

**EPA's Comments on West Virginia's 2012 Draft Section 303(d) List
June 26, 2012**

West Virginia Water Quality Standards

West Virginia's New lake Nutrient Criteria. Pages 4-5. West Virginia Department of Environmental Protection (WVDEP) stated that "[T]he EPA's approval of these criteria differs from the original submission by West Virginia in one significant detail. The criteria approved by the West Virginia legislature and submitted by the DEP contained a clause stating a lake would not be considered impaired if the total phosphorus value exceeds the criterion unless the chlorophyll-a criterion was also exceeded. EPA's approval would require a lake to be listed if either the phosphorus or chlorophyll-a criterion is exceeded. Until this discrepancy is resolved, impairment assessments for total phosphorus and chlorophyll-a data cannot be accomplished." Despite what West Virginia's 2012 Draft Section 303(d) List states, there is no discrepancy. The EPA approved lake nutrient criteria are applicable water quality standards for West Virginia.¹ The CWA Section 303(d) requirements are clear, the lists of impaired waters are based on any applicable water quality standard and the assessment methodology should be consistent with the criteria. West Virginia lakes are impaired if either the phosphorus or chlorophyll-a criterion is exceeded. If West Virginia needs some flexibility to account for the site-specific nature of nutrient pollution, EPA remains available to assist the State in deriving scientifically and legally defensible approaches to its nutrient criteria.

Data Management

Assessed data, pages 5. Please make clear in the final report what West Virginia means by "waters are not deemed impaired based upon not-detected analytical results from methodologies that have detection limits that are not sensitive enough to confirm criteria compliance."

External data providers, page 5. WVDEP Watershed Assessment Branch staff considered data from external sources to ensure quality assurance/quality control. Please make clear in the final report if any data was screened out, i.e., not used to make listing/impairment decisions. And if so, why.

External data providers, page 5, Table 2. WVDEP listed fewer data providers for the Draft 2012 303(d) list compared to 2010. For example here are some data providers listed in 2010 that do

¹ EPA approved §47-2-8.3.a.2 Nutrient Criteria for West Virginia Lakes (except where EPA took no action on the number of samples referenced in West Virginia's regulations). And disapproved §47-2-8.3.a.3 which stated that "[a] lake shall not be considered impaired based upon an average total phosphorus concentration in excess of the criterion established in section 8.3.a.2, unless the chlorophyll-a criterion established therein is also exceeded."

not appear on the Draft 2012: U.S. Army Corps of Engineers, State of Kentucky, U.S. Geological Survey etc. EPA assumes WVDEP will get some data from the public as part of the public comment period.

Use Assessment Procedures (303(d) Listing Methodology)

Numeric water quality criteria, page 7. WVDEP states that it does not interpret impacts of single pollution events as representative of current conditions if it is known the problems have abated and does not interpret clustered monitoring of a single event as representative. EPA recommends that West Virginia make clear if any waters were screened out/not found as impaired based on this approach. And if so, state in what category of the integrated report were those waters placed.

Narrative water quality criteria biological impairment data - Senate Bill 562, page 9. WVDEP stated that the “[p]assage of Senate Bill 562 in the 2012 regular legislative session requires DEP to develop and secure legislative approval of new rules to interpret the narrative criterion for biological impairment. In response to the legislation, DEP is not adding new biological impairments to the 2012 Section 303(d) list. Previously listed impairments are being retained. When new rules become effective, delisting without TMDL development may occur if the application of the assessment methodology demonstrates a non-impaired condition.” The language of SB 562 does not appear to preclude use of existing and readily available data and methodologies in the interim while WVDEP develops and secures legislative approval of new assessment methodologies. Accordingly, WVDEP’s basis is unclear for not utilizing existing and readily available data – specifically, approximately 12 years of benthic macroinvertebrate monitoring data – in compiling its draft 2012 Section 303(d) list. Moreover, it is not clear that any new methodology would be ready for use in time for the 2014 Section 303(d) list. Accordingly, EPA recommends that WVDEP continue to add waters to the Section 303(d) list based upon macroinvertebrate data using existing methodologies until such time as new methodologies have been developed or provide better explanation as to how WVDEP believes Senate Bill 562 precludes it from doing so.

While the WVDEP has indicated that it will not add waters to the 2012 Section 303(d) list based upon WVSCI, approximately 15 waters have been de-listed based upon new biological data. EPA recommends that decisions involving listings and de-listings should be consistent.

Narrative water quality criteria biological impairment data - WVSCI, page 9. As part of its approval document for the 2010 Section 303(d) list, EPA noted that WVDEP is a regional leader in water quality monitoring. EPA set forth its expectation that West Virginia would equal its high quality monitoring program by utilizing a genus-level assessment methodology (Genus Level Index of Most Probable Stream Status (GLIMPSS)) for the 2012 Section 303(d) list. EPA noted that the final version of GLIMPSS had not been made available in time for the Section 2010 list and WVDEP had expressed concerns that GLIMPSS had not been peer reviewed. GLIMPSS has since undergone external peer review and recently (May 2012) was published online in the journal *Environmental Monitoring & Assessment* and will appear in the hard copy version of that journal. It is not clear to EPA why WVDEP 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. As noted above, it does not appear that the language of SB 562 precludes use of available methodologies in the interim. Moreover, it would appear that use of GLIMPSS would achieve a level of protection commensurate with Senate Bill 562's objectives that streams "[s]upport a balanced aquatic community that is diverse in species composition; (ii) contains appropriate trophic levels of fish, in streams that have flows sufficient to support fish populations; and (iii) 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." Please explain why GLIMPSS should not be used as a means of achieving the level of protection commensurate with Senate Bill 562's objectives until such time as new methodologies can be developed and approved through the legislative process.

Although EPA recommends that GLIMPSS be used for the 2012 IR, if WVDEP decides to continue to use WVSCI, WVDEP should address concerns that EPA has raised regarding WVDEP's use of WVSCI. In its approval document for the 2010 Section 303(d) list, EPA identified concerns with the continued interpretation of WVSCI beyond the fact that it is an older and coarser assessment methodology than GLIMPSS. Particularly, EPA raised issues with WVDEP's use of a "gray zone" of 60.7-68. EPA has commented that the use of the gray zone is not statistically supported. Please address EPA's prior comments in this regard. EPA's analysis shows that there are approximately 270 waters currently identified in the gray zone.

In addition, as EPA previously noted in its approval document for the 2010 Section 303(d) list, since publication of WVSCI in 2000 the number of available reference sites has increased from 107 to 394. EPA previously has commented that the WVSCI impairment threshold (calculated as the 5th percentile of reference) accordingly should be updated to reflect the additional available reference sites. EPA and WVDEP staff have also analyzed seasonal and regional patterns in WVSCI and GLIMPSS indicating that assessments would be more accurate if this natural variation was addressed. We would be happy to discuss those details with WVDEP.

Supplemental Table A - Previously Listed Water- No TMDL Developed

Fall Run 'WVKE-98-B-3. The reason for delisting in Table A states "listed in error." Please explain further the reason for delisting.

As noted above, WVDEP's proposed delisting of streams where "new biological data does not support listing" is inconsistent with WVDEP's treatment of new listings.

In general EPA notes that most of the explanations for delisting in Table A are too cursory, e.g., "listed in error;" "new water quality criterion does not support listing," and "biological data used for previous listing deemed non-comparable." For transparency, WVDEP should have a more detailed reason for delisting in its final report.