

West Virginia Department of Environmental Protection - DWWM

West Virginia TMDL Development - *Prioritization Strategy*

West Virginia has a robust rotating basin approach to TMDL development. The state is divided into five hydrologic groups (A-E), each hydrologic group containing from 5 to 8, 8-digit HUC watersheds. TMDL development and other water resource management activities (ex. monitoring, assessment, permitting) are organized under a five-year rotating basin framework. Annually, the state selects focus areas to begin four-year TMDL development projects with various activities synchronized with the framework. It conducts robust “pre-TMDL” chemical and biological monitoring for a year that is intended to refine/append 303(d) listings and inform TMDL modeling. West Virginia’s “watershed” TMDL projects aim to comprehensively and efficiently address all impairments of listed waters and their tributaries. Final products include a high volume of nested TMDLs.

The State’s 303(d) lists and Integrated Reports are also organized under the framework. In each cycle, the state is positioned to identify certain 303(d) listings in certain HUC watersheds for which it plans to have TMDLs developed at the next opportunity under the framework. Very detailed information is known for stream/pollutant combinations for which TMDLs will be developed in the next two years. Useful, but less-specific information will be available for years three and four. Beyond that, West Virginia can only project the WMF Hydrologic Group in which TMDL development may occur.

West Virginia has chosen to set priorities based on the two-year cycles that coincide with the Integrated Report cycle. The initial prioritization is based on the 2014 IR and includes TMDLs associated with projects that have started. It projects priorities to be accomplished by the ends of federal fiscal years 2016, 2017 and 2018. The prioritization will be refined biannually by adding priorities associated with new projects for later years, expanding the priorities to include impairments identified by pre-TMDL monitoring and/or modeling, or removing priorities where new information indicates delisting is warranted.

West Virginia’s initial priority list is provided in the attached spreadsheet (*WV2014_WQ-27 priority_20150925.xlsx*). FY2016 priorities include TMDLs approved in 2015 in Upper Kanawha, Upper Ohio North, South Branch Potomac and Shenandoah watersheds and those in the Tygart Valley River watershed that are planned to be approved in December 2015. The approved projects include TMDLs for additional non-listed waters for which impairments were determined via modeling. The Tygart Valley River watershed priorities are based on 2014 303(d) listings that incorporate the most recent monitoring results and the final project will likely include additional TMDLs for model -predicted impairments. FY 2017 and 2018 priorities are only the stream pollutant combinations contained on the 2014 303(d) list. Those listings will be expanded in subsequent re-prioritizations as TMDL projects progress and new monitoring information results in 303(d) listing of tributaries or modeling identifies additional impairments for which TMDLs are needed.

In addition to the prioritization listings, WVDEP is implementing a TMDL alternative approach to address algae-related impairments on segments of the Greenbrier River. Details are provided in the attached *Greenbrier River Restoration Plan*. In general, the plan includes upgrading three major POTWs presumed to be significant causative sources with nutrient reduction technology. Annual monitoring of source and stream nutrient concentrations and algal bloom extents will be performed through the summer of 2020 to contrast pre- and post- upgrade conditions and judge the effects of the improved treatment under varying temperature and precipitation conditions. 303(d) listings will be retained over the course of the plan, and contingencies will be pursued if water quality attainment goals are not realized. If determined necessary, TMDL development is planned to be accomplished by 2023.