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COMMENTS ON EPA'S DRAFT REVIEWS OF CHESAPEAKE BAY STATE NUTRIENT TRADING AND OFFSET PROGRAMS

Thank you for the opportunity to comment on EPA's draft reports evaluating the Bay states' nutrient trading and offset programs. EPA's strong guidance will be critical if the Bay states are to meet their TMDL obligations, and nutrient trading – particularly as currently proposed – has the potential to severely undermine the TMDL process, as well as the accountability of the entire NPDES permit program.

Like the Bay jurisdictions' programs, EPA's initial reviews fall far short of establishing adequate standards and oversight of nutrient trading. These comments point out several areas where EPA should clarify and strengthen its expectations of the Bay states, establish requirements necessary to ensure reasonable assurance under the TMDL and protect the integrity of the NPDES program, and set out consequences for states that fail to improve their trading and offset programs.

Environmental Integrity Project (EIP) is dedicated to improving enforcement of environmental laws, and has concerns that nutrient trading and offsets could undermine enforcement and transparency of NPDES permits. EIP has actively participated in nutrient trading discussions with EPA, state agencies, and non-profits, and has an interest in ensuring that trading and offset programs do not undermine Bay TMDL implementation.

I. Overarching concerns

The most fundamental flaw in EPA's review of trading programs is the lack of analysis and scrutiny related to BMP credit calculation, verification, and enforcement. Though EPA has attempted to reassure concerned organizations that it would consider these issues for the TMDL overall, putting off consideration of what is most importantly viewed as a trading issue will delay needed improvements while unaccountable non-point source credit generation increases. EPA's final reports will only impose meaningful standards if they include an assessment of each state's plans to inspect BMP implementation, calculate nutrient reductions, publicly track aggregated BMP credits and their associated NPDES permits, and enforce NPDES permits that include purchased non-point or point source credits. In addition, EPA should impose minimum requirements for these aspects of the programs.

Many of the problems with state trading and offset plans stem from EPA's weak framework for such programs in the TMDL and its supporting documents. TMDL Section 10 and Appendix S provide only vague outlines for nutrient offsets and trading, with no common

standards the states must meet or threshold requirements for a trading program to obtain EPA approval. Moreover, Section 10 assumes that inter-basin trades do not violate the CWA, and approves their inclusion in state programs with no justification. Appendix S also sets out several good “common elements” for state programs, but does not present them as regulatory requirements. A stronger approach may have helped prevent the significant problems in the states’ trading and offset programs. EPA should revise Section 10 and Appendix S to impose minimum requirements on state offset and trading programs and provide stronger technical guidance on how states must calculate credits.

II. Review recommendations common to all jurisdictions

A. Nine Universal Recommendations

Each state review includes 9 "Program Recommendations Common to all Jurisdictions." While this list contains some important points, the list does not give much guidance as to what each state is expected to do to address these common recommendations. In addition, the Common Recommendations do not appear to carry as much weight as the state specific Tier 1 and Tier 2 recommendations. EPA should clarify the importance of these recommendations in the final report. EIP also proposes the following clarifications for EPA’s common recommendations.

2. *“Suggest that interstate and intrabasin trades and offsets be evaluated by the jurisdictions for potential inclusion in their trading and offset programs.”*

As a preliminary matter, EIP opposes interstate trading for a number of reasons, including the likelihood of local water quality degradation, and is disappointed to see EPA taking a favorable position on the issue. For purposes of these comments, we are specifically concerned that the strongest elements of state trading programs will be treated as obstacles to interstate trading. For example, Virginia’s trading scheme includes a 2:1 nonpoint-to-point uncertainty ratio, while other states’ programs do not; this could theoretically inhibit trades between out-of-state credit generators and Virginia credit purchasers. If enthusiasm for interstate trading increases, states may be tempted to agree to a least common denominator trading scheme, stripped of the best features of the individual state schemes.

EPA is encouraging a race to the bottom in two ways. First, by giving cursory approval to programs as different as Virginia’s and Maryland’s without specifically identifying the strengths and weaknesses of each, EPA may create the impression that certain elements (e.g., Virginia’s 2:1 uncertainty ratio) are dispensable – if Maryland has a good program without the 2:1 ratio, then why does Virginia need it? And why would a trade between the two have to use Virginia’s, not Maryland’s, trading ratio? Second, EPA has not articulated any concerns with interstate trading, and in fact has implicitly approved of the idea even though it would compound nutrient trading’s significant uncertainties. If EPA intends to ultimately approve of interstate trading, then it should do so very cautiously, and should not allow interstate trading to be used an

excuse to water down the strengths of individual state programs. At a minimum, EPA should only consider authorizing an interstate trade if the more stringent trading provisions of the states involved would apply.

5. *“Several jurisdictions are considering developing or expanding their current programs...”*

EPA should strengthen this language to more clearly require states to address the need for credit retirement and use of net improvement offsets as part of any trades that involve non-traditional BMPs. Non-traditional BMPs like oyster aquaculture may have a role to play in reducing nutrient pollution, but they pose even greater uncertainties than agricultural non-point BMPs. In addition, EPA should incorporate language that encourages the Bay states to develop a regional approach to reviewing non-traditional sources so that the region can agree on a consistent approach for determining the creditworthiness of such sources, as well as appropriate trading ratios and uncertainty allowances.

6. *“...finding a good way to use stormwater BMPs to offset nonpoint sources...”*

EPA did not adequately elaborate on this observation in the draft reviews, and it raises a series of questions about how a stormwater BMP offset program for nonpoint sources would work. For example, would the state have to buy the credits from the stormwater generator because there is no hook to require the non-point source to offset its own pollution? What will states use as the stormwater baseline for credit generation? EPA should ask these questions and set out standards for adequate baselines and other program elements. EPA should also clarify whether the new federal stormwater management rulemaking or the upcoming review of the national stormwater management policy will provide guidance on the issue.

7. *“Updating enforcement policies and procedures should continue...”*

We are concerned that EPA has declined to adequately weigh in on one of the biggest weaknesses with all nutrient trading programs. EPA should make specific recommendations about certification, verification, and enforceability of nonpoint-related trades given its observations that necessary measures are “not in place for nonpoint source users” (Virginia and Pennsylvania) or are still “being evaluated for nonpoint users” (Maryland). Inadequate verification and enforcement could very easily lead to dramatic overstatement of non-point load reductions; this would of course undermine any progress toward the goals of the Bay TMDL. At present verification and enforcement programs are essentially nonexistent. EPA should withhold approval of non-point source trades and offsets until the states have meaningful certification, verification, and enforcement programs in place.

9. *“New resources are needed to fully implement the developing trading and offset programs.”*

As discussed above, EPA's recommendations do not adequately focus on the need for more developed review, inspection, verification, and enforcement programs to ensure that claimed credits for non-point BMPs and other credit generating activities correspond to actual nutrient reductions. EPA should modify its recommendation related to resource needs to expressly address costs related to these aspects of state program implementation. EPA should not approve of state nutrient trading programs that do not include plans for funding and sustaining the additional state oversight roles (reviews, inspections, tracking, monitoring) they will need to assume as programs expand.

B. Items EPA should add to the recommendations common to all jurisdictions.

While EPA's list of common recommendations raises several important points, EPA should add several additional cross-cutting issues to its final reviews. EPA should ask all of states to address the following issues:

1. Already impaired waterways

How will the states evaluate proposed trades that add to an already impaired waterway? All of the Bay states must have clear policies that they will not allow nutrient trading that will result in violations of water quality standards or that will cause or contribute to local violations of water quality standards. We are particularly concerned that trades will allow new or increased additions of nutrients to streams that are impaired, but lack TMDLs. This would of course violate EPA regulations prohibiting discharges that "cause or contribute to the violation of water quality standards" and the Bay TMDL.¹ We know of at least three requested trades in Maryland that would discharge nutrients into waterways that are nutrient-impaired but lack TMDLs. We do not know whether the Maryland Department of the Environment will approve these trades.

EPA should remind the states that the CWA prohibits them from allowing increased discharges into nutrient-impaired waterways, regardless of whether the state has established a local TMDL. In addition, EPA should clarify that the prohibition on trades that would cause or contribute to WQS violations extends to pollutants other than nitrogen, phosphorus, and sediment that would also increase due to the trade. Allowing an industrial facility to contribute to violations of toxic pollution standards in exchange for nitrogen credits would not comply with the CWA, and neither the states nor EPA seem to have addressed this potential problem.

2. Monitoring by non-point sources

Point source should not be able to purchase credits from non-point sources unless those generators follow monitoring and reporting protocols at least as stringent as those required in the purchaser's NPDES permit. Even disregarding the practical limits of measuring pollution

¹ 40 C.F.R. § 122.4; *see also* U.S. EPA, Chesapeake Bay TMDL, Appendix S, Offsetting New or Increased Loadings of Nitrogen, Phosphorus, and Sediment to the Chesapeake Bay Watershed, at S-6 (Dec. 29, 2010) (requiring that offsets "do not violate WQS in any intermediate segments, and do not violate local WQS").

reductions from non-point source BMPs, allowing point sources to rely on claimed nutrient reductions from sources that are not held to the same periodic monitoring and reporting requirements to demonstrate compliance with their NPDES permit defies logic and undermines the NPDES program. After a state has satisfactorily demonstrated they it uses accurate methods for calculating nutrient reductions from non-point BMPs, every credit generator should be required to sample and report as frequently as required in the NPDES permits relying on credits from that farm or other source.

3. *Uncertainty ratios*

EPA should unequivocally state that any trades involving non-point sources should be accompanied by an uncertainty ratio, with any exceptions limited to situations in which the credit generator can guarantee likely outcomes, for example through the use of long-term, durable credit-generating strategies. EPA should also clarify that states cannot use Bay Model BMP efficiencies as a justification for using 1:1 ratios.

4. *Verification requirements*

EPA should set out specific, required program elements related to verification and transparency, including the need for annual verification, a prohibition on verification by aggregators or other third parties with a clear conflict of interest, and the need for a publicly accessible trade-tracking database. Further delay in addressing these basic barriers to effective trading and offset programs will only make it more difficult to require effective safeguards in the future.

5. *Eligibility requirements*

EPA should require states to establish minimum compliance requirements for both purchasers and generators before either will be eligible to participate in trading. For point sources, this should require at least five years of compliance with NPDES permits and other program requirements, including accurate and timely reporting. For non-point sources, this should require at least five years of compliance with any cost-share or conservation programs. EPA should make these recommendations and clarify that a program without such requirements may not provide reasonable assurance under the TMDL.

6. *CAFO Generators*

EPA should clarify that states must prohibit CAFOs from generating credits, and require a justification for any contrary policies in state trading programs. EPA's effluent limitation for CAFO production areas establishes a zero discharge standard, with the exception of discharges from severe storm events. CAFOs must also minimize nutrient runoff from land application areas.² For example, Maryland has expressed its intent to allow CAFOs to generate credits from

² 40 C.F.R. § 412.

installing BMPs to reduce stormwater runoff from the production area. This ignores EPA's existing requirement that CAFOs divert clean water from the production area.³

Any CAFO that can reduce pollution loadings through additional BMPs should be required to do so as part of its NPDES permit, and should not be permitted to profit from merely complying with federal requirements. The fact that the Bay model indicates that additional BMPs will reduce CAFO pollution indicates that current permits and nutrient management standards do not meet EPA's requirements, and states should improve their CAFO permits and nutrient management standards. It does not indicate that CAFOs are eligible to generate and sell nutrient credits. EPA should clarify that states cannot set a baseline of non-compliance to allow CAFOs to generate and sell nutrient credits.

7. Re-evaluation

EPA should commit to a re-evaluation of Bay state trading programs in conjunction with the 2017 TMDL review at the latest. TMDL Section 10's vague commitment to review state programs periodically provides inadequate assurance that EPA will oversee trading program implementation or intervene with guidance, regulations, or evaluations when programs fail to meet minimum standards.

III. Virginia

The EPA review points out three Tier 1 deficiencies in Virginia's program: grandfathering provisions in the construction stormwater regulations as they relate to offsets from new loads; offsetting of new growth; and a permit coverage loophole for wastewater facilities, as well as one Tier 2 recommendation relating to local interpretations of offsets. EPA raises additional issues in the remainder of the Virginia review but does not include them in the Tier 2 Recommendations. EPA should add several recommendations to the Virginia Tier 2 list in its final review. First, EPA should recommend that Virginia adopt net water quality improvement provisions. Second, Virginia should develop a public registry to improve transparency. And third, Virginia should develop a procedure to monitor statutory provisions that prohibit trades that will adversely affect local water quality.

IV. Maryland

Maryland has so far failed to account for uncertainty in non-point source credit generation. The EPA review barely addresses this problem and distorts the reality of Maryland's program. First, EPA states that "no uncertainty reserve is needed because Bay Program efficiencies are used." This assumes that the Bay Program has systematically incorporated an uncertainty buffer in its calculations, but we have not seen any evidence of such a buffer. The Bay Program does acknowledge a high degree of uncertainty in its estimated removal

³ 40 C.F.R. § 122.42(e)(1)(iii).

efficiencies, however, which only underscores the need for Maryland to incorporate uncertainty ratios in nonpoint trades.

In a second important mischaracterization, the EPA review treats Maryland’s retirement ratio as an uncertainty margin, stating that “Maryland’s trading program includes certain provisions to address risk and uncertainty inherent in trading.” This is inaccurate. Maryland’s retirement ratio is just that – a retirement provision intended to accomplish one of the Maryland program’s key goals, that “trades must result in a net decrease in loads.”⁴ Maryland’s program does not, as yet, include any provisions to account for the uncertainty inherent in estimating nonpoint nutrient removal efficiencies. Maryland should use an uncertainty ratio similar to Virginia’s 2:1 trading ratio, and EPA should ask Maryland officials to adopt such an uncertainty ratio in its Tier 2 program recommendations.

V. Pennsylvania

EPA’s review rightly identifies significant concerns with Pennsylvania’s baseline and credit calculations. These are among the most significant trading issues facing the Bay region and are an indication of the variability that exists in the way the Bay states are currently handling nutrient trading. In a recent report prepared for PennFuture, a mock trade calculated using Pennsylvania, Maryland, and Virginia programs found that a practice estimated to generate 20-55 pounds of nitrogen credits in Maryland or Virginia would be estimated to generate over 900 pounds in Pennsylvania. There is clearly a systematic problem with how Pennsylvania estimates credits.

Pennsylvania must address the flaws in its baseline and credit calculations for EPA to find that Pennsylvania’s WIP meets reasonable assurance requirements under the Bay TMDL. Glaring problems like those in Pennsylvania’s program also pose a barrier to public acceptance of nutrient trading. No serious consideration of interstate trading can take place while such inconsistencies between programs and weaknesses within programs exist. If Pennsylvania’s program does not respond to the review recommendations, EPA should find its program unacceptable and take appropriate actions. Pennsylvania should adopt at least a 2:1 ratio for non-point trades to mitigate the uncertainties with calculating credits – even assuming the state improves its baselines in line with EPA’s recommendations. Finally, EPA should require Pennsylvania to reconsider or justify its current practice of allowing activities paid for by state or federal cost share to generate credits; this policy pays effectively farmers and other generators twice for the same BMPs or other pollution reductions.

VI. Conclusion

⁴ Maryland Policy for Nutrient Cap Management and Trading in Maryland’s Chesapeake Bay Watershed, Phase II-B, at 6 (DRAFT, Apr. 2008).

Thank you for soliciting input on the draft offset and trading reviews. We hope these comments will help EPA create a stronger framework for state offset and trading programs that will reduce nutrient pollution in the Bay watershed. The Bay states' current programs lack basic credit measurement, verification, and enforcement measures, do not adequately address uncertainty with trading ratios, and will not adequately protect local water quality.

EPA must set out stringent and concrete minimum requirements for offsets and trading, particularly when non-point sources are involved. EPA should also make clear that it will veto permits that include trading or offsets without scientific support, demonstrated protection for water quality, and stringent monitoring, reporting, and enforcement requirements. Without far stronger guidance than EPA has provided in its draft reviews, states stand to replace transparent and enforceable NPDES permit requirements with unenforceable non-point source BMPs, and current programs could lead to increases, rather than decreases, in total nutrient pollution. We look forward to EPA's final reviews, as well as future guidance on minimum requirements for trading and offset programs.

Sincerely,



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