



## **MDE Preparing for 2019 Triennial Review; Will Include Ammonia February 2019**

At MAMWA's request, MDE agreed to exclude EPA's 2013 freshwater ammonia criteria from the 2016 Triennial Review and instead consider ammonia criteria on a separate regulatory track that would allow MDE and MAMWA Members more time to better understand and mitigate potential impacts on WWTPs across Maryland.

MDE previously stated that it would begin work on the 2019 Triennial Review in late 2018 and that it would include ammonia in that review. Based on comments made by Water & Science Administration Director Lee Currey during the November 2018 MAMWA Member Meeting, we expect MDE to issue an Advanced Notice of Proposed Rulemaking in March or April of this year.

In preparation for the new, more stringent ammonia criteria, MDE has reviewed data on smaller wastewater plants to assess whether they will face significant implementation challenges in the future. For the following facilities, MDE conducted 9 sampling events, with each consisting of taking samples from the point of discharge and upstream and downstream of the discharge point: Dorsey Run Advanced WWTP, Foxville Gardens WWTP, Glen Arm WWTP, La Plata WWTP, Mount St. Mary's WWTP, Northern Middle/High School WWTP, Silver Oak Academy WWTP, Southern Senior High School WWTP, and Stevenson University WWTP. For the following facilities, MDE sampled only at the point of discharge: Damascus Water Resource Recovery Facility, Kent Narrows, Little Patuxent, and Mount Airy. Finally, MDE sampled three water treatment facilities: Rocky Gap, Vienna, and Frostburg.

MDE has shared that of all of the samples taken, only two facilities, La Plata and Stevenson, had an ammonia exceedance at the point of discharge, and that was only for one sample each. MDE is preparing a report on its findings, and will share the results with MAMWA once internal review is completed.

MDE is also still working on an implementation policy on how to determine the presence or absence of mussels. Depending on the presence or the absence of the species, MDE may consider imposing different ammonia criteria. MDE requested the opportunity to first share that draft with DNR for their review and comment. MDE has now received feedback from DNR, and is awaiting feedback from MDE's Municipal Permitting Division. We will report back to the Membership after we have received the draft and scheduled a meeting



for MAMWA to discuss it with MDE staff. Members who are interested in more of the history on the ammonia issue should read on below.

During a January 2018 meeting, MDE presented preliminary results from work it has been doing with DNR to develop a mussels model. MDE's goal is to assess on a finer scale whether the most sensitive mussel species that are driving EPA's 2013 criteria are present in a particular segment of a waterbody. As noted above, depending on the presence or absence of the species, MDE may consider imposing different ammonia criteria. MDE is also still considering relief valves for dischargers who are identified as discharging to waterbodies with the mussel species. Potential options include: adjustments to pH assumptions on an individual plant basis, extensions of the time allowed for a compliance schedule and/or the development of a process to allow for a variance from the WQS for a limited period.

MDE developed a model (and resulting calculation) to assess whether mussels are present in a particular stream based on four predictors: (1) stream gradient; (2) stream discharge rate/flow; (3) average width; and (4) acreage (the upstream acreage draining to the stream). MDE did not include stream flow in the final model because it found that the other three predictors gave a good picture of each individual stream. MDE proposes that if the calculation results in a predicted probability of less than 10%, an NPDES permit writer could consider calculating permit limits for ammonia using an alternative approach. MDE is still considering when and how it would allow a particular discharger to request an alternative; it may be that MDE will only allow facilities that will have a significant problem complying with the more stringent criteria to use this option.

EPA's 2013 ammonia criteria is substantially more stringent than the existing Maryland criteria because EPA added freshwater mussel species and other organisms that are particularly sensitive to ammonia to the database used to set the criteria. The criteria are also more highly dependent than the current criteria on temperature and pH, and may result in water quality wasteload allocations and permit limits (weekly and monthly) approximately one-half of current levels. Ammonia is the most significant potential water quality standards revision on the table in that it could have the highest potential impact on WWTPs, even those with ENR treatment in place (e.g., new, more stringent weekly limits applicable year round including cold months).