Components of Credit Calculation
EPA Draft Technical Memorandum

19 June 2013

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Presentation Outline

- Scope
- Calculating Credits
- Additional Considerations

Scope

- Technical Memorandum (TM) addresses EPA expectations for information Bay jurisdictions should incorporate when calculating credits for offsets and trading

Calculating Credits

- Applicable pollutants
- Eligible parties
- Eligible practices
- Baseline requirements
- Leakage
- Uncertainty
- Location adjustments
- Sources

Additional Considerations

- Certification & verification
- Timeframe
- Registry
- Reporting
- Accountability

Applicable Pollutants

- Applicable pollutants are those addressed by Bay TMDL
  - Total nitrogen
  - Total phosphorus
  - Total suspended solids

Eligible Parties

- With limited exceptions, there are no restrictions on who can buy and sell credits
- Examples:
  - Farmer selling credits to POTW to offset new loads
  - Credit generator selling to local watershed group to retire credits
  - Developer installing storm water system that exceeds offset requirements selling credits to buyer seeking to offset new loads
- Exceptions:
  - Must be NPDES permit holder if credit is used for NPDES compliance purposes
- Jurisdictions may apply additional restrictions and should ensure that parties comply with applicable laws and regs

Eligible Practices

- Only those practices accepted by CBP for annual progress review should be used to generate credits
- Over 130 BMPs have approved methods and can be evaluated using Chesapeake Bay Program Partnership models
- Only approved BMPs can be used to document progress in annual reviews

Baseline

- Practice-based or performance-based method is acceptable for offset and trading programs
- Should meet allowable loads under Bay TMDL or local TMDL, whichever is stricter
- EPA working with jurisdictions to ensure that baseline method produces results that approximate and are consistent with TMDL for land uses and major river basin
- Addressed in separate TM

Baseline: Practice-based

- Selected practices should consistently demonstrate over multiple scenarios that a load meets the TMDL allocation
- Should be as similar as possible throughout a jurisdiction's entire Bay watershed
- May vary based on hydrogeomorphic regions or landscape characteristics

Baseline: Performance-based

- Defined as the difference between pre-BMP and post-BMP per acre load
- Jurisdiction model needs to produce results that approximate and are consistent with loads generated by CBP Partnership models for the jurisdiction and major river basin
- Should use same data and assumptions as were used in developing the Bay TMDL
- Use existing pre-Bay TMDL load if below model-calculated baseline

Leakage

- Jurisdictions should address “leakage”
- Leakage defined by STAC as occurring “when a trade [credit transaction] results in unexpected and unaccounted for net increases in loads.”
- Examples:
  - Manure transported off a farm but applied within the watershed
  - Land taken out of production for a buffer, but replaced by additional acres put into production

Uncertainty

- Each jurisdiction should ensure that total loads will not increase when a load reduction practice fails to generate expected reductions
- Examples:
  - Weather hampers full growth of cover crop, but modeled load assumes average hydrology
  - Grass swale washed out by a storm and no longer functions as designed
- Addressed in separate TM

Location Adjustment

- Use the constant delivery factors from the CBP Partnership's Watershed Model to adjust the load between buyer and seller
- Accounts for distance between each of offset or trading partners and Chesapeake Bay

Sources

- Agricultural source: tract or tracts of land owned or operated as a farm contained within a HUC-10 and draining to Chesapeake Bay
- Other sources evaluated on the entire source (e.g. new development, re-development, land conversions, etc.)

Additional Considerations

- Certification & verification
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Certification and Verification

- Certification
  - Annually certify credits used in offsets and trades
  - Ensures that credit-generating practices are designed to meet current state regulations and policies
  - Once certified, credits are valid for one year or no longer than NPDES compliance period, whichever is shorter
  - Multi-year credits (e.g., buffers) should be re-certified annually and subject to periodic re-verification
- Verification
  - Ensures that credit is generated via monitoring, inspection, reporting or other mechanism
  - Comprehensive system in place to verify credits
- Addressed in separate TM

Timeframe

- Provide adequate assurance of the availability of credits for the duration of the transaction
- Jurisdictions have discretion to decide how to assure long-term credit availability for point sources
- Credit permanence topic of TM under development

Registry and Accountability

- Provide a publically accessible registry that records and tracks credits available and credits sold
- Information available at the time credit is proposed to be certified and when sold
- Methods for generating, calculating and purchasing credits to be clearly articulated and available to public

Reporting

- All BMPs are to be reported as part of annual progress review
- Tag:
  - BMPs that are certified and available for offsets/trades
  - BMPs that remain unsold
  - Sector and location to which load reduction should apply
- BMP used for generating credits beyond baseline cannot be credited toward meeting sector-specific BMP targets in a jurisdiction's WIP