



July 7, 2017

Mailed Electronically and via U.S. Mail.

The Honorable Benjamin Grumbles, Secretary of the Environment
Lynn Buhl, Assistant Secretary of the Environment
Office of the Secretary
Maryland Department of the Environment
1800 Washington Boulevard
Montgomery Park Business Center
Baltimore, MD 21230

Dear Secretary Grumbles and Deputy Secretary Buhl,

Resource Environmental Solutions, LLC (RES) appreciates this opportunity to submit comments on the Department's proposed Water Quality Nutrient and Sediment Trading and Offset Regulations ("Proposal" or "Offset Program"). We commend both the Departments of Environment and Agriculture and your staff for all the hard work that has gone into drafting the Proposal and underlying policies and the valuable stakeholder engagement.

As one of the nation's largest and most experienced ecological offset providers, RES has seen first-hand how accelerated restoration can be achieved on the heels of well-designed market-based regulations and policies. At the same time, RES has by necessity become acutely aware of the fine line between policy features that stimulate vs. those that stifle private investment in these markets. It is with this experience and perspective in mind, together with our shared desire to see Maryland's Bay restoration goals realized, that we offer the following comments.

As provided below, we believe that several structural features of the Proposal, such as capacity and performance credits and bubble permit concept, that allows intra- and inter-municipal trading, will discourage the creation of a viable market place. Simply put, entrepreneurs such as RES will never put their capital to work and at risk in a trading and offset program, investing in ecological restoration, where there is no market demand for credits. In such case, Maryland will lose out on an opportunity to leverage private capital to help restore the Bay.

The following comments are broken-down into General Comments (Section 1) and Specific Comments (Section 2).

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1. GENERAL COMMENTS

A. The Use of Performance Credits Should be Eliminated or Strictly Controlled and the Use of Capacity Credits Limited.

While we appreciate the need for regulatory flexibility, we strongly object to the use of so-called performance credits under the Proposal, which would allow municipalities to sell or trade credits based on the difference between a “floating cap” and an actual or projected optimized annual average effluent concentrations.

Allowing the use of performance credits is not only legally questionable but we believe it is misguided policy, and has the potential to undermine the Offset Program by flooding the market with paper or sham credits that result in no improvements to the Chesapeake Bay.

Municipalities that have received Bay Restoration Funds (BRF) to upgrade their facilities to enhanced nutrient removal (ENR) are contractually obligated to optimize their systems and, in exchange for BRF funding, are legally bound to operate their enhanced nutrient removal facilities in a manner that optimizes the nutrient capability of the facility.¹

Authorizing the use of “performance credits” would, by its very definition, either establish (1) a lack of enforcement by the state to enforce the terms of the BRF agreement and/or (2) a legal admission by such facilities that they have failed to optimize nutrient removal as required under their BRF agreement. In either case, the practice as defined in the Proposal raises legitimate legal questions and concerns.

As a matter of policy, the Maryland citizens have already invested in BRF facility upgrades. Therefore, to allow municipalities to gain an additional benefit under the Offset Program constitutes a form of “double-dipping” or backsliding, and would erode the integrity and purpose of the BRF program in restoring the Bay. More importantly, the use of performance credits, as defined, would result in no additionality to reducing loading to the Bay, as the facilities are already supposed to be optimizing their operations.

Instead of allowing BRF facilities to sell or trade credits, the Department should enforce the terms of the BRF agreements or, as outlined below, make optimization the baseline eligibility requirement for WWTPs seeking to trade with MS4s or with other wastewater treatment plants (WWTPs). They should be required to do more than what the law already requires them to do. Much like the story in Pennsylvania, where the Pennsylvania Department of Environmental protection allowed wastewater treatment plants to trade capacity credits amongst themselves, allowing the use of similar credits under Maryland’s trading program could inevitably lead to sham or phantom trades, and would fail to achieve actual load reductions benefitting the Bay.

¹ Standard BRF agreement language imposes the following obligation on recipients of BRF funds, “[Recipient of BRF funds] shall operate the enhanced nutrient removal facility in a manner that optimizes the nutrient capability of the facility in order to achieve enhanced nutrient removal performance levels.”



If, however, the Department still decides to proceed with allowing performance credits (which we do not support), at a minimum, it should provide clear guidance on when such credits are appropriate or inappropriate through imposing the following minimum standards:

- a) Baseline for WWTPs should be defined as follows:
 - i. WWTPs that have undergone ENR upgrades paid for through 100 percent BRF cost-share funding should not be eligible to generate performance credits unless they comply with all conditions of their BRF contractual obligations and at a minimum, must achieve 3.5 mg/l for nitrogen;
 - ii. Must meet the applicable waste load allocation set forth in the permit;
 - iii. Must be in compliance with all other permit requirements; and
- b) WWTPs must meet all obligations set forth in the County Water and Sewer Plan.

If minimum standards are adopted, additional procedural requirements should similarly apply, including:

- a) Require WWTPs to seek a major permit modification for trading, including public notice and comment of the proposed trade;
- b) Require such trades to be subject to a credit certification process;
- c) Include default mechanisms in the permit in the event the trade does not achieve stated reductions, including the possibility of bonding;
- d) Limit trading to actual reductions, limited solely to end-of-year “true-up”;
- e) MS4s should be required to acquire the equivalent number of credits from all three pollutants (nitrogen phosphorus and sediment) to count towards one impervious acre of restoration;
- f) Require MS4s to meet the applicable trading service area requirements for MS4 jurisdictions; and
- g) Require WWTPs to meet applicable delivery and retirement ratios before trading.

B. The Bubble Permit Concept Should be Eliminated or, Alternatively, a Priority Established for Credits Generated from Nonmunicipal Sources.

We question the legal acceptance of using bubble permits to include wastewater treatment plants with stormwater requirements. Also, for the reasons stated above, such a bubble concept would potentially kill the demand for restoration-type credits (that result in actual nutrient load reductions).

Where the bubble permit approach (sometimes referred to as a watershed-based permit) has been used, *e.g.*, Connecticut- Long Island Sound trading program and the North Carolina Tar-Pamlico program, it is applicable to combining wastewater treatment plant obligations. In each of these cases, the point sources have traded amongst themselves and have not been used to service stormwater or non-point source obligations.

If the bubble permit concept is retained in this Proposal, the Department should at a minimum establish a clear policy based on a hierarchy that provides preference for all non-point source



credits over credits from point sources (*e.g.*, municipal sources), exhausting all non-point source credits available in the marketplace before point-source credits would be eligible for exchange. Toward this end, if municipalities need nutrient credits to achieve individual wasteload reductions, we believe municipalities should be required to purchase available credits from sources unrelated to MS4 stormwater or municipal wastewater. As well, we believe the Department should require a municipality to certify that no other credits are available on the market before purchasing capacity or performance credits.

C. The Proposal Should Incorporate Aligning for Growth.

The Department should promptly proceed with adopting a policy for Aligning for Growth using the Trading and Offset Program or, alternatively, authorizing its use for future standards associated with Aligning for Growth.

For over a decade, the Department has deliberated – with significant stakeholder input – the need to account for and establish offsets to address Maryland’s growth and the potential for the state’s continued growth to undermine the Chesapeake Bay cleanup effort. The Proposal establishes the appropriate tool to balance the economic costs with the environmental benefits associated with Aligning for Growth. We simply see no compelling reason to continue to wait.

For new construction in urban areas, Virginia, for example, has adopted a post-construction target load for total phosphorus of 0.41 pounds per acre per year, using a flow-weighted mean concentration of pollutant in urban runoff. We believe that adopting similar standards and approach to new growth within Maryland should be considered and the potential economic impacts could be significantly mitigated through the flexibility and cost-effectiveness created under the Proposal.

Should Aligning for Growth be delayed further, at a minimum we believe the Department should expressly authorize statewide use of this rulemaking to address growth and allow the use of trading/offset credits under this Program. Incorporating Aligning for Growth into this Proposal could encourage and serve as a catalyst for many local governments to proceed with policies that would lead to further economic activity without jeopardizing the last several decades of hard work to restore the Bay.

D. The Department Should Quickly Finalize the Trading Guidance.

We acknowledge all the hard work over the last two years that has gone into developing the Department’s draft guidance on the trading and offset program. Given the continued questions and concerns regarding how the trading and offset program will be implemented, we would encourage the Department to quickly finalize the guidance, filling in the gaps, concurrently with or once the Proposal is finalized.

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2. SPECIFIC COMMENTS

.03 Definitions

p. 1, lines 21-22 – Definition of “Aggregator”

An aggregator funds, generates, certifies, owns and assembles credits resulting from a number of practices or projects. The aggregator may, in turn, sell credits from a single project or from multiple projects where credits are pooled together. The aggregator will either have negotiated the right to generate and own credits with the landowner or will have purchased credits already certified by others. A broker does not own the credits and merely matches credit seller and buyers and helps negotiate the trades between them.

p. 2, Lines 6-9 – Definition of “Best Management Practices”

The Program should clarify that BMPs to be used under this Program must be consistent with the loading and effectiveness specifications under the Chesapeake Bay Model.

Suggested language:

(8) Best management practice (BMP).

(a) “Best management practice” means a practice, or combination of practices, that is determined to be an effective and practicable method of preventing or reducing the amount of pollution generated by point or nonpoint sources.

(b) BMPs include agricultural and urban structural and nonstructural pollution control, operation, and maintenance procedures and practices that prevent or reduce pollutants.

(c) BMPs must be consistent with the Chesapeake Bay Model, including specifications for loading, effectiveness, and life span, unless otherwise authorized by MDE.

p. 2, lines 15-18 – Definition of “Capacity Credits”

For the reasons set forth above, we recommend the definition of capacity credits be eliminated altogether or, alternatively, defined as follows:

Suggested language:

(10) “Capacity credits” means credits generated by a wastewater treatment plant by maintaining flow at less than the design flow basis on which the assigned nutrient wasteload allocation is based.



(a) Capacity credits can only be used if no other credits are available and their use must be authorized by MDE before being used for compliance purposes.

(b) Capacity credits cannot be used by MS4s.

p. 3, lines 2-5 – Definition of “Credit”

We recommend the Department establish in guidance the life span for the various BMPs that generate credits. For example, while some BMPs, such as no-till farming, will result in credits that have a life span of one year, other BMPs, such as rain gardens, may have duration of 5-10 years; in contrast, stream restoration and buffers protected by an easement would ordinarily have a perpetual life span.²

We also recommend that the Department clarify in guidance the fact that turnkey delivery of impervious acres directly contracted for by a regulated entity shall not be deemed “credits” for purposes of these regulations. That is, municipalities routinely contract for projects that generate loading reductions that count toward the TMDL watershed implementation plan (WIP) and load allocations. In these cases, credits are neither generated nor traded in the market place.

p. 4, lines 17-19 – Definition of “Minor permit modification”

We recommend this definition be deleted as a defined term in the regulations as it is not used elsewhere in the regulations.

p. 5, lines 1-10 – Definition of “Performance Credit”

For the reasons stated above, we believe the use of so-called performance credits should be eliminated from this program. Notwithstanding, should MDE decide to maintain this concept in its regulations, we recommend, at a minimum, the following changes:

(34) Performance credits.

- (a) “Performance credits” means credits based on the difference between the existing floating cap and:
 - (i) A floating cap based on actual or projected optimized annual average effluent concentrations; or
 - (ii) A concentration based annual loading benchmark based on the new projected optimized annual average effluent concentrations.

² See, e.g., Virginia’s TMDL Implementation Cost-Share Best Management Practice Guidelines, available at <http://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/DEQTMDLGuidelines-Specifications.pdf> (last accessed July 1, 2017).



(b) Performance credits shall not be based on assumed improved performance beyond demonstrated historical performance levels. ~~unless data from a similar representative facility is available and relevant~~

(c) The sale or trading of performance credits must be approved by a certification process by the Department in advance of their use for compliance purposes.

p. 6., lines 1-2 – Definition of “Reserve Ratio”

We recommend that the reserve ratio be expressly defined as follows:

(41) “Reserve ratio” means ~~five percent of the application of a specified percentage to~~ the total number of credits in a trade to create a portion that is set aside into a pool or cache of credits.

p. 6., lines 8-9 – Definition of “Stormwater point source”

Recommended change:

(44) “Stormwater point source” means a regulated MS4 stormwater discharger, including but not limited to, such as a Phase I MS4 or a Phase II MS4 entity.

p. 6., lines 26-29 – Definition of “Uncertainty ratio”

Given the conservative assumptions already built in to the Chesapeake May Model and the derivation of BMP effectiveness rates, hedging against additional uncertainty is unwarranted and will invariably drive up the price of trading transactions. Thus, we recommend the Department eliminate the use of uncertainty ratios. If, however, the concept is retained, we recommend the following changes.

(50) “Uncertainty ratio” means a ratio that is applied to compensate for possible discrepancies in estimated pollution reductions resulting from inaccuracy in credit estimation methodology or variability in project performance, or to provide a margin of safety in the achievement of water quality goals.

(a) The Department may adjust the uncertainty ratio if additional documentation or monitoring is provided that provides reasonable assurance of the projected reductions. Such determination may be made with at least 60 days advanced notice and input from applicable stakeholders.



p. 8, lines 5-6 – Eligible participants

Recommended change:

- (10) Persons that aggregate certified agricultural, ~~non-regulated, or onsite sewage disposal system credits or approved point source~~ credits for future sale.

p. 8, line 9 – Significant noncompliance

The term “significant noncompliance” should be defined as follows:

- (1) Permittees in significant noncompliance with their permit;
- (a) Significant noncompliance shall be determined by MDE, using its enforcement discretion, and applying best professional judgment and includes, but is not limited to, contributing to the exceedance of a water quality standard, exceeding a permit effluent limit at least four consecutive months, and/or failure to cooperate on any enforcement matter.

.05 General Policies

p. 8, lines 19-23 – Local TMDL Compliance

We interpret the provision below to mean that a trade involving a local TMDL can be outside of the local TMDL, provided it is anywhere upstream from where the discharge reaches the impairment. If such interpretation is incorrect, we recommend clarifying.

- (1) Where necessary to ensure compliance with local water quality standards, the exchange of credits in an area within the Chesapeake Bay Watershed subject to an approved local TMDL for total nitrogen, total phosphorus, or total suspended solids with allocations more stringent than the Chesapeake Bay Watershed TMDL shall be limited to those credits generated upstream of where the discharge reaches impaired waters.

p. 9, lines 1-7 – Certified credits

The Department should clarify in the Proposal that it has or will create a registry for the recordation of certified credits. It should also establish and provide clear guidelines on the certification process, including the use of deadlines for credit approval.

We recommend the following change:

E. Credits may be generated using practices that reduce total nitrogen, total phosphorus, or total suspended solids and are accepted by the Chesapeake Bay Program.

- (1) Before a credit is available for purchase it must be certified by the:

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- (a) Department through the issuance of a permit;
 - (b) Department through its Water Quality Nutrient and Sediment Trading and Offset Program; or
 - (c) Department of Agriculture through its Nutrient and Sediment Credit Certification Program.
- (2) Credits shall be quantified using methodologies consistent with appropriate assumptions and provisions of the Chesapeake Bay TMDL and the Chesapeake Bay Watershed Model and registered in a Registry maintained by the Department in accordance with Departmental guidance.
- (a) *Credits shall be classified as term or perpetual credits by the Department.*
 - (b) *The registry will indicate whether the credits have been released and eligible for exchange.*

p. 9, lines 19-24 – Permanent credits

The Department should clarify the accounting procedures and practices eligible for permanent credits. Toward this end, we recommend the following:

- (5) Permanent credits are available in perpetuity and
 - (a) Once verified upon project completion, do not require recertification, but may be verified annually, except:
 - (i) If credits are generated from converting on-site septic to a permanent hookup to a wastewater treatment plant; or
 - (ii) If credits are generated from a change to the landscape that is permanently protected by an easement or other legal instrument that conveys with the land.
 - (b) Must be held with clear title by the owner and/or subject to appropriate land use restrictions.

p. 9, line 25-27 – Perpetual credits

The following language appears to be superfluous and we recommend deleting it.



- (6) Permittees are required to secure credits in perpetuity or the term of their permit. ~~and replace expired credits under approved trades with new credits to maintain load reductions achieved in previous years.~~

p. 9, line 22 – Equivalency factors

We note the current Proposal does not include any reference to equivalency factors for trading nitrogen, phosphorus, and sediment. The Department has developed and refined such factors over the last decade, and we strongly recommend that such factors be authorized under these regulations. Thus, we recommend the following text:

G. Equivalency Factors.

- (1) The Department may establish pollutant equivalency factors using best available science.
- (2) MS4 permittees must acquire the equivalent number of credits for all three pollutants (nitrogen, phosphorus, and sediment) to count toward one impervious acre of restoration.

.07 Wastewater Point Source Cap Management and Trading.

p. 12, line 5-10 – Bubble permits

As stated above, we believe the bubble permit concept has the potential to undermine the goal of the trading program. Once again, additionality must be a central principle for this trading program. If municipal facilities are permitted to simply exchange paper credits without actually reducing additional loading, the trading program will be destined for failure as there will be no demand for nonpoint source credits.

If the Department should proceed with adopting a watershed based permit, it should clarify a tiered-preference where credits for non-municipal sources, if readily available, get priority over credits generated from point sources, such as MS4 stormwater or wastewater treatment plants.

Recommended change:

- ~~(4) Multiple facilities within a watershed may be covered by a bubble or overlay permit that is issued with an nutrient loading cap to:~~
- ~~(a) An owner with multiple facilities operated in the watershed; or~~
- ~~(b) Multiple owners in a watershed electing to form an association and obtain a single permit as co-permittees.~~

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.08 MS4 Stormwater Point Source Trading.

p. 14, lines 28-30 – MS4 acquisition of capacity and performance credits

A. MS4 stormwater point source trades shall be implemented and enforced through permits issued under the Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland and the Department's delegated authority under the Federal Act.

- (1) MS4 permittees may only enter into a trade or purchase credits if the use of trading is specifically authorized under the terms of the MS4 permit.
 - (a) Permittees are eligible to acquire credits if no unaddressed permit violations exist that are considered by the Department to be significant non-compliance.
 - (b) Permittees may treat a permit-specified portion of their permit requirements through trading with wastewater point sources, agricultural nonpoint sources, or non-regulated sources.
 - (i) Permittees must acquire credits for total nitrogen, total phosphorus, and total suspended solids to meet Chesapeake Bay nutrient and sediment reduction requirements.
 - (ii) Credits may be acquired at any time during the permit term to contribute to a permittee's restoration requirement provided the credits conform to the schedule specified in the permittee's approved restoration plan.
 - (iii) Trading with wastewater point sources is restricted to wastewater performance credits only determined in accordance with this chapter.
 - (iv) Permittees may acquire wastewater point source performance credits if trading market with other sources, including agriculture, does not ~~reasonably~~ meet the demand *as determined by both the Department and Maryland Department of Agriculture. Such determination shall be made only after the trading market from other sources is given full opportunity to develop such credits and at least 270 days after the effective date of this rule. in a reliable and cost effective manner.*
 - (v) *Permittees must notify the Department at least 30 days in advance of their intention to use performance credits. The Department reserves the discretion, in appropriate cases, to deny the use of performance credits, if other credits are available.*

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In closing, we are grateful for your continued leadership and the efforts by your staff to establish a trading and offset program. And we trust that you will accept the above recommendations in the spirit in which they are offered.

Please do not hesitate to contact me if you have any questions or wish to discuss any of the recommendations we offer.

Sincerely


George Kelly
Chief Markets Officer

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