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Department of Environmental Protection
Division of Waste and Water Management
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601 57th Street, SE
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Re: Comments on the West Virginia Draft 2012 Section 303(d) List

In October 2011, Appalachian Mountain Advocates (“AMA”) submitted water quality data to the West Virginia Department of Environmental Protection (“DEP”) Division of Water and Waste Management to be used in assessing compliance with designated stream uses and preparing West Virginia’s 2012 303(d) List. The comments focused on streams impaired biologically and for selenium. On May 11, 2012, DEP released for public comment its 2012 draft list of West Virginia’s impaired streams and lakes. Many streams suggested by Appalachian Mountain Advocates were not listed as impaired on the draft 2012 303(d) List. The comments below address the unlisted streams.

I. Biologically Impaired Streams

In its February 8, 2011, approval of the West Virginia 2010 303(d) list, EPA instructed WVDEP to “move to a genus-level analysis for its 2012 section 303(d) List.” West Virginia’s 2010 Section 303(d) Approval Rationale at 7. Thus, in response to DEP’s 2011 call for listing related data, AMA submitted Genus Level Index of Most Probable Stream Status (“GLIMPSS”) data showing that, based on GLIMPSS, 546 previously unlisted streams were biologically impaired and should be placed on the 2012 303(d) list. The data submitted included both

traditional GLIMPSS (genus-level) scores, as well as modified GLIMPSS (family-level) scores. See Pond, G.J., J.E. Bailey, B. Lowman, and M. J. Whitman. 2011. The West Virginia GLIMPSS (genus-level index of most probable stream status): a benthic macroinvertebrate index of biotic integrity for West Virginia's wadeable streams. West Virginia Department of Environmental Protection, Division of Water and Waste Management, Watershed Assessment Branch, Charleston, WV.

None of the 546 biologically impaired streams suggested by AMA were included on the 2012 draft list. In fact, no new biologically impaired streams were listed. In explanation, DEP in its draft 2012 Section 303(d) List report stated the following:

Passage 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 found in 47 CSR 2-3.2.i.... 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.... Once developed, the revised assessment methodology called for in SB 562 will be made available for public review as part of the legislative rule making process.

West Virginia Draft 2012 Section 303(d) List, 9. As explained in more detail below, DEP's interpretation and implementation of S.B. 562 is incorrect and does not comply with the Clean Water Act.

A. Senate Bill 562 changes West Virginia's water quality standards.

DEP's actions show that S.B. 562 constitutes a change to West Virginia's water quality standards. As the Eleventh Circuit has explained, if "waterbodies that under pre-existing testing methodologies would have been included on the [impaired waters] list were left off the list because of [the new regulation], then in effect the Rule would have created new or revised water quality standards" Fla. Pub. Interest Research Group Citizen Lobby, Inc. v. E.P.A., 386

F.3d 1070, 1090 (11th Cir. 2004).

Records obtained under the West Virginia Freedom of Information Act from DEP show that, based solely on the passage of S.B. 562, DEP has failed to list at least 173 streams as biologically impaired that would have been listed under previous listing protocols. See Exhibit 1. As quoted above, DEP acknowledges that the passage of the Bill caused 173 streams that would have been designated as biologically impaired by DEP according to previous assessment protocol (based on their WVSCI scores) to not be listed in the 2012 draft report.

DEP is already treating S.B. 562 as if it was effective, and DEP's implementation of S.B. 562 has resulted in waters not being listed on the state's 303(d) list. As a result, under Fla. Pub. Interest Research Group Citizen Lobby, S.B. 562 is a new or revised water quality standard, and the state is implementing it prior to EPA approval in violation of the "Alaska rule." Under that rule, discussed in more detail below, new or revised water quality standards cannot be implemented by a state until they have been reviewed and approved by EPA. 40 C.F.R. § 131.21(c) & (e).

B. The passage of Senate Bill 562 does not affect the listing criteria for the 2012 Section 303(d) List because it does not comply with the Clean Water Act.

The West Virginia legislature from time to time revises water quality standards or amends the state's NPDES program outside of what is submitted to it by a state agency. Most recently, during its 2012 Regular Session, the West Virginia Legislature enacted S.B. 562. The provision was signed by West Virginia's governor on April 2, 2012, and, on its face, purports to be effective upon passage.

Through S.B. 562, the West Virginia Legislature purported to change West Virginia's narrative water quality standards. Specifically, S.B. 562 amended W. Va. Code § 22-11-7b to include the following provision:

(f) The secretary shall propose rules measuring compliance with the biologic 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) Supports 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. 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 requirements that exist at the time of enactment of the amendments to this subsection by the Legislature during the 2012 regular session.

W. Va. Code § 22-11-7b(f).

Even though the language of the Bill purports that it became effective on passage, S.B. 562 has not been approved through the proper procedures necessary to change West Virginia's water quality standards, namely (1) providing a public notice and comment period, (2) providing an opportunity for a public hearing opportunity, and (3) obtaining approval from EPA to weaken the applicable water quality standards.

1. The amendments to W. Va. Code § 22-11-7b are not in effect because West Virginia has not yet complied with the regulations for implementing such amendments.

S.B. 562 attempts to change West Virginia's water quality standards; however, the amendments cannot take effect unless and until DEP follows certain procedures, including providing public notice and an opportunity for a public hearing, and securing EPA approval for the proposed amendments. Because DEP has not taken any of these actions, the amendments have no effect.

Federal Clean Water Act regulations make clear that any substantive change to a state's

water quality standard does not take effect immediately. Instead, the state is obligated to take several additional actions to implement the revised standard. 40 CFR § 131.20(b) requires the state to hold a public hearing before it modifies a water quality standard, and to make the proposed revision and supporting analyses available to the public prior to that hearing. 40 CFR § 131.20(c) requires the state to submit a revised standard to EPA within 30 days after final state action adopting the revision. 40 CFR § 131.6(e) requires the state's submission to EPA to include a certification by the state's attorney general that the revised water quality standard was duly adopted in compliance with state law. 40 CFR § 131.6(b) requires the state's submission to EPA to include the "[m]ethods used and analyses conducted to support water quality standards revisions."

To date, West Virginia has not taken any of those required actions. In fact, DEP has made clear that it does not intend to take those required actions. The April 6, 2012 letter from DEP Secretary Randy Huffman to EPA Region 3 includes the unsupported statement that the amendment "became effective upon passage." Accordingly, it appears that DEP does not intend to comply with 40 CFR § 131.20(c) or the other Clean Water Act regulatory provisions for implementing a revised water quality standard.

Furthermore, even if West Virginia did comply with those provisions, EPA must still review the new or modified water quality standard to determine whether it meets the requirements of the Clean Water Act. 40 CFR § 131.21(c)(2) provides that a revised, state-submitted water quality standard is not effective unless and until it is approved by EPA. EPA has not approved S.B. 562's modification to West Virginia's water quality standards, and there is no indication that EPA would approve the modification even if it were properly submitted.

2. The conflict between the anti-backsliding and standard-lowering provisions in S.B. 562 must be resolved in compliance with federal law.

Moreover, there is an inherent conflict between the language in S.B. 562 preserving the existing protections in the narrative water quality standards and the language amending those standards by removing protections for all forms of aquatic life. If West Virginia intended to preserve its existing narrative water quality standards, it may do so solely under state law. However, if West Virginia intended to modify the existing narrative standards, the modifications must comply with federal law. In either event, at the present time, West Virginia has not effectively changed the existing narrative standards, and therefore the 2012 Section 303(d) List must be based on W.V. Code § 22-11-7b as it existed prior to its amendment by S.B. 562. To the extent that S.B. 562 affects the interpretation or implementation of West Virginia's narrative water quality standards at all, the Bill's own language mandates that these changes cannot reduce existing protections. As a result, DEP must continue to use the same or an equally protective approach and rely on the same or an equally protective measurements that it would have to list impaired streams prior to the passage of the Bill. S.B. 562 does not allow the use of measurements that would establish less protective standards or requirements.

C. WVSCI and GLIMPSS

In October 2011, AMA submitted GLIMPSS data based on the conditional approval of the Environmental Protection Agency ("EPA") in its Approval Rationale of West Virginia's 2010 Section 303(d) List. In its rationale, EPA explained that

Since 2002, WVDEP has used the West Virginia Stream Condition Index (WVSCI) to evaluate whether streams are meeting the narrative criteria contained in West Virginia's Water Quality Standards. WVSCI is a family-level multi-metric index and was developed in coordination with EPA in 2000. Since publication of WVSCI in 2000, the data and science have progressed. The number of available reference sites has increased from 107 to 394. In addition, the state of the science has moved from family-level analysis to genus-level analysis. EPA used genus-level analysis as part of its Wadeable

Streams Assessment (EPA 841-B-06-002 December 2006), the first-ever statistically valid survey of biological condition of small streams in the United States. Genus-level data are also used by biological monitoring programs in surrounding states, including Kentucky, Pennsylvania, Maryland and Ohio.

To date, EPA has approved WVDEP's continued use of WVSCI as its tool for assessing whether streams are achieving the narrative water quality criterion. EPA's approvals have, in part, been based upon WVDEP's recognition that there has been significant development of the science and data since WVSCI was published in 2000 and upon the fact that WVDEP has taken steps to update its assessment tool, such as its request to EPA for assistance in developing the Genus Level Index of Most Probably Stream Status (GLIMPSS).

EPA notes that West Virginia has been a regional leader in monitoring its waters and has collected 10 years' worth of genus-level data. Because a final version of GLIMPSS became available during summer of 2010.,[sic] and thus after the public comment period for the 2010 Section 303(d) list, EPA is approving the Section 2010 list based upon use of the family-level WVSCI analysis. However, EPA expects that West Virginia will match the high quality of its monitoring program by moving to a genus-level analysis for its 2012 Section 303(d) List.

West Virginia's 2010 Section 303(d) Approval Rationale (emphasis added). From the 2010 303(d) list approval rationale from EPA, it is clear that EPA approved DEP's 2010 list with the understanding that DEP was to adopt the genus-level GLIMPSS analysis for the 2012 303(d) list. DEP has not adopted the genus-level GLIMPSS. Instead, DEP has erroneously concluded that it must apply S.B. 562 in a manner that impermissibly weakens, and in this case eliminates, the analysis for biological impairment.

Although based on EPA's 2010 approval letter GLIMPSS data should have been used for biological assessments for the 2012 list, DEP chose to not only ignore EPA's direction but also suspend all new biological listings based on WVSCI. DEP had 173 West Virginia streams slated to be added to the 2012 Section 303(d) list as biologically impaired based on WVSCI data, but failed to list these streams because of SB 562.

D. DEP's interpretation of impairment based on WVSCI scores is flawed

AMA objects to the DEP's use of a "gray zone" of uncertainty in assessing biologically

impaired streams. In the 303(d) report, the WVDEP states that “[a]lthough the true WVSCI impairment threshold is 68.0, DEP identified biological impairment in the 303(d) listing process only in response to WVSCI scores less than 60.6, so as to allow the highest degree of confidence in the validity of the listed biological impairments.” West Virginia Draft 2012 Section 303(d) List at 9. As described in Emily Bernhardt and Ryan King’s comments on the West Virginia Draft 2012 Section 303(d) List, attached as Exhibit 2, DEP’s actions are inconsistent with the precautionary principle that should be applied when dealing with protective water quality standards.

“To consider uncertainty in only a single direction (that a collection is likely to underestimate the true WVSCI score by 7.4 units) is inappropriate. It is equally likely that a single collection will overestimate the true WVSCI score by 7.4. The true gray zone (if there is to be one) should extend from 60.6 to 75.4, such that only sites with a WVSCI > 75.4 can be reliably considered to be unimpaired. Such streams would still have macroinvertebrate communities that are worse than 90% of reference streams (Table 1).

The WVDEP appears to be skewing the index to reduce the likelihood of detecting pollution problems rather than interpreting the index to protect water quality and stream biota.”

Public Comment on WV 303D List, June 4, 2012 at 2.

It is our understanding and belief that, due to DEP’s arbitrary and capricious use of a grey zone in evaluating WVSCI scores of streams, hundreds of West Virginia streams that are biologically impaired were not placed on the 2012 list. DEP must reverse this distorted policy and list all streams scoring a WVSCI of less than 68.

II. Selenium Impaired Streams

Appalachian Mountain Advocates is resubmitting the attached data (Appendices A and B) along with the following comments for consideration in assessing the impairment of West Virginia streams for the 2012 Integrated Report. As explained below, it is our understanding that an error was made by DEP in obtaining and confirming DMR data submitted by AMA. That

error led to some selenium impaired streams not being placed on the draft list. It is our further understanding that DEP now has the correct data set and is in the process of correcting the mistake.

For selenium, the following streams (with HUC 12 watershed names and codes following in parentheses) were suggested to be added to the 2012 303(d) list for selenium impairment based on the data collected from National Pollutant Discharge Elimination System permit holders' Discharge Monitoring Reports:

1. Armstrong Creek (Armstrong Creek, 050500060304)
2. Board Fork of Beaver Creek (Big Beaver Creek, 050500050804)
3. Big Beaver Creek (Big Beaver Creek, 050500050804)
4. Obrien Fork of Beaver Creek (Big Beaver Creek, 050500050804)
5. Jack Smith Branch of Coal River (Big Horse Creek, 050500090502)
6. Horse Creek of Little Coal River (Big Horse Creek, 050500090502)
7. Fawn HI (Big Ugly Creek, 050701020105)
8. Laurel Creek of Big Ugly Creek (Big Ugly Creek, 050701020105)
9. Dingess Branch of Buffalo Creek (Buffalo Creek, 050701010507)
10. Buffalo Creek (Buffalo Creek, 050701010507)
11. Right Fork of Buffalo Creek (Buffalo Creek, 050701010507)
12. Cartwright Branch (Buffalo Creek, 050701010507)
13. Pointlick Fork (Campbells Creek, 050500060405)
14. Whitman Creek (Copperas Mine Fork, 050701010402)
15. Trace Fork of Copperas Mine Fork (Copperas Mine Fork, 050701010402)
16. Dingess Run (Dingess Run of the Guyandotte River, 050701020102)
17. Freeze Fork (Dingess Run of the Guyandotte River, 050701020102)
18. Coal River (Drawdy Creek of the Big Coal River, 050500090606)
19. Fork Creek (Fork Creek of the Big Coal River, 050500090607)
20. Road Fork of Bull Creek (Fork Creek of the Big Coal River, 050500090607)
21. Long Branch of Fifteenmile Fork (Headwaters of Cabin Creek, 050500060202)
22. Cabin Creek (Headwaters of Cabin Creek, 050500060202)
23. Abbot Fork (Headwaters of Cabin Creek, 050500060202)
24. Toms Fork of Cabin Creek (Headwaters of Cabin Creek, 050500060202)
25. Fifteenmile Fork of Cabin Creek (Headwaters of Cabin Creek, 050500060202)
26. Toney Fork (Headwaters of Clear Fork, 050500090102)
27. Buffalo Fork (Headwaters of Clear Fork, 050500090102)
28. Ewing Fork (Headwaters of Clear Fork, 050500090102)
29. Bearwallow Branch (Headwaters of Elkhorn Creek, 050702010203)
30. Crooked Run of Clear Fork (Headwaters of Muddlety Creek, 050500050803)
31. Garland Fork of Spruce Fork (Headwaters of Spruce Fork, 050500090303)
32. Brushy Fork of Spruce Fork (Headwaters of Spruce Fork, 050500090303)

33. Beech Fork of Fuquay Creek (Headwaters of Spruce Fork, 050500090303)
34. Whiteoak Branch of Spruce Fork (Headwaters of Spruce Fork, 050500090303)
35. Adkins Fork of Spruce Fork (Headwaters of Spruce Fork, 050500090303)
36. Rum Creek (Headwaters of Spruce Fork, 050500090303)
37. Spruce Fork (Headwaters of Spruce Fork, 050500090303)
38. Rader Fork of Twentymile Creek (Headwaters of Twentymile Creek, 050500050702)
39. Peters Fork of Hardway Branch (Headwaters of Twentymile Creek, 050500050702)
40. Twentymile Creek (Headwaters of Twentymile Creek, 050500050702)
41. Hardway Branch (Headwaters of Twentymile Creek, 050500050702)
42. Lower Gap Branch of Huff Creek (Huff Creek, 050701010506)
43. Road Branch of Little Huff Creek (Huff Creek, 050701010506)
44. Coal River (Joes Creek of Big Coal River, 050500090604)
45. Hurricane Fork of Kelly Creek (Kellys Creek, 050500060306)
46. Little Laurel Creek (Laurel Creek, 050500090603)
47. Laurel Creek (Laurel Creek, 050500090603)
48. Stolling Fork of Laurel Fork (Laurel Creek, 050500090603)
49. Spruce Fork (Laurel Fork, 050702010403)
50. Laurel Fork of Pigeon Creek (Laurel Fork, 050702010403)
51. Big Branch of Pigeon Creek (Laurel Fork, 050702010403)
52. Left Fork of Big Branch (Laurel Fork, 050702010403)
53. Loop Creek (Loop Creek, 050500060304)
54. Open Fork (Loop Creek, 050500060304)
55. Marsh Fork (Lower Marsh Fork, 050500090603)
56. Brushy Fork of Little Marsh Fork (Lower Marsh Fork, 050500090603)
57. Pond Fork (Lower Pond Fork, 050500090502)
58. Bull Creek of Pond Fork (Lower Pond Fork, 050500090502)
59. Robinson Creek (Lower Pond Fork, 050500090502)
60. Marrowbone Creek (Marrowbone Creek, 050702010602)
61. Big Branch of Pigeon Creek (Marrowbone Creek, 050702010602)
62. Jarrell Branch (Middle Pond Fork, 050500090404)
63. Beaver Pond Branch (Middle Pond Fork, 050500090404)
64. Left Fork of Laurel Fork (Outlet Cabin Creek, 050500060403)
65. Left Fork of Whiteoak Creek (Outlet Cabin Creek, 050500060403)
66. Speed Branch (Outlet Clear Fork, 050500090204)
67. Gardner Branch (Outlet Clear Fork, 050500090204)
68. Laurel Branch of Clear Fork (Outlet Clear Fork, 050500090204)
69. Clark Branch (Outlet Elkhorn Creek, 050702010205)
70. Big Branch of Pigeon Creek (Outlet Pigeon Creek, 050702010506)
71. Twentymile Creek (Outlet Twentymile Creek, 050500050809)
72. Big Creek (Rich Creek of the Gauley River, 050500060304)
73. Slab Fork (Rum Creek of the Guyandotte River, 050701010508)
74. Sandlick Creek (Sandlick Creek of Tug Fork, 050702010205)
75. Murphy Branch (Sandlick Creek of Tug Fork, 050702010205)
76. Left Fork of Sandlick Creek (Sandlick Creek of Tug Fork, 050702010205)
77. Tug Fork (Sandlick Creek of Tug Fork, 050702010205)
78. Ballard Harmon Branch (South Fork of Tug Fork, 050702010204)

79. Sams Branch (South Fork of Tug Fork, 050702010204)
80. Sawmill Run (Tenmile Creek of the Buckhannon River, 050200010306)
81. Tommy Creek (Tommy Creek, 050701010103)
82. Right Fork of Beech Fork of Dry Fork (Upper Dry Fork, 050702010104)
83. West Fork of Twelvepole Creek (Upper West Fork of Twelvepole Creek, 050901020102)
84. West Fork (West Fork, 050500090403)
85. Mats Creek (West Fork, 050500090403)
86. Belcher Branch (Widemouth Creek of Bluestone River, 050500020907)

Data pertaining to the selenium history of those streams are contained in Appendix A.

The data in Appendix A were obtained through the West Virginia Freedom of Information Act from the West Virginia Department of Environmental Protection (“WVDEP”), and include only the data collected from in-stream monitoring points. Those in-stream monitoring points with less than three samples above 5 ug/L were discarded, as were any outfalls where the number of samples above 5 ug/L were ten per cent or less of the total number of samples.¹ Watershed information was added to Appendix A using GIS software, namely ArcGIS, and performing a spatial join.²

Some of the streams listed above were added to the draft 2012 Section 303(d) list; however, the list is resubmitted for further review. Several streams that Appalachian Mountain Advocates believe meet the criteria were not added to the 2012 draft list. Appendix B provides DMR data for those streams that are believed to be erroneously³ omitted from the current draft list. Both actual stream names and receiving stream names listed on DEP’s mining NPDES permits website were added to the DMR information in Appendix B for ease of use. “Actual

¹ In the event that the minimum and maximum selenium amounts reported for the same month were identical, it was assumed that only one sample was taken that month. Therefore, a month where the minimum and maximum selenium measurements were identical, one sample was recorded and one exceedence, if applicable.

² The spatial join was based on outfall coordinates (from WVDEP directly and via the WVDEP website) reported in DMS (degrees, minutes, seconds) and converted into decimal degrees or DD. Also used for the join was a shapefile from the United States Geological Survey website of HUC 12-level watersheds.

³ In a phone call on Tuesday, May 29, 2012, between Amy Dawson of AMA and Chris Daugherty of DWWM, Ms. Daugherty acknowledged that a significant amount of selenium DMR data had been inadvertently omitted from review. Therefore, the initial draft 2012 Section 303(d) list of streams impaired for selenium is incomplete. Ms. Daugherty is working to correct the omission and remedy the listing error.

stream names” are those streams in which the in-stream monitoring stations are most likely located. The actual stream names were found by displaying the in-stream monitoring station locations using coordinates from DEP and analyzing those point locations in relation to the streams within the National Hydrography Dataset from the United States Geological Survey.

Conclusion

DEP must (1) list biologically impaired streams identified by GLIMPSS scores, (2) list all biologically impaired streams already identified by WVSCI scores (including those streams with scores below 68); and (3) list those streams impaired for selenium based on the current listing criteria.

For the above reasons, DEP must revise the draft 2012 Section 303(d) List and add hundreds more streams as biologically impaired and impaired for selenium.

Sincerely,

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