

Maryland Water Quality Trading Advisory Committee
Meeting Summary
Maryland Department of the Environment, Baltimore, MD
January 21, 2016

Committee Members in Attendance:

Tom Ballentine	<i>NAIOP Maryland Commercial Real Estate Development Association</i>
Bevin Buchheister	<i>Chesapeake Bay Commission</i>
Lynn Buhl	<i>Maryland Department of the Environment</i>
Jim Caldwell	<i>Howard County Office of Community Sustainability</i>
Valerie Connelly	<i>Maryland Farm Bureau</i>
Candace Donoho	<i>Maryland Municipal League</i>
Jason Dubow	<i>Maryland Department of Planning (Alternate – Joe Tassone)</i>
Lisa Feldt	<i>Montgomery County Department of Environmental Protection (Alternate – Pam Parker)</i>
Brent Fewell	<i>Earth & Water Group</i>
Patricia Gleason	<i>US Environmental Protection Agency, Region 3</i>
Terron Hillsman	<i>USDA/NRCS, Maryland Office</i>
Lynne Hoot	<i>Maryland Association of Soil Conservation Districts, Maryland Grain Producers</i>
Jeff Horstman	<i>Midshore Riverkeeper Conservancy</i>
Les Knapp	<i>Maryland Association of Counties</i>
Kate Maloney	<i>Maryland State Builders Association</i>
Erik Michelsen	<i>Anne Arundel County Department of Public Works</i>
Shannon Moore	<i>Frederick County Sustainability & Environmental Resources Office</i>
Doug Myers	<i>Chesapeake Bay Foundation</i>
Dan Nees	<i>University of Maryland Finance Center</i>
Susan Payne	<i>Maryland Department of Agriculture</i>
Chris Pomeroy	<i>AquaLaw, Maryland Association of Municipal Wastewater Agencies, Maryland Municipal Stormwater Association (Alternate – Julie Pippel, Washington County Division of Environmental Management)</i>
Mindy Selman	<i>USDA Office of Environmental Markets</i>
Rob Shreeve	<i>State Highway Administration</i>
Helen Stewart	<i>Maryland Department of Natural Resources</i>
Al Todd	<i>Alliance for the Chesapeake Bay</i>
Lisa Wainger	<i>University of Maryland Center for Environmental Science (Alternate – Dave Nemazie)</i>
Sara Walker	<i>World Resources Institute</i>

Facilitator:

Lauren Franke *Maryland Environmental Service*

Other Attendees:

Vimal Amin *Maryland Department of the Environment*
 Ray Bahr *Maryland Department of the Environment*
 Yen-Der Cheng *Maryland Department of the Environment*
 Brian Clevenger *Maryland Department of the Environment*
 Michelle Crawford *Maryland Department of the Environment*
 Chandler Denison *Johnson Mirmiran & Thompson, Inc.*
 David Foster *Trading and Offset Workgroup*
 Jim George *Maryland Department of the Environment*
 John Griffin *Ecosystem Investment Partners*
 Christine Holmburg *Maryland Environmental Service*
 Steve Johnson *Maryland Department of the Environment*
 Virginia Kearney *Maryland Department of the Environment*
 Ellen Mussman *Baltimore County Department of Environmental Protection and Sustainability*
 Dusty Rood *Rodgers Consulting*
 Ed Stone *Maryland Department of the Environment*
 Robert Summers *KCI Technologies Inc.*
 Maggie Witherup *Gordon Feinblatt LLC*

Action Items:

- Committee to review Sections I and II of the Draft Water Quality Trading Manual
- Committee to submit written comments, suggestions, and questions on above Sections to facilitator by February 16TH

Meeting Minutes:**1. WELCOME & INTRODUCTIONS**

As a representative of the meeting host, the Maryland Department of the Environment (MDE), Ms. Buhl welcomed the committee members and other meeting attendees and introduced Ms. Franke from the Maryland Environmental Service as the committee facilitator. Ms. Buhl stated that the committee's overall goal is to address issues associated with nutrient trading and indicated that the Draft Water Quality Trading Manual distributed to all attendees represents current policies to be reviewed by the committee. Ms. Payne from the Maryland Department of Agriculture (MDA) stated that policy development for point and nonpoint sources started in 2007 and noted that committee members were invited to serve based upon expertise, experience, and commitment to making water quality trading a reality in Maryland. Each of the committee members and meeting attendees then introduced themselves, briefly outlined their area(s) of

expertise and/or interest, and indicated their expectations. Many of the committee members and public attendees stated that, through the committee, they expect to move forward with implementing a successful trading program to help with future water quality compliance and achieve the Chesapeake Bay restoration goals.

2. EXPECTATIONS, NORMS & OBJECTIVES

Ms. Franke reiterated that the task of the committee is to review and refine the draft manual through feedback, comments, and suggestions at each meeting. The goal is to finalize the manual by the end of April and identify the next steps or actions that may be necessary. Areas of negotiation are expected throughout the process. Ms. Franke reminded the committee that the focus is on an outcome that is beneficial for the State of Maryland and the program as a whole, rather than individual departments, organizations, or entities. Committee members are asked to be creative, use their expertise and knowledge, take risks, and voice constructive criticism. The Committee will be reviewing sections of the draft manual looking for transparency, accountability, and flexibility. The Committee should be prepared to discuss the sections as scheduled in upcoming meetings. The top priority is to complete the review of the manual and provide comments and suggestions to develop consensus on a draft final document, as well as the next steps. Preferably, voting will occur only when necessary.

3. OVERVIEW

Point Sources

Mr. Cheng from MDE gave a presentation on current nutrient trading implementation in National Pollutant Discharge Elimination System (NPDES) permits. Please refer to Attachment 2 for a copy of the presentation.

Mr. Cheng outlined the types of point source trades implemented in the permits and detailed the essential principles applied during review and evaluation of the trade proposals. Consideration is given to baseline eligibility, consistency with approved Total Maximum Daily Loads (TMDLs), and avoidance of local water quality “hot spots.” Trading proposals are evaluated based on the proximity of the trading entities and the scope of the water quality impact, both local and far-field. A number of water quality modeling and assimilative capacity analyses are also performed as part of the trade review and approval process. He noted, too, that the NPDES permitting process provides an opportunity for public notice and comment on implementation of the proposed trade.

Mr. Cheng then went on to provide examples of various types of trades, trading entities, motivating factors, and the methods of credit generation. An example was given of a trade in Anne Arundel County between two county-owned wastewater treatment plants (WWTPs) operating under a nutrient bubble permit and a privately owned Enhanced Nutrient Removal (ENR) WWTP in the same Bay-model segment. Using this and another trade involving a septic

system and the Denton WWTP, he showed how credits are determined and the application of the required 5% retirement ratio. The final part of the presentation dealt with the issues of permit transparency, verification, and compliance.

Municipal Separate Storm Sewer System (MS4s)

Mr. Clevenger of MDE gave a presentation on Trading Nutrient Credits with Phase I MS4 permittees. Please refer to Attachment 3 for a copy of the presentation.

Mr. Clevenger explained that there are two Phases of MS4's permits: Phase I is for "Large" (serving 500,000+ people) and "Medium" (serving 100,000+ people) jurisdictions; Phase II is for "Small" jurisdictions and State and federal facilities. His discussion, focused on Large and Medium jurisdictions that have individual Phase I MS4 permits. These permits include a 20% restoration requirement for impervious surface area with little or no current stormwater management within the current 5-year permit term. The permits require restoration plans for impaired waters with established TMDLs. MDE created an accounting document to provide guidance on traditional and alternative practices for equating impervious area restoration to load reductions. A pie-chart shows the MS4 restoration progress through the end of fiscal year 2014.

MS4 trading goals are to accelerate the cost-effectiveness of Chesapeake Bay restoration and provide options and greater flexibility for MS4 community in meeting permit obligations. Mr. Clevenger outlined the key principles and eligibility requirements for trading, and underscored that trades should address local water quality impairments first. He noted that trades will be required to be prioritized through a tiered system, starting within a local watershed under a TMDL. Remaining issues to be addressed include: reflecting the trading option in existing permits, incorporating trading into guidance documents, and restoration plans, and the integration of public comments into both documents.

Agriculture

Ms. Payne gave a presentation on agricultural credit generation. Please refer to Attachment 4 for a copy of the presentation. Ms. Payne stated that MDA is the only entity authorized by the Maryland legislature to certify, verify, and register agricultural nutrient and sediment credits. The material covered in her presentation was developed by the previous Agricultural Nonpoint Nutrient Trading Advisory Committee, and much of it is incorporated into the new regulations currently posted on the *Maryland Register*.

Ms. Payne reviewed the six guiding principles governing participation in the agricultural program, the accepted practices for credit generation, the overall structure of the program, and the online trading platform. She pointed out that most of the provisions of the program were designed to make sure that the farmer was already part of the solution and that the focus remained on the improvement of local water quality.

The online platform, which was developed in cooperation with the World Resources Institute, includes five components: a calculator, a registry, a marketplace, an administration module, and an interactive mapping feature. The Chesapeake Bay Nutrient Trading Tool (CBNTT) is a site-specific, farm-scale calculation tool that incorporates the state-specific Maryland Nutrient Tracking Tool (MNTT) and has the capability to service the trading programs in Pennsylvania and Virginia as well. Ms. Payne displayed a schematic of the tool and outlined the interface of the CBNTT with the national Nutrient Tracking Tool (NTT) and the Chesapeake Bay Watershed Model (CBWM). She also described the differences between the NTT and the CBWM and the methodology of the calibration between the results to assure that the former mimics the latter.

The nutrient trading website, www.mdnutrienttrading.com, is a joint endeavor between MDE and MDA and has a portal to the CBNTT and MNTT version. Ms. Payne showed how the tool calculates credits and discussed the impact of local TMDLs, additionality, and trading ratios on credit generation capacity. She further outlined certification, verification, and registration protocols and displayed several applicable pages from the registry and marketplace. She also noted that a complementary urban tool is being developed to calculate offset needs.

4. QUESTIONS

Ms. Buchheister asked about calculating future loads in the MNTT. Ms. Payne replied that future load calculations compare additional or different practices implemented with current practices (for example, switching to performing a split fertilizer application at multiple times instead of one application). Ms. Buchheister asked about the timeline for future load plans. Ms. Payne replied that nutrient management plans are usually written for three years, but planning has been seen to up to ten years. Annual practices include precision grazing and cover crops. Mr. Nemazie asked about how the tool handles crop yield variance from year to year. Ms. Payne replied that the yield is an average derived from a variety of data inputs related to the specific crop and the specific location. Mr. Nemazie asked what would happen if a farmer does not meet the goals in the nutrient management plan. Ms. Payne replied that it is anticipated that most trades will be conducted by an aggregator who would be the owner of the credits, and if there is a failure, reserve credits in his portfolio can be substituted or purchases can be made from the annual spot market for a temporary fix.

Mr. Fewell asked if traders will have to worry about the reconciliation of the differences between the CBWM and the MNTT. Ms. Payne replied that this will be sorted out through the overall watershed accounting process and will not be a concern. Mr. Nees asked if a farmer could convert cropland to an actively managed forest. Ms. Payne replied that forestry needs to be brought into the program, but that current recognized silviculture practices include the growing of Christmas trees and nursery stock. Determination of the percentage of farmland converted will be made on a case-by-case basis to preserve prime farmland. Ms. Connelly stated that the farm community will be working very hard to avoid prime, productive farmland being taken out

of production. Ms. Connelly expressed a concern regarding the public perception of trading. When farmers generate credits by adopting practices that contribute to load reductions in urban and point-source areas, there should be an acknowledgement of the work done by the farmers as generators of those credits. She also noted that at some point there needs to be assurance that farmers are not chasing unattainable goals.

Mr. Horstman asked for clarification regarding how trades would be prevented from contributing to water quality impairment. Mr. Clevenger replied that a facility could not buy credits if the stream was already impaired and listed on the 303(d) list. Whether a jurisdiction trades or not, it is still responsible for preventing any further degradation of locally impaired waters. Ms. Levelev stated that existing loads are being traded, not new loads, and the local water quality issues would have to be addressed first. Mr. Fewell asked if stream restoration was covered. Ms. Payne stated that it is an eligible best management practice and Table 1 in the draft manual lists the most popular practices.

5. NEXT STEPS

The Committee was asked to read and review Sections I and II of the manual for discussion at the next meeting.

6. NEXT MEETING

The next meeting will be held on February 22, 2016, in the afternoon in Annapolis; time and location is to be determined*. The March 21st meeting will also be held in Annapolis, and the April 21st meeting will be held at MDE in Baltimore.

*Meeting is now scheduled to be held at the Maryland Department of Natural Resources, 580 Taylor Avenue, Annapolis, MD 21401, Room C-1 on the main floor, from 1:00 to 4:00 p.m. Parking is available across the street at the Stadium. Attendees should use Gate 6, which is the State employees' entrance.