ESTABLISHING OFFSET AND TRADING BASELINES IN THE CHESAPEAKE BAY WATERSHED

Prepared by EPA Region III

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INTRODUCTION

- The Bay TMDL assumes that the Bay jurisdictions will offset all new or increased loads that are not specifically accounted for in the TMDL's waste load allocations (WLAs) and load allocations (LAs). The Bay TMDL also identifies trading as a tool that could be used to implement the Bay TMDL.

- Trading and offset programs should be consistent with:
  - the Clean Water Act and its implementing regulations
  - EPA's 2003 Water Quality Trading Policy
  - EPA's 2007 Water Quality Trading Toolkit for NPDES Permit Writers
  - Chesapeake Bay TMDL per the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

- Credit = a pollutant reduction **greater than required** by regulation or under a TMDL.

- Baselines used to generate credits for offsets and trades must be consistent with the Bay TMDL and/or a local TMDL.

CONSISTENCY OF OFFSET AND TRADING BASELINES WITH THE APPLICABLE TMDL

- The baseline used for credit generation is the same regardless of whether those credits will be used as offsets for new or increased loads or trades for compliance purposes.

- The Bay TMDL (Appendix S, page S-3) says the following about developing baselines:

  a) for point sources generating credits, the TMDL assumes that the offsets baseline is the water quality-based effluent limit (WQBEL) included in that discharger's permit consistent with the applicable WLA in the TMDL. For some point sources, the baseline will be a numeric limitation; for others, it will be a suite of BMPs determined to be protective of WQS.

  b) For nonpoint sources generating credits, baseline options should be consistent with the TMDL LA for the appropriate sector and may be further defined in terms of load, geographic scale, minimum practices, and schedule of implementation and/or time needed to facilitate improved environmental compliance with WQS.

EVALUATING A BASELINE

- Credit generation occurs only after the relevant baseline is met.
- Bay jurisdictions are expected to review their respective credit calculation process (e.g., models or tools) every five years or as appropriate.
- The results will be reviewed by EPA for consistency with the Clean Water Act and its implementing regulations, and the EPA reviews will be made publicly available.
- The Bay TMDL establishes individual allocations for certain individual point sources as well as aggregate allocations for other categories of point and nonpoint sources.
  - In the case of aggregated TMDL allocations, the Bay jurisdictions will need to determine how those allocations may be broken down for the practical purpose of determining baselines at a scale that is useful for individual credit generators.

METHODS USED TO DETERMINE BASELINE

- Two methods used in the Bay watershed:
  1. implementation of specified practices (i.e., **practice-based**)
  2. achieving a performance-based loading rate (i.e., **performance-based**)

- Either of these types of baseline, or a different type, may be used if it is consistent with the Bay TMDL.

- Where the local TMDL and the Bay TMDL have different WLAs based on different assumptions and requirements, the applicable baseline for credit generation should be consistent with the assumptions and requirements of the TMDL WLA that the purchaser is attempting to satisfy.

- The generation and use of credits, once the appropriate baseline has been established, should insure protection of local water quality by following certain considerations and examples in the technical memorandum, “Local Water Quality Protection when Using Credits for NPDES Permit Issuance and Compliance.”

METHODS USED TO DETERMINE BASELINE, cont.

- Practice-based Baseline:
  - A practice-based baseline specifies practices that are required to be implemented before credits can be generated.
  - The Bay jurisdiction should demonstrate that the selected set of practices is consistent with the applicable TMDL allocation. This set of practices should be as similar as possible throughout the jurisdiction's entire portion of the Bay watershed.
- Performance-based Baseline:
  - A performance-based baseline is one that expresses a numeric target or percentage reduction and leaves the decision of which projects or practices to implement in order to reach that target or percentage reduction up to the individual credit generator.
  - For a nonpoint source, the baseline would be derived from the LA for the applicable sector. A performance-based baseline specifies the amount of load beyond which credits can be generated, regardless of which practices are implemented to achieve that level of loading.
  - The baseline should be calculated at a scale applicable to the credit generating practice, i.e., agricultural or other source. For nonpoint source baselines derived from the load allocation for the applicable sector, additionality should be taken into consideration on a site specific basis.

TRACKING AND ACCOUNTING FOR LOAD REDUCTIONS AND CREDIT GENERATION

- EPA expects the Bay jurisdictions will report their implemented BMPs for the annual progress review through NEIEN.

- As part of the TMDL assessment process, the CBP Partnership calculates the pounds of nitrogen, phosphorus, and sediment reduction from those credit-generating projects and practices at the state-basin scale.

- EPA also expects the Bay jurisdictions to sum the load reductions (i.e., pounds) used in trades and offsets by major river basin in each year for each of the three pollutants – nitrogen, phosphorus and sediment. This should not require additional calculations, instead merely summing already quantified pounds of credits used as reported in the state's registry/tracking system.

ANTICIPATED NEIEN REPORTING ELEMENTS

- These are in addition to the BMP information already reported
  - Used in trade (y/n)
  - Amount
  - Date range for traded BMP (begin, end)
  - Location of buyer (any geography up to state-basin scale)
  - Buyer contact information
  - Permit number, if used for permit compliance
- The Watershed Technical Workgroup will need to approve these changes to the NEIEN Schema