

CHAPTER 7.2 IMPLEMENTING THE CLEAN WATER ACT 303(d) PROGRAM VISION

The [Clean Water Act 303\(d\) Program Vision](#) was announced by EPA in collaboration with the states in December 2013. While this Program Vision provides a new framework for implementing the 303(d) program, it is not a new rule or regulation and does not impose any new legal requirements on EPA, Virginia, or other stakeholders. Furthermore, it does not change any of the requirements or authorities of Virginia or EPA under the Clean Water Act section 303(d). Overall the new Vision introduces six new program enhancements with an emphasis on improving overall efficiency of the 303(d) program. The six program enhancements are addressed through the six Vision goals that include prioritization, assessment, protection, alternatives, engagement, and integration. The detailed Vision goals are described below:

1. **“Prioritization”** For the 2016 integrated reporting cycle and beyond, States review, systematically prioritize, and report priority watersheds or waters for restoration and protection in their biennial integrated reports to facilitate State strategic planning for achieving water quality goals.
2. **“Assessment”** By 2020, States identify the extent of healthy and Clean Water Act Section 303(d) impaired waters in each State’s priority watersheds or waters through site-specific assessments.
3. **“Protection”** For the 2016 reporting cycle and beyond, in addition to the traditional TMDL development priorities and schedules for waters in need of restoration, States identify protection planning priorities and approaches along with schedules to help prevent impairments in healthy waters, in a manner consistent with each State’s systematic prioritization.
4. **“Alternatives”** By 2018, States use alternative approaches, in addition to TMDLs, that incorporate adaptive management and are tailored to specific circumstances where such approaches are better suited to implement priority watershed or water actions that achieve the water quality goals of each state, including identifying and reducing nonpoint sources of pollution.
5. **“Engagement”** By 2014, EPA and the States actively engage the public and other stakeholders to improve and protect water quality, as demonstrated by documented, inclusive, transparent, and consistent communication; requesting and sharing feedback on proposed approaches; and enhanced understanding of program objectives.
6. **“Integration”** By 2016, EPA and the States identify and coordinate implementation of key point source and nonpoint source control actions that foster effective integration across Clean Water Act programs, other statutory programs (e.g., CERCLA, RCRA, SDWQ, CAA), and the water quality efforts of other Federal departments and agencies (e.g., Agriculture, Interior, Commerce) to achieve the water quality goals for each state.

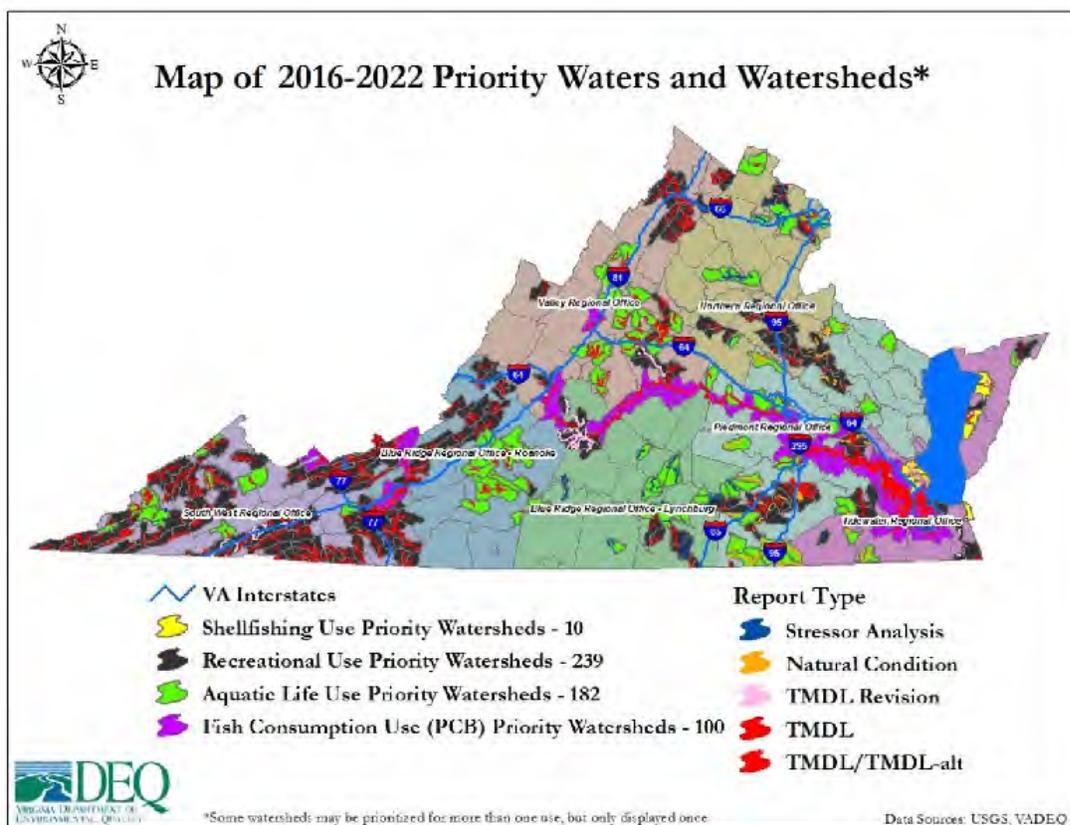
Virginia is well on track to meet and implement all six goals of the new Clean Water Act 303(d) Program Vision. The following sections of this chapter will detail Virginia’s progress towards these Vision goals.

Prioritization

DEQ is currently implementing the national [303\(d\) Program Vision](#) which calls for the prioritization of impaired waters for TMDL or TMDL alternative development over a six year window (currently 2016-2022). A description of the process and a list of waters with city/county information can be found at <http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLDevelopment/TMDLProgramPriorities.aspx>. Additionally, in the 303(d) list (Appendix 1a), the 2016-2022 priorities are denoted by “H” or “M” under the “TMDL Priority” column for high and medium priority. As part of the 303(d) Vision, DEQ submitted formal priorities to EPA that will be addressed with TMDLs or TMDL-alternatives by 2022. The priorities that were public noticed also included internal priorities that DEQ will aim to address with TMDLs, TMDL-alternatives, stressor analyses, or natural conditions reports by 2022. In the 303(d) list the priority waters formally submitted to EPA are the waters that have an “H” under the “TMDL Development Priority” column. The DEQ internal priorities, with the exception of those prioritized for natural conditions reports, are the waters that have an “M” under the “TMDL Development Priority”

column. Waters prioritized for Natural Conditions Reports receive a TMDL priority ranking of “L” for low since no TMDL or TMDL-alternative will be developed. While TMDL-alternatives may be pursued for any priority water, the decision between TMDL and TMDL-alternative development will be made at the onset of the study. For more information on TMDL-alternatives, see the section titled “Alternatives” below. In some instances, for a variety of reasons, the priority ranking of an impaired assessment unit may change from the list that was originally public noticed. One example of this occurrence is when a TMDL project is initiated for priority waters and it is realized that other potentially new impairments exist in the watershed. Since the TMDL project will address all of the impairments, the formerly low priority waters will change priority to match the priority of the waters that the project originally sought to address.

The resulting map of priority waters and watersheds is shown below (**Figure 7.2-1**).



One aspect is important to note: For the prioritization of waters with an impaired aquatic life use, DEQ looked at waters that were impaired by 1) low dissolved oxygen concentrations, 2) high or low pH levels, 3) high temperatures in coldwater streams, and 4) impairments to the benthic macroinvertebrate communities. Since these impairments result in impacts to the aquatic ecosystem, DEQ sought to prioritize waters impaired for the aquatic life use where additional benefits to aquatic ecosystems could be gained. In order to maximize these additional benefits DEQ conducted a statewide analysis of small watersheds ([specifically 6th order Hydrologic Units](#)) that contained waters impaired for one or more of the 4 reasons listed above in addition to waters that contained one or more of the following criteria:

1. The presence of a state and/or federally listed threatened or endangered species (spatial data provided by DGIF)
2. The presence of a DCR Stream Conservation Unit, which is based on:
 - The presence of a rare, threatened, or endangered species; or
 - The presence of an aquatic ecological community of high integrity

Since all TMDLs are designed to protect the watershed for which they are developed, the idea was that in developing a plan to restore waters impaired for the aquatic life use, other state and federal goals of protecting rare, threatened, or endangered species and ecological communities of high integrity could also be implemented. In this regard, the 303(d) Program Vision goal #3 “Protection” and #6 “Integration” were also addressed.

Assessment

Since the beginning of the TMDL program at DEQ, efforts have been made to coordinate TMDL development and water quality monitoring. Through these efforts, the appropriate water quality data was gathered to aid in the development of TMDLs. As part of the 303(d) Program Vision, the process of prioritizing waters for TMDL and TMDL alternative development over the next 6 years (2016-2022) has improved the process of water quality monitoring plan development by making the long-term plan more predictable.

Furthermore, in an effort to better plan for TMDLs or TMDL alternatives that address benthic macroinvertebrate impairments, DEQ staff are working to specify the group of parameters necessary for pre-TMDL monitoring. Because TMDLs must be developed for pollutants causing an impairment, TMDLs or TMDL alternatives that address benthic macroinvertebrate impairments require an analysis to determine what stressors (i.e., pollutants) are causing the impairment. Currently this analysis is done using all available data. The aim for this initiative is to provide the proper suite of parameters that will aid in a thorough analysis of potential stressors causing the impairment of the benthic macroinvertebrate community.

It is through these more coordinated efforts that DEQ believes it is on track to identify the extent of the impairments for each of Virginia’s priority waters through site specific assessments.

Protection

Due to the numerous water quality impairments across Virginia, DEQ is committed to addressing impaired waters. Other state agencies such as DCR take the lead in developing plans to protect “healthy waters.” While DEQ does not take the lead in developing these plans, the general concept of protecting waters and maintaining the anti-degradation policies for water quality is well-addressed through numerous DEQ programs and initiatives.

Already noted in the “Prioritization” section of this chapter was the dual benefit of protecting rare, threatened, or endangered species and aquatic ecological communities of high integrity through the prioritization of watersheds for TMDL or TMDL alternative development that contain these qualities in addition to downstream aquatic life use impairments. Furthermore, DEQ accepts nominations for Exceptional State Waters (Tier III), which the State Water Control Board approves if such nominations qualify as waters in a location of outstanding scenic beauty, have exceptional aquatic communities, and/or have superior recreational opportunities. This Tier III designation prohibits permanent new or increased discharges from point sources, maintaining a strong anti-degradation policy.

It is also worth noting that DEQ is evaluating an additional metric to assess benthic macroinvertebrate communities in Virginia streams, the Biological Condition Gradient (BCG). The BCG will categorize the diversity and abundance of macroinvertebrates sampled in streams and group them into categories along a 6-scale gradient of ecological stress. The BCG categories are determined by scientific decision criteria based on biological responses to anthropogenic stress. In other words, the BCG is a model that describes how the biota of stream ecosystems change with increasing anthropogenic stress. The BCG, once established in a particular ecoregion, offers a framework to help characterize the degree of stress on the aquatic system along a 6-scale gradient and to recognize incremental improvements in meeting water quality goals. Virginia will continue to use the Virginia Stream Condition Index (VSCI) score to determine whether or not a stream is impaired for the aquatic life use.

Alternatives

DEQ is currently exploring opportunities for TMDL alternative development. In certain circumstances the use of a TMDL alternative may offer more assurances that impaired waters will be restored in either a more timely or practical manner. As a result of the process described in the “Prioritization” section above, DEQ has listed 27 impairments on the priority list (Appendix 1a) where a TMDL alternative may be the best option for addressing the impairment. The ultimate decision on whether or not to pursue a TMDL or a TMDL alternative will be made by DEQ staff in conjunction with the technical advisory committee for the project at the onset of the project. Therefore, on the priority list found on the [TMDL Program Priorities webpage](#) these impairments are listed with a “Report Type” of “TMDL/TMDL-alt.” Similarly, in Appendix 1a these waters are still considered for TMDL development and will be listed with an “H” or an “M” under the “TMDL Priority” column. Although these 17 impairments are prioritized considering the potential for pursuing a TMDL alternative, other impairments on the priority list may be addressed with TMDL alternatives. If a TMDL alternative is pursued, it will follow the same public participation process as a TMDL or TMDL implementation plan (see the “Engagement” section below), and will be briefly explained in this chapter of successive 305(b)/303(d) Integrated Reports. Furthermore, unless the alternative has enforceable pollution control requirements, the impaired water addressed with a TMDL alternative will remain in category 5, but be moved from subcategory 5A to subcategory 5R – “The water quality standard is not attained and the water is impaired, and implementation of an EPA-accepted restoration plan is expected to result in attainment.” If the alternative does have enforceable pollution control requirements, the impaired water addressed will move to category 4B – “water is impaired or threatened for one or more designated uses but does not require the development of a TMDL because other pollution control requirements are reasonably expected to result in attainment of the water quality standard by the next reporting period or permit cycle.” The waters with alternative restoration plans that are moved to subcategory 5R will remain in category 5 until water quality standards are attained. These waters are assigned lower priority for TMDL development as alternatives designed to achieve water quality standards are implemented in the near term. If water quality standards are not fully attained through alternative approaches, development of a TMDL would be necessary.

DEQ currently has 1 TMDL alternative in the Potomac-Shenandoah River Basin that is category 5R. It is the watershed plan to address the Fairview Beach recreational impairment due to excessive levels of bacteria. The TMDL alternative was pursued in this case due to the reasons listed below:

- The impaired area is very small and the local drainage area contributing to the swimming area is 1-2 mi².
- There are no point sources contributing to the excessive levels of bacteria, so the regulatory TMDL waste load allocation would not provide any significant load reductions in the watershed.
- Several pollution control measures are already implemented or are soon to be implemented.
- The stakeholder involvement in the watershed is strong, which should ensure success in implementing the voluntary pollution control measures necessary to meet water quality standards.

The Fairview Beach Watershed Plan can be found here:

http://www.deq.virginia.gov/Portals/0/DEQ/Water/TMDL/ImplementationPlans/FB_WP.pdf

Engagement

In the fall of 2014, DEQ finalized the revised [Public Participation Procedures for Water Quality Management Planning guidance document](#). These procedures set forth the process to provide the public and stakeholders with an adequate opportunity to participate in the development and implementation of TMDLs, TMDL modifications, 305(b)/303(d) Integrated Reports, priority schedules for TMDL and TMDL alternative development, and non-TMDL waste load allocations. These procedures also exempt any of these actions from the full Administrative Process Act public participation process because they go above and beyond those requirements. For the development of TMDLs and TMDL Implementation Plans, stakeholders will have a minimum of two opportunities to provide comments. Stakeholders will also have a final opportunity to comment on TMDL projects prior to State Water Control Board Approval.

Opportunities for public comment also exist for the draft 305(b)/303(d) Integrated Report, the draft guidance for the 305(b)/303(d) Integrated Report, draft priority schedules for TMDL and TMDL alternative development, draft TMDL modifications, and non-TMDL waste load allocation development or modifications. It is the goal of these procedures to include stakeholders in water quality management actions from the initial listing of an impaired water, all the way to the implementation of the TMDL or TMDL alternative developed to address the impairment.

Stakeholders interested in participating in these water quality actions can see public notices for these actions in the [Virginia Register](#), the [Virginia Regulatory Town Hall](#), or on [DEQ's website](#). In particular, public notices pertaining to the priority schedule for TMDL and TMDL alternative development, TMDL related regulatory actions, and TMDL and TMDL Implementation Plan development can be found at the [DEQ TMDL Public Notices webpage](#).

Integration

Virginia's efforts towards program integration were aided with the migration of stormwater and nonpoint source programs from DCR to DEQ in July 2013. TMDL and TMDL Implementation Plan development programs, in addition to the grants management program for projects implementing the TMDL Implementation Plans, are now combined in one DEQ program office. With MS4 permitting now also at DEQ, this allows for close intra-agency collaboration on emerging concepts and approaches for addressing MS4 permits in TMDL watersheds. This collaboration is an ongoing effort to continuously improve DEQ's management of stormwater in watersheds with impaired waters.

DEQ also collaborates with VDH who conducts the beach monitoring program for Virginia. The data collected by the beach monitoring program is used by VDH to issue swimming advisories. That same data helps DEQ determine beach recreational use impairments, in addition to aiding the development of TMDLs and TMDL alternatives to address beach impairments. DEQ and VDH also have integrated efforts related to shellfish harvesting and shellfishing impairments. The VDH Division of Shellfish Sanitation conduct water quality monitoring and shoreline surveys in order to determine whether or not shellfish growing areas are suitable for shellfish harvesting. As a result of this data, DEQ then determines whether or not the shellfishing use is impaired. When it is impaired, this data is also considered during the TMDL or TMDL alternative development. Furthermore, the DEQ fish tissue monitoring program provides the data that VDH uses to determine fish consumption advisories. DEQ then uses the extent of the fish consumption advisories to assess the extent of state waters with fish consumption use impairments. Through the beach monitoring program and the Division of Shellfish Sanitation at VDH, and the fish tissue monitoring program at DEQ, VDH and DEQ partner to notify the public of public health related impairments, while also providing the information necessary to address these impairments with TMDLs and TMDL alternatives.

Additional integration efforts include:

- Spearheading work to integrate land division, water permitting division and water planning division efforts for addressing PCB fish tissue contamination issues.
- The aforementioned work between monitoring staff and TMDL staff to specify parameters necessary for conducting thorough stressor identification analyses in waters with benthic macroinvertebrate impairments that are prioritized for TMDL or TMDL alternative development.
- The aforementioned collaboration between DCR and DEQ for prioritization of watersheds for TMDL or TMDL alternative development that have both aquatic life use impairments and waters with ecological communities of high integrity and/or rare, threatened or endangered species.