any further review of the water quality or biological conditions of those 346 streams. That practice effectively converts the GLIMPSS into a water quality criterion without first subjecting the standards to notice and comment rulemaking and approval consistent with the Clean Water Act. In addition, because the index relies exclusively on direct biological measures rather than water quality, EPA has violated its duty to identify causative pollutants and has failed to determine first whether the required imposition of technology-based limits on those pollutants would achieve compliance with water quality standards—a necessary prerequisite of a § 303 listing decision.

## 1. EPA is Proposing to Use GLIMPSS as a De Facto Water Quality Standard in Violation of State Law and the Clean Water Act

EPA's proposed use of the GLIMPSS as the sole determinant of compliance with the biological component of the State's narrative water quality standards is unlawful absent rulemaking to adopt a water quality criterion.[2] As described by EPA, the GLIMPSS is an index of "biotic integrity…based on the premise that samples of streams with minimal anthropogenic disturbance (i.e., reference or least-disturbed sites) define biologic expectation, and the degree of deviation from those collective reference sites determines if a stream segment is impaired." The index relies on several measures of the composition of aquatic insect populations, and the further those measures deviate from "reference" or "least disturbed" conditions the lower the "score" yielded by the index. Where that score is lower than the scores obtained in the bottom 5th percentile of undisturbed "reference" streams, EPA regards the stream as violating the State's narrative water quality criteria set out in WVCSR § 3.2.e & 3.2.i. *See* EPA Encl. 2, pp. 2-3.

As defined by WVDEP, "reference streams have little or no human disturbances" and many "are located on public lands such as the Monongahela National Forest…." [3] Thus, to "pass", a stream must exhibit a score equivalent to the lower end of scores for streams where there is no evidence of any anthropogenic activity. Put another way, by design the index considers 5 percent of these "very best" reference streams to be impaired for the purposes of placing them on the 303(d) list of impaired waters without any further inquiry. EPA is not proposing merely to use the GLIMPSS as one tool among several to evaluate whether a water segment violates the narrative standard. Instead, it has proposed to use the index as the sole determinant of compliance with the

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[1] GLIMPSS stands for Genus Level Index of Most Probable Stream Status and was prepared by USEPA.

[2] EPA's Enclosure 2 makes clear that EPA relies solely on GLIMPSS scores to propose the addition of streams to the list of waters violating the State's narrative standards. EPA states that it "assessed the GLIMPSS data provided by WVDEP and determined impairment if the most recent score at any site in an assessment unit was less than the 5th percentile of reference condition." Encl. 2, p. 3.

[3] *See* https://dep.wv.gov/wwe/watershed/bio_fish/pages/bio_fish.aspx. WVDEP has explained elsewhere that candidates for reference streams are limited to those where there are "no known point source discharges upstream"; "no obvious sources of nonpoint source discharges"; and no significant impacts to physical habitat. *See* https://dep.wv.gov/WWE/watershed/bio_fish/Documents/WVDEP_ReferenceConditionCriteria.pdf.

narrative biological standards. That is, EPA proposes to use the index to define, not just evaluate, compliance with the State's narrative water quality standard.

The use of an index in this manner effectively constitutes both a rule and a numeric criterion that cannot take effect without notice and comment rulemaking. *See Simpson Tacoma Kraft v. Dept. of Ecology*, 119 Wash. 2nd 640, 835 P. 2d 1030 (Wash. 1992) (invalidating state agency's attempt to translate narrative WQS into a numeric limit without following proper rulemaking procedures); s*ee also FPIRG v. EPA*, 386 F.3d 1070 (11th Cir. 2004) (remanding case to district court to determine whether state's mechanism for identifying impaired waters constituted changes to state's water quality standards); *FPIRG v. U.S.*, No. 4:02-cv-408-WS, N. D. Fla. Dkt. 110, Notice of Filing EPA's Determination on Referral regarding Florida Admin. Code Chapter 62-303, Identification of Impaired Surface Waters, pp. 1, 6 & 8-9 (EPA's finding that any provision of Florida's Impaired Waters Rule which changes or defines the conditions that the state would use to determine when a waterbody is attaining water quality standards is itself a water quality standard requiring EPA review and approval under the CWA).

EPA's rules provide that state water quality criteria must be adopted in accordance with state laws governing the manner in which regulations are adopted. 40 C.F.R. § 131.5(a)(6). If a state adopts a new or revised water quality standard without following its legal procedures for revising or adopting standards, EPA is required to disapprove the state's standard. 40 C.F.R. § 131.5(b). In West Virginia, that process is spelled out in the West Virginia Administrative Procedures Act ("WVAPA"). It provides that all rules "shall be promulgated by an agency only in accordance with this article." W.Va. Code § 29A-3-1. The WVAPA further provides that all proposed rules must be filed with the Secretary of State and undergo notice and comment rulemaking. *See* W. Va. Code §§ 29A-3-5, -9, and -11. The GLIMPSS has never been subjected to these procedures.

In addition, EPA's own rules restrict its ability to adopt a water quality standard for a state. That process requires that EPA first notify a State that its standards do not meet the requirements of the Clean Water Act. *See* 40 C.F.R. § 131.22(a). In that case, EPA will specify changes to make the standards approvable. *See id*. The State is then afforded an opportunity to revise its standards; only if it fails or refuses to do so may EPA issue a federal standard for the State. *See id*. In any event, "[i]n promulgating water quality standards, the Administrator is subject to the same policies, procedures, analyses, and public participation requirements established for States in these regulations." 40 C.F.R. § 131.22(c). EPA has not followed any of those procedures prior to proposing to use the GLIMPSS as a de facto water quality standard.

The premise of EPA's proposed over-listing—that WVDEP did not use all of its genus-based data in evaluating compliance with the narrative standard—cannot serve as the basis for the wholesale creation by EPA of a new test that relies on genus based data (the GLIMPSS) to define what constitutes impairment. That is, the obligation to use all relevant data is intended to assure that where a water criterion exists (such as for temperature), WVDEP evaluates all of the reliable temperature data (for example) that it has. The obligation does not require States to use data for which there is no existing standard or allow EPA to step in and create a standard of its own without following the steps outlined above for the adoption of water quality standards and oversight of State programs. The GLIMPSS relies on complicated measures of insect communities and

statistics. As noted above, it defines impairment by comparison to conditions in "reference" streams. It then establishes a pass/fail score that even 5 percent of the undisturbed reference streams cannot achieve, but EPA nowhere explains why that biological endpoint must be achieved to ensure compliance with West Virginia's narrative standards. It is precisely for that reason that EPA cannot rely on the GLIMPSS to define compliance with State standards without first ensuring that the index is adopted as a water quality standard.

**2. The GLIMPSS is Not Otherwise a Sufficient Basis for 303(d) Listing**

The Clean Water Act provides that States shall identify waters "for which the **effluent limitations required by** section[s] 1311(b)(1)(A) and [](b)(1)(B)…are not stringent enough to implement any water quality standard applicable to such waters." 33 U.S.C. § 1313 (d)(1)(A) (emphasis added).[4] Effluent limits are conditions imposed on the discharge of pollutants. But to understand whether the technology-based effluent limitations required by Section 1311(b) are insufficient to attain and maintain water quality standards requires an evaluation of what pollutants are contributing to the current violation of standards, a determination as to whether they have already been subjected to technology-based limitations, and that those limitations have proven inadequate. As EPA notes in its supporting documents, its own rules at 40 CFR 130.7(b)(4) "require that the Section 303(d) List '**shall identify the pollutants** causing or expected to cause violations of the applicable water quality standards.'" EPA Encl. 1, ¶ III. 4) iii (p. 9) (emphasis added). Use of the GLIMPSS alone to place waters on the 303(d) list skips these steps. *See* EPA Enclosure 3 (spreadsheet identifying waters to be added to 303(d) list without any water quality or pollutant-specific information).

As EPA acknowledges, "for many water quality limited streams identified on West Virginia's …Section 303(d) list, the impairing pollutant is frequently unknown, particularly for those [streams] identified as violating West Virginia's narrative water quality criteria as applied to aquatic life because the impairment is identified by a direct measure of the biological community." EPA Encl. 1, ¶ III. 4) iii (p. 9). This statement is true of applications of both the WVSCI and GLIMPSS. Both indices are measures of aquatic insects—not water quality. And, the "scores" yielded by both indices may be affected by non-water quality impacts, such as disturbance to in-stream habitat and to adjacent terrestrial vegetation. *See, e.g.,* Rios, S.L. and Bailey, R.C. (2006) Relationship between Riparian Vegetation and Stream Benthic Communities at Three Spatial Scales. *Hydrobiologia*, 553, 153-160. https://doi.org/10.1007/s10750-005-0868-z; *see also* Tonkin JD. 2014. Drivers of macroinvertebrate community structure in unmodified streams. *PeerJ* 2:e465 https://doi.org/10.7717/peerj.465; Plenzler, M.A., Michaels, H.J. Terrestrial Habitat Quality

[4] EPA's notice starts by stating that "Section 303(d)…requires that each state identify those water quality-limited segments **for which existing technology-based pollution controls** are not stringent enough to attain or maintain state water quality standards and for which …[TMDLs] must be prepared." This formulation of Section 303 is slightly different than the actual statutory language. By converting the actual standard (waters for which effluent limitations "required" by Section 301 are not stringent enough) to a new standard (water for which "existing" limits are insufficient) EPA has presumed that the operative pollutants that are contributing to a violation of water quality standards have been identified and controlled already with technology-based limitations. As discussed in the body of these comments, that presumption is unwarranted.

Impacts Macroinvertebrate Diversity in Temporary Wetlands. *Wetlands* 35, 1093–1103 (2015). https://doi.org/10.1007/s13157-015-0697-4.[5]

This means that the indices have not been approved as surrogates for just water quality or for identifying pollutants that affect water quality. This fact, according to EPA, means that West Virginia's "Section 303(d) list identifies many [stream segments] based upon the failure to achieve the narrative water quality criteria as applied to aquatic life **without identifying the cause of impairment**." EPA Encl. 1, ¶ III. 4) iii (p. 9). EPA further concedes that the identification of pollutants and "the cause of biological impairments is typically determined during TMDL development through a stressor identification process."

By proposing to use the GLIMPSS alone as the basis for its proposed additional 303(d) listing EPA simply compounds these errors. Because it relies on an index that cannot discriminate water quality impacts from other impacts and because it has done no evaluation of water quality, EPA has circumvented the non-discretionary obligation it identifies in 40 CFR 130.7(b)(4) to "identify pollutants causing….violations." The failure to identify causative pollutants in turn results in a failure to determine whether the stream is one for which technology-based limitations under Section 301 are required, have been imposed, and have nonetheless failed to protect water quality standards. Without taking these steps neither WVDEP nor EPA can comply with the obligation to list only those waters that violate standards AFTER the imposition of required technology-based limits has failed to attain water quality standards.[6]

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[5] Changes to biological index scores that depend solely on aquatic insects can be induced by changes in the canopy and upland vegetation that do not constitute "pollution" under 40 CFR § 130.2 (c ) (defining pollution as changes in the "integrity of the water.").

[6] In the past, EPA has suggested that the scope of waters subject to the listing obligation in Section 303(d)(1)(A) of the Clean Water Act is broader than the scope of waters subject to TMDLs under 303(d)(1)(C). Accordingly, says EPA, the "pollutants" causing an impairment need not be identified before 303(d) listing. To reach that conclusion, EPA has claimed that the listing obligation in 303(d)(1)(A) references "pollution" rather than "pollutants" and that "pollution" is defined broadly in EPA's rules as ''the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water." 40 CFR 130.2(c). "Pollution," says EPA, can be caused by things other than "pollutants." *See* 64 FR 46012, 46021-22 (Aug. 23, 1999) (proposed rule). But that argument overreaches the language of the Clean Water Act.

Section 303(d)(1)(A) does not use the word "pollution" to define the scope of waters to be identified on the 303(d) list; rather that term is used only in the second sentence of the subsection in defining the prioritization of streams already selected for listing. Thus, the statute says:

> **(A)**
> Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.
>
> **(C)**
> Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the

### 3. EPA's Criticism of WVDEP's Methodology is Unsound

In its "Basis for EPA's Identification of Waters to be added to West Virginia's …303(d) list", EPA admonishes WVDEP for its continued implementation of a "gray zone" and criticizes WVDEP's continued reliance on the WVSCI, arguing that WVDEP has ignored genus level data captured by GLIMPSS. The EPA proposes to add 334 streams to the list of biologically impaired streams based solely on GLIMPSS scores. As further explained below, there is adequate justification for both WVDEP's use of a "gray zone" and its continued reliance on WVSCI rather than GLIMPSS.

The "gray zone" is a zone of uncertainty below the impairment threshold but above some arbitrarily defined minimum value which is presumed to demarcate a zone of uncertainty. When a stream scores within the "gray zone", a second measurement is taken. Under WVDEP's implementation of the "gray zone", both the first and second measurements must be below the impairment threshold for a stream to be listed as impaired. While the EPA acknowledges that "there are circumstances under which statistical analysis could support use of a 'gray zone," EPA argues that "WVDEP has provided no supporting documentation or technical, science-based rationale to demonstrate, nor has EPA been able to identify, any statistical necessity of not using data that falls within the specific gray zone" and that "WVDEP has [] not demonstrated that a second sample . . . would improve accuracy of assessment decisions." Encl. 1, p. 14. Respectfully, EPA's suggestion that WVDEP is "not using data that falls within the [] gray zone" is plain wrong. WVDEP uses this data to inform its decision to collect additional data, and that additional data can be used to increase both the accuracy and specificity of the WVSCI.

Moreover, EPA's apparent preoccupation with accuracy alone is unwarranted. As explained above, biological indices can be influenced by a variety of ecological factors, not just water quality, and some of these factors, such as disturbances to adjacent terrestrial habitats, are likely to disproportionately affect samples outside of the reference set. The potential impacts of such confounders underscore the importance of specificity in assessment determinations. Increased specificity, particularly if it can be obtained without adversely affecting accuracy, is itself a sound basis for WVDEP's implementation of "gray zones".

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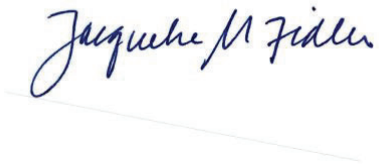
> Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

Thus, the obligation to account for the severity of non-pollutant "pollution" arises only after the list of streams for which technology-based limits on "pollutants" have proven inadequate has been developed. That is, the presence of non-pollutant "pollution" does not provide a basis for expanding a list of impaired waters, but instead may be used only for prioritizing waters for TMDL development. That makes sense. If a stream is suffering from non-pollutant "pollution" which contributes to impairment but which might not otherwise be controlled by the application of a TMDL, then the stream probably deserves a lower priority ranking for State action under the Clean Water Act because no Clean Water Act-based controls will likely change the water's status.

WVDEP's application of the "gray zone" builds confidence that streams that the index has identified as marginally impaired are in fact impaired before placing them on the 303(d) List. By retesting, WVDEP has not, as EPA contends, ignored marginal scores within the "gray zone". Rather, WVDEP uses these scores to inform its decision to collect/consider additional data. That additional data allows WVDEP to increase the specificity of its assessment decisions while minimizing any corresponding impact on overall accuracy.

CONSOL appreciates the opportunity to provide input on this critical matter. We urge EPA to reevaluate its proposed additions to West Virginia's §303(d) list, with consideration of those issues outlined above.

Sincerely,



Jacqueline Fidler
Vice President, Environmental & Sustainability
CONSOL Energy Inc.

# West Virginia Municipal Water Quality Association

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October 17, 2023

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**Re: West Virginia 2022 Listing/Delisting of Impaired Waters**
**FLR-10978-01-R3**

Dear Mr. Voigt:

Please accept the following comments on the Region 3 ("Region") actions of July 19, 2023 on the State of West Virginia's submissions on impaired waters listings under Clean Water Act section 303(d). These comments are by the West Virginia Municipal Water Quality Association ("WQA). The WQA is a statewide association of public water, sewer, and stormwater utilities representing a significant majority of the sewered population of the State. The Association strives to ensure that the protection of West Virginia surface waters and the protection of the beneficial uses of those waters is based on sound science and regulatory policy so that our members can protect public health and the environment in the most affordable and cost-effective manner possible. Our comments address the Region's proposed listings of nearly 350 additional stream assessment segments as impaired (including disapprovals of DEP delistings), over the objection of the West Virginia Department of Environmental Protection ("DEP").

We believe the Region's proposal to list the additional waters as impaired for the aquatic life protection use erroneous, and we urge the Region to reverse that decision. The Region's actions essentially disapprove DEP's longstanding procedures for assessing the biological integrity of waters through analyses of the stream bed macroinvertebrate community, alleging that DEP failed to evaluate and use applicable and relevant data. Like all or most states, DEP uses a Stream Condition Index ("SCI") approach that looks at diversity and quantity of aquatic life at the evaluated sites. The DEP SCI procedure generally considers aquatic life at the Family level. EPA prefers a Genus Level Index of Most Probable Stream Status

("GLIMPSS"), that gives greater emphasis to Genus-level data (a biological Family includes and is made up of several, and sometimes many, Genera). The result of EPA's use of its GLIMPSS is that "close-call" impairment/non-impairment decisions are more likely to result in an impairment call, here leading to nearly 350 additional surface water assessment segments being listed as impaired, adding or retaining those segments to the West Virginia 303(d) list. However, it is important to note that DEP has an assessment procedure in place, and has for many years used that procedure in its Integrated Report submissions on which the Region has acted. The DEP procedure addresses such close-calls and does so using in appropriate cases Genus level data.

As we note above, EPA largely bases its use of GLIMPSS and action on the DEP impaired water list on the greater use of Genus-level data, and the federal regulatory provision requiring that the states assemble and evaluate all existing and readily available data and other information on water quality and maintenance of beneficial uses. DEP's water quality assessment procedures do not ignore Genus-level data, but those procedures primarily use those data in cases where the SCI score is in a range that implies uncertainty as to whether beneficial uses are maintained.

There is an important federal role in reviewing the states' 303(d) decisions and submittals. However, under CWA section 303, the states are responsible for establishing water quality standards (WQS) for their own waters (with EPA oversight), and in our view the same state priority extends to state WQS application procedures, as well as decisions on impairment/non-impairment status and impaired waters listing decisions. The Region's actions here essentially concluded that in the added approximately 350 water segments, the West Virginia narrative WQS is exceeded. Absent State errors or unreasonable actions, these are decisions that are for the State to make. We further note that EPA's 303(d) regulations provide that the states may make reasonable decisions to use or not use particular data in determining whether to list particular waters as impaired. 40 CFR § 130.7 (b)(6)(iii). This is what DEP has done in this case, using the available Genus-level data in a more tailored manner.

As further support for the DEP approach, we also note that it has revised its surface waters segmentation for 303(d) purposes, leading to a far larger number of evaluated segments. We believe that this larger number of segments may be excessively susceptible to natural variations in Genus-level distribution or quantity variations, leading to unnecessary (and incorrect) indications of impairment in some segments. It is also the case that the every-two-years feature of state impaired waters listings, and the typically more stringent criteria for delistings (as compared with the criteria for original listings), argues against an excessively broad impaired waters listing methodology. In any event, EPA's actions on the West Virginia 303(d) list, and effectively on DEP's application of its narrative WQS, present an unauthorized and unacceptable procedure, effectively attempting to expand EPA's WQS authority at the expense of the states' and over the carefully crafted CWA division of authority as to WQS.

In the present case, the Region's disapproval of DEP listing decisions may be properly seen as an unauthorized disapproval of the State's longstanding procedures for implementation of the West Virginia narrative WQS for aquatic life protection purposes, without the process required by the CWA for any such disapproval. For more than 20 years, DEP has used its Stream Condition Index as the primary methodology for evaluating whether a stream is biologically impaired. Consistent with SCI-like procedures throughout the states, a stream is considered impaired if the SCI

demonstrates that it does not support specified volumes and diversity of insects and other aquatic life, even in those cases (all of the cases at issue here) where the stream meets all of the relevant numeric WQS. We are not aware of instances in which, over that 20-plus year period, it has been demonstrated that DEP's SCI approach has failed to protect the aquatic life use (other than the Region's essentially theoretical GLIMPSS argument). DEP's actions and decisions against impairment listings here are well within the standard of reasonable state action that the courts have found proper and adequate to support these state decisions. *See, e.g. Friends of the Wild Swan, Inc. v. EPA*, 130 F. Supp. 2d 1184, 1193-94 (D. Mon. 1999); *aff'd in large part*, 74 Fed. Appx 718, 2003 U.S. App. LEXIS 15271 (9th Cir) ("A state can discount or reject certain data and information as long as it provides a reasonable basis for doing so" (emphasis added)).

More generally, as we noted initially above, the every-two-year 303(d) listing process provides an appropriate opportunity for the states (and EPA) to work through listings determinations with data bases that may be improved upon and made more tailored to specific water quality issues with each year and each two-year listing opportunity. *See Thomas v. Jackson*, 581 F.3d 658, 668-69 (8th Cir. 2009) ("Concerns that a particular list will be based on imperfect, though approved, standards are mitigated by the periodic nature of the list"). This continuing data improvement and impairment listing process, including as proper the use of Genus-level data, supports the WQA's recommendation that the Region withdraw its current listing actions addressed herein. If there was a proper concern about the adequacy of DEP's SCI process (which we assert there is not), DEP's longstanding assessment procedures allow in a longer-term sense the proper assessment of these stream segments.

At bottom, the Region's actions are an unacceptable infringement on state authorities for WQS adoption, application and use in CWA 303(d) determinations. Here we believe that DEP's listing decisions are well-supported by the data and DEP's evaluation of the data. DEP's decisions do not in any way fail to evaluate and use applicable and relevant data, which is the Region's sole claimed legal basis for its proposed actions. DEP's decisions are well-within the applicable reasonableness standard. The courts have consistently confirmed that section 303 provides substantial discretion to the states in using data, declining to use data, and in data interpretation. *See, e.g. Friends of the Wild Swan*. Accordingly, we urge the Region to rescind its listings decisions that we address in these comments.

Thank you for considering our comments.

Sincerely,

F. Paul Calamita
General Counsel

C: MWQA Members

# Environmental Organizations (geographically widespread)

WEST VIRGINIA RIVERS

October 18, 2023

Mr. Gregory Voigt
U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 comment; Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List

Submitted via email: voigt.gregory@epa.gov

Dear Mr. Voigt,

The West Virginia Rivers Coalition, along with the undersigned organizations, respectfully submit the following comments on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List. We greatly appreciate EPA's dedication in ensuring that West Virginia Department of Environmental Protection (WVDEP) adequately implements the Clean Water Act.

We support EPA's finding that WVDEP did not use, and did not provide a technical, science-based rationale for not using, existing and readily available water quality data to identify water quality-limited segments for West Virginia's Combined 2018-2020-2022 Section 303(d) list. In previous comments submitted to WVDEP June 1, 2022 on the Draft 2018/2020/2022 WV Integrated Water Quality Monitoring and Assessment Report, we expressed concern that WVDEP was grossly underrepresenting the number of impaired streams in the state. This is corroborated in EPA's identification of three hundred forty-six (346) additional water quality-limited segments for inclusion on West Virginia's Combined 2018– 2020–2022 Section 303(d) list.

More specifically, we support EPA's determination that WVDEP did not use certain existing and readily available information related to West Virginia's applicable narrative water quality criteria set forth at W. Va. CSR § 47-2-3.2(e) & (i) as applied to aquatic life. WVDEP's selective use of available genus-level data is not scientifically

sound, and WVDEP did not provide a technical, science-based rationale for excluding certain existing and readily available genus-level biological data from its assessment decisions.

Moreover, for more than a decade West Virginia has ignored EPA's instructions to move from a family-based West Virginia Stream Condition Index ("WVSCI") to a more scientifically valid and acceptable genus-based index for assessment of compliance with narrative-based water quality standards. Despite that history, the 303(d) List submitted to EPA not only ignored EPA's direction to use a genus-based assessment methodology, but it actually weakened the WVSCI. By inserting unacceptable zones of uncertainty that are statistically unsupportable and by ignoring the actual impacts to aquatic ecosystems at suggested WVSCI thresholds, the assessment methodology failed to provide a justification for identification of stream segments that do not meet narrative water quality standards. We support the inclusion of 346 additional water quality-limited segments identified by EPA in West Virginia's Combined 2018-2020-2022 Section 303(d) List and present the following supplemental points for EPA's review.

1. <u>WVDEP's WVSCI impairment thresholds used to generate their 303(d) list were statistically and scientifically unsupportable.</u>

WVDEP's WVSCI methodology separated thresholds for attainment and impairment of biological integrity. The attainment threshold was a score of 72 (the same threshold used for both attainment and impairment in the 2014 303(d) list). This threshold was appropriately established using the 5th percentile of reference samples. The impairment threshold, however, was arbitrarily designated as 61. Scores between 61 and 72 are therefore indeterminate and considered neither to be in attainment or impaired. Of the 9,686 streams with WVSCI scores (reviewed by commenters), 23% fell within the gray zone.

This indeterminate zone, or "zone of uncertainty" parallels the prior use of a "gray zone" in the WVSCI that was previously used by the WVDEP and rejected by the U.S. EPA. (At that time there were fewer reference samples in the dataset and the 5$^{th}$ percentile of reference streams achieved a WVSCI score of 68. The gray zone at that time was a WVSCI score between 60.6 and 68 and streams in that zone were considered neither impaired nor in attainment.) The EPA repeatedly warned WVDEP that the use of such a "gray zone" was statistically unsupportable. This was explained extensively in EPA's correspondence that partially disapproved WVDEP's submission of a 2012 303(d) List. In promulgating its own list of streams, *without the use of a gray zone*, the EPA explained:

> Any percentile estimated from a raw distribution of single reference site values will include the effects of sampling variability and measurement error and further adjustment for sampling variability would account for

sampling variability twice in the threshold determined (i.e. sampling variability would be double counted).

Garvin Letter, March 35, 2013. This problem was exacerbated by the fact that West Virginia used a low percentile of reference stream samples (5th percentile) to set the attainment threshold. Using the 5th percentile allowed for very few false positives, i.e. healthy streams that are rated as impaired. *Id.* at 4, n. 2.

The new "zone of uncertainty" suffers from the same statistical deficiency as the previous "gray zone". In establishing an attainment threshold of 72, based on the 5th percentile of reference samples, variability is already taken into account. Again, the use of a 5th percentile threshold allowed for very few cases in which a healthy stream would be rated in the nonattainment category. Moreover, the lowest reference site score in the WVSCI dataset used for recalibration is 64.74. The designated impairment threshold of 61 is entirely outside of the reference dataset and cannot be justified by *any* statistical methodology appropriate for use in developing a biological assessment methodology.

In response to a FOIA request for data, analysis, and rationale, used to develop the proposed methodology, WVDEP confirmed that, "The zone of uncertainty (61-72) is an arbitrary threshold to allow the agency flexibility in the determination of impairment for scores that approach the attainment threshold." FOIA Response (April 11, 2019). In other words, the agency does not even purport that there is a scientific or statistical justification for use of the zone of uncertainty.

The statistical problems described above are made even worse by mandating that a single score below 50 or an average score (of two scores taken within the last five years) between 50 and 60 is needed to classify a stream as impaired. Even if an impairment threshold of 61 could somehow be justified based on the reference dataset (it cannot), the requirement of an average of two scores is statistically dubious. WVSCI thresholds (when established appropriately) have always been set based upon a raw distribution of reference scores. Requiring average scores for assessed reaches results in the comparison of two different types of data ("corrected" data with raw data.). Finally, the score of 50, required for categorization of a stream as impaired based on a single sample is more than 14 points below the score of any reference stream in the WVSCI dataset, cannot be supported statistically or scientifically or by any other rational explanation. Therefore, we commend EPA on partially approving and partially disapproving West Virginia's Combined 2018-2020-2022 Section 303(d) list of water quality-limited segments based upon the Agency's determination that West Virginia did not use certain water quality information and therefore did not identify certain water quality-limited segments.

2. <u>The WVDEP has not articulated any reasonable basis for failing to replace WVSCI with the Genus Level Assessment of Most Probable Stream Status.</u>

For over a decade, EPA repeatedly directed WVDEP to replace WVSCI with the more accurate and rigorous Genus Level Assessment of Most Probable Stream Status ("GLIMPSS"). In its approval of the 2010 303(d) List, EPA instructed WVDEP to move "to a genus-level analysis for its 2012 section 303(d) List." Letter from John Capacasa to Scott Mandirola (Feb. 8, 2011). The approval letter explained that WVDEP's assessment tool (WVSCI) was outdated and that EPA expected West Virginia to adopt an available and approved genus-level assessment protocol (GLIMPSS). *Id.* The letter further explained that genus-level assessments, like GLIMPSS, were being used by EPA, and states surrounding West Virginia (including Kentucky, Pennsylvania, Maryland, and Ohio). *Id.*

WVDEP ignored EPA's instructions when they promulgated the 2012 303(d) List and again relied on WVSCI to assess narrative criteria impairments. EPA initially questioned WVDEP's refusal to adopt GLIMPSS stating in its review of that draft: "It is not clear to EPA why DEP has declined to use GLIMPSS for its 2012 Section 303(d) list or how the draft 2012 Section 303(d) list addresses the concerns raised by EPA." EPA Comments on West Virginia's 2012 Draft Section 303(d) List (June 6, 2012). EPA noted that GLIMPSS had been subject to peer review during 2012. *Id*. In the end, EPA relented and approved the 2012 List, despite WVDEP's continued reliance on WVSCI. EPA warned, however, that it was still recommending the use of GLIMPSS for future assessments. It cautioned that EPA's allowance of WVSCI for the 2012 list would not be an indication that the same methodology could be used in 2014. Letter from Shawn Garvin, EPA, to Randy Huffman, WVDEP, Encl. 2 (September 30, 2013) ("If a new methodology is not in place for the 2014 Section 303(d) list, EPA will reconsider the range of existing and readily available information, including available assessment methodologies at that time.").

In its 2014 draft 303(d) List WVDEP continued to rely on WVSCI rather than GLIMPSS. EPA noted that WVDEP had the capacity to use genus level data in its assessment and directed the agency to "update biological assessment results using GLIMPSS for the final [303(d) List] submission to EPA." EPA's Comments on West Virginia's Draft 2014 Section 303(d) List (July 11, 2014).

WVDEP issued its final 2014 303(d) List without regard to EPA's comments on its draft. On May 11, 2016, EPA sent a letter to WVDEP informing the state agency that EPA was partially disapproving of the submission of the 2014 303(d) List based on the WVDEP's failure to use GLIMPSS. Letter from Shawn Garvin to Randy Huffman (May 11, 2016). EPA noted that the science around biological monitoring had "progressed significantly" since the development of WVSCI in 2000. *Id.* Encl. 2 at 11. EPA further explained:

> By not evaluating genus-level data, important information may be missed. For example, in a recent study, sample identification at the genus level taxonomy demonstrated loss of entire functional feeding groups (Pond, et

> al 2014). Evaluation of genus-level data allows for evaluation of information on the scraper and shredder guilds. Loss of an entire functional feeding group (at the genus level) indicates ecosystem imbalance and the potential to undermine support of fish communities in the assessed and downstream reaches.

*Id.* Again, EPA informed the WVDEP that it was not singling out West Virginia, explaining that Ohio, Kentucky, Pennsylvania, and Maryland all use a genus-level method. *Id.* EPA concluded that WVDEP has "existing and readily available data" and that the data "should have been evaluated using appropriate and scientifically sound methodologies." *Id.* The federal agency noted that there exists a peer-reviewed and approved methodology for evaluating these data. *Id. citing* (Pond, 2012).

Despite the repeated direction from EPA to adopt GLIMPSS, the WVDEP again used the outdated WVSCI method to evaluate streams for the 2016 303(d) list. In response to a request for a technical justification for rejection of GLIMPSS, WVDEP explained:

> WVDEP is not using the genus level macroinvertebrate dataset for 303(d) listing that EPA purposes currently due to concerns with the robustness of the genus level reference dataset in several season / ecoregion specific IBIs. The Summer Plateau, Summer Mountain> 60 mi2, and Spring Plateau IBI's currently have less than 10% of the number of reference samples that were used in the recent update of the statewide WVSCI impairment threshold, with the Summer Plateau having just 6.4% of the number of reference samples used for the WVSCI update. WVDEP has determined that these numbers are too low to provide confidence in the use of these IBIs.

2016 303(d) Report. Although the EPA accepted this rationale, and approved the 2016 303(d) list, it does not stand up to scrutiny.

Overall, there are at least as many reference samples available for GLIMPSS (729) as were used to recalibrate WVSCI (641). The lower number of samples available for some seasons and eco-regions in the GLIMPSS dataset comes from the fact that it is split into seven different categories while WVSCI is not divided into any separate categories for different eco-regions or seasons. If the number of sample sites in each eco-region/season is problematic, GLIMPSS region and or seasons should be averaged to come up with the requisite number of reference samples or sampling should be limited to seasons in which a sufficient number of samples is available. The WVDEP should not use its own decision to subdivide GLIMPSS into numerous categories as rationale for not implementing the methodology. Particularly because the published development document for GLIMPSS used only four sub-categories. *See* Pond et al. 2013. Although WVDEP should continue to expand benthic macroinvertebrate datasets, the number of reference sites in the WVSCI database will always be a moving target, and the subcategories of GLIMPSS will always have a fraction of the number of reference

streams as the result of the subdivision of that index. We support EPA's determination that significant discrepancies exist between the impairment determinations suggested by GLIMPSS and WVSCI, and WVDEP's decision to not fully utilize the genus-level dataset is not scientifically sound. We agree with EPA's assertion that WVDEP selectively used genus-level data in its assessment methodology by only employing these data when family-level data indicated an impairment and that this selective use of available genus-level data is not scientifically sound.

3. WVDEP's assessment methodology failed to protect sensitive aquatic species.

Using the WVDEP watershed assessment program dataset, and including data from 1998 to 2018, ecologists hired by the undersigned used the Threshold Indicator Taxa Analysis (TITAN) to better understand the ecological change points of macroinvertebrate taxa appearing frequently in the dataset.[1] TITAN is an established statistical method which uses indicator species scores across binary partitions of a sample set to detect congruence in taxon-specific changes of abundance and occurrence frequency along an environmental gradient as evidence of an ecological community threshold.[2] In other words, it identifies the point at which a particular taxon experiences the most significant population change according to an ecological measurement (in this case WVSCI scores.) The dataset was filtered so that habitat, region, and sampling period would not skew the results.[3]

The graph below shows the results of that analysis. Tolerant taxa, which increase in abundance and frequency with declining water quality (by taking advantage of

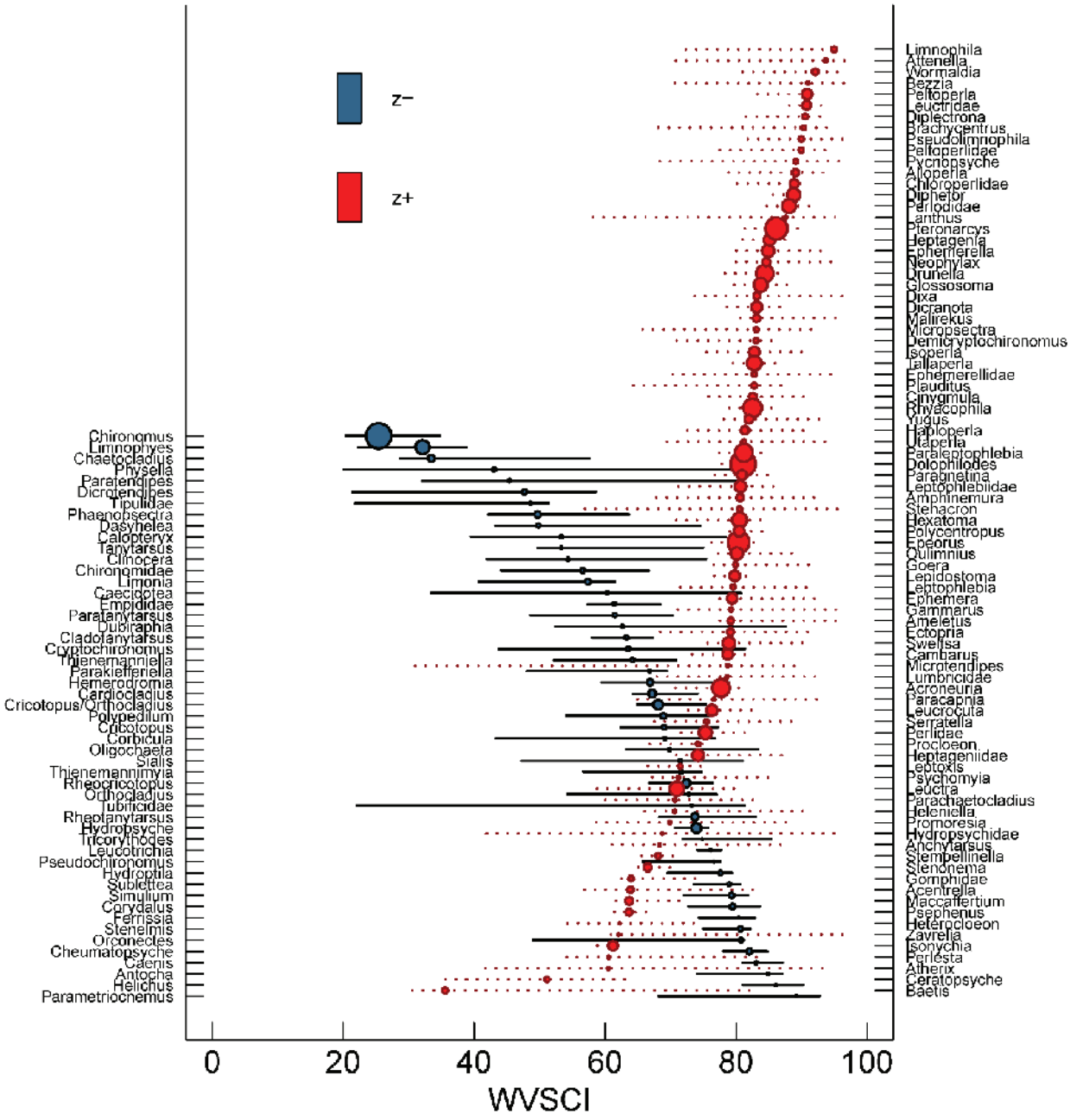
[1] These individuals were Dr. Ryan King of Baylor University, Dr. Matthew Baker of the University of Maryland Baltimore County, and Dr. Emily Bernhardt of Duke University.

[2] Published literature explaining the use of TITAN includes the following: "A new method for detecting and interpreting biodiversity and ecological community thresholds." Baker, ME and RS King. 2010Methods in Ecology and Evolution 1(1): 25:37; 25:37. King, RS and ME Baker. 2010. "Considerations for identifying and interpreting ecological community thresholds." Journal of the North American Benthological Association 29(3):998-1008. Baker ME and RS King. 2013. "Of TITAN and straw men: an appeal for greater understanding of community data." Freshwater Science 32(2):489-506.

[3] Specifically, the data was filtered to include only samples collected and identified to the genus-level and based on a 200-fixed count sample. Samples taken from sites with Rapid Biological Assessment Protocol scores below Sub-optimal (i.e. marginal or poor) were eliminated. Any samples that were not taken by the DEP's Watershed Assessment Program were excluded. All samples were from the summer index period in the mountain region of West Virginia. All samples were from catchments less than 60 square miles. Finally, all duplicates and repeat sites were eliminated.

population loss of more sensitive taxa) are shown on the left and in blue. Sensitive taxa (which decline with reduced water quality) are shown on the right and in red. The analysis shows that even a WVSCI score of 72 is below the ecological threshold of 80% of sensitive species. A WVSCI score of 61, the bottom of the "gray zone" is below the ecological change point of all but a handful of sensitive organisms. A WVSCI score of 50 is below the ecological threshold of all but one sensitive taxon. This analysis demonstrates that even a WVSCI impairment threshold of 72 will not be sufficient to protect most sensitive macroinvertebrates. There is no ecological justification for lowering it below that point.

**Figure 1.**




4. <u>WVDEP's assessment methodology resulted in violations of their duties under the Clean Water Act.</u>

Under the West Virginia Administrative Procedures Act, an agency decision should be set aside if it is either "[c]learly wrong in view of the reliable, probative and substantial evidence on the whole record; or "[a]rbitrary or capricious or characterized

by abuse of discretion or clearly unwarranted exercise of discretion." *Tennant v. Callaghan,* 490 S.E.2d 845, 849-50 (W.Va. 1997) (quoting W.Va. Code § 29A-5-4(g). As discussed above, the WVSCI methodology for assessing attainment or impairment was unsupportable by any reasonable scientific or statistical method. Moreover, a major portion was described by the agency as "arbitrary." A decision to nonetheless adopt the proposed assessment methodology was contrary to the state Administrative Procedures Act.

Using WVSCI as described in the WVDEP's proposed 303(d) List resulted in direct violations of the agency responsibilities under the Clean Water Act. Pursuant to section 303(d) of the Act, 33 U.S.C. § 1313(d), each state must identify waters within its boundaries where existing effluent limits are insufficient to achieve applicable water quality standards. In the process of identifying such waters, the state must "assemble and evaluate all existing and readily available information." 40 C.F.R. § 130.7(b)(5). West Virginia's water quality standards include narrative criteria established to protect aquatic life. W.Va. C.S.R. § 47–2–3.2.e and –3.2.i. Because the WVSCI allowed the WVDEP to ignore information about streams in the zone of uncertainty, and streams with a single sample WVSCI score between 50 and 72, it resulted in the agency ignoring information relevant to the identification of waters where water quality standards are not being achieved. It thus resulted in a failure of the state to list waters where existing effluent limitations are insufficient to achieve applicable water quality standards. In other words, the proposed 303(d) List was a violation of the state's responsibilities under the Clean Water Act.

In addition to its § 303 related duties, the proposed 303(d) List made it impossible for the agency to comply with its duties in issues West Virginia/National Pollutant discharge Elimination System ("WV/NPDES") Permits. Federal regulations require states to issue permits that will result in compliance with 'State narrative criteria for water quality." 122.44(d)(1); 123.25(a)(15) (making requirement directly applicable to the states). By proposing an assessment methodology that resulted in the failure to identify all streams that did not meet West Virginia's narrative water quality standards, it would have been impossible for DEP permit writers to appropriately write permits to protect those standards.

For the reasons listed above, we support EPA's determination that WVDEP did not use all existing and readily available water quality information in the development of the current 303(d) List. We appreciate EPA holding WVDEP accountable to proper implementation of the Clean Water Act, and support EPA's determination to add the identified water quality limited segments to West Virginia's Combined 2018-2022-2022 Section 303(d) list.

Sincerely,

Angie Rosser
West Virginia Rivers Coalition

Elizabeth Underwood
New River Conservancy

Marilyn Shoenfeld
West Virginia Highlands Conservancy

Pam Moe
Bear Creek Consulting

Brad Riffee
West Virginia Council of Trout Unlimited

Ronda Lehman
Blue Ridge Watershed Coalition

Aileen Curfman
West Virginia Sierra Club

Linda Frame
WV Environmental Council

Mike Becher
Appalmad

Dustin Wichterman
Trout Unlimited

Kristin Alexander
Potomac Valley Audubon Society

Julie Archer
League of Women Voters of West Virginia

Bill Howard
The Downstream Project

October 18, 2023

Mr. Gregory Voigt
U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 comment; Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List

Submitted via email: voigt.gregory@epa.gov

Dear Mr. Voigt,

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List. I am Micah Bates and chair of the West Virginia Chapter of the Native Fish Coalition. Our mission is to protect, preserve, and restore the native and wild fishes of West Virginia . We appreciate EPA's dedication in ensuring that the West Virginia Department of Environmental Protection (WVDEP) adequately implements the Clean Water Act, and respectfully submit the following comments for EPA's consideration.

WVNFC supports EPA's finding that WVDEP did not use existing and readily available water quality data to identify water quality-limited segments for West Virginia's Combined 2018-2020-2022 Section 303(d) list. As EPA noted in the Rationale for Action[1], there are significant discrepancies between the biological impairment determinations suggested by the two assessment approaches, Genus Level Index of Most Probable Stream Status (GLIMPSS) and West Virginia Stream Condition Index (WVSCI).

The GLIMPSS assessment approach addresses several shortcomings of WVSCI. Firstly, utilizing GLIMPSS would use all of WVDEP's genus-level macroinvertebrate data. Secondly, GLIMPSS is region specific with reference conditions appropriate to the local area. GLIMPSS also has distinct seasonal reference conditions, and allows for a longer sampling period. Lastly, GLIMPSS includes an adjusted index for streams with drainage areas greater than 60 square miles in the mountain region that has watershed-size appropriate reference conditions.

In EPA's analysis, an additional three hundred forty-six (346) water quality-limited segments were identified as impaired using GLIMPSS[2]. All of the streams identified by the EPA in the state of West Virginia have our support in the listing, but to note that we would like to

see more emphasis put on streams that contain wild and native brook trout as well as endangered species such as the Candy Darter and the Emerald Darter. All of the watersheds identified by the EPA are critical to our continued stewardship of water quality but we have special interest in the watersheds in which our native brook trout inhabit. We also support the measures taken to list the southern coalfield streams which are in great need.

Proper identification of impaired streams is critical to ensure that our impaired waterways receive the resources and support needed for restoration. We urge EPA to require WVDEP to utilize the GLIMPSS methodology in West Virginia's Combined 2018-2020-2022 Section 303(d) list and all future 303d list assessments. We appreciate EPA holding WVDEP accountable, and support EPA's determination to add the 346 identified water quality limited segments to West Virginia's Combined 2018-2022-2022 Section 303(d) list.

Sincerely,

Micah Bates

West Virginia Chapter of the Native Fish Coalition

October 17, 2023

Mr. Gregory Voigt
U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 comment; Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List

Submitted via email: voigt.gregory@epa.gov

Dear Mr. Voigt,

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List. Plateau Action Network (PAN) is a non-profit citizen's coalition working within the West Virginia New and Gauley River watershed to promote economic development and sustainable environmental management. We appreciate EPA's dedication in ensuring that the West Virginia Department of Environmental Protection (WVDEP) adequately implements the Clean Water Act, and respectfully submit the following comments for EPA's consideration.

PAN supports EPA's finding that WVDEP did not use existing and readily available water quality data to identify water quality-limited segments for West Virginia's Combined 2018-2020-2022 Section 303(d) list. As EPA noted in the Rationale for Action[1], there are significant discrepancies between the biological impairment determinations suggested by the two assessment approaches, Genus Level Index of Most Probable Stream Status (GLIMPSS) and West Virginia Stream Condition Index (WVSCI).

The GLIMPSS assessment approach addresses several shortcomings of WVSCI. Firstly, utilizing GLIMPSS would use all WVDEP's genus-level macroinvertebrate data. Secondly, GLIMPSS is region specific with reference conditions appropriate to the local area. GLIMPSS also has distinct seasonal reference conditions and allows for a longer sampling period. Lastly, GLIMPSS includes an adjusted index for streams with drainage areas greater than 60 square miles in the mountain region that has watershed-size appropriate reference conditions.

In EPA's analysis, an additional three hundred forty-six (346) water quality-limited segments were identified as impaired using GLIMPSS2. Eighteen (18) of which are within the Gauley and Lower New watersheds. These watersheds are impaired by high levels of iron, aluminum, and fecal coliform bacteria, as well as low pH. To correct for these impairments, so

that all streams in the watersheds meet water quality standards, WVDEP must not be allowed to ignore waters where existing effluent limitations are insufficient to achieve applicable water quality standards.

Proper identification of impaired streams is critical to ensure that our impaired waterways receive the resources and support needed for restoration. We urge EPA to require WVDEP to utilize the GLIMPSS methodology in West Virginia's Combined 2018-2020-2022 Section 303(d) list and all future 303d list assessments. We appreciate EPA holding WVDEP accountable, and support EPA's determination to add the 346 identified water quality limited segments, including Tom Run, Buffalo Creek, Little Bluestone, Jumping Branch, Mill Creek, River Branch, Wilson Branch, Big Creek, Open Fork, Laurel Creek, Peters Creek, Deer Creek, Barrenshe Run, Foxtree Run, Williams River, Tea Creek, Big Run and Gauley River to West Virginia's Combined 2018-2022-2022 Section 303(d) list.

Sincerely,

Kate Hall

Kate Hall, PE
President, Plateau Action Network

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Monday, October 16, 2023 6:23:09 PM

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Dear Mr. Gregory Voigt,

#WaterIsLife
346 streams and 1,600 stream miles that were excluded by WVDEP, must be included!
CleanEarth4Kids.org supports the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022.

The streams missing from WVDEP's list have the most moderate impairments that will be easiest to restore and bring back to attainment.

Our trust of WVDEP has been broken.
It is imperative to have accurate water assessments and protection for streams, rivers, aquatic life, ecosystems….

CleanEarth4Kids.org supports the EPA's commitment to hold the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards.

Accurate information, informed decisions, and recognizing the inherent need to protect water and aquatic life, wildlife, and ecosystems should be the basis of the WVDEP! Excluding streams and aquatic life from protection, goes against the public good and the mission of environmental protection!

We urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments.

The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive.
An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration.

#WaterIsLife
We must protect our water, and this includes accurate assessments and the protection of streams and rivers, aquatic life, and ecosystems!

Sincerely,
Suzanne Hume
[redacted]

**From:** Bradley Riffee
**To:** Voigt, Gregory
**Subject:** Comment from WV Council of TU
**Date:** Thursday, October 19, 2023 7:27:17 PM



October 18, 2023

Mr. Gregory Voigt
U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 comment; Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List

Submitted via email: voigt.gregory@epa.gov

Dear Mr. Voigt,

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List. The West Virginia Council of Trout Unlimited (WVCTU) supports the mission of Trout Unlimited to protect, reconnect, restore, and sustain the states cold-water fisheries. We appreciate EPA's dedication in ensuring that the West Virginia Department of Environmental Protection (WVDEP) adequately implements the Clean Water Act, and respectfully submit the following comments for EPA's consideration.

WVCTU supports EPA's finding that WVDEP did not use existing and readily available water quality data to identify water quality-limited segments for West Virginia's Combined 2018-2020-2022 Section 303(d) list. As EPA noted in the Rationale for Action[1], there are significant discrepancies between the biological impairment determinations suggested by the two assessment approaches, Genus Level Index of Most Probable Stream Status (GLIMPSS) and West Virginia Stream Condition Index (WVSCI).

The GLIMPSS assessment approach addresses several shortcomings of WVSCI. Firstly, utilizing GLIMPSS would use all of WVDEP's genus-level macroinvertebrate data. Secondly, GLIMPSS is region specific with reference conditions appropriate to the local area. GLIMPSS also has distinct seasonal

reference conditions, and allows for a longer sampling period. Lastly, GLIMPSS includes an adjusted index for streams with drainage areas greater than 60 square miles in the mountain region that has watershed-size appropriate reference conditions.

In EPA's analysis, an additional three hundred forty-six (346) water quality-limited segments were identified as impaired using GLIMPSS[2]. WVCTU is concerned about all watersheds within West Virginia which currently supports, or possesses, a reasonable potential to restore the state's cold-water fisheries.

Proper identification of impaired streams is critical to ensure that our impaired waterways receive the resources and support needed for restoration. We urge EPA to require WVDEP to utilize the GLIMPSS methodology in West Virginia's Combined 2018-2020-2022 Section 303(d) list and all future 303(d) list assessments.

We appreciate EPA holding WVDEP accountable, and support EPA's determination to add the 346 identified water quality limited segments, including to West Virginia's Combined 2018-2022-2022 Section 303(d) list.

Sincerely,

Brad Riffee
Chair of WV Council of Trout Unlimited
Cell: 304-203-3661

**From:** Dustin Wichterman
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 9:53:37 AM



Dear Mr. Gregory Voigt,

This letter is on behalf of Trout Unlimited's West Virginia Field Office, which includes a full time staff of Fisheries Biologists, Policy Specialists, Stream Design Specialists, Conservation Implementation Crews, Fisheries and Aquatic Habitat Survey Technicians, Volunteer Engagement Associates, Professional Engineers, and others, who work daily to protect, reconnect, and restore cold water fisheries and their watersheds. TU and our partners riparian, in-stream habitat, and aquatic organism passage efforts in West Virginia have led to the recovery of over 100 miles of trout waters thus far. TU utilizes both the data collected and funding mechanisms supported by this work to understand and improve water quality conditions in West Virginia.

I am writing to express TU's support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

Trout Unlimited is also especially concerned with the proposed addition of 43 known trout waters representing 260 miles of stream in West Virginia. TU supports the addition of these streams, as well as, those which are not formally designated as trout waters.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

TU supports the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

TU urges you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

TU looks forward to witnessing the positive impact this decision has on our rivers and

streams.

Sincerely,
Dustin Wichterman
3881 Brush Road
Lewisburg, WV 24901

# Local Watershed Associations

October 16, 2023

Mr. Gregory Voigt
U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 comment; Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List

Submitted via email: voigt.gregory@epa.gov

Dear Mr. Voigt,

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List. The Davis Creek Watershed Association has been working to restore and protect the watershed since being established in 1995. We appreciate EPA's dedication in ensuring that the West Virginia Department of Environmental Protection (WVDEP) adequately implements the Clean Water Act, and respectfully submit the following comments for EPA's consideration.

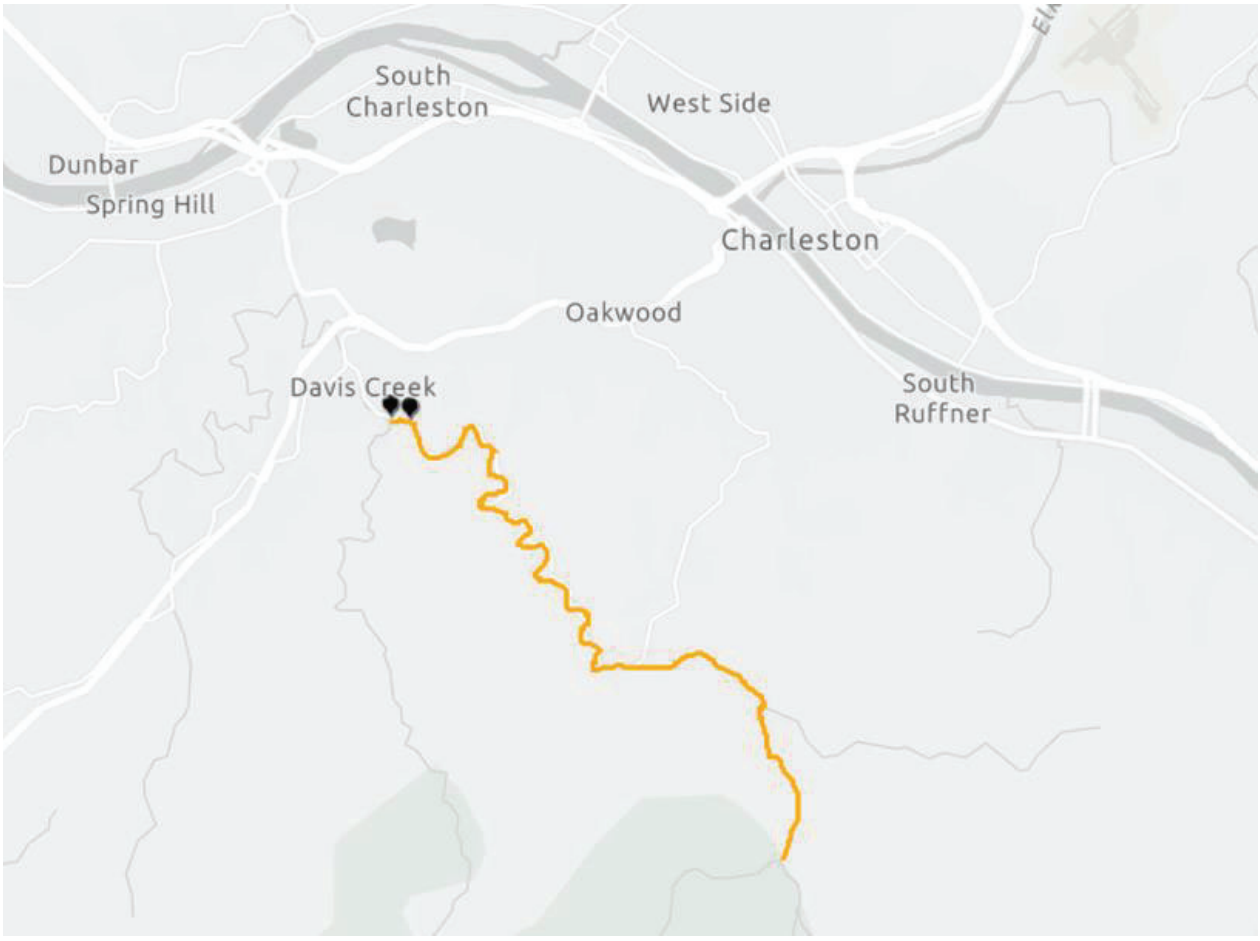
Davis Creek Watershed Association supports EPA's finding that WVDEP did not use existing and readily available water quality data to identify water quality-limited segments for West Virginia's Combined 2018-2020-2022 Section 303(d) list. As EPA noted in the Rationale for Action[1], there are significant discrepancies between the biological impairment determinations suggested by the two assessment approaches, *Genus Level Index of Most Probable Stream Status (*GLIMPSS) and West Virginia Stream Condition Index (WVSCI).

The GLIMPSS assessment approach addresses several shortcomings of WVSCI. Firstly, utilizing GLIMPSS would use all of WVDEP's genus-level macroinvertebrate data. Secondly, GLIMPSS is region specific with reference conditions appropriate to the local area. GLIMPSS also has distinct seasonal reference conditions and allows for a longer sampling period. Lastly, GLIMPSS includes an adjusted index for streams with drainage areas greater than 60 square miles in the mountain region that has watershed-size appropriate reference conditions.

In EPA's analysis, an additional three hundred forty-six (346) water quality-limited segments were identified as impaired using GLIMPSS[2]. Included in this overlist action is the

[1] https://www.epa.gov/system/files/documents/2023-06/2022%20WV%20303d%20PAPD%20Decision%20Document%20Encl%201%20Final.pdf
[2] https://epa.maps.arcgis.com/apps/View/index.html?appid=a5ba9b473d1746188dc65d40ab3cbece

mainstem of Davis Creek. The association has been monitoring this specific segment of the stream for many years and it is clearly not the same quality as the less impacted upstream segments. Zero to few stoneflies have been collected in recent years at our monitoring site that is within this section of the stream. The samples collected in this section are always less diverse and dominated by tolerant organisms. The fact that the family level index suggests that there's nothing wrong with the aquatic life in this section is evidence that it simply doesn't work well for identifying *significant adverse impacts* – as WV water quality standards require.




Proper identification of impaired streams is critical to ensure that our impaired waterways receive the resources and support needed for restoration. We urge EPA to require WVDEP to utilize the GLIMPSS methodology in West Virginia's Combined 2018-2020-2022 Section 303(d) list and all future 303(d) list assessments. We appreciate EPA holding WVDEP

accountable, and support EPA's determination to add the 346 identified water quality limited segments, including our beloved Davis Creek to West Virginia's Combined 2018-2022-2022 Section 303(d) list.

Sincerely,

William L. Tate, President
Allen Marker, Vice President
Josh Pray, Secretary
Diana K. Green, Treasurer
John C. Wirts, Director

E-mail: daviscreekwatershedassn@gmail

Friends of the Cheat

# FRIENDS OF THE CHEAT

1343 North Preston Highway | Kingwood, WV 26537 | www.cheat.org

**10/18/2023**

Mr. Gregory Voigt
U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852
]
Dear Mr. Voigt,

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List. Friends of the Cheat was formed in 1994 with the mission to "restore, preserve, and promote the outstanding natural qualities of the Cheat River watershed," and has been implementing restoration activities to improve the conditions of impaired streams over the last two decades. We appreciate EPA's dedication in ensuring that the West Virginia Department of Environmental Protection (WVDEP) adequately implements the Clean Water Act, and respectfully submit the following comments for EPA's consideration.

Friends of the Cheat supports EPA's finding that WVDEP did not use existing and readily available water quality data to identify water quality-limited segments for West Virginia's Combined 2018-2020-2022 Section 303(d) list. As EPA noted in the Rationale for Action 1, there are significant discrepancies between the biological impairment determinations suggested by the two assessment approaches, Genus Level Index of Most Probable Stream Status (GLIMPSS) and West Virginia Stream Condition Index (WVSCI).

The GLIMPSS assessment approach addresses several shortcomings of WVSCI. Firstly, utilizing GLIMPSS would use all of WVDEP's genus-level macroinvertebrate data. Secondly, GLIMPSS is region specific with reference conditions appropriate to the local area. GLIMPSS also has distinct seasonal reference conditions, and allows for a longer sampling period. Lastly, GLIMPSS includes an adjusted index for streams with drainage areas greater than 60 square miles in the mountain region that has watershed-size appropriate reference conditions.

In EPA's analysis, an additional three hundred forty-six (346) water quality-limited segments were identified as impaired using GLIMPSS. Five of streams EPA added are within the Cheat River watershed, including Saltlick Creek and Little Sandy Creek, of which Friends of the Cheat has been implementing restoration work in over the last several years, including riparian reforestation efforts and acid mine drainage remediation.

Proper identification of impaired streams is critical to ensure that our impaired waterways receive the resources and support needed for restoration. We urge EPA to require WVDEP to utilize the GLIMPSS methodology in West Virginia's Combined 2018-2020-2022 Section 303(d) list and all future 303d list assessments. We appreciate EPA holding WVDEP accountable, and support EPA's determination to add the 346 identified water quality limited segments, including Little Sandy Creek,

Saltlick Creek, Little Laurel Run, UNT/Big Sandy Creek RM 18.51, and the Black Fork of the Cheat River that EPA identified as impaired to West Virginia's Combined 2018-2022-2022 Section 303(d) list.

Sincerely,

Madison Ball
Conservation Program Director
Friends of the Cheat, INC
madison@cheat.org
304-329-3621 x7

GREENBRIER RIVER
WATERSHED ASSOCIATION

GREENBRIER RIVER
WATERSHED ASSOCIATION

October 18, 2023

Mr. Gregory Voigt
U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 comment; Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List

Submitted via email: voigt.gregory@epa.gov

Dear Mr. Voigt,

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List. The Greenbrier River Watershed Association (GRWA) was formed in 1990 to save the Greenbrier River as a legacy. It is an essential part of our lives that enriches and inspires us. The watershed is a unique ecosystem with rich varieties of aquatic, riparian, and upland wildlife, tributaries, farmland, forest, people, and communities. Our purpose is to promote the maintenance, preservation, protection and restoration of the ecological integrity of the Greenbrier River and its watershed. We appreciate EPA's dedication in ensuring that the West Virginia Department of Environmental Protection (WVDEP) adequately implements the Clean Water Act, and respectfully submit the following comments for EPA's consideration.

GRWA supports EPA's finding that WVDEP did not use existing and readily available water quality data to identify water quality-limited segments for West Virginia's Combined 2018-2020-2022 Section 303(d) list. As EPA noted in the Rationale for Action[1], there are significant discrepancies between the biological impairment determinations suggested by the

[1]https://www.epa.gov/system/files/documents/2023-06/2022%20WV%20303d%20PAPD%20Decision%20Document%20Encl%201%20Final.pdf

two assessment approaches, *Genus Level Index of Most Probable Stream Status (*GLIMPSS) and West Virginia Stream Condition Index (WVSCI).

The GLIMPSS assessment approach addresses several shortcomings of WVSCI. Firstly, utilizing GLIMPSS would use all of WVDEP's genus-level macroinvertebrate data. Secondly, GLIMPSS is region specific with reference conditions appropriate to the local area. GLIMPSS also has distinct seasonal reference conditions, and allows for a longer sampling period. Lastly, GLIMPSS includes an adjusted index for streams with drainage areas greater than 60 square miles in the mountain region that has watershed-size appropriate reference conditions.

In EPA's analysis, an additional three hundred forty-six (346) water quality-limited segments were identified as impaired using GLIMPSS[2]. Seven of these are within the Greenbrier watershed including high quality streams that support our important aquatic life. The North Fork of Deer Creek supports the endangered Candy Darter and native Brook Trout. Knapp Creek is also an important trout fishery and supplies the drinking water for the community of Marlinton. Island Lick Run is within the popular tourist destination Watoga State Park. Second Creek is a popular catch and release trout fishery. It's critical that these streams get the support they need to put them on the path to recovery. Without this 303d listing, they would become further degraded and might not be able to be brought back to health which would result in a loss of habitat for critical species.

Proper identification of impaired streams is critical to ensure that our impaired waterways receive the resources and support needed for restoration. We urge EPA to require WVDEP to utilize the GLIMPSS methodology in West Virginia's Combined 2018-2020-2022 Section 303(d) list and all future 303d list assessments. We appreciate EPA holding WVDEP accountable, and support EPA's determination to add the 346 identified water quality limited segments, including Brush run, North Fork of Deer Creek, Knapp Creek, Island Lick Run, Fleming Run, Unnamed Tributary of Jericho Draft, and Second Creek to West Virginia's Combined 2018-2022-2022 Section 303(d) list.

Sincerely,

John J. Walkup, III

President

Greenbrier River Watershed Association

[2]https://epa.maps.arcgis.com/apps/View/index.html?appid=a5ba9b473d1746188dc65d40ab3cbece

Sleepy Creek
WATERSHED ASSOCIATION
SINCE 1999

October 13, 2023

Mr. Gregory Voigt
U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 comment; Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List

Submitted via email: voigt.gregory@epa.gov

Dear Mr. Voigt,

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List. Our association's mission is to protect the Sleepy Creek Watershed and to educate and to educate and assist community members to improve it sirreplaceable natural resource and environment for current and future generations. We appreciate EPA's dedication in ensuring that the West Virginia Department of Environmental Protection (WVDEP) adequately implements the Clean Water Act, and respectfully submit the following comments for EPA's consideration.

The Sleepy Creek Watershed Association supports EPA's finding that WVDEP did not use existing and readily available water quality data to identify water quality-limited segments for West Virginia's Combined 2018-2020-2022 Section 303(d) list. As EPA noted in the Rationale for Action[1], there are significant discrepancies between the biological impairment determinations suggested by the two assessment approaches -Sll Genus Level Index of Most Probable Stream Status (GLIMPSS) and West Virginia Stream Condition Index (WVSCI).

The GLIMPSS assessment approach addresses several shortcomings of WVSCI. Firstly, utilizing GLIMPSS would use all of WVDEP's genus-level macroinvertebrate data. Secondly, GLIMPSS is region specific with reference conditions appropriate to the local area. GLIMPSS also has distinct seasonal reference conditions, and allows for a longer sampling period. Lastly, GLIMPSS includes an adjusted index for streams with drainage areas greater than 60 square miles in the mountain region that has watershed-size appropriate reference conditions.

In EPA's analysis, an additional three hundred forty-six (346) water quality-limited segments were identified as impaired using GLIMPSS[2]. Steams with the Sleepy Creek Watershed have previously been identified as impaired by EPA.

Proper identification of all impaired streams is critical to ensure that our waterways receive the resources and support needed for restoration and consistent data capture facilitates the sharing and analysis of data by all engaged organizations dedicated to improvement of water quality. We urge EPA to require WVDEP to utilize the GLIMPSS methodology in West Virginia's Combined 2018-2020-2022 Section 303(d) list and all future 303d list assessments. We appreciate EPA holding WVDEP accountable, and support EPA's determination to add the 346 identified water quality limited segments, including impaired Sleepy Creek to West Virginia's Combined 2018-2022-2022 Section 303(d) list.

Sincerely,

Charles W. Marsh

Charles W. Marsh, President
Sleepy Creek Watershed Association

SAVE THE TYGART WATERSHED ASSOCIATION INC.

P.O. BOX 164, GRAFTON, WV 26354

October 18, 2023

Mr. Gregory Voigt

U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 comment; Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List

Submitted via email: voigt.gregory@epa.gov

Dear Mr. Voigt,

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List. I am writing as a representative of the Save the Tygart Watershed Association whose mission is to protect and enhance the water quality in the Tygart Valley River watershed. We appreciate EPA's dedication in ensuring that the West Virginia Department of Environmental Protection (WVDEP) adequately implements the Clean Water Act, and respectfully submit the following comments for EPA's consideration.

Save the Tygart supports EPA's finding that WVDEP did not use existing and readily available water quality data to identify water quality-limited segments for West Virginia's Combined 2018-2020-2022 Section 303(d) list. As EPA noted in the Rationale for Action[1], there are significant discrepancies between the biological impairment determinations suggested by the two assessment approaches, Genus Level Index of Most Probable Stream Status (GLIMPSS) and West Virginia Stream Condition Index (WVSCI).

The GLIMPSS assessment approach addresses several shortcomings of WVSCI. Firstly, utilizing GLIMPSS would use all of WVDEP's genus-level macroinvertebrate data. Secondly, GLIMPSS is region specific with reference conditions appropriate to the local area. GLIMPSS also has distinct seasonal reference conditions, and allows for a longer sampling period. Lastly, GLIMPSS includes an adjusted index for streams with drainage areas greater than 60 square miles in the mountain region that has watershed-size appropriate reference conditions.

In EPA's analysis, an additional three hundred forty-six (346) water quality-limited segments were identified as impaired using GLIMPSS[2]. Six of these are within the Tygart Valley River Watershed. Save the Tygart spend considerable time on existing AML projects to improve the water quality in the Tygart Valley River through its tributaries and the promotion of water-centric recreation has become increasingly important in the state. Several of the impaired streams listed had not currently been on our radar for monitoring or remediation. However, the listing of these streams on the 303d list will allow STTWA to focus on identifying sources of impairment and to obtain funding for remediation where necessary. We believe it is important to use the best science available in this process.

Proper identification of impaired streams is critical to ensure that our impaired waterways receive the resources and support needed for restoration. We urge EPA to require WVDEP to utilize the GLIMPSS methodology in West Virginia's Combined 2018-2020-2022 Section 303(d) list and all future 303d list assessments. We appreciate EPA holding WVDEP accountable, and support EPA's determination to add the 346 identified water quality limited segments, including Mill Creek, Sandy Creek, Brains Creek, Cove Run and sections of the Tygart Valley River to West Virginia's Combined 2018-2022-2022 Section 303(d) list.

Sincerely,

Dr. Kelley Flaherty

Executive Director

Save the Tygart Watershed Association

**From:** John Maxey
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Wednesday, October 18, 2023 4:00:41 PM



October 18, 2023

Mr. Gregory Voigt
U.S. Environmental Protection Agency
Region 3, Water Division
Four Penn Center
1600 John F. Kennedy Blvd
Philadelphia, PA 19103-2852

RE: FRL-10978-01-R3 comment; Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List

Submitted via email: voigt.gregory@epa.gov

Dear Mr. Voigt,

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List.

The BLue Ridge Watershed Coalition supports EPA's requirement that the best available data be used in determining stream impairment. The GLIMPSS categorization is clearly a better method of water quality assessment than the older method. Using genus level rather than family species categories provides a more precise evaluation of stream quality in West Virginia The three hundred and forty-six streams that will be added to the state's 303(d) list are exactly the ones that might benefit most and with the least effort from TMDL assignments and watershed plans.

Sincerely,

John Maxey
Blue Ridge Watershed Coalition

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Wednesday, October 18, 2023 7:51:17 PM

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Dear Mr. Gregory Voigt,

Coal River Mountain Watch supports the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. It's concerning that the WVDEP omitted the Big Coal River and some tributaries, all threatened and polluted by mountaintop removal and other coal operations in our communities. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and streams.

Sincerely,

[redacted]

# Unique Comments from Individuals

*Please note that below is one example of the mass mailers received. Some mass mailers include minor edits and are not included for simplicity.*

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Friday, October 6, 2023 12:41:21 PM

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Dear Mr. Gregory Voigt,

I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and streams.

Sincerely,

[redacted]

# Unique Comments from Individuals

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 9:42:29 AM

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Dear Mr. Gregory Voigt,

I write as a citizen of West Virginia to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3).

I live adjacent to one of the stream segments added to the list (Elk River). I frequently recreate on this river segment, including fishing, boating and swimming. My drinking water is drawn from this segment.

I support EPA insisting that the most thorough and accurate science-based methodology be used to assess stream biological health. Otherwise, 346 streams, including the Elk, are deprived of the help and resources they deserve to be restored.

I have noticed the Elk suffers from a lot of turbidity and understand its stressors involve "organic enrichment". I want to see the Elk and all of the other 345 streams I value in West Virginia are afforded full protections and resources under the Clean Water Act.

Please move forward with the addition of these streams to the 303d list and require WVDEP to use GLIMPSS methods for assessment.

Thank you for your science-driven work to protect and restore the Elk, and all of WV's amazing water resources.

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 10:00:38 AM

---



Dear Mr. Gregory Voigt,

I work in water quality monitoring in mountain streams and am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022.

The 303(d) listing is an effective way to address streamwater degradation in West Virginia (and other states). Properly identifying impaired streams is an important first step. I support the addition of these streams.

Thank you for your attention to this important matter.

Suzanne Maben

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 10:06:23 AM

---



Dear Mr. Gregory Voigt,

This is vital. I am writing to communicate my support for the EPA's Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3).

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and streams.

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 10:17:28 AM

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> **Caution:** This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Dear Mr. Gregory Voigt,

I am writing to register support for the Environmental Protection Agency (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This action seems like an obvious step toward stream restoration and improved water quality; streams missing from WVDEP's list seem to be ones with a chance to achieve attainment and I hope that EPA will hold WVDEP accountable.

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 6:31:14 PM

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Dear Mr. Gregory Voigt,

I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3).

This action by EPA is clearly supported by the best available science. The genus-level index developed by researchers at EPA (and peer reviewed by others at the national and international level) provides important insights on quality of WV streams - and provides an important direction for restoration and conservation planning that will benefit the environment and citizens of WV alike.

Thank you for your attention to this important issue.

Regards,
[redacted]

Sincerely,
[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Wednesday, October 18, 2023 10:09:39 AM

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Hi Greg and other EPA folks that may be reading this.
I hope you all are doing well, I'm very much enjoying retirement and not having to deal with 303(d) lists as directly as I used to.
Having read comments from the public regarding agency policy for years, I find myself wondering about the value of a single additional letter.
Seems I generally hear summaries like "public comments were overwhelmingly in favor of the proposed policy" - but rarely do I hear that the agency learned something new.
And I know that you know that it makes scientific sense to utilize GLIMPSS as it was developed specifically to address known shortcomings of WVSCI. So, the science isn't the question.
And I understand the policy issues pretty well too. West Virginia's top executive is a coal baron, the attorney general is pro Coal, the state legislature is supported by Coal - and Coal doesn't like GLIMPSS. The genus level tool simply identifies the negative impacts of coal mining better than the dumbed down family level index - no surprise.
Until the recent article in the Charleston Gazette Mail ( https://www.wvgazettemail.com/news/energy_and_environment/epa-says-outdated-dep-biological-assessments-leaving-over-1-600-miles-of-waterways-off-impaired/article_b46ee0c5-2a2c-54a8-b3c2-1b3ae980bb2a.html ), I had forgotten some of the comments from Coal (WV Coal Ass.). Apparently DEP working with EPA's Wheeling folks on the development of GLIMPSS is what got them to label the tool as being "developed incestuously". And worse yet, the people at DEP that worked with EPA were of the "non-policymaker" type. I'm not sure what makes one a "policymaker", but I assume its one that is not civil service protected and can be fired for not kowtowing to the mighty King Coal.
Anyhow, good luck with getting the overlist finalized and all of the good work you all do in Region 3.
Working with you all was always a pleasure,
[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Friday, October 6, 2023 8:19:02 PM

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> **Caution:** This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Dear Mr. Gregory Voigt,

Below is a form letter but I want to add first and foremost my experience with the pipeline construction in the Meadow Bluff district. I was skeptical of the promises of environmental safety measures, of course, because of history. Shortly after construction began the creek water to my farm changed. I thought silt, maybe from disruption of Karst waterbeds. What made me more suspicious was my dog. I have a big,old Great Pyrenees that always enjoyed a big drink and a belly float in the creek. She started avoiding the creek altogether, even during hot summer days. Then the goats and horses rejected drinking from creek and pond. I had Greenbrier Co test the water, never got results and just a run around getting any info back. Ultimately, I put in a cistern for rain water collection as I no longer trust the water quality beneath my property, nor do my animals.

So, that's my personal experience with how poor environmental management and accountability affect just one West Virginian. The cost is great worry and expense.

I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and stre

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Sunday, October 8, 2023 7:27:01 PM

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Dear Mr. Gregory Voigt,

This agency has already let me down with the lack of attention to Minden. I now am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and streams.

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 10, 2023 7:39:00 AM



Dear Mr. Gregory Voigt,

As a landowner in Lewis County, WV, I am at woe for the lack of mention for the poor quality of water in the streams in Lewis County. Between the West Fork and Little Kanawha Basin, the water is not drinkable. Sedimentation and erosion have made the creeks scoured. Telephone poles falling into the creek from the massive erosion. MVP came through there and it has done hundreds of thousands of dollars of damage to our basin in Second Big Run, Oil Creek, Copley Road, Indian Fork, Three Lick, at every creek crossing in our rain microclimate, the fish have disappeared. You aren't sending any field people out to see the damage. You can always visit my farm and see for yourself what severe erosion and sedimentation issues we have and our dirt is making its way into the Sutton and Burnsville Dams in Braxton County. Please contact me for more assistance. The invertebrates have drastically declined as well.

I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and streams. Thank you.

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 9:57:53 AM

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Dear Mr. Gregory Voigt,

I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and streams. NO MVP Its polluting our streams

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 11:13:16 AM

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Dear Mr. Gregory Voigt,

I am writing to support the EPA in its efforts to hold West Virginia and the WVDEP accountable for using more accurate and up-to-date science and water-quality assessment methodologies to protect our essential yet endangered water resources.

I live in Monroe County, WV, where 3 streams EPA added to the impaired 303(d) list represent headwater streams for 3 major watersheds -- the Middle New, the Greenbrier, and the Upper James. Our county sits on the continental divide in southeastern WV, and our county waters include the highest reaches of streams that ultimately flow not only to the endangered Ohio River and on to the Mississippi R., but also to the Chesapeake Bay via the James River.

I have learned how important headwater streams are for the ultimate health of the downstream river continuum. I have also learned, since moving to Monroe County, how vulnerable much of our groundwater is due to the extensive karst terrain here. More than half of Monroe County residents rely on private wells and springs for their drinking water.

Right now, this county is experiencing an increase in properties purchased by industrial turkey operations -- all of which are situated on karst. Because of West Virginia's less accurate water quality assessment requirements, coupled with little-to-no zoning or oversight within our county, I am afraid that there is nothing to stand in the way of polluting industries like this to set up shop and destroy some of the pristine water sources that used to support popular fishing streams in the area (and the endangered candy darter).

I urge the EPA to continue to pressure the WVDEP to adopt the GLIMPSS methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, hopefully West Virginia and our counties can make informed decisions that safeguard our environment for current and future generations -- and can take advantage of resources dedicated to help recover the health of impaired streams.

Thank you!

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 12:16:31 PM

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Dear Mr. Gregory Voigt,

I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3).

West Virginia's streams, more than in many other places, have suffered greatly from fossil fuel extraction. I see it every day when I walk along Sugar Grove Road, west of Morgantown, where abandoned strip mines have polluted Dents Run. Where I used to see aquatic life, now the stream is barren and stained orange and white. This also impacts birds and mammals that rely on our streams for food. I would no longer eat deer meat shot locally because of the AMD and heavy metals in the water they are forced to drink.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 1:49:13 PM



Dear Mr. Gregory Voigt,

I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and streams. I live on a beautiful stream, that once was clear, now it is slimy…people upstream obviously but very sneakily empty their septic tanks into the stream. It's really dangerous, my grandchildren come to play but I am afraid to let them wade in the stream. Remember what fun it was to be a kid and wade in cool running water? Well your grandchildren wont remember it.

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Tuesday, October 17, 2023 2:20:45 PM

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Dear Mr. Gregory Voigt,

As a member of the DEP advisory council I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I would also suggest including bottom fines analysis to the list of stream quality assessment. Dan Duffield of the USFS in the Mon Forest showed that when a stream reaches 40% bottom fines (from sediment run-off) productivity plummets. Many WV streams are limited by high sediment loads, a factor which should be addressed.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and streams.

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Wednesday, October 18, 2023 9:13:12 AM

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Dear Mr. Gregory Voigt,

We live over the fence from a strip-mine abandoned in 2014. Red AMD leaks into the nearby creek, Dents run, of course not even on the associated map. ALL this needs to be remedied. So I support entirely the proposal, as a start to dealing with an immense legacy problem that the taxpayer rather than the companies that caused this must now tackle. It is an immense task ahead.

So I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment, should we have the will to do so, which at present is sadly lacking in our leaders. In our case, a couple of truckloads of coarse limestone gravel would have been a sensible interim method of control, but seemingly beyond State EPA or the Reclamation Bureau's ability. The average citizen of our State has little faith in the State EPA.

I gladly support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level.

I urge you to require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration.

I look forward to witnessing what positive impact this decision might have on our rivers and streams, even if it is only a scratch on the surface of an immense problem.

Sincerely,

[redacted]

**From:** [redacted]
**To:** Voigt, Gregory
**Subject:** FRL-10978-01-R3 comment
**Date:** Thursday, October 26, 2023 11:06:58 AM

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Dear Mr. Gregory Voigt,

I am writing to express my support for the Environmental Protection Agency's (EPA) Identification of Water Quality Limited Segments to be added to West Virginia's Section 303(d) List (FRL-10978-01-R3) identifying an additional 346 streams, encompassing over 1,600 stream miles, from the combined 303(d) lists submitted by the WV Department of Environmental Protections (WVDEP) for 2018, 2020, and 2022. This revelation highlights a critical need for a robust and accurate assessment of water quality in our state.

To protect our environment effectively, it is imperative that we rely on the best available science. Accurate data and thorough assessments are the foundation of any successful environmental protection effort. Without a comprehensive understanding of the state of our waterways, we cannot hope to address the challenges they face. The streams missing from WVDEP's list are the ones with moderate impairments that will be easiest to restore and bring back to attainment.

I support the EPA's commitment to holding the WVDEP accountable for updating its methodology to assess aquatic organisms to the genus level. This step is essential in ensuring that our water bodies meet and maintain the water quality standards. By doing so, we can make informed decisions that safeguard our environment for current and future generations.

I urge you to continue your efforts in this direction and require WVDEP to use GLIMPSS in all future 303d list assessments. The GLIMPSS method will fully account for all aquatic organism populations in different seasons and regions and identify streams where populations struggle to survive. An accurate list of streams impaired for biological standards will ensure they receive the resources and support they need to put them on a path toward restoration. Thank you for your dedication to safeguarding our environment.

I look forward to witnessing the positive impact this decision has on our rivers and streams.

A stream not on the current list and has been impacted by Marcellus shale drilling is a stream in Camden along the Churchville Road.

3989 Churchville Road is one point of access. BHE and CONSOL are 2 of the operators currently in the area.

Sincerely,

[redacted]