**Discussion Guide, March 26, 2013**

**4. Project Implementation and Quality Assurance Standards**

It is not enough simply to say that a practice has been implemented. This section describes the standards that ensure the projects seeking verification are appropriate for crediting, were implemented to a high standard and were implemented in a way that achieves the credited water quality benefits for as long as the credit is valid and is consistent with other laws. Considerations and options are presented for the following components of Project Implementation and Quality Assurance Standards:

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## **4.1 Site screening/validation**

Developing a credit project can be costly. An initial site screening can give a project developer, regulatory agency, and NPDES permittee a quick idea of whether a site will meet established eligibility criteria. Not all programs do an initial site screening. Some programs screen for eligibility as part of verification once there is a design for BMPs and credit estimation complete. An initial screening of a project could be required as part of a regulatory process, but more often, a screening may be used to provide confidence that projects will generate valid credits later on.

The questions we need to answer are:

* Is there a need for an initial site screening for eligibility;
* Who does that screening; and
* What criteria do they apply?

**I. Options and examples**

Is an initial site screening required?

Requiring an initial site screening gives program administrators the ability to identify potential issues early on, reducing risk for the project developer and helping set projects on the right track from the outset. Those programs that do not require screening do so both to reduce the costs, and to simplify the number of steps in the approval process.

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| **Option A**  *The proposed project site must pass an initial screening.*  **Who does it this way?**  The Medford trades need to pass an initial site screening. DEQ does not require the screen, but Willamette Partnership does as part of its administration process. | **Option B**  *An initial screening is a voluntary option to project developers, but is not required until verification.*  **Who does it this way?**  Many trading programs screen for eligibility at the time of verification. |

Who does the screening?

Whichever party conducts site screening will need to invest internally in trained staff to understand and can interpret eligibility standards. Use of third parties insulates the verification process from fluctuations in agency budgets.

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| **Option A**  *A third party does the screening.*  **Who does it this way?**  In Medford, Willamette Partnership does the screening. | **Option B**  *A state agency does the screening.*  **Who does it this way?**  In Ohio, state DNRs do the screening. |
| **Option C**  *The NPDES permittee does the screening.*  **Who does it this way?**  In the Tualatin, Clean Water Services does the screening. | **Option D**  *BMP types are pre-approved by a program, and all projects using that BMP are eligible.*  **Who does it this way?**  The Boise river program would have compared proposed trades to a list of pre-approved BMPs. |

What is reviewed?

Where more information is reviewed early on, the project developer gets greater assurance that the project is likely to be eligible, that preliminary credit calculations were done correctly, and that potential red flags have been identified. Willamette Partnership has found that eligibility screening covering the projects additionality, suitability, sustainability, and credit calculation assumptions (Option A) takes 2-4 hours for straightforward projects. Where eligibility is complicated and requires interpretation of eligibility requirements or development of nuanced standards, screening is longer and more involved (however, this process would have occurred in verification, if not here).

Including a site visit as part of the screening would provide a greater understanding of the site for the validator, who could then provide even more confidence around the site’s eligibility to generate credits. Site visits take 2-4 hours, plus travel to the site.

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| **Option A**  *The screening organization looks at a project’s documents for additionality, suitability, sustainability, and credit calculation assumptions using a set checklist. The screen also confirms ownership of land and credits. It is assumed that information provided is accurate and complete; no site visit is conducted to confirm information until the step for credit verification occurs.*  **Who does it this way?**  Willamette Partnership uses its validation checklist to review projects.[[1]](#footnote-1) | **Option B**  *A site visit is conducted to independently confirm validation information.*  **Who does it this way?**  We do not know of programs that do this—primarily because of the additional cost involved. |
| **Option C**  *The project screen evaluates less information.*  **Who does it this way?**  Several programs focus on BMPs meeting quality standards and doing calculations correctly. |

**II. Recommended default**

The proposed project site’s documentation must pass an initial screening by the state environmental agency or a third party. Third parties might include state agricultural agencies, nonprofit organizations, NRCS, conservation districts, or other entities qualified by the trading program. The site screen must include criteria for additionality, suitability (including intention to meet BMP quality standards), and sustainability. Project developer must also demonstrate ownership of credits and ownership of the land. Sample documents demonstrating ownership include easements or recorded contracts, property record searches, etc. At the time of initial screening, drafts of these documents or correspondence between a project developer and a landowner may be acceptable.

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

For more complex projects, site screening may include a required site visit, or might be done directly by the state agency. Upon request, project developer can also submit preliminary credit calculations for review.

## **4.2 Consistency with other laws**

Prior to generating credits, a proposed projects should be in compliance with all applicable federal, state, and local laws (including among others the National Environmental Policy Act, the Endangered Species Act, the Clean Water Act, state nonpoint source laws, and county/municipal land use and vegetation disturbance laws). This element of trading is similar to baseline requirements, but slightly different. Where baseline discusses the pollution reductions necessary prior to trading, being consistent with applicable laws ensures that a potential project is not already under order for some other reason to do the project they are proposing for credits.

This element seems pretty straightforward, but which laws should be specifically called out, and are there ever any exceptions to this element?

**I. Options and examples**

**a. Federal consistency:** A project developer may need to attest that they are currently in compliance with the Clean Water Act and Endangered Species Act.

Potential state differences: It is not clear whether there would be major state differences here.

**b. State Consistency**: A project developer may need to attest that they are in compliance with state nonpoint source regulatory rules and state fish and wildlife rules.

Questions to consider: How do we phrase this?

Potential state differences: Different states have different rules. Washington Ecology implements its nonpoint source regulations and Washington Dept. of Fish and Wildlife regulates modifications of in-stream habitat. Oregon Dept. of Ag implements water quality plans.

**c. Local Consistency:** A project developer may need to attest that the proposed project does not require a permit or review from a local agency, and is consistent with any local land use, critical areas, or other statutes.

Questions to consider: How much do we want to say about consistency with local laws?

Potential state differences: Washington has its Growth Management Act, and Oregon has its land use laws. Many communities have critical areas ordinances or buffer requirements.

**II. Recommended default**

Prior to generating credits, proposed projects must obtain compliance with all applicable federal, state, and local laws (including among others the National Environmental Policy Act, the Endangered Species Act, the Clean Water Act, state nonpoint source laws, and county/municipal land use and vegetation disturbance laws).

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

There may be instances where states allow a project to generate credits that also helps a project developer or landowner come into compliance with other laws. This might include actions that lead to compliance faster than would have otherwise occurred. Generally, this element should be crystal clear. Baseline requirements can deal with accelerated implementation.

## **4.3 Project implementation quality assurance**

Most credit calculations are modeled assuming BMPs are performing at their best in reducing pollution. A trading program needs quality standards to shape design of a BMP and performance standards to make sure a BMP is being operated and maintained appropriately to meet the assumptions modeled in the credit calculation. Quality standards are also a way to ensure that the actions taken on the ground are enhancing ecosystem function for the credited actions in a way that is ecologically responsible and contributes toward watershed health and resiliency (i.e. using native species in riparian forests instead of hybrids).

For most programs, quality and performance standards are tied to NRCS’ manuals. In some cases, trading programs may wish to add or change these standards. NRCS standards are widely available and widely applied. Agricultural and resource professionals and landowners are typically familiar with applying them, easing their acceptance. However, because NRCS standards were intended as guidelines for agricultural producers and professionals, they can be problematic to apply in a crediting context. They are written with a lot of flexibility and focus more on factors to consider instead of specific requirements and thresholds. Using a “you should consider” vs. a “thou shalt approach” makes it easier to apply them to a range of scenarios, but more difficult to distinguish when the BMP is meeting program requirements.

Willamette Partnership and the Lower Boise program sought guidance from stakeholder groups, including restoration practitioners and technical committees to build BMP guidelines specifically suited to their program’s needs.

**I. Options and examples**

Quality standards for BMP design and construction

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| **Option A**  *Each eligible BMP must be designed and constructed using quality standards defined by NRCS.*  **Who does it this way?**  Most trading programs in the Midwest use NRCS practice standards. Idaho’s Lower Boise program engaged a state BMP technical committee that used the NRCS FOTG standards, and hired a former Agriculture Research Service scientist to develop the equations for each practice to quantify the reductions based on the design standards. | **Option B**  *Each eligible BMP must be designed and constructed using quality standards defined and approved by a state agency.*  **Who does it this way?**  In Medford, riparian plantings use quality standards defined by a stakeholder group of riparian restoration professionals and incorporated into DEQ’s Internal Management Directive. |

Performance standards for BMP operation and maintenance

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| **Option A**  *Each eligible BMP must be maintained according to NRCS performance standards.*  **Who does it this way?**  Most trading programs in the Midwest use NRCS practice standards. Idaho’s Lower Boise program engaged a state BMP technical committee that used the NRCS FOTG standards. | **Option B**  *Each eligible BMP must be maintained according to performance standards approved by a state agency.*  **Who does it this way?**  In Medford, riparian plantings use quality standards defined by a stakeholder group of riparian restoration professionals and incorporated into DEQ’s Internal Management Directive. |

**II. Questions to consider:**

When and where are additional standards (above NRCS standards) needed? Does it make sense to establish additional standards for BMPs generating credits, rather than address water quality concerns with NRCS standards in another venue?

**III. Recommended default**

All BMPs must be designed and maintained to meet or exceed standards approved by the state water quality agencies. Those standards, at a minimum, should be built from NRCS practice standards. State-level standards may add more specificity or requirements as necessary.

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

There may be site-specific considerations for some BMPs that require some flexibility. In these cases, trading programs should define some process for approving a site-specific set of quality and performance standards.

**V. Comparing some of the existing quality and performance standards from NRCS, OR, and ID**

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| Best Management Practice | | Implementation Standards | | |
| Practice Type | Practice | Natural Resources Conservation Service (NRCS): Conservation Practice Standards | Oregon DEQ:  Internal Management Directive | Idaho DEQ: Water Quality Trading Guidance |
| Structural Practice | Riparian Forest Restoration | **Sample Criteria (Practice Code 391):** • Buffer must be positioned appropriately and designed to achieve sufficient width, length, vertical structure/density and connectivity to accomplish the intended purpose.  • Use tree and shrub species that are native and non-invasive. Substitution with improved and locally accepted cultivars or purpose-specific species is allowed. For plantings and seeding, only viable, high-quality and adapted plant materials will be used. • The minimum width shall be at least 35 feet measured horizontally on a line perpendicular to the water body beginning at the normal water line, bank-full elevation, or the top of the bank as determined locally. | NRCS Code 391 and;   • All plant materials must come from locally-sourced seed within the same EPA ecoregion. • Plantings must be based on appropriate plant community determined by local reference site. Unless different at the local reference site, the site must support a minimum of 1,600 stems per acre (average) at project year five. • The site must have no more than 10 percent invasive shrub or tree species, and no more than 20% invasive herbaceous species. | N/A |
| Sprinkler Irrigation | **Sample Criteria (Practice Code 442):** • Design Application Rate. Rates shall be selected such that runoff, translocation, and unplanned deep percolation are minimized. • Criteria for Low Energy Precision Application and Low Elevation Spray Application: Distribution Patterns- For center pivot systems, nozzle discharge CU using the Heermann-Hein weighted area method shall be used in selecting sprinkler spacing, nozzle size, and operating pressure. Nozzle discharge CU shall not be less than 94% of the calculated design flow rate needed at the discharge point. For linear systems, discharge shall be based on equivalent unit areas. Nozzle Spacing- Nozzle spacing shall not be greater than two times the row spacing of the crop, not to exceed 80 inches. | N/A | NRCS Code 442;  • Design, installation, operation and maintenance must follow specifications of NRCS Practice Code 442.  • Monitoring must ensure that sprinkler conversion is made according to NRCS Code 442. Periodic visual inspection should be made to assure there is no runoff. |
| Cultural Practice | Crop Rotation, residue and tillage management | **Sample Criteria (Practice Code 328):** • The selected crops and the cropping sequence shall produce sufficient and timely quantities of biomass or crop residue, in conjunction with other practices in the management system, to reduce sheet and rill and/or wind erosion to the planned soil loss objective.• To reduce excess nutrients in the soil profile, use crops with quick germination and root system formation, a rooting depth sufficient to reach the nutrients not removed by the previous crop, and nutrient requirements that readily utilize the excess nutrients.**Sample Criteria (Practice Code 329):**  • All residues shall be uniformly distributed over the entire field.  • No full-width tillage shall be performed regardless of the depth of the tillage operation. | NRCS Code 328 and 329 | NRCS code 328 and 329 and;  • Sprinkler irrigated and micro irrigation systems are not eligible. Applicable on any field producing low residue crops.  • High residue crops must be part of traditional low residue crop rotation.  • High residue crops must be followed by directly seeded crops, using cleaned irrigation furrows to irrigate direct-seeded crop.  • Minimum tilling and direct seeding of nitrogen-fixing crops such as alfalfa, peas-alfalfa, or mint, followed by a high nitrogen-utilizing crop. |

## **4.4 Project management plans; 4.5 Project stewardship requirements**

For most structural BMPs, there need to be some requirements for the management and stewardship of the practice. This includes keeping the practice in place and up to quality standards, maintaining fences, controlling weeds in riparian buffers, and other actions for the life of a credit. Stewardship has two components—protecting the underlying land use and ensuring that stewardship actions occur. These are accomplished via land protections such as easements or leases and financial assurances such as performance bonds, restricted accounts, or insurance.

**I. Options and examples**

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| **Option A**  Projects must contain adequate project stewardship protections that will remain in place for the duration of the credit usage period. These protections must be legally enforceable under relevant state laws, and run with the land (e.g. leases, conservation easements). Supplemental stewardship protections include performance bonds, restricted accounts, or insurance. Ideally, these stewardship protections will also protect against proximate disturbing land use activities.  **Who does it this way?**  Willamette Partnership requires land protection under BMPs for the life of the credit, and a minimum length of 5 years for cultural BMPs, 20 years for structural BMPs, and permanently for permanent impacts.  The Partnership requires a stewardship plan prior to any credit release and implementation of that plan before the last 25% of credits are released. | **Option B**  Projects need a contract, but that contract does not need to run with the land.  **Who does it this way?**  Most water quality trading programs use 5 or 10-year contracts for BMPs that are not recorded with the land. There are stewardship requirements, but there are rarely requirements tied to the amount and use of those funds. |
| **Option C**  Projects need permanent easements  **Who does it this way?**  We are not aware of water quality projects that require permanent easements |

**III. Recommended default**

Option A.

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

Setting appropriate stewardship requirements rests in the balance of security, costs, and landowner willingness. Generally, landowners are not willing to enter into permanent easements. Yet, 1-5 year contracts may not provide the certainty that water quality improvements will be achieved and sustained over time.

1. http://willamettepartnership.org/tools-templates/tools-and-templates-1 [↑](#footnote-ref-1)