Maryland Water Quality Trading Advisory Committee Meeting Summary Maryland Department of the Environment, Baltimore, MD November 13, 2017

Committee Members in Attendance:

Patty Bubar	Montgomery County Department of Environmental Protection
Lynn Buhl	Maryland Department of the Environment
Patricia Gleason	US Environmental Protection Agency, Region 3
Mark Hoffman	Chesapeake Bay Commission
George Kelly	Resource Environmental Solutions
Les Knapp	Maryland Association of Counties
Erik Michelsen	Anne Arundel County Department of Public Works
Doug Myers	Chesapeake Bay Foundation
Susan Payne	Maryland Department of Agriculture
Chris Pomeroy	AquaLaw, Maryland Association of Municipal Wastewater Agencies,
	Maryland Municipal Stormwater Association (Alternate – Lisa
	Ochsenhirt)
Rob Shreeve	State Highway Administration
Phillip Stafford	Maryland Department of Natural Resources
Joe Tassone	Maryland Department of Planning (Alternate – Jason Dubow)
Sara Walker	World Resources Institute
Joe Tassone	Maryland Department of Planning (Alternate – Jason Dubow)

Facilitator:

Kathy Stecker

Other Attendees:

Ray Bahr	Maryland Department of the Environment
Joel Caldwell	Washington Suburban Sanitary Commission
Michelle Crawford	Maryland Department of the Environment
Lee Currey	Maryland Department of the Environment
Clay Detlefson	National Milk Producers Federation
Brenda Dinne	Carroll County Department of Land & Resource Management
Jacob Dorman	Contech ES
Andrew Grey	Maryland Department of Legislative Services
Ridge Hall	Chesapeake Legal Alliance
Christine Holmburg	Maryland Environmental Service
Steve Johnson	Ballard Spahr LLP
Marya Levelev	Maryland Department of the Environment
Mike Pedone	Maryland Department of the Environment

Larry Richardson	Maryland Chamber of Commerce
Matt Rowe	Maryland Department of the Environment
Gary Setzer	Maryland Department of the Environment
Steve Shofar	Montgomery County Department of Environmental Protection
Jennifer Smith	Maryland Department of the Environment
Martin Stewart	Perdue Farms
Bob Summers	KCI Technologies
Chris Trumbauer	Hatcher Group/MCAC

Action Items:

- Any comments on the new regulations need to be sent to Gary Setzer at the Maryland Department of the Environment (MDE) no later than November 17.
- A Public Hearing on the trading regulations will be held December 18, 4-6 p.m., at MDE HQ.

Meeting Minutes:

1. WELCOME & INTRODUCTIONS

Ms. Stecker welcomed the meeting attendees, and everyone introduced themselves.

2. REVIEW OF THE SEPTEMBER 18 MEETING MINUTES

Ms. Stecker asked the Committee members for corrections or comments on the September 18 meeting minutes. Ms. Stecker stated that there was one correction on page 4; "Aligning" was incorrectly spelled in the section heading. Also, page numbers need to be added to the document. The minutes were approved as revised.

3. TRADING REGULATIONS UPDATE

Ms. Buhl stated that MDE distributed the most recent copy of the regulations on November 9. Included with the regulations was a list of the changes made. The language regarding interstate trading has been removed from the regulations due to considerable opposition. Some discussion of the local water quality was also fleshed out. There were other changes made such as establishing the benchmark at 3mg/l for Waste Water Treatment Plants (WWTP's) operating with Enhanced Nutrient Removal (ENR) and funded with the Bay Restoration Fund (BRF) grants. MDE evaluated performance data for ENR facilities for calendar year 2016 and determined that they are generating sufficient credits to meet the trading demand of MS4 jurisdictions. Ms. Buhl announced that there will be a public hearing on Monday, December 18; the regulations should be published in the *Maryland Register* on December 8. The public comment period will run for 30 days following publication in the *Register*.

Mr. Hoffman stated, regarding the analysis on the current discharges, that there is a concern that those who are currently running below permitted levels would be able to generate credits to trade

from the difference between their flow and the baseline, and would not be contributing to load reductions. The same concern was also mentioned for the Regulations of the Clean Commerce Act because there would be no new reductions. Ms. Buhl stated that most would label the issue additionality. MDE believes that the concept behind generating a credit is that an entity is doing more than what is required. Ms. Ochsenhirt stated that WWTP's are inherently conservative due to permit compliance and facilities need to account for weather and operational issues which may arise or the addition of new customers. If the requirement is 3mg/l, there may not be many facilities that would be interested in going lower due to the number of unknowns. Ms. Payne noted that this issue is very similar to one discussed by the Agricultural Advisory Committee regarding rewarding early adopters. The decision was made to allow those who used cost-share funding for the installation of Best Management Practices (BMP's) to generate credits when the specified lifespan of the BMP had been exceeded and the practice could be recertified as properly maintained and fully functioning.

Mr. Knapp stated that the new regulations seem to penalize early adopters. There is also a concern of the way the funding sources are handled (i.e. credit generation being contingent on whether or not federal, state, or local funding was received). As long as a benefit is generated, then the funding types should not matter. Mr. Michelsen asked, regarding WWTP's benchmark of 3 mg/l, if it presaged an attempt to ratchet down the limits in future National Pollution Discharge Elimination System (NPDES) permits? The concern is that if the floating caps will change in the future, WWTP's could be at risk of non-compliance during unexpected events. Ms. Buhl replied that MDE does expect future reduction of nutrient limits, but no decisions have been made yet. Regarding public funding, MDE is not concerned with the use of public funding for BMP implementation to comply with a permit. MDE is only concerned when 100 percent of public funding is used to generate credits for sale in the trading market. Therefore, regulations proposed proration of credits based on the ratio of nonpublic funding used to generate the credit to the total cost incurred to generate credits. Mr. Michelsen asked if Anne Arundel County took the Department of Natural Resources (DNR) trust funds to build a project for compliance for a municipal separate storm sewer system (MS4), would the county be penalized or not? Ms. Buhl replied that they would not be penalized unless DNR had an issue. Mr. Stafford stated that DNR was more comfortable with the language in the updated draft which clarified that grant funding could not be used to make a profit. Mr. Myers stated that MDE threaded the needle carefully on additionality issue, and that the program must be clear about the expectations upfront. MDE has reached a balance between grant funding certain performance and incentivizing continued performance.

Mr. Myers stated that one concern is how the permit language will memorialize the additionality issue moving forward. It was not clear at what point facilities that had compliance issues could participate in trading (i.e. as soon as they are in compliance or would they have to pay back some of their overages from the permit term)? Ms. Buhl reiterated that if a facility has had chronic

issues, but has become compliant, it would be able to generate credits. Ms. Ochsenhirt stated that MDE has the authority to go after the facility during non-compliance, and there is no reason to go after a facility which has finally reached compliance. This would be an additional measure on top of an enforcement measure. Mr. Myers stated that he would prefer the ability to trade be postponed until the facility pays back for non-compliance rather than the facility be subjected to an enforcement mechanism (i.e. fining). Mr. Shreeve stated that the regulations .08.G.4 stated that "a person who has previously violated any provision of the Environmental Article or any regulations adopted under the Environmental Article" cannot trade. Mr. Shreeve stated that this is a life sentence ban from trading for any facility which has finally become compliant. Once a facility is back in compliance, it should be able to trade credits. Mr. Myers stated that recuperation should be in the currency of pounds because fines will not have any water quality benefit. Mr. Shreeve stated that .09.F referenced that permits could contain conditions which allowed trading; details may need to be fleshed out in the regulations or in the permits. Once a facility becomes compliant, it should be given the opportunity to be good citizens.

Mr. Michelsen stated, regarding Section .11, Verification and Reporting, the verification of credits generated by WWTP point sources would be based on the annual reports from the WWTP. Mr. Michelsen asked if an MS4 is utilizing credits from a WWTP and the permit cycles do not overlap entirely, would MDE envision the MS4 could submit the relevant Discharge Monitoring Reports (DMRs) from the WWTP's annual report which could be verified by MDE or does there have to be some secondary process to verify credits? Ms. Buhl replied that the WWTP tracking will go through verification of DMRs.

Mr. Kelly stated that there were questions related to the language which mentions performance based limits at 3mg/l and other language discussing non-eligibility from cost shares or public funding. Later language regarding WWTP's states that plants which upgrade to ENR and accepts BRF funding can still trade. Mr. Kelly requested clarification between BRF funding and Operation and Maintenance funding received by a WWTP. Mr. Kelly stated that the regulations are very consistent with the agriculture approach. Mr. Kelly asked if there is a facility which is under 3mg/l, would the level be documented by permit modification? Ms. Buhl stated that MDE will be looking at the annual performance which will be verified through DMRs. Mr. Kelly asked if a facility is running at 2.95mg/l, would the permit need to be adjusted? Ms. Buhl replied that information can be made available at a later date. Mr. Kelly asked about capacity credits and if they were still only applicable between point source (PS) to PS, and Ms. Buhl replied, "Yes." Mr. Myers stated that the DMR's for the year will show the concentration and the flow to determine the levels and credits actually achieved; and those reductions would be offered as credits to be recorded on the Registry. Nothing would need to be added to the permits as the credits would be applied annually. Mr. Stafford asked about Section .04.D and wastewater tracking, how the trades between PS to PS would be tracked since they are exempted? Mr. Buhl replied that there have been instances where a WWTP will lend capacity to another plant that is

expanding; these exchanges will be tracked, but not on the Registry. Mr. Myers asked if there would be a way for the public to know that no credits are available and that they are already committed through an agreement? Ms. Payne asked whether these are "credits" or "allocations" and how many such PS to PS exchanges occur in a year? Ms. Buhl replied that she would obtain that information for the WQTAC.

Mr. Shreeve stated that Section .10 regarding the registration of a trade, requires the buyer to register the trade, while it is actually the seller who has a view of where the credits are coming from. Ms. Shreeve stated that it should be the seller's responsibility as the reporting mechanism. Ms. Buhl stated that there are arguments for both sides. Mr. Shreeve stated that as a buyer, he would have to account to MDE for the offsets; as a seller, he would show what is available; both sides of the books are needed. Ms. Pavne stated that the notification form would be recorded for both the buyer and seller, but the form itself would be filled out by the buyer. Ms. Buhl stated that the seller has information regarding the credit being generated. Mr. Shreeve stated that the seller would be responsible for verification. Ms. Buhl asked if reporting and verification could be worked out contractually between the two parties. Mr. Shreeve stated that it would be a piece of paper that would be signed, similar to buying a house. Ms. Buhl stated that she will look at both sides of the argument for determining who will report credits and who will verify. Mr. Kelly stated that it makes the most sense for the seller to be responsible for delivery. certification, and registration of credits. Under the law the permittee could still be responsible for the credit. There is a difference between the registration of a credit and a registration of trade and the process should include the permittee notifying MDE in some way.

Mr. Hoffman stated that the revised regulations addressed most of the comments by the Chesapeake Bay Commission. There were still concerns regarding the uncertainty ratio in Section .08.C.1.(a), which states that the uncertainty ratio of 1:1 should be applied to trades involving credits generated by non-point source (NPS) and acquired by stormwater point sources or other non-regulated sources. The inherent principle, which is reflected in the US Environmental Protection Agency (EPA) Technical Memorandum (TM), is that the 2:1 ratio which is applied to NPS trades is due to the uncertainty on nonpoint reductions. The concern is that the regulations seem to consider 1:1 as opposed to 2:1 ratio for MS4-NPS trading. Mr. Hoffman asked why MDE made that decision and are valuing NPS credits based on the buyer? Ms. Gleason stated that an MS4 is considered a NPS and due to equal uncertainty 1:1 ratio can be used. Mr. Hoffman stated that the point of the 2:1 is to address uncertainty; and since both the buyer and seller have equal amounts of uncertainty on both sides of the ledger then the ratio should be 4:1. Ms. Payne noted that if such large ratios are applied, it is unlikely that trading will occur. Ms. Payne stated that even in trades between PS's and NPS's, there are possibilities for demonstrating the validity of the credits in order to be allowed to trade at 1:1.

Mr. Hall stated, regarding the EPA TM, that 2:1 ratio is enacted due to uncertainty on the generators' side. It addresses uncertainty with water quality benefits and accuracy of pound reduction estimates. It does not make sense that the amount of the uncertainty be based whether the entity is a MS4 or WWTP operated by an industrial discharger. The uncertainty is the same; if the policy behind the 2:1 ratio is to account for uncertainty in generating water quality benefits, then it should be the same both ways. Ms. Gleason clarified that the 2:1 ratio was meant to addresses a trade between a PS and NPS. The NPS would be a monitored data-rich source, but an MS4 is not. EPA feels comfortable with the trading ratio of 1:1 between MS4's and agriculture or other NPS. Mr. Hall asked for the reasoning behind that thought. Ms. Gleason replied that there is no direct monitoring information related to an MS4 discharge and agricultural source; both are not data rich. Mr. Kelly stated the MS4 permit is based on models. The rationale for 2:1 is the data coming from the WWTP and the model data in the BMP's. The models used for generation are the same models used for obtaining the permits for MS4's; consistency is key. Mr. Hall stated that both are inherently uncertain. Mr. Stewart stated that Perdue has an NPDES permit and a stormwater permit (MS4), both are being monitored and it has provided a lot of data which has to be filed to prove compliance with the permits. Mr. Stewart asked where they would be data deficient and if they could trade with themselves? Ms. Payne stated that they would be able to trade with themselves. Mr. Michelsen stated that there is language which states that the generator, seller, or buyer of the credit must be able to demonstrate to MDE that the lower ratio is justified and protective of the water quality. Ms. Buhl stated that they could trade with themselves since data are available. Ms. Payne stated that any county could trade with itself. Mr. Hoffman stated that one of the rationales for the EPA TM is to address monitored waste stream, and storm events that are more variable and come with more uncertainty than what is coming from a pipe from an industrial process. Mr. Currey reiterated that the monitoring of wastewater is not as variable; stormwater events are variable, which is the rationale behind the ratio difference.

Mr. Hall had a question relating to the baseline in Section .05.C which states "The baseline for a wastewater point source shall be determined by the Department based on an annual loading limit waste load allocation established in the wastewater point source's NPDES discharge permit." There is an additional source of restriction from a technology-based effluent limitation guideline or a new source performance committee which the EPA has published. Mr. Hall recommended adding language "and any more stringent requirement under any equivalent federal, state, local law" to subsection C and similar language to subsection D as well. Mr. Hall stated, in Subsection F regarding septic baseline, if the idea is to create incentives, then the section makes sense; if the rationale is there to allow someone to create credits and sell them, then it seems strange to have the most lenient baseline in the most sensitive area. Mr. Hall asked for an explanation of the reasoning behind the numbers given. Ms. Buhl replied that the numbers have been used by MDE; there would be more pounds of nitrogen reaching the Bay from the critical areas/coastal bay area than those locations farther away. Mr. Hall stated that if people are being

allowed to generate and sell credits in the critical area, then they should be required to meet the most stringent levels. Ms. Buhl stated that the more an individual reduces, the more credit they will get which is supposed to be an incentive and possibly an incentive to hook-up to a sewer system. Mr. Hall requested that a definition section be added to Section .11 regarding verification to make it clearer.

Mr. Hall asked why verification would occur only every three years when some practices have a lifespan of a single year. Mr. Hall recommended verification on an annual basis to match the credit term length and to have the parties to pay the cost, which would be worked out in the contract. Mr. Shreeve stated that some credits are annual and some credits generated are in perpetuity; the verification timeframe should be based on the type of BMP implemented. Setting the inspection period and making sure it is not onerous on the owner of the BMP will make the cost more efficient. Mr. Hall agreed with Mr. Shreeve and stated that the language could be changed to "either three years or the life of the credit." Credits should be verified at least once during its lifespan. Ms. Buhl stated that MDE attempted to address that issue in Section .11.A, which discusses when the credit is certified and what type of verification would be needed.

Mr. Hall stated, regarding Section .11.B.2(c) that there are three items which involve the appropriate education, expertise, and training. Mr. Hall stated that in the Agricultural regulations, MDA spelled out the requirements; and it would be useful to add those details to these regulations. Mr. Hall also recommended that subsections (i), (ii), and (iii) be applicable to all three of the categories (A, B, and C), not only C. Mr. Hall stated that there were minor typos and edits and asked if people could be given a few days to identify those issues before the regulations are sent to the *Maryland Register*. Ms. Buhl explained that the regulations have been submitted to Joint Committee on Administrative, Executive and Legislative Review (AELR) which will review the document, and the Division of State Documents also has it for review. It is anticipated to be published on December 8. Ms. Payne stated that those entities will raise any issues with the regulations for revisions. Mr. Hall asked if any of the changes, which have been discussed, could be made to the regulations. Ms. Payne stated that changes can be made as long as they are not substantive.

Mr. Johnson asked, regarding onsite sewage disposal systems, if credits could be generated by connecting to public sewers since the regulations only mention "upgrading the system?" Ms. Buhl replied, "Yes," and further noted that either upgrading to a higher performing septic system or connection to the public sewer would generate credits. Ms. Buhl stated that clarification will be made to the regulations. Mr. Johnson asked if an individual upgraded his system by connecting to an ENR or minor WWTP facility would its load be reduced to zero or would the load be reduced to 3 mg/l? Ms. Buhl stated that there is a formula used for those calculations which can be shared with the WQTAC.

Mr. Dubow asked, regarding Section .08.F.(1) and local water quality, who decides whether a credit would cause a local water quality impairment? Mr. Dubow gave an example of a generator purchasing credits to exceed current discharge limitations, which could possibly cause water quality impairment. Mr. Myers stated that the 303(d) listed local segments and will serve as the trigger for mitigation offsets upstream, regardless of what trading geography you are in. Over time, with increased discharge of the pollutants below the threshold for 303(d) listed segment, it is assumed the pollutants will be assimilated up until the segment is listed. Mr. Dubow asked, theoretically, if the water body is at the edge of being impaired and not listed on the 303(d), how an individual would know if the new purchase would push the segment cross the threshold. Mr. Myers replied that issue has been raised and stated that there are mapped segments with no assimilated capacity, yet MDE continues to grant water quality certifications. Nutrients can be added to a waterbody up until it becomes impaired. Once the water body becomes listed, then no more may be added. Mr. Dubow stated that a portion of the regulations is unfeasible since there is no way to know if a credit will cause impairment. Ms. Gleason stated that is a general statement and that credits used upstream can offset. Currently there is a lack of data. Ms. Gleason stated that during permit issuance and comment period, people could submit the data and make the argument that any credit generation could impair the stream.

Mr. Shreeve stated, regarding the reserve ratio in Section .08 (A, B, and C), that it seems MDE desires to reserve credits as an insurance policy against "acts of God," etc. However .08.D wipes the benefit in any given year by retiring unused credits. The rationale does not seem to address planning for hurricane, flood, etc. Mr. Shreeve asked if MDE is looking to retire credits outright or if MDE is looking to help those who need it? Ms. Payne stated that credits are only good for one year. If the reserved credits are not used, they expire at the end of the year, i.e., they are retired for the good of the Bay. There are multiple years of credits, and each year, any unused credits from that year will be retired. Ms. Shreeve stated that retiring the credits is the same as not doing anything with them, and that MDE will never have enough in the reserve to offset a loss if BMPs fail. Mr. Shreeve observed that this philosophy will kill the program. Mr. Kelly stated that an entity would have to take the lifespan of the credit for the designated number of years and state, by law, that there is some end of credit life. Mr. Kelly asked if EPA regulations required credits to be annual. Ms. Gleason stated that there are permanent credits in Virginia by State law. Ms. Payne stated that there are differences in the lifespans of BMPs.

Ms. Ochsenhirt expressed concern regarding constrains on the abilities of the MS4 to purchase credits for compliance purposes on a cost-effective, reasonable basis; and indicated that this could have potentially serious impacts. Ms. Buhl stated that for nitrogen, it is assumed that all of the MS4's will need to trade for half of their impervious surface restoration requirement, and that there would be a total demand of about 209,000 pounds. After running the numbers, it's been estimated that using 3.5 mg/l benchmark, wastewater facilities could generate 412,030 nitrogen credits. If the facilities run at a benchmark of 3 mg/l, then 250,946 nitrogen credits would be

generated. Ms. Ochsenhirt asked of all facilities were included in the assumption. Ms. Buhl stated that all the facilities except for Patapsco and Back River were used for calculating the results. Ms. Levelev stated that the assumption included all of the facilities that currently run ENR or achieve better than 3mg/l nitrogen. Mr. Michelsen asked if assumptions included the larger plants which have not gone online yet. Ms. Levelev replied that only current performance was included in the assumption. Ms. Buhl stated that MDE is happy to further discuss the updated regulations. Mr. Hoffman stated that MDE is engaging in a very large activity and asked if there was enough staff available to appropriately handle the trading program? Ms. Buhl stated that those details are still being discussed internally. Regarding verification, most of the BMP's will require a permit from one of the already existing programs. As part of the permitting, some level of verification and staff review are already in place. One challenge will be the confirmation of how many credits will be generated from any given BMP. Mr. Myers suggested the draft regulations could include details regarding the number of positions required and possible administrative fees which could be attached to credit transactions.

4. ALIGNING FOR GROWTH UPDATE

Mr. Rowe stated that from comments received, MDE has developed a more detailed write-up regarding Aligning for Growth (AfG). The write-up includes policy options and the broader Chesapeake Bay restoration context with targets and a GAP analysis. The best course of action is to submit the write-up to the Bay Cabinet to make the decisions on the policy options. In late December, the Bay Cabinet and Principal Staff Committee (PSC) will meet and approve the EPA Total Maximum Daily Load (TMDL) targets, which will include estimated growth. After the Bay Cabinet has reviewed it, the WQTAC will be given the write-up in January, assuming there are no problems. The GAP analysis/Bay Program process, which should be completed by April, will determine if an AfG program is needed and determine policy options.

Ms. Bubar asked if the previously discussed options were still present in the AfG write-up. Mr. Rowe replied that the same options which were presented are the same in the write-up. Different policy options will result in different load reductions. Once the GAP analysis is complete, the load reductions will be used to determine the best-fit policy to close the gaps identified. Ms. Bubar asked if the Bay Cabinet was being asked to choose the best policy?. Mr. Rowe stated that the Bay Cabinet will be asked if they are comfortable with MDE exploring the policy options and fleshing out more details and parallels with the GAP analysis process. Once the GAP analysis process is complete, MDE can see what policy options best fills the gaps and make a recommendation to the Cabinet. Ms. Buhl asked if the Phase 6 model will be impacted. Mr. Rowe stated that targets will possibly be impacted; the details are currently not available. Mr. Currey stated that the Phase 6 model will be finalized the first week in December. The decisions will take place on December 4 and 5, and the Secretaries' meeting will be held on December 19 and 20 to finalize the phosphorous, nitrogen, and sediment targets, which will then be provided to the seven jurisdictions. Finalization of the new modeling tools will also occur. Once the

targets are obtained with all of the policies, programs, and funding currently in place, it will determine if there is a gap in 2025. Once that is known, MDE will be able to better understand how growth fits into the picture. There are four items which the PSC is working to resolve. The issues include setting the targets based on the rules across all seven jurisdictions; addressing Conowingo infill; growth with projections to 2025, which includes changes in animals and people; and impacts with respect to climate change.

Mr. Michelsen asked if the numbers showed that the state could accommodate growth and could there be no AfG program? Mr. Currey stated that no AfG program is an option, but it has consequences looking past 2025; the state needs to not only reach the cap but also stay under it. A GAP analysis was completed in 2015 and the state is on target for nitrogen reductions. Mr. Currey reminded the WOTAC that even though the state was on target, the WWTP capacity was used. There is a separate conversation regarding growth capacity and how the State will factor that in to the Phase III Water Implementation Plan (WIP) separate from trading. Ms. Gleason stated that projections to 2025 are less certain than closer years; there were discussions regarding reevaluation at milestones to check-in. Mr. Currey stated, as part of the Chesapeake Bay TMDL oversight, that the EPA reviews all of the jurisdictions milestones every two years and one of the questions asked by EPA is how the state is doing with respect to growth. The Phase III WIP draft is due February 2019. MDE needs to target the new tools, determine where the state is, and to work through policy decisions. It was asked how comments and discussions from the WOTAC would be brought in to the AfG decisions. Mr. Rowe replied that the sector loading analysis and the Bay program process needs to be completed, which include drafting targets and making decisions regarding achievement of those targets by 2025. All of those issues are incorporated in the more detailed write-up and includes AfG as part of a broader Bay Restoration target setting and GAP analysis process. Every effort was made to address the comments from the WQTAC in the write-up.

5. UPDATES

There were no updates.

6. PUBLIC COMMENT

There were no public comments.

7. UPCOMING MEETINGS

December 18[°] 4-6 p.m., Public Hearing for updated Regulations, MDE HQ January, TBD