

Counting on the Environment

A project funded by an NRCS Conservation Innovation Grant

The Willamette Partnership initiated its Counting on the Environment Program, with the help of essential public and non-profit stakeholders, in November of 2008. This two-year program, funded by a grant from the Natural Resource and Conservation Service, includes an aggressive effort to:



1) Obtain Oregon's first multi-stakeholder agreement to use a shared accounting system for quantifying impacts and benefits to ecosystem services for application to ecosystem markets — and beyond.

2) Lead pilot projects to demonstrate the real environmental benefits of this functions-based accounting system, and compare its results with those from other approaches.



3) Develop the tools farmers, foresters, and other land managers need to:

- evaluate and participate in emerging ecosystem service markets
- prioritize restoration actions when making land management decisions
- access payments for doing the right kind of restoration actions in the best places



Great progress has been made to date, as demonstrated by the: selection of four ecosystem services that will be included in the first version of a credit calculator; development of the calculator, its associated assurance package and required technology; development of both a project implementation and a credit issuance process; and the initial application of the system to pilot projects.

Ecosystem Credit Calculator

As ecosystem markets emerge around the world, demand is growing for standards, methods, and tools to ensure these markets achieve their environmental goals in a way that is credible and transparent. Current markets have grown from existing institutions that split the environment into its constituent parts (e.g. water, land and air), rather than dealing with it as an integrated whole. The Willamette Partnership developed a tool chest of methods that will allow land managers to assess the environmental benefits and impacts of proposed and completed actions on the land. Instead of using completely separate methodologies and indicators to assess wetland, water quality, or species conditions, this method will use a set of site indicators to calculate both the specific ecological functions provided by a site and its contextual value to the surrounding ecosystem. We call this method the Integrated Ecosystem Credit Calculator (Calculator). For most sites, implementing the Calculator will take less than one day and not require the use of desktop GIS software. Version I of the Calculator will generate credits for:

Riparian Habitat

The Riparian Habitat Crediting Protocol is based on two sets of models. The temperature crediting is built from the Dept. of Environmental Quality's Heat Source Model and Shade-a-Lator. The nutrient and sediment portion will be constructed by USDA Natural Resources

Conservation Service and the Texas Institute for Applied Environmental Research. The Temperature credit can be applied to riparian re-vegetation and the nutrient/sediment portion can be applied to changes in irrigation, crop cover, fertilizer use, tillage, and use of filter strips.



Upland Prairie

The Upland Prairie Crediting Protocol uses a new approach developed by Paul Adamus working with a technical group of prairie experts. The prairie protocol captures the habitat functions provided by upland prairies. The crediting protocol can be applied to prairie protection, restoration and enhancement.



Wetlands

The Wetland Crediting Protocol uses Version 2 of the Oregon Rapid Wetland Assessment Protocol (ORWAP) as its base for credit and debit calculations. The credit can be applied to wetland enhancement, restoration and creating on the crediting side and removal/fill actions that alter wetland vegetation and hydrology on the debiting side.



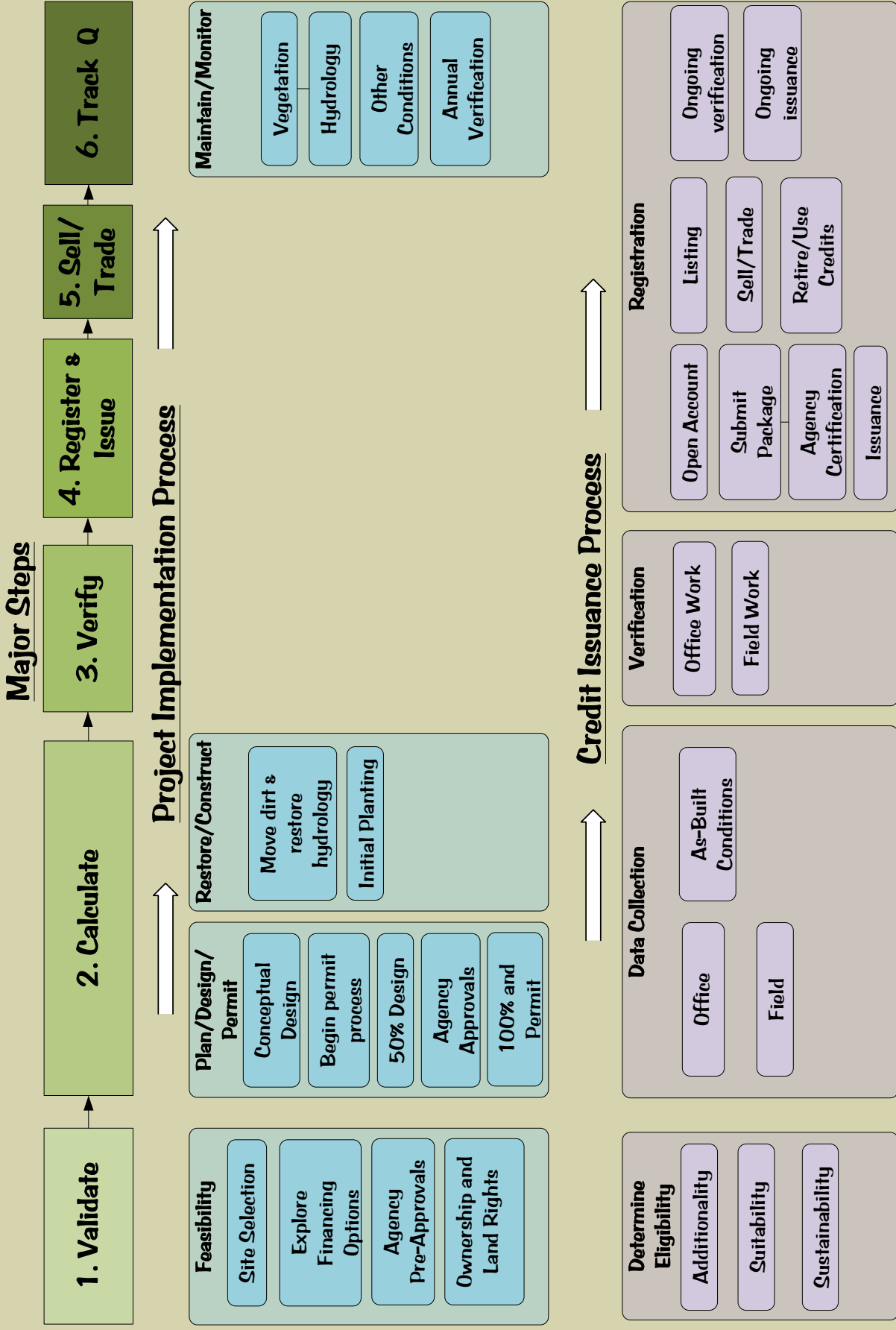
Salmonid Habitat

The Salmonid Habitat Crediting Protocol uses a library of methods compiled by Parametrix, Inc. as its base for credit and debit calculations. This protocol can be applied to riparian re-vegetation, large wood placement, culvert removal and riparian fencing on the crediting side and site level actions that alter vegetation, hydrology, contaminant levels, or other natural systems on the debiting side.



Guide to the Process of Credit Creation:

The Willamette Basin General Crediting Protocol provides market participants with the overall framework they need to develop, sell, and buy ecosystem credits in the Willamette Basin. The Protocol is designed as a reference guide for activity in the Willamette marketplace. New ecosystem service protocols will be added, existing ones will change, and the entire package will expand to accommodate new geographies.



History and Accomplishments of the Willamette Partnership

The Willamette Partnership formed in 2004 to capture the momentum of the Willamette Restoration Strategy. The Strategy articulated a vision for ecological health and economic vitality in the Willamette Basin and outlined critical actions needed to achieve success. Working with Stakeholder leaders who developed the Strategy, the Partnership formed to accelerate needed innovation. One of these innovations is the establishment of an integrated ecosystem marketplace.

The U.S. Environmental Protection Agency selected the Willamette Partnership to receive funding through its Targeted Watershed Grant program in 2006.

The funding supported an innovative water-quality trading program, which is designed to reduce stream temperatures and support salmon recovery in the Willamette Basin.



This one-of-a kind integrated ecosystem marketplace tool that promises to deliver broad and lower-cost ecological benefits to the Willamette Basin with less conflict than traditional approaches do

