**Summary of Comments for Outline of Tier 2 Components**

March 25, 2013

A Discussion Draft of the Outline of Tier 2 Components was sent out for initial review on March 15, 2013. The following Meeting Draft reflects suggested changes, and comments and major changes are summarized.

The outline is organized into eleven sections and each section contains a series of key program components. The program components are defined in the outline, and include several examples to help illustrate their role in water quality trading. Each component is likely to contain one or several subcomponents, which will organize the standard operating procedures and expand upon various elements of the component. The content for each component and subcomponent will be developed through the upcoming series of Interagency Workshops. A list of draft definitions for frequently used and/or difficult-to-define terms in this outline is also provided as an appendix.

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**SUMMARY OF COMMENTS**

We received a limited number of comments on the Tier 2 Outline, so changes were made directly via track changes or comments were inserted into the margins. Overall, the comments asked for additional detail on what would be covered in each section. In general, the comment was made to ensure that options and discussions focused just as much on nutrients, if not more, than on temperature trades.

**Outline of Tier 2 Components - Discussion Draft**

**Introduction** – The introduction will provide context for Tier 2 and lay out the core guiding principles of water quality trading, as articulated in the *Discussion Draft on Guiding Principles of Water Quality Trading*.

# Eligibility for Water Quality Trading

1. Eligible regulatory trading environments: The regulatory programs under which trading may occur (e.g. trading in TMDL and pre-TMDL environments (with appropriate permits), in a CWA section 401 certification, in a stormwater environment, or as part of a CWA variance) and the conditions under which such trades are encouraged, discouraged, or not permitted.
2. Eligible credit buyers: The individuals and entities that are eligible to obtain credits and the conditions that must be met before they may do so. There are three types of trades described in USEPA’s Trading Policy: point-point trades, point-nonpoint trades, and nonpoint-nonpoint trades. The focus of this process has been point sources obtaining credits from nonpoint and point sources to meet water quality-based effluent limits.
3. Trading area: The areas in which buyers and sellers can conduct trades with each other, typically upstream of a TMDL’s and/or NPDES permit’s point of concern, within the same watershed/TMDL area.
4. Eligible pollutants for water quality trading: Pollutants and their default units of trade. Units of trade can be tied to the TMDL and/or set as defaults – e.g. Total Nitrogen (lbs/year, season, or month), Total Phosphorous (lbs/year, season, or month), Oxygen Demanding Parameters (mg/L), Sediment and TSS (lbs/year, season, or month), Temperature (kilocalories/day).
5. Eligible credit-generating actions: The set of activities (e.g. BMPs) identified to improve water quality, counteract environmental damage from other projects, or otherwise create credits (e.g. riparian shade creation and flow augmentation for temperature; BMPs and conservation actions for nutrients, sediment and BOD).
6. Other conditions necessary for trading: Additional conditions that must be met for a trade to occur based on existing regulatory requirements, including compliance with near-field impact requirements (to prevent hot spots), anti-backsliding (effluent limits), anti-degradation (allocation of assimulative capacity in high quality waters for new and expanded discharges).

# Overall Trading Program Requirements

1. Trading ratio: Trading ratios are multipliers that may be applied to a regulated entity’s compliance obligation as a way to ensure environmental equivalency of trades, including the following: watershed processes, and restorative processes that take time to complete. Risk and uncertainty may also be addressed with ratios or other means, such as credit reserve pools. Trading ratios may be set at default levels, and/or adjusted according to site, and program-specific factors.
2. Reserve pool: A reserve of credits can be either a required or optional element of a trading program. A portion of credits could be held in “reserve” to account for potential project failure and the risk of unanticipated natural events. This section will define how a pool might work, including when credits can be contributed, and who manages the reserve pool.
3. Regulatory baseline: The minimum level of conservation or pollution reductions that must be in place (as required by other laws and regulations) before additional practices or reductions may be eligible for trading.
4. Additionality: Only the portion of environmental benefit generated from project sites that is above regulatory baseline and the normal operating procedures of a project site can be translated into credits that can be sold to regulated entities.

# Pre-project Site Conditions Assessment

1. Pre-project site conditions assessment: The process by which project developers document project site practices and characteristics before practices are implemented in order to calculate the load of eligible pollutants being produced at the site. For example, a farmer may need to document how much fertilizer has been used over the last three years of farming in order to quantify the decreased nutrient load from decreasing fertilizer application.
2. Initial estimate of project site future conditions: Project developers may also estimate future project site conditions at this juncture for the purpose of determining project site feasibility. For example, modeling a farm scenario with conservation tillage or a combination of BMPs to optimize nutrient reductions.

# Project Implementation and Quality Assurance Standards

1. Site Screening/Validation: A mandatory or optional process through which project developers provide preliminary documentation of project eligibility and receive a confirmation or denial that the proposed project is eligible to generate credits. If a project proposal does not meet quality standards or protocols, the project developer could be notified and offered an opportunity to correct the project plan deficiencies.
2. Consistency with other laws: Requirements for compliance with all applicable federal, state, and local laws, and with appropriate permitting.
3. Project implementation quality assurance:The types of quality standards (e.g. NRCS design criteria, DEQ’s recommendations for riparian planting) and reference conditions that projects must conform to.
4. Project management plans: Components for a project site management plan accompanying each credit-generating project. Project site management plans set BMP maintenance goals and milestones for ensuring that those goals are achieved in the future. For example, how often does animal exclusion fencing need to be repaired, or how will weeds be managed in riparian buffers.
5. Project site stewardship protection: Defines the required protections for the project site (e.g. legally enforceable over the life of the credit, and running with the land, such as leases, easements, performance bonds, insurance, etc.).

# Credit Quantification at Individual Project Sites

1. As-built project site conditions assessment: The process through which project developers document project site practices and characteristics *after* practices are implemented. This is used to record project implementation and contributes to modeling future project site conditions.
2. Quantify or model post-project site conditions: With as-built conditions in hand, project developers can now model the pollutant load reductions between pre and post-project conditions. Where direct monitoring of load reductions is possible, modeling may not be needed.
3. Regulatory baseline: Mechanism(s) for project developers to account for regulatory baseline in the calculation of available credits.
4. Calculate credits: Calculation of available credits based on pollutant loads associated with the pre-project condition, post-project condition, and the regulatory baseline.

# Credit Characteristics

1. Credit life: Defines when credits become valid (e.g. after third-party verification and upon public registration) and remain valid for use by a regulated entity (e.g. they remain verified and registered). Nutrient and temperature credits may be generated annually or seasonally, but the minimum contract length covering the BMPs behind those credits could range in years (e.g. 5 years for non-structural BMPs, and 20 years for structural BMPs).
2. Accounting treatment of credits: Describes the nature of credits within accounting, lending and budgetary contexts. For example, in accounting, lending, and ratemaking contexts, credits could be designated as capital goods to qualify for particular loans. Ultimately, accounting treatment of credits will be determined by the Government Accounting Standards Board, but the Joint Regional Agreement could include ways to clarify accounting treatment.
3. Renewal of credits: After the project developer-credit generator contract expires, under what conditions can credits be renewed (e.g. so long as a new contract is in place that includes an appropriate management plan and adequate stewardship protections).
4. Other offset programs: Some BMPs can generate multiple ecological benefits (e.g. carbon sequestration and habitat improvement) in addition to water quality improvements. In addition, some projects will use multiple sources of funds to achieve larger or more beneficial projects. This section will discuss how trading programs can ensure no double counting of credits and how to treat the use of different sources of funds for a project. Often, these issues are referred to as credit stacking and payment stacking.

# Credit Verification and Certification

1. Project site verification: The process for verifying completed projects, including who will conduct verification (e.g. a certified, third party verifier) and the process for reviewing, inspecting, and auditing a project site to determine whether the project conforms to program quality standards and reference conditions.
2. Project site verifiers: Qualifications necessary for an individual to act as a verifier, including training and/or accreditation.
3. Project certification: The final approval process for a project intended to generate credits.

# Credit Registration

1. Public disclosure: The credit documentation and information that should be made publicly available via a public registry, including any steps that may be taken to protect the privacy of individual project site owners.
2. Credit ledgers and serialization: The role of credit registries and serialization (e.g. registries can assign unique serial numbers to credits to ensure that credits are not double-counted or sold more than once). This section will also need to show how credit registries can track the issuance, transfer, and cancellation of credits that can only be generated and used seasonally.
3. Private and confidential business information: Project site information that may be kept confidential if deemed sensitive (e.g. a landowner’s home address), proprietary or a trade secret.

# Project Site Monitoring, Maintenance and Record Keeping Obligations

1. Contractual allocation of responsibility to maintain and monitor the project site: The requirements to maintain and monitor project sites and the contractual elements that should be required from third-parties performing the activities (e.g., term and frequency of monitoring visits, etc.)
2. Minimum project site monitoring and reporting requirements: The elements and roles for monitoring the site over the course of the project, who is responsible for what kinds of monitoring, and how monitoring results are reported to whom.
3. Record keeping: Responsibility of the regulated entity and other monitoring entities to record and retain project site monitoring information for appropriate statutory and contractual periods.

# Compliance and Enforcement

10.1. Applicable regulated entity permit conditions: The obligation of regulated entities to comply with all conditions, duties, and requirements for which they are responsible, including the liability for permit non-compliance resulting from an insufficient credit balance.

10.2. Requirements at discharge point: Regulated entities’ obligation to monitor their point(s) of discharge at required intervals to ensure compliance with near-field regulations and other applicable laws and regulations. This section will also discuss how permittees report the use of credits in their Discharge Monitoring Reports, and how agencies will review and confirm those credits.

10.3. Non-compliance with credit generation standards: Responsibility for site rehabilitation in situations where a project site is out of compliance with applicable standards due to site degradation or force majeure events, including the mechanisms for allocating the cost of project rehabilitation (e.g. allocated between parties via contract).

10.4. Notice and opportunity to remedy non-compliance: The process for addressing and remedying non-compliance with a project standard.

10.5. Failure to cure:Consequences for the project developer if noted non-compliances are not adequately addressed, such as the opportunity to remedy non-compliance within an appropriate time period, credits being recalculated (to reflect diminished credit generating capacity) or credits being suspended from a regulated entity’s credit ledger.

# Program Effectiveness and Adaptive Management

11.1. Adaptive management: Trading programs may incorporate new information on protocols, credit quantification methodologies, and other quality standards as developed. This section will also need to discuss what happened to previously-verified projects and credits when a new version of a quantification model or trading protocol is issued. Are those projects grandfathered in under previous versions, or could credit quantities change.

11.2. Effectiveness monitoring: Trading programs may design a monitoring program to determine the program’s overall effectiveness at improving water quality.

# Definitions

* **Anti-Backsliding**: as defined in 33 U.S.C. §§ 1313(d)(4), 1342(o).
* **Anti-Degradation Policy**: as defined in 40 C.F.R. § 131.12.
* **Best Management Practices (BMPs)**: conservation practices installed
* **Clean Water Act (CWA)**: 33 U.S.C. § 1251 et seq.
* **Thermal Credit Contract Period**: the regulated entity-project developer contract runs.
* **Compliance Obligation**: the total credits, based on the exceedance as adjusted by a trading ratio, (and where applicable, reserve pool requirements), that a regulated entity must hold in its compliance ledger.
* **Credit generator**: a point or nonpoint source that generates credits through the installation of an eligible action or BMP on its property.
* **Critical Period**: a period during which hydrologic, temperature, environmental, flow, and other such conditions result in a waterbody experiencing critical conditions with respect to an identified impairment,
* **Current Project Site Conditions**: the physical characteristics of the project site that are used to calculate current loading at the project site.
* **Current Conditions Load**: the current input level of a pollutant (in default unit of trade) from the project site into the waterbody.
* **Discharge Point**: the point at which a point source adds/discharges a pollutant (as defined in 33 U.S.C. § 1362(6)) into a navigable water (as defined in 33 U.S.C. § 1362(7)) as defined in 33 U.S.C. § 1362(12).
* **Effluent Limitation**: as defined in 33 U.S.C. § 1362(11).
* **Future Project Site Conditions**: the characteristics of the project site that will be present after the implementation and the continued management of the project site.
* **(As-built) Future Conditions Load**: the expected future input level of a pollutant (in default unit of trade) at a project site that has been implemented.
* **Market Administrator**: the organization responsible for the operation and maintenance of an ecosystem credit accounting system or marketplace. Specific responsibilities may include: defining credit calculation methodologies, protocols and quality standards; project site verification; and credit registration.
* **Material Non-Compliance**: as identified by the responsible monitoring entity, non-compliance with quality standards and protocols that is serious enough to threaten the environmental integrity of the credits generated from the project site.
* **National Pollutant Discharge Elimination System (NPDES)**:as defined in 33 U.S.C. § 1342.
* **Near-Field Regulations**: minimum regulations that a point source must meet at its discharge point in order to be eligible for water quality trading.
* **Nonpoint Source**: nonlocalized runoff, such as stormwater and nutrient runoff from agricultural or forest lands, *see* 40 C.F.R. § 35.1605-4, caused by rainfall or snowmelt moving over and through the ground and carrying human-made pollutants into waterways. 68 Fed. Reg. 60,653, 60,654 (Oct. 23, 2003).
* **Point of Maximum Impact**: the point where the greatest deviations from water quality standards occurs.
* **Point Source**:as defined in 33 U.S.C. § 1362(14).
* **Project Developer**: a third party (or a regulated entity) that develops or oversees the development of credits.
* **Project Site**: the location at which credit generating activities are undertaken/installed.
* **Protocols**: step-by-step manuals/ guidelines for achieving particular environmental outcomes. Protocols include the credit generating actions, sequencing, and documents necessary to generate credits.
* **Reference Conditions**: local conditions that inform quality standards at a particular project site, which are based on similar, ecologically healthy site(s) within the same watershed (HUC5), historical conditions, literature, local knowledge, and/or the best professional judgment.
* **Regulated Entities**: point sources with NDPES permit obligations.
* **Regulator**: the state and federal agencies responsible for protecting environmental quality/permit issuance.
* **Regulatory Baseline**: the management obligations imposed by existing federal, state, and local laws and regulations.
* **Run with the Land**: a legally binding obligation that is connected to the land, and n ot the landowner(s).
* **Quality Standards**: the necessary specifications associated with a particular credit generating action that ensure that the estimated ecosystem service benefits at a project site are actually achieved through implementation.
* **Technology-Based Effluent Limitation (TBEL)**: an effluent limitation meant to comply with the requirements of 33 U.S.C. §§ 1311(b)(1)(A)-(B). EPA promulgated industry-specific TBELs at 40 CF.R. pts. 405 – 499.
* **Total Maximum Daily Load (TMDL)**: as defined in 33 U.S.C. § 1313(d)(1)(C), and 40 C.F.R. §§ 130.2(g), (h), (i), as well as in relevant state regulations.
* **Toxics**: persistent bio-accumulative toxics (PBTs). PBTs are chemicals that are toxic, persist in the environment and bioaccumulate in food chains and, thus, pose risks to human health and ecosystems. PBTs include aldrin/dieldrin, benzo(a)pyrene, chlordane, DDT and its metabolites, hexachlorobenzene, alkyl-lead, mercury and its compounds, mirex, octachlorostyrene, PCBs, dioxins and furans, and toxaphene.
* **Water Quality based Effluent Limitation (WQBEL)**: a more stringent effluent limitation, including “alternative effluent control strategies” such as BMPs and other non-numeric limitations, necessary to meet water quality standards