Virginia Department of Environmental Quality

Draft 2014 Water Quality Assessment Guidance
Public Comment-Response Document

Comments received
January 27, 2014 to March 19, 2014

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Ms. Tish Robertson
Virginia Department of Environmental Quality
Water Quality Assessment Coordinator
P.O. Box 1105
Richmond, Virginia 23218

MAR 19 2014

Dear Ms. Robertson:

The U.S. Environmental Protection Agency (EPA) appreciates the opportunity to provide comments on Virginia Department of Environmental Quality's (VADEQ) draft assessment guidance. EPA supports VADEQ's efforts to provide transparency by publishing its methodologies. Please be aware, however, that EPA does not approve or disapprove methodologies. EPA will review Virginia's 2014 Section 303(d) list when it is submitted based upon all existing and readily available information. Application of methodologies assists in consistency and transparency. Where, however, existing and readily available information exists, that information must be evaluated.

The following are EPA's comments on VADEQ's 2014 assessment methodology:

1. Can VADEQ be clearer or more consistent on what it means by "field" parameters vs. "conventional" parameters vs. "field conventional" parameters? There seems to be some inconstancy - listed below are 3 examples taken from the guidance [**emphases added**]:

   Table 2 says: "for **conventional** parameter . . . exceedence rate < 10.5% for **field** parameters . . . "

   Section 5.12 says: ". . . for **conventional field** parameters (i.e., dissolved oxygen concentration and saturation, conductance, pH, temperature, and turbidity)."

   Rule 1 says: ". . . using **conventional** parameters (i.e., dissolved oxygen, pH, temperature, and bacteria)."

2. Also in addition to the examples provided. For clarity in this guidance, can VADEQ please define or clearly state exactly what parameters it considers as conventional for assessment purposes?

3. Rule 1 says: ". . . impaired waters are defined as those with exceedences of chronic, recuring, or human health-related water quality standards . . .". How is exceedence of acute water quality standards handled? Should acute WQS also be listed in Rule 1?

4. Please clarify what appears to be a discrepancy between Rule 1, which lists bacteria as a conventional parameter, as such having bacteria follow the conventional parameter assessment methodology, and Rule 3 which also speaks to the bacteria and a different methodology.

5. EPA understands that routine VADEQ ambient monitoring does not generate four samples in a month per location, and VADEQ normally assesses recreational use attainment against the instantaneous maximum bacteria criterion. EPA encourages VADEQ to increase the number of bacteria samples collected at ambient monitoring stations to allow the assessment of Virginia waters against the geometric mean criterion. Also, please explain why VADEQ chose four samples as the cut off for calculation of the geometric mean?

6. Rule 1 says: "Single samples (n = 1) will be considered insufficient information for assessment." And Section 5.2 Evaluation of Designated Uses says: "For toxic pollutant assessment where there are one or more samples and no exceedences . . . are considered fully supporting for wildlife use." Please clarify whether the statement regarding single samples in Rule 1 applies only to conventional pollutants that are assessed using an exceedence rate of > 10.5% and not to toxics. If the statement applies equally to toxics, VADEQ should clarify the inconsistency and-explain why it might assess as fully support based on one sample but not assess as impaired based on one sample?

7. In Part III, of the document where the IR categories are described, the description of Category 4A has been revised to reflect the addition of the VA's "nesting" procedure, but the revision makes the description focus entirely on nesting. The following text is suggested as a revision:

   EPA Category 4A – water is impaired or threatened for one or more designated uses but does not require a TMDL because the TMDL is complete and US EPA approved. In the case of a nested water, a new TMDL is not necessary to address the newly identified impaired water if the nesting procedure is followed (see part VII, Rule 3).

8. EPA commends VADEQ on their recent efforts to update Virginia's coastal plain macroinvertebrate index of biotic integrity (IBI) for aquatic life use assessments. EPA appreciates the cooperative working relationship our respective agencies have had in the past and looks forward to continuing that relationship for future IBI development.

If you have any further question, please contact Bill Richardson at 214-814-5675.

Sincerely,

Evelyn S. MacKnight

Evelyn S. MacKnight, Associate Director
Office of Standards, Assessment and TMDLs

Comments #1 and #2

Can VADEQ be clearer or more consistent on what it means by "field" parameters vs. "conventional" parameters vs. "field conventional" parameters? There seems to be some inconstancy - listed below are 3 examples taken from the guidance [**emphases added**]:

Table 2 says: "for **conventional** parameter . . . exceedence rate < 10.5% for **field** parameters . . . "

Section 5.12 says: ". . . for **conventional field** parameters (i.e., dissolved oxygen concentration and saturation, conductance, pH, temperature, and turbidity)."

Rule 1 says: ". . . using **conventional** parameters (i.e., dissolved oxygen, pH, temperature, and bacteria)."

Also in addition to the examples provided. For clarity in this guidance, can VADEQ please define or clearly state exactly what parameters it considers as conventional for assessment purposes?

VA DEQ's conventional parameters do not substantively differ from the list of "conventional pollutants" listed in the Clean Water Act. The conventional parameters that VA DEQ routinely assesses (where water quality standards are applicable) are pH, nutrients, dissolved oxygen concentration, bacteria, and temperature. Because chlorophyll *a* can be used as a proxy for nutrients, DEQ considers it "conventional" for the purposes of Table 2. Field parameters—such as temperature, pH, and dissolved oxygen—are those conventionals measured *in situ* rather than in the laboratory, such as bacteria. We will correct any instances of inconsistent or ambiguous usage of these terms.

Comment #3

Rule 1 says: ". . . impaired waters are defined as those with exceedences of chronic, recuring, or human health-related water quality standards . . .". How is exceedence of acute water quality standards handled? Should acute WQS also be listed in Rule 1?

The use of "chronic" in this sentence reflects VA DEQ's intention to characterize water quality over time, under a range of different conditions, rather than restricting assessments to atypical "worst case" conditions where acute impacts are more likely to be observed. However, we *do* assess water quality using both chronic and acute water quality standards, and we do not intend to imply otherwise. Thus, "chronic" will be removed from Rule 1 to clear up the confusion.

Comment #4

Please clarify what appears to be a discrepancy between Rule 1, which lists bacteria as a conventional parameter, as such having bacteria follow the conventional parameter assessment methodology, and Rule 3 which also speaks to the bacteria and a different methodology.

Rule 1 will be clarified as follows (see bolding):

> Impaired waters are defined as those with exceedences of ~~chronic,~~ recurring, or human health-related water quality standards as documented by QA/QC-approved monitoring data. Predictive data generally refers to computer-generated modeling data and may be used for assessment purposes on a case-by-case basis. Impairments are generally determined from exceedences of the numeric/narrative water quality standards, using the guidelines described in Part V of this manual.
>
> Previous EPA guidance recommends the use of an exceedence rate of >10.5% of the total samples analyzed to establish impairment for conventional parameters (i.e, dissolved oxygen, pH, temperature, and bacteria). This "allowable" exceedence rate takes into account equipment failure and/or human error **and only applies to acute or instantaneous criteria.** Single samples (n = 1) will be considered insufficient information for these assessments. A single exceedence of the WQS for conventional parameters is also considered insufficient justification for 303(d) listing (though sufficient for "observed effects" categorization). At least two exceedences and > 10.5% of the total samples are required for a water to be listed as impaired. Temperature in tidal waters up to the fall line will not be assessed due to the lack of standards for temperature in these waters.

Rule 3 describes how VA DEQ assesses bacteria geometric mean criteria, which--relative to single sample maximum criteria—protect more against "chronic" water quality degradation.

Comment #5

EPA understands that routine VADEQ ambient monitoring does not generate four samples in a month per location, and VADEQ normally assesses recreational use attainment against the instantaneous maximum bacteria criterion. EPA encourages VADEQ to increase the number of bacteria samples collected at ambient monitoring stations to allow the assessment of Virginia waters against the geometric mean criterion. Also, please explain why VADEQ chose four samples as the cut off for calculation of the geometric mean?

VA DEQ is working with citizen monitoring partners and our sister agency the Department of Conservation and Recreation to increase the number of bacteria samples we use in assessment. This will allow us to expand our monitoring effort into previously unassessed areas and increase the number of waters that can be assessed against the geometric mean criterion.

VA DEQ requires a minimum of 4 weekly bacteria samples to characterize a waterbody over a month due to the high temporal variability of bacteria. Since a single exceedence of the geometric mean criterion indicates impairment and prioritizes a water for TMDL development, we feel it is very important to base this determination on a dataset that is robust and representative of ambient conditions. We believe that using fewer than four samples to calculate a monthly mean is statistically invalid.

Comment #6

Rule 1 says: "Single samples (n = 1) will be considered insufficient information for assessment." And Section 5.2 Evaluation of Designated Uses says: "For toxic pollutant assessment where there are one or more samples and no exceedences . . . are considered fully supporting for wildlife use." Please clarify whether the statement regarding single samples in Rule 1 applies only to conventional pollutants that are assessed using an exceedence rate of > 10.5% and not to toxics. If the statement applies equally to toxics, VADEQ should clarify the inconsistency and-explain why it might assess as fully support based on one sample but not assess as impaired based on one sample?

Virginia Water Quality Standards (WQS) state that acute toxic criteria shall not be exceeded more than once every three years (first footnote of 9VAC25-260-140). A single toxic pollutant sample which does not exceed the WQS could be treated as evidence of use attainment using a liberal interpretation of this language. But VA DEQ agrees with EPA that consistency is important. For this reason, the guidance will be modified so that a minimum of two independent samples is required to determine if toxic-related designated uses are fully supporting or impaired.

Comment #7

In Part III, of the document where the IR categories are described, the description of Category 4A has been revised to reflect the addition of the VA's "nesting" procedure, but the revision makes the description focus entirely on nesting. The following text is suggested as a revision:

EPA Category 4A – water is impaired or threatened for one or more designated uses but does not require a TMDL because the TMDL is complete and US EPA approved. In the case of a nested water, a new TMDL is not necessary to address the newly identified impaired water if the nesting procedure is followed (see part VII, Rule 3).

The guidance has been modified with this suggestion.

Comment #8

EPA commends VADEQ on their recent efforts to update Virginia's coastal plain macroinvertebrate index of biotic integrity (IBI) for aquatic life use assessments. EPA appreciates the cooperative working relationship our respective agencies have had in the past and looks forward to continuing that relationship for future IBI development.

VA DEQ is always seeking to improve our assessment tools. We value EPA's assistance with this ongoing process.

CITY OF RICHMOND
DEPARTMENT OF PUBLIC UTILITIES

February 26, 2014

Tish Robertson
Virginia Department of Environmental Quality
Water Quality Assessment Coordinator
P.O. Box 1105
Richmond, VA 23218

Re: Comments on Virginia's Draft 2014 Water Quality Assessment Guidance Manual

Dear Ms. Robertson:

Thank you for the opportunity to provide comments on the Department of Environmental Quality's (DEQ) Draft 2014 Water Quality Assessment Guidance Manual (Draft Manual). The City of Richmond is dedicated to protecting and enhancing the James River. We are actively involved in all water quality issues that impact the James, including the development of water quality standards, and the development and implementation of Total Maximum Daily Loads (TMDLs) on the James River and for the Chesapeake Bay. How these actions are evaluated and reflected in DEQ's guidance is important and can have long-term effects on the prioritization of water quality projects. This is of critical importance to the City, as we strive to meet and exceed water quality requirements in the most cost-effective manner.

Following are the City's specific comments on the Draft Manual.

I. Support for Certain Changes

A. **Support Clarification of Recreational Bacteria Assessment**. The Draft Manual includes an assessment for recreational bacteria using geometric means. This is an important change, as it makes the assessment methodology more consistent with the water quality criteria. As the City has noted during the ongoing triennial review process, by definition a geometric mean requires a minimum of 3-4 samples. The Draft Manual should include a good, scientifically sound definition of geometric mean to ensure that it is properly applied.

B. **Support New Category 4D**. The City supports DEQ's inclusion in the Draft Manual of a new Category 4D to the assessment options. This category will be applied to waters that are impaired, but that do not require a TMDL because the dissolved oxygen standard has been met in the tidal waters of the Chesapeake Bay and the remaining criteria were not assessed due to insufficient information. Given the complexity of implementation of the Bay TMDL, it is useful to add

additional assessment options such as this to help clarify and explain the status of certain waters subject to the Bay TMDL.

II. Suggested Revisions

A. **Remove unnecessary limitations on the use of 4B.** EPA's Listing Guidance, like the Draft Manual, recognizes "Category 4B," which is a designation for water segments that are impaired, but do not require TMDLs because other pollution control requirements are sufficient to ensure that the applicable water quality standards are attained. EPA's guidance allows the use of this listing category whenever such other requirements result in attainment "within a reasonable period of time." *See* EPA Listing Guidance for 2002, 2004, 2006 and 2008. In contrast, the Draft Manual implies that Category 4B is only available when the other pollution control requirements result in attainment "by the next reporting or permit cycle." See Part III, page 6. This is overly narrow, and precludes the most effective and appropriate use of Category 4B. The language in the Draft Manual should be broadened, consistent with EPA's guidance.

B. **Add Category 5r.** EPA has acknowledged that impairment can be addressed through either a TMDL or an alternative restoration plan. *See, e.g.*, *http://www2.epa.gov/nutrient-policy-data/waters-assessed-impaired-due-nutrient-related-causes*. It is our understanding that EPA has begun to recognize alternative restoration plans in listing designations, allowing use of a new "Category 5r" for impaired segments addressed through alternative restoration plans. The alternative restoration plan serves as the tool to address the impairment instead of a TMDL. The City requests that DEQ add this option to the Draft Manual. This could be an important tool, particularly with respect to resolving impairments caused by sediment.

C. **Remove limitations on delisting**. The Draft Manual retains DEQ's traditional approach to delisting, found in Appendix D. However, there are other sections of the Draft Manual that appear to conflict with or limit the delisting process found in Appendix D (*see, e.g.*, Rule 2 on page 61). The Draft Manual should be reviewed for inconsistencies and, where inconsistencies are found, revised in favor of the delisting approach found in Appendix D.

D. **Acknowledgment of Chlorophyll a Study**. As noted above, the City supports changes to the Draft Manual that acknowledge the complexity of implementation of the Bay TMDL. The discussion on pages 20-21 on the assessment process provides another opportunity to acknowledge the processes that are underway as part of the Bay TMDL implementation and the potential implications of such processes. This section should specifically include information about the study DEQ has initiated on appropriateness of the chlorophyll a criteria for the James River. This study is critical to dischargers in the James River, and could result in further changes to both the water quality criteria and the assessment criteria for the James.

Thank you again for the opportunity to provide these comments. The City looks forward to continuing to work with DEQ on water quality issues, and the assessment process. If you have any questions about these comments, please contact me at 804-646-0033, or at grace.lerose@richmondgov.com.

Sincerely,

Grace A. LeRose

Chief Chemist

City of Richmond, DPU

cc: Robert Steidel, Director, DPU

Willie Horton, Deputy Director, DPU

DEQ response to comments received from City of Richmond—February 26, 2014

Comment A (Under "Suggested Revisions")

Remove unnecessary limitations on the use of 4B. EPA's Listing Guidance, like the Draft Manual, recognizes "Category 4B," which is a designation for water segments that are impaired, but do not require TMDLs because other pollution control requirements are sufficient to ensure that the applicable water quality standards are attained. EPA's guidance allows the use of this listing category whenever such other requirements result in attainment "within a reasonable period of time." *See* EPA Listing Guidance for 2002, 2004, 2006 and 2008. In contrast, the Draft Manual implies that Category 4B is only available when the other pollution control requirements result in attainment "by the next reporting or permit cycle." See Part III, page 6. This is overly narrow, and precludes the most effective and appropriate use of Category 4B. The language in the Draft Manual should be broadened, consistent with EPA's guidance.

VA DEQ currently uses Category 4B only for impaired effluent-limited waters-- waters that DEQ has determined can be restored with the application of technology-based effluent limits. DEQ defines "reasonable amount of time" as the length of an active permittee's compliance schedule. A water that receives discharge from an permitee unable to demonstrate compliance by the end of its compliance schedule is assessed as Category 5E. Upon reissuance of a new compliance schedule and/or permit, the water is reclassified as Category 4B. Because we currently only apply Category 4B to effluent-receiving waters, there is practical value in aligning assessment with VPDES permit requirements.

But we do agree with the City of Richmond that alternatives to TMDLs need to be worked into our assessment framework. Please see our response to your next comment.

Comment B

Add Category 5r. EPA has acknowledged that impairment can be addressed through either a TMDL or an alternative restoration plan. *See, e.g., http://www2.epa.gov/nutrient-policy-data/waters-assessed-impaired-due-nutrient-related-causes.* It is our understanding that EPA has begun to recognize alternative restoration plans in listing designations, allowing use of a new "Category 5r" for impaired segments addressed through alternative restoration plans. The alternative restoration plan serves as the tool to address the impairment instead of a TMDL. The City requests that DEQ add this option to the Draft Manual. This could be an important tool, particularly with respect to resolving impairments caused by sediment.

VA DEQ will add 5R as a category in the guidance. Virginia does not currently have any waters planned to be designated 5R, but we will use this as an opportunity to initiate planning.

> **Va. Category 5R - the Water Quality Standard is not attained and the water is impaired, and implementation of an EPA-approved restoration plan is expected to result in attainment. A status update will be provided each 303(d) cycle to evaluate progress.**

EPA recommends that the 5R documentation describe the following six minimum elements:

a) *The identification of the point and nonpoint sources.* For point sources, an analysis should be included to document whether they are causing or contributing to the water quality impairments. If it is determined that the point sources are causing or contributing, then a Water Quality Based Effluent Limitation (WQBEL) and/or Best Management Practices[1] should be developed and implemented through NPDES permits.

b) *The point source and nonpoint source water quality restoration activities that are expected to result in water quality improvements and restoration.* Where applicable, describe any authorities that may require water quality controls to be implemented (e.g., state or local regulations, permits, contracts and grant/funding agreements).

c) *Cost estimates and funding commitments to implement the water quality restoration activities.* In order to provide assurance that water quality restoration can occur through the implementation of water quality restoration activities, cost estimates and secured funding sources should be identified that will be used to implement these activities.

d) *An anticipated schedule for implementing the water quality restoration activities, including the anticipated completion date and the estimated pollutant load reductions necessary to meet water quality standards.* The schedule should outline specific activities and include a timeline of when each phase will be implemented and accomplished. The schedule can be revised and updated at each 303(d) listing cycle.

e) *A water quality monitoring component to evaluate and track the effectiveness of the scheduled water quality restoration activities at each 303(d) listing cycle.* Baseline water quality conditions should be established in order to accurately measure water quality progress. At each 2-year 303(d) listing cycle, performance measurements, whether environmental, programmatic, or social, should be provided for each implemented water quality restoration activity to measure progress. It is understood that each water restoration activity may not result in improved water quality; however the combined restoration activities should result in improved water quality at each 303(d) listing cycle.

[1] EPA currently recommends point sources be addressed with WQBEL, but DEQ intends to explore how BMPs can also be effectively employed.

f) *An anticipated date for achieving water quality standards.* Projects are expected to follow adaptive management allowing critical milestones to be adjusted as project plans and goals may change as implementation occurs. Once water quality standards have been met, the State may determine that the waterbody is appropriate to be included in category 1 or 2. If the project does not meet water quality standards by the estimated completion date, sufficient trends toward improved water quality must be shown in order to continue in the 5R program and an updated implementation schedule including revised critical milestones should be submitted to EPA. The project will continue to be reviewed every 2-year 303(d) listing cycle until water quality standards are met.

Comment C

Remove limitations on delisting. The Draft Manual retains DEQ's traditional approach to delisting, found in Appendix D. However, there are other sections of the Draft Manual that appear to conflict with or limit the delisting process found in Appendix D (*see, e.g.*, Rule 2 on page 61). The Draft Manual should be reviewed for inconsistencies and, where inconsistencies are found, revised in favor of the delisting approach found in Appendix D.

EPA allows VA DEQ to reclassify waters assessed as Category 5A (impaired and needing a TMDL) to Category 2 (meeting all assessed designated uses) under the following conditions described in Part VII: 1) New water quality data or modeling indicate the waterbody now attains water quality standards (WQS), 2) WQS modification results in an waterbody previously assessed as impaired now attaining the WQS, and 3) a waterbody was erroneously listed as impaired. Each delisting candidate is supported by the documentation detailed in the "Delisting Rules" section of Part VII. EPA considers this documentation before approving/disapproving the removal of a waterbody from the 303(d) List.

The Proactive Approach, described in Appendix D, allows a waterbody to be delisted if water quality is restored prior to TMDL development but after the implementation of voluntary pollution control measures. The Proactive Approach is valuable for both the Commonwealth and stakeholders since TMDL development/implementation can be expensive and time-consuming. The data requirements for delisting under the Proactive Approach are the same as any other delist justified under the first condition above. The distinction is that attainment of WQS in waterbodies targeted by the Proactive Approach can be credited to specific Best Management Practices or stream restoration activities, while the cause of improvement in other waters is usually unknown. More information about the Proactive Approach can be found on this website: http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/FrequentlyAskedQuestions.aspx#pro.

Comment D

Acknowledgment of Chlorophyll a Study. As noted above, the City supports changes to the Draft Manual that acknowledge the complexity of implementation of the Bay TMDL. The discussion on pages 20-21 on the assessment process provides another opportunity to acknowledge the processes that are underway as part of the Bay TMDL implementation and the potential implications of such processes. This section should specifically include information about the study DEQ has initiated on appropriateness of the chlorophyll a criteria for the James River. This study is critical to dischargers in the James River, and could result in further changes to both the water quality criteria and the assessment criteria for the James.

The impacts of the James River Chlorophyll *a* study on water quality standards and assessment are unknown. Thus, we feel it would be inappropriate to discuss this in the assessment guidance manual. More about the study can found on the Water Quality Standards website: http://www.deq.virginia.gov/programs/water/waterqualityinformationtmdls/waterqualitystandards/rulemakinginfo.aspx.

VIRGINIA MINING ISSUES GROUP

February 26, 2014

Ms. Tish Robertson
Virginia Department of Environmental Quality
Water Quality Assessment Coordinator
P.O. Box 1105
Richmond, Virginia 23218

Re: Draft 2014 Water Quality Assessment Guidance Manual

Dear Tish:

The Virginia Mining Issues Group (VMIG) appreciates this opportunity to comment on DEQ's Draft 2014 Water Quality Assessment Guidance Manual. VMIG is comprised of members who are interested in administrative proceedings that affect natural resources and the environment, including water quality standards, TMDLs, and water quality-based restrictions in Sections 402 and 404 permits under the Clean Water Act. Our goal is to ensure that those proceedings are driven by sound science, as well as cost-effective and practical decision-making. While we appreciate that the 2014 guidance remains largely unchanged from the guidance used in previous assessment cycles, we believe that DEQ should make four key changes before finalizing or implementing the 2014 guidance.

First, we have been long-time supporters of DEQ's "proactive approach" to delisting, as presented in Appendix D. Among other advantages, this approach allows DEQ to delist a biologically impaired segment from the 303(d) list where a minimum of two consecutive samples, taken over a one to two year period, show attainment. However, other sections of the draft guidance (*e.g.*, Part VII) seem to conflict with Appendix D. We urge DEQ to revise the guidance so that any references to delisting are completely consistent with the proactive approach presented in Appendix D.

Second, we believe that "Category 4B" provides a vitally important alternative for segments that are impaired but for which TMDLs are not required because other pollution control requirements (e.g., watershed plans and strategies) are stringent enough to achieve applicable water quality standards. We note that the federal rules and guidance allow for the use of this listing category whenever such other requirements result in attainment "within a reasonable period of time." *See* 40 CFR §130.7(b)(1); EPA Listing Guidance for 2002, 2004, 2006 and 2008 (accessible by clicking here -- http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/guidance.cfm). However, in the draft Virginia guidance, DEQ seems to suggest that Category 4B is only permissible when such other requirements result in attainment "by the next reporting or permit cycle." See Part III,

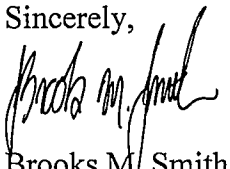
page 6. DEQ's approach is unnecessarily restrictive and will severely limit the use of Category 4B. We urge DEQ to revise its approach consistent with EPA's guidance.

Third, we note that various EPA regions and states have been pilot-testing a new "Category 5r" for segments that are impaired but for which TMDLs may be deferred because restoration plans are in place and being implemented. We understand that 5r was first tested in EPA Region 4 but now is being considered in EPA Region 3, as well. We respectfully submit that Virginia's coalfield creeks may be uniquely situated to qualify for Category 5r and should be considered as candidates for this listing designation.

Fourth, for biological assessments, we understand that DEQ is committed to using the Virginia Stream Condition Index ("VSCI"), and we agree that the VSCI can serve as a valuable screening tool for the health of different segments from an aquatic life use perspective. However, the VSCI was never designed to be used for compliance purposes, and it is not sufficiently precise or repeatable to be applied in that manner. In recent years, we have seen recurring attempts by EPA and other stakeholders to use or apply the SCI, and the SCI's "passing score" of 60, as an enforceable threshold for NPDES compliance obligations. This is flatly unacceptable. We recently asked DEQ to clarify, as part of the Triennial Review of Water Quality Standards, that the SCI may (and should) be used for monitoring and assessment purposes, but cannot be used like a water quality standard or criterion for permitting or enforcement purposes. While DEQ staff appeared to be sympathetic to our concerns, they were reluctant to incorporate the VSCI, or our requested guideposts, into the Water Quality Standards Regulation due to the loss of flexibility in implementing the VSCI. They suggested that reinforcing our requested guideposts through guidance would be preferable. For this reason, we respectfully request that DEQ clarify, in the assessment guidance, that the SCI may (and should) be used for monitoring and assessment purposes, but cannot be used like a water quality standard or criterion for permitting or enforcement purposes.

We look forward to remaining involved in the 2014 assessment cycle. Please feel free to contact me at 804-697-1414 or brooks.smith@troutmansanders.com if you have questions or need any additional information.

Sincerely,



Brooks M. Smith
Common Counsel to VMIG

DEQ response to comments received from the Virginia Mining Issues Group—February 26, 2014

Comment #1

First, we have been long-time supporters of DEQ's "proactive approach" to delisting, as presented in Appendix D. Among other advantages, this approach allows DEQ to delist a biologically impaired segment from the 303(d) list where a minimum of two consecutive samples, taken over a one to two year period, show attainment. However, other sections of the draft guidance (*e.g.*, Part VII) seem to conflict with Appendix D. We urge DEQ to revise the guidance so that any references to delisting are completely consistent with the proactive approach presented in Appendix D.

EPA allows VA DEQ to reclassify waters assessed as Category 5A (impaired and needing a TMDL) to Category 2 (meeting all assessed designated uses) under the following conditions described in Part VII: 1) New water quality data or modeling indicate the waterbody now attains water quality standards (WQS), 2) WQS modification results in an waterbody previously assessed as impaired now attaining the WQS, and 3) a waterbody was erroneously listed as impaired. Each delisting candidate is supported by the documentation detailed in the "Delisting Rules" section of Part VII. EPA considers this documentation before approving/disapproving the removal of a waterbody from the 303(d) List.

The Proactive Approach, described in Appendix D, allows a waterbody to be delisted if water quality is restored prior to TMDL development but after the implementation of voluntary pollution control measures. The Proactive Approach is valuable for both the Commonwealth and stakeholders since TMDL development/implementation can be expensive and time-consuming. The data requirements for delisting under the Proactive Approach are the same as any other delist justified under the first condition above. The distinction is that attainment of WQS in waterbodies targeted by the Proactive Approach can be credited to specific Best Management Practices or stream restoration activities, while the cause of improvement in other waters is usually unknown. More information about the Proactive Approach can be found on this website: http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/FrequentlyAskedQuestions.aspx#pro.

Comment #2

Second, we believe that "Category 4B" provides a vitally important alternative for segments that are impaired but for which TMDLs are not required because other pollution control requirements (e.g., watershed plans and strategies) are stringent enough to achieve applicable water quality standards. We note that the federal rules and guidance allow for the use of this listing category whenever such other requirements result in attainment "within a reasonable period of time." *See* 40 CFR §130.7(b)(1); EPA Listing Guidance for 2002, 2004, 2006 and 2008 (accessible by clicking here -- http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/guidance.cfm). However, in the draft Virginia guidance, DEQ seems to suggest that Category 4B is only permissible when such other requirements result in attainment "by the next reporting or permit cycle." See Part III, page 6. DEQ's approach is unnecessarily restrictive and will severely limit the use of Category 4B. We urge DEQ to revise its approach consistent with EPA's guidance.

VA DEQ currently uses Category 4B only for impaired effluent-limited waters-- waters that DEQ has determined can be restored with the application of technology-based effluent limits. DEQ defines "reasonable amount of time" as the length of an active permittee's compliance schedule. A water that receives discharge from an permitee unable to demonstrate compliance by the end of its compliance schedule is assessed as Category 5E. Upon reissuance of a new compliance schedule and/or permit, the water is reclassified as Category 4B. Because we currently only apply Category 4B to effluent-receiving waters, there is practical value in aligning assessment with VPDES permit requirements.

But we do agree with VMIG that alternatives to TMDLs need to be worked into our assessment framework. Please see our response to your next comment.

Comment #3

Third, we note that various EPA regions and states have been pilot-testing a new "Category 5r" for segments that are impaired but for which TMDLs may be deferred because restoration plans are in place and being implemented. We understand that 5r was first tested in EPA Region 4 but now is being considered in EPA Region 3, as well. We respectfully submit that Virginia's coalfield creeks may be uniquely situated to qualify for Category 5r and should be considered as candidates for this listing designation.

VA DEQ will add 5R as a category in the guidance. Virginia does not currently have any waters planned to be designated 5R, but we will use this as an opportunity to initiate planning.

> **Va. Category 5R - the Water Quality Standard is not attained and the water is impaired, and implementation of an EPA-approved restoration plan is expected to result in attainment. A status update will be provided each 303(d) cycle to evaluate progress.**

EPA recommends that the 5R documentation describe the following six minimum elements:

a) *The identification of the point and nonpoint sources.* For point sources, an analysis should be included to document whether they are causing or contributing to the water quality impairments. If it is determined that the point sources are causing or contributing, then a Water Quality Based Effluent Limitation (WQBEL) and/or Best Management Practices[1] should be developed and implemented through NPDES permits.

b) *The point source and nonpoint source water quality restoration activities that are expected to result in water quality improvements and restoration.* Where applicable, describe any authorities that may require water quality controls to be implemented (e.g., state or local regulations, permits, contracts and grant/funding agreements).

c) *Cost estimates and funding commitments to implement the water quality restoration activities.* In order to provide assurance that water quality restoration can occur through the implementation of water quality restoration activities, cost estimates and secured funding sources should be identified that will be used to implement these activities.

d) *An anticipated schedule for implementing the water quality restoration activities, including the anticipated completion date and the estimated pollutant load reductions necessary to meet water quality standards.* The schedule should outline specific activities and include a timeline of when each phase will be implemented and accomplished. The schedule can be revised and updated at each 303(d) listing cycle.

e) *A water quality monitoring component to evaluate and track the effectiveness of the scheduled water quality restoration activities at each 303(d) listing cycle.* Baseline water quality conditions should be established in order to accurately measure water quality progress. At each 2-year 303(d) listing cycle, performance measurements, whether environmental, programmatic, or social, should be provided for each implemented water quality restoration activity to measure progress. It is understood that each water restoration activity may not result in improved water quality; however the combined restoration activities should result in improved water quality at each 303(d) listing cycle.

f) *An anticipated date for achieving water quality standards.* Projects are expected to follow adaptive management allowing critical milestones to be adjusted as project plans and goals may change as implementation occurs. Once water quality standards have been met, the State may determine that the waterbody is appropriate to be included in category 1 or 2. If the project does not meet water quality standards by the estimated completion date, sufficient trends toward improved water quality must be shown in order to continue in the 5R program and an updated implementation schedule including revised critical milestones should be submitted to EPA. The project will continue to be reviewed every 2-year 303(d) listing cycle until water quality standards are met.

[1] EPA currently recommends point sources be addressed with WQBEL, but DEQ intends to explore how BMPs can also be effectively employed.

Comment #4

Fourth, for biological assessments, we understand that DEQ is committed to using the Virginia Stream Condition Index ("VSCI"), and we agree that the VSCI can serve as a valuable screening tool for the health of different segments from an aquatic life use perspective. However, the VSCI was never designed to be used for compliance purposes, and it is not sufficiently precise or repeatable to be applied in that manner. In recent years, we have seen recurring attempts by EPA and other stakeholders to use or apply the SCI, and the SCI's "passing score" of 60, as an enforceable threshold for NPDES compliance obligations. This is flatly unacceptable. We recently asked DEQ to clarify, as part of the Triennial Review of Water Quality Standards, that the SCI may (and should) be used for monitoring and assessment purposes, but cannot be used like a water quality standard or criterion for permitting or enforcement purposes. While DEQ staff appeared to be sympathetic to our concerns, they were reluctant to incorporate the VSCI, or our requested guideposts, into the Water Quality Standards Regulation due to the loss of flexibility in implementing the VSCI. They suggested that reinforcing our requested guideposts through guidance would be preferable. For this reason, we respectfully request that DEQ clarify, in the assessment guidance, that the SCI may (and should) be used for monitoring and assessment purposes, but cannot be used like a water quality standard or criterion for permitting or enforcement purposes.

As you indicate, VA DEQ currently uses the Virginia Stream Condition Index to characterize and assess the aquatic life use of most free-flowing streams in the Commonwealth. Both the VSCI and the Virginia Coastal Plain Macroinvertebrate Index (VCPMI) are interpretations of the general criteria (9VAC25-260-20A)**:** *State waters, including wetlands, shall be free from substances attributable to sewage, industrial waste, or other waste in concentrations, amounts, or combinations which contravene established standards or interfere directly or indirectly with designated uses of such water or which are inimical or harmful to human, animal, plant, or aquatic life.* Waters associated with VSCI scores below 60 are assessed as impaired and prioritized for TMDL development. The identification of probable stressors (e.g., nutrients, metals, and/or sediments) is required for TMDL development.

The principal goal of 303(d)/305(b) assessment is to identify waters needing a TMDL. TMDLs can be used to set permit limits. Thus, it is not possible to divorce assessment completely from "permitting or enforcement purposes." But it should be noted that DEQ permit writers do not use VSCI thresholds as permit limits. DEQ does not anticipate changing this policy any time soon. Moreover, stakeholders are always welcomed to submit their own monitoring data to DEQ for the purpose of assessment. They are also allowed to scrutinize the dataset(s) used to list specific waters during the public comment period of the draft Integrated Report, as well as challenge current assessment protocols on scientific grounds. VMIG's request has been noted, but DEQ declines to add any qualifiers to the application of the VSCI in our assessment guidance at this time.