



# West Virginia Coal Association

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June 26, 2012

Mr. Steve Young  
Attn: 2012 Draft 303(d) List Comments  
Division of Water and Waste Management  
WV Department of Environmental Protection  
601 57<sup>th</sup> Street  
Charleston, WV 25304  
Via electronic mail: [Stephen.A.Young@wv.gov](mailto:Stephen.A.Young@wv.gov)

Re: Comments on the Draft 2012 Section 303(d) List

Dear Mr. Young:

Attached to this letter, please find the comments of the West Virginia Coal Association on the agency's 2012 draft 303(d) list of impaired waters for West Virginia.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Jason D. Bostic". The signature is stylized with a large, sweeping initial "J" and "B".

Jason D. Bostic  
Vice-President

Cc: Randy Huffman  
Secretary, WV DEP

Tom Clarke  
Director, WV DEP-DMR

***COMMENTS OF THE WEST VIRGINIA COAL ASSOCIATION:***

**2012 DRAFT 303(D) LIST FOR WEST VIRGINIA**

The West Virginia Coal Association (WVCA) appreciates the opportunity to comment on the West Virginia Draft 2012 303(d) list.

WVCA is a state coal 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 over 98 percent of the Mountain State's underground and surface coal production. WVCA also represents some 250 associate members that supply an array of services to the mining industry. These associate members include 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.

**BIOLOGICAL IMPAIRMENT LISTINGS—SENATE BILL 562 / WV SCI**

WVCA applauds the agency for acknowledging the passage of Senate Bill 562 and the statement of legislative intent it contained relative to interpretation and application of

the state's narrative water quality standards.<sup>1</sup> Like the provisions of House Concurrent Resolution No.111, which was adopted by the Legislature in 2010, Senate Bill 562 expresses legislative intent with respect to the narrative water quality standard and makes it clear that singular reliance by the agency on the WV SCI is untenable.

Adherence with the provisions of this legislation will improve the effectiveness of the state's water quality program by assuring public and legislative involvement in the development of an assessment tool to measure attainment of the state's narrative water quality standard. Previous assessments of biological impairment / narrative standards attainment were based on the West Virginia Stream Condition Index (WV SCI) which was not part of the state's approved water quality standards program and has never been subject to the formal rulemaking process (see subsequent comments).

### **Streams Re-Added to the 303(d) List- Biological Impairment**

While WVCA fully supports the agency's decision not to add new streams to the 303(d) list for biological impairment, we have strong objections to the agency re-adding streams for biological impairment that were previously removed from the impaired listing. It appears that certain streams once identified as biologically impaired that were subsequently delisted have now been re-added to the draft 303(d) using the WV SCI as the assessment of attainment for the narrative criteria.

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<sup>1</sup> West Virginia Department of Environmental Protection, Draft 2012 Section 303(d) List, pg. 9.

**The provisions of Senate Bill 562 should have controlled the agency's behavior with respect to these stream listing decisions-** just because a stream had previously been listed as biologically-impaired does not make the WV SCI any more of a legitimate assessment tool in light of House Concurrent Resolution No. 111 or Senate Bill 562. Accordingly, any decision to re-add streams to the 303(d) list should only be made once the agency has completed the rulemaking process directed by Senate Bill 562.

Since at least some aspects of the draft 303(d) list still rely on the WV SCI, WVCA is providing copies of previous comments that detail the legal and technical flaws of the WV SCI and asks the agency to consider the attached documents as comments on the current listing exercise.

#### **Further Manipulation of the WV SCI by the Agency**

Based on a limited review of WV SCI data and information, it appears the agency has manipulated the internal WV SCI calculations, specifically the underlying HBI metrics. Such a move by the agency further illustrates the need for official rulemaking on this issue (as mandated in Senate Bill 562). To our knowledge, no official notice was provided by the agency that such a manipulation had been performed. Instead, specific data sets were simply recalculated by the agency. Any listing decisions (to re-add streams) based on any alteration of the WV SCI should be removed and further use of

that assessment tool should be abandoned pending completion of the rulemaking mandate contained in Senate Bill 562.

Any streams that were added or re-added to the 303(d) list based on the WV SCI ignore the provisions of House Concurrent Resolution 111 / Senate Bill 562 and should be removed from the final list.



# West Virginia Coal Association

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May 19, 2010

Mr. Steve Young  
Attn: 2010 Draft 303(d) List Comments  
Division of Water and Waste Management  
WV Department of Environmental Protection  
601 57<sup>th</sup> Street  
Charleston, WV 25304  
Via electronic mail: [Stephen.A.Young@wv.gov](mailto:Stephen.A.Young@wv.gov)

Re: Comments on the Draft 2010 Section 303(d) List

Dear Mr. Young:

Attached to this letter, please find the comments of the West Virginia Coal Association on the agency's 2010 draft 303(d) list of impaired waters for West Virginia.

Respectfully Submitted,

Jason D. Bostic  
Vice-President

Cc: Randy Huffman  
Secretary, WV DEP

Scott Mandirola  
Director, WV DEP- DWWM

Tom Clarke  
Director, WV DEP-DMR

Robert McLusky  
Jackson & Kelly

Allyn Turner  
Spillman, Thomas & Battle

**COMMENTS OF THE WEST VIRGINIA COAL ASSOCIATION:**

**2010 DRAFT 303(D) LIST FOR WEST VIRGINIA**

The West Virginia Coal Association (WVCA) appreciates the opportunity to comment on the West Virginia Draft 2010 303(d) list.

WVCA is a state coal 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 over 90 percent of the Mountain State's underground and surface coal production. WVCA also represents some 250 associate members that supply an array of services to the mining industry. These associate members include 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 extremely concerned that the West Virginia Department of Environmental Protection (WV DEP) has listed a significant number of streams as "impaired" based on insufficient data to support such a classification (this concern is more accurately reflected in the comments submitted by individual members of WVCA on the draft 303(d) list). This is particularly true regarding streams listed for "conditions

not allowable (CNA)” or presumed “biological impairment.” Even more troubling is the continued use of the West Virginia Stream Condition Index (WV SCI) as the sole listing tool to determine biological impairment.

**A. WVDEP’S RELIANCE ON THE WV SCI IN THE SECTION 303(D) LISTING PROCESS IS BASED ON AN IMPROPER INTERPRETATION OF WEST VIRGINIA’S NARRATIVE WATER QUALITY STANDARDS.**

The WVCA fundamentally disagrees with the basis and rationale articulated by WVDEP for designating certain stream segments as biologically “impaired” based on West Virginia’s narrative water quality criteria. In making this critical determination, WVDEP has relied solely on the stream segment’s WV SCI score. According to WVDEP, “[s]treams with WV SCI scores of less than 60.6 are considered biologically impaired.”<sup>1</sup> The agency’s unqualified reliance on the WV SCI—to the total exclusion of any and all other relevant data and factors—is wholly inappropriate for purposes of interpreting and implementing West Virginia’s narrative standards in the Section 303(d) listing process.

Notably, the WV SCI has been the source of complaints and concerns for as many years as it has been employed by WVDEP to conduct biological assessments in connection with the Section 303(d) process. As discussed further below, despite being the single critical factor upon which the agency bases its determinations of biological impairment for purposes of developing the Section 303(d) list, the WV SCI has never been subject to the formal rulemaking requirements of both the federal Clean Water Act

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<sup>1</sup> West Virginia Department of Environmental Protection, 2010 Draft 303(d) List, pg. 9.

("CWA"), the West Virginia Water Pollution Control Act ("WVWPCA"), and the state Administrative Procedures Act. In other words, the WV SCI is not a lawfully adopted water quality standard in West Virginia. Accordingly, the agency's uniform and strict adherence to individual WV SCI scores for purposes of interpreting its narrative water quality criteria in connection with Section 303(d) determinations is in error.

Further, and perhaps most fundamentally, a stream segment's WV SCI score, standing alone, is not a scientifically defensible basis for accurately measuring the protection of aquatic life or aquatic ecosystems within that particular reach. The WV SCI was designed specifically as a multi-metric assessment methodology for the assessment of benthic macroinvertebrate assemblages in wadeable (i.e., flowing) streams. A proper evaluation of the overall biological integrity of an aquatic ecosystem, however, does not rely exclusively on (often a single sample of) benthic macroinvertebrate composition, but rather requires a far more comprehensive assessment of all components of that ecosystem, including habitat and fish populations.<sup>2</sup> Accordingly, any biological assessment that WVDEP conducts for purposes of Section 303(d) listing should employ tools and methodologies specifically designed to assess these other relevant factors that a WV SCI score will not capture. Furthermore, the WV SCI is not designed for use in very high-gradient or non-flowing streams (notwithstanding the agency's history of using the tool to assess the biological integrity such streams). While the WV SCI may have some limited utility as an individual assessment methodology, therefore, the agency cannot

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<sup>2</sup> See United States Environmental Protection Agency, *Policy on the Use of Biological Assessments and Criteria in the Water Quality Program* (May 1991) (suggesting that state standards "should contain biological criteria that consider various components (e.g., algae, invertebrates, fish) and attributes (measures of structure and/or function) of the larger aquatic community").

defensibly use a stream segment's WV SCI score as the sole determinant of compliance with the narrative criterion and achievement of a stream's designated use. Indeed, as WVDEP itself has acknowledged publicly to the Senate Committee on Environment and Public Works, Subcommittee on Water and Wildlife, biological assessment tools like the WV SCI:

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.<sup>3</sup>

Given the agency's own recognition of the WV SCI's limited scope and applicability, therefore, the agency cannot now disregard those limitations in the Section 303(d) context. The implications of the Section 303(d) listing process for WV/NPDES permittees are far too significant to allow WVDEP to make impairment determinations while systematically ignoring critical relevant information relating to biologic integrity. Standing alone, the WV SCI is an inadequate basis for determining whether a given stream is meeting its designated use.

Finally, any interpretation of West Virginia's narrative criteria and the attainment of applicable designated uses must be consistent with the expressed intent of the West Virginia Legislature, which formally resolved in its 2010 regular legislative session that the requirements of the State narrative criteria are satisfied when a stream

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<sup>3</sup> 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 (emphasis added). See also Letter dated July 10, 2009 from Cabinet Secretary Randy Huffman to Colonel Dana R. Hurst, Huntington District, U.S. Army Corps of Engineers.

(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).

...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.<sup>4</sup>

WVDEP's singular reliance on the WV SCI to determine compliance with the narrative criteria wholly disregards the Legislature's mandate as expressed in House Concurrent Resolution No. 111 and simultaneously betrays the very spirit and intent of the WVWPCA.

**B. THE WVDEP'S ONGOING RELIANCE ON THE WV SCI CONSTITUTES UNLAWFUL DE FACTO ADOPTION OF A STATE WATER QUALITY STANDARD WITHOUT FORMAL RULEMAKING.**

***The WV SCI is not part of any approved water quality program in West Virginia. The WV SCI is not included in the state's approved water quality standards that have been through the formal rulemaking process and were reviewed and approved by the West Virginia Legislature.***

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<sup>4</sup> House Concurrent Resolution No. 111, adopted unanimously by the West Virginia Legislature during the 2010 Regular Session.

A water quality standard defines the water quality goals for a water body, or portion thereof, by designating the use or uses to be made of the water, by setting criteria necessary to protect the uses, and by protecting water quality through anti-degradation provisions. States adopt water quality standards to protect public health or welfare, enhance the quality of water, and serve the purposes of the Clean Water Act [CWA].<sup>5</sup>

Water quality standards are the foundation of [a] water-quality based control program mandated by the CWA. The four basic elements in establishing water quality standards are designated uses, water quality criteria, anti-degradation policy, and general policies for implementation. The states specify, based upon scientific criteria, the appropriate water uses to be achieved and protected.

Water quality standards are adopted by the states under section 303 of the CWA, subject to EPA approval.<sup>6</sup>

Because it is not part of the water quality standards, the WV SCI has not been subject to public notice and comment as required by both the federal CWA and West Virginia's equivalent state act. Further, all interpretative rules promulgated by state agencies are subject to comment and approval by the West Virginia Legislature (according to the State's Administrative Procedures Act) to assure compliance with the intent of the original statute. Since the WV SCI has never been through the rulemaking process, it has never been reviewed by the Legislature. WVCA is concerned that the WVDEP's Division of Water and Waste Management (DWWM), by referencing and relying on the WV SCI to determine stream impairment for 303(d) listing purposes, is seeking to "crystallize" the WV SCI as a regulatory standard when it clearly is not, thereby effectively taking the place of the democratically elected members of the West

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<sup>5</sup> U.S. Environmental Protection Agency. Water Quality Standards Handbook: Second Edition. August 1994.

<sup>6</sup> Programmatic Environmental Impact Statement. Corps, EPA et.al. 2005. Pg. II.C-38

Virginia Legislature by usurping their authority. If the DWWM proceeds with the inclusion of the WV SCI in the formulation of 303(d) listing decisions and future TMDLs, the agency will circumvent the mandatory public notice and comment and Legislative review requirements of West Virginia

The WVCA is also concerned that reference to the WV SCI, which is not a legally promulgated standard, ignores the existence of the State's water quality standards that have been researched, debated in the public domain, reviewed and further debated by the Legislature and, finally, approved by the United States Environmental Protection Agency ("EPA"). As stated previously, "Water quality standards are the foundation of [a] water-quality based control program mandated by the CWA."<sup>7</sup>

Any official regulatory decision based on surrogate measurements such as the WV SCI serves to circumvent the need for a water quality standards program at all. Using the DWWM's examples as set forth by referencing the WV SCI in 303(d) listings, state administrative agencies could simply conjure up their own measurement tools for water quality and bypass the Legislatively-approved water quality standards program all together. This would be a serious infringement on the rights and duties of the Legislature as conveyed by the state rulemaking process and the Administrative Procedures Act to promulgate water quality standards to protect designated uses.

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<sup>7</sup> U.S. Environmental Protection Agency. Water Quality Standards Handbook: Second Addition. August 1994.  
West Virginia Coal Association  
Draft 2010 CWA Section 303(d) List Comments  
May 19, 2010

**C. THE WVDEP'S USE OF THE WV SCI CONTRADICTS THE CONCLUSIONS OF EPA'S PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT.**

Reliance on surrogate measures rather than properly promulgated and legal water quality standards constitutes an unequivocal effort on behalf of the DWWM to specifically target mining operations and to ignore one of the most important conclusions contained in a multi-million dollar, multi-agency Programmatic Environmental Impact Statement (MTM/VF EIS) conducted to assess the environmental impacts of coal mining in Central Appalachia:

Further, the EIS studies did not conclude that impacts documented below MTM/VF [mountaintop mining / valley fill] operations cause or contribute to significant degradation of waters of the U.S.<sup>8</sup>

The above-referenced finding from the MTM/VF EIS was based on extensive technical studies conducted by state and federal agencies that were supplemented with data and further studies supplied by members of the coal industry. Among these studies were several that examined the health of streams below extensive mining and valley fill operations. Unlike the sampling relied upon by DWWM as the basis for many of "biologically impaired" listings under the current initiative, the MTM/VF EIS studies were conducted over a range of seasons and for a period of months (see subsequent comments for more detail on the general deficiencies in the DWWM's data). For example, an EPA-sponsored study conducted for the MTM/VF EIS examined five watersheds located in southern West Virginia and compared biological conditions of

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<sup>8</sup> Programmatic Environmental Impact Statement. Corps, EPA et.al. 2005. Pg. II. D-9.

three classes of streams: “unmined” (no mining activity), “mined” (streams with mining-related disturbance but no evidence of valley fill construction), and “filled” (streams with both mining and valley fill activity). The EPA study analyzed data collected over five seasons and concluded:

Conditions in the mined sites generally represented very good conditions, although a few sites did score in the good and poor range. We believe that the one site scored in the poor range is naturally flow-limited even during periods of normal flow. We believe this site flows only in response to precipitation events and snow melt.<sup>9</sup>

The same study reached similar conclusions regarding streams below valley fills:

Conditions in the filled sites generally represented a gradient of conditions from good to very good. Over the five seasons, filled sites scored in the fair range more than half the time. However, over a third of the time, filled sites scored in the good or very good range over the five seasons.<sup>10</sup>

Research conducted in conjunction with the MTM/VF EIS supports the conclusions of EPA’s study while at the same time pointing out a serious flaw with the DWWM’s current approach to stream listings based on “biological impairment”:

Neither the changes in the biological community, nor the changes in the water chemistry in the filled sites appear to have a significant adverse impact on the stream function with respect to downstream segments. **The most significant changes in the biological community appear to be a shift in the functional feeding groups toward more filter feeding organisms.** This typically occurs in streams whenever ponds, dams or municipal discharges are present. The increased abundance at these sites, which likely results from the

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<sup>9</sup> A Survey of the Condition of Streams in the Primary Region of Mountaintop Mining/Valley Fill Coal Mining. U.S. EPA, November 2000.

<sup>10</sup> Ibid

increased food sources, indicates that sufficient food is available to support a benthic community at these locations and downstream.<sup>11</sup>

Overall, the benthic macro-invertebrate community was not significantly hindered by the drainages originating from the hollow fills [valley fills].<sup>12</sup>

As noted in the above-cited conclusions, the DWWM's complete reliance on the WV SCI as the basis for "biological impairment" listing decisions is misplaced. The WV SCI is more properly characterized as a measure of **change**, not impairment. **But a mere "shift" in the biological community cannot and should not be equated to "impairment" because the designated use of the stream, in these cases the aquatic life use, remains viable as proven by the cited research.**

**D. IN MANY CASES, THE SPECIFIC DATA RELIED UPON BY THE DWWM IS INADEQUATE AND/OR DEFICIENT.**

The WVCA also has serious concerns about the scope, scale and age of some of the samples relied upon by the DWWM to list streams "as impaired." Generally, entire stream lengths are included in these designations based on a single sampling event often at a single location. While benthic macroinvertebrate sampling does represent conditions that the community has been exposed to over time, **biological communities are also subject to substantial variability.** A single sampling event may reflect a recent drought, scouring floods, localized impacts or system-wide impairment.

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<sup>11</sup> See generally Supplemental Quantitative Benthic Macro invertebrate Studies Implemented in Conjunction with the U.S. EPA Mountaintop Mining/Valley Fill Environmental Impact Statement Study. Potesta & Associates, September 2003.

<sup>12</sup> Evaluation of Hollow Fill Drainages and Associated Settling Ponds on Water Quality and Benthic Macro invertebrates Communities of Virginia and West Virginia. T. Chad Merricks, Donald Cherry, Carl Zipper. Department of Biology, Virginia Polytechnic Institute and State University, 2006.

Water quality samples must meet minimum data requirements to be included on the 303(d) list, such as the 10% rule.<sup>13</sup> **The WVCA maintains that a similar methodology is REQUIRED for biological data given the previously explained variability of biological testing results.** Further confounding this problem is that during metric development for the WV SCI, consideration of the individual metrics did not include an evaluation of metric variability. In describing metric development, the US EPA's Rapid Bioassessment Protocol (RBP) states that natural variability (such as seasonal, spatial, and random biological events) can result in any reference site scoring below the reference population and that such variation in true reference sites can be expected to occur 10% of the time or less. The metric development document states that to account for variance associated with measurement error in an assessment, replication is required. It would seem that seasonal monitoring or annual monitoring with comparison to monitoring of reference sites for the same timeframe are mechanisms which would reduce this variability such that viable conclusions on aquatic community health could be drawn.

The WVCA also requests that consideration be given to all potential sources of impairment to these biological communities, something that DWWM has ignored in its apparent effort to inflate the list of impaired waters in West Virginia and needlessly target the mining industry. Invariably, West Virginian hollows are filled with a stream, a road, a number of houses depending on the valley size and often a railroad track. From

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<sup>13</sup> West Virginia Department of Environmental Protection, 2010 Draft 303(d) List, pg. 7, Table 3.

roadways, streams can receive inputs of deicers, nutrients, metals, petroleum-related organic compounds, sediment and agricultural chemicals used to maintain the thorough fare. Additionally, the hydrological and morphological changes associated with road placement in the floodplain and the runoff changes from development in the watershed (clearing, paving, etc.) can affect stream condition. Streams in residential areas and adjacent to roads also frequently lack canopy cover. Residential areas tend to have denuded riparian vegetation, impairment of natural stream meandering, and contributions of nutrients and sediment (septic systems and land disturbance).

E. **CONCLUSION**

In conclusion, there are multiple streams listed on the draft 303(d) list for CNA-Biological covering hundreds of stream miles. **The magnitude of these listings dictates that sound science be used to ensure the proper evaluation of these streams and the determination of the potential causes of impairment.**

WVCA respectfully requests that DWWM remove *ANY* statement linking “biological impairment” to mining and that the agency immediately reevaluate the continued use and reliance on the WV SCI to make regulatory determinations under the 303(d) listing process.