

Offsets and Trading Program Review Questionnaire

As an assumption of the final Chesapeake Bay total maximum daily load (TMDL) released on December 29, 2010, EPA expects Chesapeake Bay jurisdictions to account for and manage new or increased loadings of nitrogen, phosphorus, and sediment that are not specifically accounted for in a jurisdiction's wasteload allocations (WLAs) or load allocations (LAs). Such new or increased loadings of nitrogen, phosphorus, and sediment in the Chesapeake Bay watershed should be offset by loading reductions and credits generated by other sources under programs consistent with the Clean Water Act (CWA) and Section 10 and Appendix S of the TMDL. EPA supports implementation of the Bay TMDL through existing water quality offset and trading programs, as long as they are established and implemented consistent with the definitions and common elements described in Section 10 and Appendix S of the TMDL. EPA encourages jurisdictions to consult with EPA throughout the development and implementation of their offset and trading programs.

To meet the goals of the CWA and promote the success of trading and offset programs in the jurisdictions, EPA intends to maintain regular oversight of jurisdictions' programs through periodic programmatic reviews and evaluations, beginning with EPA's 2011 review of the jurisdictions' offset and trading programs. EPA is beginning its 2011 review with this questionnaire; additional follow-up may be needed once EPA reviews each jurisdiction's responses. EPA will report the findings of this review to the respective jurisdiction. It is EPA's expectation that its findings will inform the offset and trading provisions that the jurisdictions include in their Phase II Watershed Implementation Plans (WIPs).

The following questions are intended to assist EPA in the review of each jurisdiction's offset and trading program. Please prepare a written response for each section that describes your current program, as well as plans for future changes or modifications. At a minimum, please address the following questions in your response. The assumption is made that each jurisdiction has some form of offset and trading program. If this is not the case, please indicate the jurisdiction's plans and process for the development of an offset and trading program. As part of this review, EPA encourages the jurisdiction to reach out to all appropriate state agencies that may play a role in implementation of the jurisdiction's offset and trading program.

1. Authority
 - a. Please identify current legal authorities that authorize *new or increased* loadings of nitrogen, phosphorus, and/or sediment on the basis of offsetting reductions from another point source or nonpoint source. What legal authority does the jurisdiction use to implement, monitor, and enforce these types of offsets? Please provide all documentation that supports your response.

- b. Please identify current legal authorities that allow *existing* sources to trade nitrogen, phosphorus, and/or sediment. What legal authority does the jurisdiction use to implement, monitor, and enforce these types of offsets or trades? Please provide all documentation that supports your response.
- c. Please describe the legal authority you plan to use to inspect nonpoint source credit generators.
- d. Please describe additional legal authority needed to develop and/or expand offset and/or trading programs.

2. Considerations For Credit Generators

- a. Please provide any documentation that describes the jurisdiction’s policies on the use or preference for credits as a means of providing offsets for new or increasing loads.
- b. Please provide documentation demonstrating that the jurisdiction requires any point or nonpoint source generating a credit to implement practices or meet any reductions necessary to be consistent with the Chesapeake Bay TMDL allocations.
- c. Please describe whether baseline determinations change by sector and, if so, in what way.
- d. Please provide documentation demonstrating how the jurisdiction has implemented the following baseline considerations:

For point sources generating credits, the offsets and trading baseline must be consistent with the assumptions and requirements of the applicable WLA in the TMDL. Please identify the point source baseline (*i.e.*, a numeric limitation or a suite of BMPs) and how it was determined to be protective of water quality standards (WQS).

For nonpoint sources generating credits, please identify how the baseline options currently used are consistent with the TMDL LA for the appropriate sector. Please include how these baselines are further defined in terms of performance, geographic scale, minimum practices, and schedule of implementation.

- e. To support the responses provided to 2.a through 2.d above, please provide the following documents related to offsets and trades:
 - i.) Records of baseline activities, including methods to reach baseline loads;

- ii.) Mass loading calculations for baseline activities;
- iii.) Existence and agency recognition of mass load created;
- iv.) Verification that baseline has been met for purposes of credit sales.

- f. Please describe your methodology for nonpoint source site level baseline determinations and mechanisms that are currently under consideration and describe efforts needed to resolve them to ensure that site level baseline are consistent with the TMDL.

3. Minimum Controls (For Credit Purchasers and Users)

- a. For point sources using credits, please describe how the discharger using a credit will meet on-site relevant minimum technology-based standards or secondary treatment standards. This element includes an examination of NPDES permits and any contractual agreements between a credit generator and purchaser.
- b. For nonpoint sources using credits, please describe how the source has met all federal, state, and local requirements applicable to nonpoint sources.

4. Eligibility

- a. Please describe the process of how eligibility of credit generators and purchasers is determined and approved and who is responsible for determining and approving eligibility.
- b. Please identify the criteria used to determine when a point source or nonpoint source may generate credits, including criteria contained in the basis and record for any offset and trade. Please identify whether such criteria are included in all permits allowing offsets and trading or whether they are included in specific permits.
- c. Please describe in detail eligibility requirements for and acceptable roles of aggregators or third parties in generation, sale, and purchase of offsets on behalf of others.
- d. Under what circumstances are offsets required for an amount greater than the new or increasing load?
- e. Please explain how you plan to demonstrate that any credit generating practice occurred subsequent to issuance of the TMDL. Include in your consideration land use changes. How do you plan to deal with subsequent land use changes?
- f. Please describe how offsets and credits are categorized and defined (*e.g.*, use of practice classes, temporal consistency, and land use). Describe the scale at which these are defined (*e.g.*, local jurisdiction, watershed).

5. Credit Calculation, Certification and Verification

a. Please provide information regarding how credits and offsets are quantified, including the metrics used and which of them are scientifically-based. Please explain how metrics for new practices or the periodic revision of existing metrics is accomplished.

b. Please identify any requirements for contractual agreements between credit generators and credit purchasers, including requirements such as certification of the credit receiver evaluating the generator and the conditions under which the credit was generated, including determining that credits meet all requirements.

c. Please identify the frequency at which the certifications of credits are required to be reported to the permitting authority. If certification rules change, what happens to existing certifications?

d. Please provide information and documentation regarding how these metrics are verified to ensure they are producing the expected reductions.

e. Please identify the location (physical and /or online) where records of these contracts and records of these contractual agreements and related requirements are kept.

To support the responses provided to 3.a through 3.d above, please answer the following questions and provide the following documents:

- i.) Sample permits containing offset/trading provisions and a list of all issued permits in which offsets/trading is approved including the name of the permittee.
- ii.) Sample fact sheets for permits in which offsets/trading are approved.
- iii.) Sample contracts and lists of existing contracts between credit generators and credit purchasers.
- iv.) Sample annual credit evaluation activity records.
- v.) Sample annual credit certification records.
- vi.) Annual reports to permitting authority.
- vii.) Sample records regarding how the credit was produced.
- viii.) Justification records for offset and net offset ratios.
- ix.) Baseline records that document the achievement of baseline.
- x.) How are practices validated? Do verification protocols vary by practice, time period, pollutant, etc.?
- xi.) Who can verify? What does the jurisdiction anticipate the role of third parties to be? How are verifiers certified? How does jurisdiction oversee third parties?
- xii.) How are the credits verified to ensure that the pollutant loads are reduced sufficiently to meet the Chesapeake Bay TMDL requirements?

- xiii.) How are credits determined to be sufficient to compensate for new or increased loadings being offset?
- xiv.) How does the jurisdiction account for changes in pollutant form (*e.g.*, total nitrogen versus dissolved nitrogen)?
- xv.) How does the jurisdiction account for uncertainty of source reductions? How does the jurisdiction use practice efficiencies for BMPs?
- xvi.) What kind of monitoring or reporting does the jurisdiction require?
- xvii.) What federal, state or local regulations or policies apply to credit generators?
- xviii.) How does the jurisdiction account for the distance between the generating and acquiring sources that could affect water quality, including potential water chemistry variations or other delivery factors that could cause pollutant attenuation?
- xix.) What are the jurisdiction's accounting policies for inclusion of practices implemented through public cost-share incentives?
- xx.) How does the jurisdiction account for degradation in the effectiveness of a practice over the projected term of the practice?
- xxi.) Where is the documentation stored for future reference? Is it accessible to the public?

Provide at minimum, samples of the following documentation that supports your response related to past trades or credit sales:

For Credit Sellers: baseline criteria, credits produced, credit calculations, credit production records/methods.

For Certified Credit Generation: credits produced, delivery ratios (calculation methods), margin of safety ratios (calculation methods), and point or nonpoint source credit type, credits available, credits sold.

For Credit Verification: credit production records, credit verification methods, credit certification method, record of party producing credit, record of point or nonpoint source credit type, records of credits verified, records of credits audited, expiration date – life of credit.

6. Safeguards

- a. Please identify what safeguards are in place to ensure that, for any offset or trade, the entire delivered load is accounted for (and not double counted) and water quality will be

protected. Please specify whether these safeguards are included in the basis and record for all offsets and trades.

- b. Please identify how the use of offsets and trades is restricted where such use would cause or contribute to exceedances of WQS, TMDLs, WLAs or LAs in affected receiving waters, locally or elsewhere.
- c. Please identify how the jurisdiction prohibits the use or generation of offsets and trades by unpermitted sources or sources not in compliance with an NPDES permit or a jurisdiction equivalent, or other federal or state laws or regulations.
- d. Please describe and provide documentation on how the jurisdiction protects affected communities from disproportionate harm arising from offsets and trades.
- e. Please describe the jurisdiction's policy or rules on consistency between the time when a credit is generated and when it is used, as well as how the jurisdiction ensures that parties comply with this policy or rule.

7. Certification and Enforceability

- a. Please describe how the jurisdiction identifies the person or entity responsible for offset and trading program operation and certification in a manner that ensures the enforceability of Clean Water Act permits and offset and trading transactions.
- b. Please describe how the jurisdiction includes and records offsets and trades, along with the enforceable water quality based effluent limits (WQBELs) based on the applicable WLA (*e.g.*, zero for new dischargers), in NPDES permits. Please confirm that such provisions are included in the NPDES permit of any permittee that purchases or generates credits.
- c. For point sources, please describe how the jurisdiction estimates new or increased pollutant loadings from sources that have not been given WLAs under the TMDL, and the amount of credits needed to fully offset these increases and comply with the CWA. Please also describe how the jurisdiction records offsets implementation. What instrument(s) or tools does the jurisdiction use to estimate and record these offsets?
- d. Please describe how the jurisdiction ensures an NPDES permittee remains accountable for meeting the WQBEL(s) in its permit. Please provide permit information that compares

the loadings levels being used/allocated in the permit with those actually in the TMDL to ensure consistency.

- e. Please describe how the jurisdiction determines whether offsets and trades may occur without reopening or modifying a NPDES permit to incorporate a specific offset or trade.
- f. Please describe the jurisdiction's legal authority to enforce offset and trading transactions (*e.g.*, between credit generators and purchasers).
- g. Has the jurisdiction ever taken an enforcement action against a regulated source (*e.g.*, an NPDES permittee) for a violation involving an offset or trade? If so, please describe.
- h. Please describe how the jurisdiction's program addresses risk and liability. Describe any credit reserve and/or insurance programs (*e.g.*, if and how a credit reserve may be used if the offset fails to occur).
- i. Please describe how the jurisdiction determines whether a civilly enforceable agreement exists between an offset generator and an offset user. Please describe how the existence of a civilly enforceable agreement is recorded and tracked by the jurisdiction.
- j. This element includes examining the inclusion of WLAs as translated into NPDES permits. It also includes examining a jurisdiction's method for monitoring permit compliance and trade and offset activity from an individual source perspective. To support the responses provide the following documents demonstrating, at a minimum, the following:
 - i.) Actual discharged loads (*e.g.*, discharge monitoring reports);
 - ii.) Purchased or sold credits;
 - iii.) Net discharged loads;
 - iv.) Trade transaction records;
 - v.) Timely trades (*i.e.*, within the "reconciliation" or "truing" period allowed for under the NPDES permit).
- k. Please describe what mechanisms the jurisdiction's offset and/or trading program contains for determining and ensuring a permittee's compliance with the CWA, including if and when it purchases or generates credits. These mechanisms include a combination of recordkeeping, monitoring, reporting and inspections. Reconciliation procedures and underlying calculations must also be reviewed for accuracy, transparency, as well as for timely and appropriate compliance. To support the responses provide documents demonstrating, at a minimum, the following:

- i.) State agency's standard operating procedures for making compliance determinations;
- ii.) Actual compliance determinations;
- iii.) Compliance inspections and methods;
- iv.) Timely and appropriate enforcement activities;
- v.) Penalties;
- vi.) Compliance status, including significant noncompliance designation if applicable.

8. Accountability and Tracking

- a. Please provide documentation of how the jurisdiction calculates and tracks the following:
 - i.) Total allowed mass loads by watershed;
 - ii.) Total allowed mass loads by source;
 - iii.) Total actual mass loads by watershed;
 - iv.) Total actual mass loads by source.

- b. Please describe the jurisdiction's system(s) for tracking water quality offsets and trades. Please provide specific examples of how such systems provide transparency, operational efficiency, and accessibility to all interested parties. If the jurisdiction maintains a credit registry, please identify who has access to the registry, what information is required for certification of credits in the registry, how credits are serialized, and whether registry design is intended to allow integration with other jurisdictions.

- c. Please describe how the jurisdiction's tracking system(s) record the following:
 - i.) the baseline used to generate offsets or credits;
 - ii.) quantification and verification of the offsets or credits according to standards established by the jurisdiction;
 - iii.) the offset or credit is sold to no more than one purchaser at a time;
 - iv.) the nutrient delivery equivalency of the offset or credit generated and the offset or credit consumed in terms of the equivalency of pollutants and appropriate attenuation;

 - v.) the location(s) of the offset or credit, including where the offset or credit is generated;
 - vi.) authentication of ownership of the offset or credit;
 - vii.) the NPDES permit number or other identification of the purchaser of the offset or credit;
 - viii.) documentation of agreements between parties to the offset or trade transaction;

ix.) whether sufficient offsets or credits will be acquired over the period of the new or increased loading;

x.) compliance status of NPDES parties;

xi.) results of monitoring and verification for each offset or credit;

xii.) time frames for regular review and evaluation of the offset or credit; and

xiii.) the date of the transaction(s).

9. Nutrient-impaired Segments

Please describe how the jurisdiction ensures that offsets and trades in nutrient-impaired water segments:

- a. Result in progress toward attainment of WQS in the impaired segment;
- b. Do not result in exceedances of WQS in the purchaser's impaired segment; and
- c. Do not increase delivery loads in downstream impaired segments, do not violate WQS in any intermediary segments, and do not violate local WQS.

10. Credit Banking Exchanges, Insurance, Aggregators and Other Third Parties

- a. Please provide information on whether the jurisdiction uses or expects to use credit banks, in-lieu-of-fees, insurance, exchanges, aggregators, or other third parties for managing its nutrient credit market. If so, please provide documentation describing these policies and rules in detail.
- b. If the jurisdiction utilizes any of these programs and/or entities, please explain whether and how it has authorized them to operate on a basin or interstate basis subject to meeting the elements noted above.
- c. Please describe what measures the jurisdiction has taken to reduce transaction costs and calculate and estimate necessary costs and reasonable expenses incurred by these entities that acquire and sell credits.
- d. Please describe how the jurisdiction's offset and trading programs interact with these entities. Please provide detailed descriptions of how liability and insurance are handled.

11. Additional Requested Programmatic Information

- a. Please provide your thoughts on the importance of using a credit-based system in meeting load reduction and offset needs in your jurisdiction.
- b. Please describe the future role (if any) that is envisioned for localities in the implementation of trading and offset programs.
- c. Identify any needs for federal assistance in terms of information, science, metrics, and/or policies that would support the jurisdiction's development and implementation of trading and offset programs.
- d. Please identify whether the jurisdiction's trading and offset programs use net improvement offsets, aggregated programmatic credits, and/or a reserve-offset hybrid.
- e. Does the jurisdiction have any questions regarding its trading and offset programs complying with the CWA and Chesapeake Bay TMDL?
- f. Will advance (multi-year) contracts be allowed and if so how will they be defined and tracked?

12. Growth

- a. Please describe how you plan to manage nonpoint source growth to ensure consistency with the Chesapeake Bay TMDL.
- b. To what extent can "programmatic offsets" be used as an option for categories of nonpoint source load reductions instead of site by site credit offset approaches? How are minimum expectations for accounting for programmatic offsets part of accountability and tracking?