**Discussion Guide, March 26, 2013**

**7. Verification and Certification & 8. Registration**

Credit verification and certification are the final steps to ensure that proposed water quality credit projects are real and have provided the necessary documentation to support the water quality improvements they claim. Registration includes mechanisms for public disclosure and to track credits as they are transferred between parties.

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## **7.1 - 7.2 Project site verifiers and verification**

Under the Clean Water Act, many point sources have traditionally “self-verified” by submitting monitoring reports to the state agencies. There are very strict guidelines on the format of monitoring and reporting for point source discharges, and state agencies have the ability to monitor discharges for compliance with NPDES permit conditions.

With point-nonpoint trading programs, potentially hundreds of nonpoint sources are providing the pollution reductions needed by a single point source to meet its requirements, and may be doing so through dozens of different types of BMPs, each with its own eligibility and implementation quality standards. This creates a new kind of verification challenge for point sources, regulatory agencies, and the citizen groups that track permitting activating.

There is a lot of diversity in how trading programs verify credits. Guidelines for verification need to define:

* who will conduct verification;
* what will be reviewed;
* how decisions will be made; and
* how disputes will be resolved.

Guidelines also need to think about balancing cost, potential conflicts of interest, and ability for verifiers to work with people proposing credits to promote learning.

**I. Options and examples**

Who does the verification?

Some programs allow point sources to verify their own credits (e.g. the Clean Water Services or Cherry Creek permits). In these instances, point sources develop internal capacity to verify credit-generating projects, coordinating with project developers or directly with landowners and evaluating individual projects based on an understanding of eligibility and quality standards. In other programs, the state regulatory takes on this role and verifies credits (e.g. Minnesota River program). This gives the agencies more control, but requires the ability to invest in maintaining trained staff to conduct inspections. Increasingly, programs are looking to third parties to help verify credits. Third parties, such as conservation district staff or trained verifiers, often work closely with landowners to understand how BMPs should be implemented to maximize water quality improvements, which helps them both evaluate projects correctly and feed information back into improving program requirements. Use of third parties, who may be able to charge fees, also insulates the verification process from fluctuations in agency budgets.

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| **Option A**  *Completed projects must be verified by an independent third party. Verifiers must hold an accreditation from an agency or market administrator and be qualified to review credit-generating BMPs in a particular area.*  **Who does it this way?**  The Medford NPDES permit uses third party verification through the Willamette Partnership. | **Option B**  *Point sources are responsible for verifying their credits.*  **Who does it this way?**  Clean Water Services verifies its own credits |
| **Option C**  *State agencies, either departments of agriculture/conservation or departments of environmental quality, will verify credits.*  **Who does it this way?**  The Ohio River Basin used state DNRs to verify credits. In Minnesota, the state DEQ verifies credits. | **Option D**  *Third party aggregators or project developers will verify credits.*  **Who does it this way?**  The Great Miami Conservancy verifies the credits it aggregates and sells to various point sources. |

What gets verified?

The breadth and depth of information covered in verification will influence the cost to perform verification and the level of confidence that trading program administrators can have about the delivery of additional, suitable, and sustainable water quality benefits from each project. Willamette Partnership has found that it takes a third party 15-25 hours to conduct a full verification for an average riparian restoration project to their standard, which includes reviewing eligibility, credit calculation, BMP design criteria, and plans for stewardship and maintenance (Option A). The complexity of the project and the distance that the verifier needs to travel for the site inspection are the major drivers influencing where within that range a given project will fall. Verifying only BMP design criteria may take 5-10 hours (Option B).

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| **Option A**  *Projects are verified for their eligibility to trade, quantification of credits, consistency with BMP design criteria, and planning for stewardship and maintenance. An onsite visit is required.*  **Who does it this way?**  Verification under the Medford NPDES permit verifies for the factors above. | **Option B**  *Projects are verified for consistency with BMP design criteria and adequate maintenance.*  **Who does it this way?**  Many programs use verification to confirm that BMPs were implemented as promised and are being maintained as promised. |

How often does verification occur?

Similar to the scenarios described above, deciding the frequency at which verification is conducted presents a tradeoff between the program’s confidence in the credited water quality benefits and the costs of verification. Frequency of verification may also be tied to the type of credit it is and the nature of the land use on which the BMP is located – i.e. how likely are the uses of the land, irrigation or hydrology, and weather likely to change and how much will changes affect BMP performance? Willamette Partnership has found that it takes a third party 15-25 hours to conduct a full verification (including site visit) and ~2 hours annually to review and verify interim monitoring reports (Option A).

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| **Option A**  *Annually on a 5-year cycle. Site inspections in years 1 and 5, and review of monitoring reports in years 2, 3, and 4. The cycle repeats for the life of the credit (e.g. 20 years).*  **Who does it this way?**  The Willamette Partnership’s verification cycle uses the sequence above. | **Option B**  *Once after installation of a BMP*  **Who does it this way?**  Many programs confirm that the BMP was installed to specifications. |

**II. Recommended default**

All credits are verified by either an accredited third party or a state agency. All verifiers must be qualified, trained, and able to inspect private lands for particular BMPs in a particular geography. Verification occurs annually, site inspections are on a five-year cycle. Site inspections occur in years 1 and 5 with review of interim monitoring reports in years 2, 3, 4. A state agency may choose to inspect a credit-generating project or trading program at any time.

**III. Reasons to deviate from the default**

The state agency may decide it wants to review documentation for each individual trade. Timing of verification may vary by BMP to coincide with the most important or effective time for inspection.

## **7.3 Certification**

Credit certification is the final step before a credit can be used. It includes a review that all necessary paperwork and documentation are in place to support the quantity of credits proposed. This does not refer to certifying the sale/transfer of credits between parties, which will be handled elsewhere.

Similar to verification, guidelines for certification need to define who will conduct it, what will be reviewed, how decisions will be made, and how disputes will be resolved.

Who does the certification?

In many programs, certification is conducted by state agencies. Often, agencies conduct certification at the permit level via approval of a trading plan (e.g. City of Medford), in which case certification of individual credits can be done by a third party (e.g. Willamette Partnership or Electric Power Research Institute). Sometimes state agencies approve each transaction (e.g. City of Santa Rosa). Greater engagement in certification allows agencies more input in individual trades but requires a greater investment of staff time and training. It may also take additional time, which could discourage some transactions.

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| **Option A**  *A state agency approves a trading plan for a particular permit, but a third party certifies individual trades as consistent with that trading plan.*  **Who does it this way and why?**  Willamette Partnership certifies individual trades under Medford’s NPDES permit trading plan approved by DEQ. | **Option B**  *A state agency certifies individual trades.*  **Who does it this way and why?**  In Santa Rosa, the California Regional Board has certified the first four trades, but is moving toward a broader approval of a program due to the time taken to approve each trade. |

**II. Recommended default**

State agencies will approve a trading plan under an NPDES permit, but a third party may certify individual credits.

**III. Reasons to deviate from the default**

The state agency may decide it wants to review documentation for each individual trade.

## **8.1 – 8.3 Registration**

NPDES permit monitoring reports and other information is normally available on agency websites. There needs to be a way to share information on trades tied to permits in the same way. Credit registration is a way of providing this information, but it also a way to maintain a ledger of credits, so that agencies, permittees, and the public can be sure that trades are offsetting discharges and that credits are not being used more than once.

Credit registration across the country takes on many forms. Sometimes a wastewater facility keeps an Excel spreadsheet and sometimes they maintain sophisticated databases of credit locations, quantities, and status. Other programs provide an online registry where anyone can view transactions that have occurred, credits available for sale, and access supporting information for each creditable project. In many trading programs, credit registration is not required by state regulatory agencies.

Online registries, either built from scratch or through existing services (e.g. Markit Environmental), have associated costs. Registries provide transparency, security, and ability to handle multi-credit projects. Registry services give each credit a unique serial number, this provides additional assurance that the same credits are not sold more than once. Some registries, such as Markit Environmental, which works in financial and carbon markets, have built security systems to protect credit ledgers against fraud and hacking. Registries also have the ability to track multiple types of credits. Tracking multiple types of credits in one place allows tighter control over how water quality credits interact with other credit types (e.g. carbon credits). The mechanics of “stacking” will be dealt with in a later workshop.

**I. Options and examples**

Listing credits on a publically available website

Transparency gives the public and citizen groups the information that they need to evaluate and feel confident about the water quality benefits being generated and used as offsets under trading programs.

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| **Option A**  *Once verified and certified, credits must be posted to a publicly available website registry. All trades for a program must be listed on the registry, and trades must be searchable, have location information, and provide supporting documentation.*  **Who does it this way?**  The Willamette Partnership and Ohio River Basin Program use Markit Environmental Registry. World Resources Institute has a registry built into its NutrientNet platform. | **Option B**  *Credit ledgers need to be maintained by each permittee and posted to their website and in annual reports to the water quality agencies.*  **Who does it this way?**  The Alpine Cheese Factory in Ohio provides annual reports to Ohio EPA |

What information is provided on the registry?

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| **Option A**  *All credit projects need to be identified with a Lat/Long location, provide information on credit service area, project eligibility and design, credit quantities, access to monitoring and stewardship plans, and access to verification and certification reports. Personally identifiable information such as landowner name, address, and contact information can be kept from the registry. Confidential business information as defined in EPA or state policy can also be withheld.*  **Who does it this way?**  The Willamette Partnership and Ohio River Basin Program use Markit Environmental Registry | **Option B**  *Some programs withhold project location and much more credit documentation from publically available sites.*  **Who does it this way?**  Some agricultural communities have insisted on higher levels of privacy. |

Questions to consider: Does information on who generated and sold each credit need to be tied to the serial number of the credit being traded?

**II. Recommended default**

All credits must be listed on a registry website maintained by a water quality agency or other third party. Each credit needs to have a unique serial number to prevent being sold twice and be maintained in a credit ledger that is regularly updated. Registered credits must also provide access to supporting documentation, including:

* Documentation of eligibility to trade
* Verified credit quantities
* Monitoring and maintenance plans
* Annual monitoring and verification reports

Some private and confidential information may be withheld, but each project needs spatial information on project location.

**III. Reasons to deviate from the default**

In some watersheds, farmers and other credit producers may resist providing location or other sensitive information. The water quality agency may decide to allow project to withhold location information, but only if there is not enough credit supply to meet permittee needs and there is an alternate way to ensure a location is not selling credits more than once.