

Accounting for Growth Work Group Summary Meeting #3: 3/22/2013

In Attendance:

Work Group Members: Stephen Harper, Jon Laria, Alison Prost, Mike Powell, Lynne Hoot, Sandy Coyman, Bevin Buchheister, Cathy Drzyzgula, Shannon Moore, Pat Langenfelder, Katie Maloney, Erik Michelson, Dru Schmidt-Perkins, Yates Clagett, Mary Ann Lisanti, Tom Ballentine, Claudia Friedetzky

Support Team: George Chmael, Kate Culzoni, Jeff Corbin, David Costello, Julie Pippel, Steve Stewart, Doug Lashley, George Kelley, Candace Donoho, Dusty Rood, Dave Goshorn, John Rhoderick, Dave Nemazie, Darrell Brown, Dan Baldwin, Lee Currey

Absent:

Work Group Member: Josh Tulkin

Support Team: Joe Tassone, Brigid Kenney, Les Knapp

Public Attendees:

Paul Emmart (MDE), Jim George (MDE), Elizabeth Burdick (Water Stewardship), David Foster (Chester River Keeper), Claudia Friedetzky (Sierra Club), Marya Levelev (MDE), Susan Payne (MDA), James Hearn (WSSC), Rosewin Sweeney (Venable), Mark Symborski (Montgomery Co.), Phillip Stafford, Helen Stewart, Robin Clark, Verna Harrison, Brenda Dime, Erin Gray, Sara Walker, Dinorah Dalmasy (MDE), Bob Gallapher, Mark Symborski, Trent Zivcovich

Welcome and Overview

Facilitator, George Chmael, welcomes everyone to the third AfG Work Group meeting and notes that the Work Group will continue to discuss topics that are the foundation to an AfG Program with a goal to work towards consensus recommendations. It is anticipated that many of these issues will require thorough discussion and then, if consensus cannot be reached at that time, the Work Group will return to the issue after other topics are discussed to complete recommendations. In an effort to further facilitate advancement on each topic, the Support Team has prepared and distributed clarifying questions meant to drive discussions to the most salient topics and steer the Work Group toward decision-making. In addition, creation of sub-committees is another possible tool if the Group is unable to sufficiently advance discussions to the point of recommendation development. Topics to be discussed today include nutrients to be offset, baselines, MDA's nutrient trading online assessment tools, trade mechanisms and rules and onsite credit and mitigation tools.

The Support Team has sent background information for the Work Group on the issues to be discussed. The information and [materials](#) sent, along with the Guiding Principles, should provide more clarity on the minimum threshold for the Accounting for Growth Program elements that the Work Group develops.

Presentation on Nutrients to Offset, Loads and Loading Factors

David Costello from MDE presents information provided in the [Background Information for Nutrient Offset Discussion](#) document. He explains that EPA has made it clear that all new or increased loads of nitrogen and phosphorus must be offset, but is allowing states flexibility to develop programs to accomplish this outcome. Maryland is

committed to developing an AfG program that meets EPA requirements and that also assures that its finite allocations are managed responsibly in the public interest. The BMPs installed at a development will affect the post-development load of N and P, and the offsets obtained from credit-generating BMPs offsite may include practices that offset both N and P. If the chosen N BMPs are shown to reduce P, that may obviate the need to find additional P offsets. Where the chosen N BMP does not sufficiently reduce P, the P load needs to be offset. Also, where the development is located in a watershed with a local P impairment, the local TMDL requires a P offset.

Jeff Corbin, of EPA, follows up by noting that EPA requires that all three pollutants - nitrogen, phosphorus and sediment - need to be offset under an AfG program. If the states can demonstrate and account for the fact that reducing nitrogen will also reduce phosphorus and sediment, then that can be acceptable. Where the state cannot account for reductions, P and sediment must be offset separately.

David Costello also notes that the *AfG Options* table created by Steve Stewart provides background for the Work Group and lays out the options for much of the discussion today as well as the pros and cons of each one.

To get the discussion started, George Chmael refers to the handout with a list of questions that will help the group focus discussion on the topics at hand.

1. What is the AfG Program endpoint for nutrient load?

- Zero load baseline (100% offset)
- Forest load baseline
- TMDL allocation (CB or Local Baseline)
- Other

The development community notes that they could not agree on formal recommendations until other key issues were discussed, however, the TMDL allocation load seemed reasonable.

Representatives from the environmental community highlight the need to comply with the Clean Water Act and that this program must address additional loading to already impaired water bodies. They note that zero load or forest load seemed most reasonable given the uncertainty and need for a margin of safety within the program.

County representatives note that the AfG program cannot be too restrictive and TMDL or forest loads could accommodate that although further understanding of what “TMDL load allocation” really means is necessary.

Public interest representatives note the need for more information on what has to be done versus what could or should be done under the law and in accordance with other state policies. One question is whether recommendations need to be crafted with policy impacts in mind based on information from the “model world” or the “real world.”

Agricultural representatives note that too many incentives to convert farmland would weaken the industry.

Work Group discussion recognizes the importance and sensitivity of land conversion from one sector to another and the current rules around sector allocations. The Work

Group needs to discuss what happens with extra reductions with respect to TMDL allocation. Are they retired to benefit the Bay, public and local jurisdiction, or do they lead to increased flexibility or a credit for a sector?

2. Should the AfG Program consider different loading factors based on geography?

- Use statewide average
- Use averages for the 5 major basins
- Other

MDE presents the maps requested by the Work Group at the February meeting. Maps provided included a 5-basin versus state delivered load/lb for nitrogen and phosphorus pollutants as well as a map distinguishing the inland local phosphorus impairments at the 8-digit water basin level.

A representative of local government notes that using edge of stream load at the basin level and delivered load to the sub-basin level would work best for local government. It was also noted that local impairments need to be dealt with differently.

An environmental representative notes that maps should distinguish local P impairments for the Bay as well, not just non-tidal segments. Also, a working definition of “local” is important when considering Edge of Stream versus delivered load.

A Support Team member highlights that addressing all TMDLs at once will help lower costs for all sectors including local government.

ACTION: MDE will provide a map using Edge of Stream loads to the Work Group prior to the next AfG meeting in April.

Nutrient Trading - Current MDA Tools for Agricultural Sector and other Tools

John Rhoderick presents the MDA trading tool found on MDA’s website <http://nutrientnet.mdnutrienttrading.com>, demonstrating and explaining the current trading mechanisms and rules for certification, registration, verification and monitoring for each farm and credits generated for the market place. He notes that an AfG Program will need to include similar mechanisms to certify credits and the Work Group will have to consider the following questions and develop recommendation around:

1. Safeguards - Should the current MDA model for transparency, verification and monitoring (inspection) requirements apply to wastewater treatment credits, septic credits and stormwater credits in an AfG Program or should modifications be made?
2. If yes, what additional requirements are needed for transparency/verification/monitoring of nutrient credits for stormwater, septic and wastewater offsets?

Mockup of Onsite Assessment Tool to Determine Credits Onsite and Mitigation Needs

As a starting place and an example, John Rhoderick provides some examples from Anne Arundel County, provided by Work Group member, Erik Michelson, that describe the potential impact of, and on, new development of an AfG program.

Work Group members suggest that an expanded version of this mockup (a more comprehensive load, impacts and likely cost calculator), along with an expanded version of the table prepared by Steve Stewart, one that includes all key AFG issues and decision options, would help the Work Group to better understand the issues and to make recommendations

ACTION: The Support Team, with possible assistance from a sub-group of Work Group members, will expand Steve Stewart's table and create a tool (calculator) to assess additional scenarios for Work Group to review and utilize prior to the April Work Group meeting and all subsequent meetings.

Offset Capacity Analysis Provided by MDP

Dan Baldwin presents the Offset Capacity Analysis conducted by MD Department of Planning. The current analysis was done only for nitrogen to evaluate the supply of credits that could be available for purchase in an AfG Program. Although the data sources are limited, the analysis provides a good idea of future credit generation.

Questions for Work Group consideration related to the offset capacity analysis include:

1. Does Maryland have sufficient offset capacity to accommodate an AFG program and to support the development of an adequate nutrient trading market? The MDP analysis and presentation, and MDA survey indicate that it does.
2. What should be included in the AFG Program to ensure that Maryland does indeed have and maintains sufficient offset capacity?
3. If ever it is determined that Maryland lacks sufficient offset capacity, what fall backs must the AFG Program include to address this problem?

Next Steps

George Chmael announces that the next meeting will be held on April 19, 2013 at 12:30 p.m. at MDE. George Chmael and other Support Team members thank all attendees for their commitment and hard work.

Remember, the [AfG website](#) is up and running and organized by meeting. Materials will be online in a timely manner.

Public Comment:

None

Accounting for Growth Work Group Summary **Meeting #4: 4/19/2013**

In Attendance:

Work Group (WG) Members: Tom Ballentine, Bevin Buchheister, Yates Clagett, Valerie Connelly*, Sandy Coyman, Candace Donoho**, Stephen Harper, Lynne Hoot, Jonas Jacobson***, Jon Laria, Katie Maloney, Erik Michelson, Shannon Moore, Alison Prost, Dru Schmidt-Perkins, Josh Tulkin

* for Pat Langenfelder

**for Cathy Drzyzgula

***for Mike Powell

Support Team (ST) Members: Darrell Brown, George Chmael, David Costello, Kate Culzoni, Lee Currey, Dave Goshorn, George Kelley, Brigid Kenney, John Rhoderick, Dusty Rood, Steve Stewart, Joe Tassone

Absent:

WG: Mary Ann Lisanti

ST: Dan Baldwin, Jeff Corbin, Les Knapp, Doug Lashley, Dave Nemazie, Julie Pippel

Public Attendees:

Vimal Amin (MDE), Paul Emmart (MDE), Dinorah Dalmasy (MDE), Brenda Dime (Carroll County Government), James Hearn (WSSC), Marya Levelev (MDE), Susan Payne (MDA), Jay Sakai (MDE), John Sheff (StateStat), Phillip Stafford (StateStat), Stuart Stainman (Patapsco Back River Tributary Team), Helen Stewart (DNR), Trent Zivcovich (Whiteford, Taylor, Preston), Bill Castelli (MD Realtor), Claudia Friedetzky (Sierra Club), Ridgway Hall

Welcome and Overview

Facilitator George Chmael welcomed everyone to the fourth Accounting for Growth (AfG) Work Group meeting and announced which members could not attend the meeting today but had proxies sitting in for them: Valerie Connelley for Pat Langenfelder, Candace Donoho for Cathy Drzyzgula, Jonas Jacobson for Mike Powell, and the permanent change of Bevin Buchheister for Ann Swanson.

Mr. Chmael reminded the WG of the last meeting's action items, one of which was the development of Steve Stewart's "AfG Options" table/matrix (the "Matrix" which includes issues, options, and associated pros/cons) as a tool for guiding topical discussion. To address this action item, and at the direction of the Work Group, a subgroup or "subcommittee" was formed consisting of five WG members, one from each constituency, and several ST members. The subcommittee enhanced the AfG Options matrix to include a list of eleven primary issues with twenty sub-issues. The second action item, the development of a calculator tool (the "Calculator") designed to model hypothetical development situations and present the practical outcomes of specific decisions, was addressed and enhanced by the subcommittee as well. The Matrix and the Calculator were reviewed and updated by the WG during the meeting following MDE's review of the assumptions made in the development of the Calculator. Mr. Chmael also noted that a white paper on grandfathering had been provided to the WG by MDE.

Calculator and Assumptions Presentation and Discussion

Ms. Kenney explained the assumptions of the Calculator. The Calculator is specific to geography, land use categories, pre- and post-development, and wastewater discharge. It is not as sophisticated as the NutrientNet tool. There are four pre-set baselines generated by the Calculator: zero allocation baseline (offset of 100% of the post-development load), forest baseline (offset of 100% of the post development load minus forest), Bay Total Maximum Daily Load (TMDL) allocation baseline (offset to the pre-development load with the 2025 WIP strategy), and prior land use baseline (offset to the existing land use in the 2010 progress run). Loads are calculated by stream segment and then averaged when multiple segments are selected (as in a basin, 8-digit watershed, or county). Loading rates are from the Chesapeake Bay Model 5.3.2. Land use groups include crops, hay (fallow), developed impervious, developed pervious, forest, and pasture. Post-development load is calculated as:

$$[(\% \text{ impervious})(\text{impervious No Action loading rate})+(\% \text{ pervious})(\text{pervious No Action loading rate})](1 - \text{ESD reduction})(\text{site area})+(\% \text{ forest})(\text{forest loading rate})(\text{site area})$$

Environmental site design reduction is the same efficiency applied in the Chesapeake Bay Partnership model: 50% reduction of nitrogen and 60% reduction of phosphorus. Specific residential septic, sewer, and commercial wastewater numbers and equations were distributed to the WG via email and are available at http://www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Documents/AccountForGrowth/Meeting_Materials/Meeting4/AfG_Scoping_Calculator_Assumptions_circulation_copy.pdf.

To use the Calculator, the user will select a geographic location in the "Delivery Factor" worksheet using the drop down menus in each column. The user will also enter values on the "Calculation" worksheet in any of the yellow cells. Where there are limited options, the yellow cell contains a drop down menu. Four residential examples are already entered on the Calculator worksheet, and another column is provided for "User Defined Scenario." There is also one column for a non-residential development. The other two worksheets, "N Plot" and "P Plot" provide a graphical representation comparing the four baselines for each of the six columns.

Mr. Chmael reminded the WG of the importance of the Calculator in assessing the impacts of the range of decisions the WG will consider in the Matrix. The Calculator is meant to aid in interpretation of the practical effects of the WG's final policy recommendations. Mr. Laria expressed an eagerness to move past discussion of the assumptions and achieve a consensus approval of the Calculator. Mr. Chmael asked for any additional input on the Calculator and assumptions. A few WG members asked for clarifications, which were supplied by the ST and presenters. The WG member who requested a user-defined value in the septic removal rate options was referred to use NutrientNet for more detailed and customizable load calculations. There was general consensus of approval of the assumptions and Calculator.

The WG discussed the impact of costs on policy decisions and vice versa. A backstop fee-in-lieu, the ceiling and floor of nutrient costs per pound, market fluctuations based on supply and demand, and similar items were discussed. A request was made for a sheet of the most likely used best management practices (BMPs) per sector (agriculture, urban, and so on) with associated annualized costs per pound. One WG member cautioned that the Clean Water Act does not allow the consideration of cost to avoid compliance, and to do so would invite challenges from environmental groups. The WG member also pointed out that if a cost-benefit analysis is conducted, it must recognize that someone will bear the cost of the loads – the developer, local government, and/or Maryland residents. According to Darrell Brown, EPA will review all trades conducted.

ACTION: A sheet of the most likely used best management practices (BMPs) per sector with associated annualized costs per pound will be drafted.

Decision Matrix

Ms. Kenney led a review of the Matrix, asking for additional options, pros/cons, and any suggested eliminations. Ms. Culzoni updated the Matrix as revisions were suggested. The updated matrix is located at http://www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/Accounting_For_Growth.aspx.

I. Applicability

The applicability of the AfG policy to agriculture was discussed, especially with regard to changing crops and land use on individual farms. It was noted that agriculture did not account for growth as a sector overall, although agricultural practices changed from year to year on a particular site - wastewater was the only sector that did account for growth. One WG member noted that any sector with increasing load would have to offset load, no matter what the sector is.

The possible basis for and the feasibility/fairness of an exemption/appeals process was discussed.

II. Effective Date/Transitioning

There was some discussion of the term of permits, including Municipal Separate Storm Sewer System (MS4) permitting was noted. It was also noted that the later the effective date of implementation, the more citizens will have to pay; an earlier date leads to developers paying more.

It was suggested by WG members that draft combinations of the major interrelated issues be compiled by the subcommittee for the WG's consideration.

III. Fee-in-Lieu

The local government representative noted the need for local fee money to stay in the jurisdiction in order to address local TMDLs (right of first refusal).

A residential development representative noted the need for a permanent fee-in-lieu in order to address potential inventory shortages.

Fee-in-lieu was noted to be a last resort option for when credit inventory is not available. Use of a quasi-government/ third party recipient was also discussed.

IV. Which Pollutants

It was noted that control of nitrogen loads typically controls phosphorus and sediment loads as well. It was also noted that not all BMPs balance the removal of nutrients in the ratio that is necessary, and the market may select for BMP(s) that do not remove enough phosphorus. When there is a local impairment of phosphorus or sediment, phosphorus should be offset as well to comply with the TMDL. It was also noted that nitrogen and phosphorus could be bought separately.

VII. How Can the Post-Development Load be Permanently Offset

One WG member noted that a fee assures maintenance. A local government representative stated that local governments should not be required to take over facilities after some period of time. The State does not have the funds to maintain the offset either. A WG member suggested a review of cemetery maintenance for a model.

IX. Encouraging Sustainable Development Patterns

Redevelopment was noted as a beneficial practice, compared to land use conversion. As was the exemption from stormwater only for redevelopment, which could dis-incentivize or incentivize the developer to generate additional credits for sale.

X. Trading and Credits

An environmental representative noted that the 10% retirement rule is not yet found in regulation, but MDE noted that the current trade policy and the AfG policy should be consistent.

Reduction of a site's post-development load below the baseline allocation could produce a negative number that could be a credit.

It was noted that although EPA is revising its guidance on credit certification, verification and transparency, the results of the revision will be released after the WG has completed its work; therefore, recommendations from the WG are critical and cannot wait.

An environmental representative asked for a state public contact and transparency protocol to be included in the policy, including defined roles for MDA (credit certification) and MDE.

ACTION: Three to four draft combinations of the major interrelated issues (alternatives) will be compiled by the subcommittee with representatives of each constituency for the WG's consideration. Each representative is invited to bring their constituency's ideal combination and then work with the subcommittee to refine the options menu for the WG's consideration. These alternatives will not be recommendations but a way for the WG to effectively narrow down options for inclusion in an AfG Program. These alternatives will be presented to the WG at the May 10th meeting.

Next Steps

The next meeting will be held on May 10, 2013 at 12:30 p.m. at MDE. The updated Matrix and any other materials for the next meeting will be distributed in one email.

Public Comment:

None