

# Beyond Compliance: A Marketplace for Ecosystem Services in the Pacific Northwest



AWM Workshop April 7, 2010  
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## Agenda

- The Partnership: Identity and Mission
- The Current Regulatory Reality
- A New Approach
- What's Next
- Questions





## What is the Willamette Partnership?

A non-profit leading the development and implementation of an **Ecosystem Service Marketplace** in the Willamette Basin and the greater Pacific Northwest.

**Members include:** local, state and federal government; environmental non-profits; agricultural and business interests; and other groups with a stake in environmental health.



## What does the Partnership want?

### Ecological Resiliency

To get this, we need to increase the pace, scope and effectiveness of conservation in the Willamette Basin and the Pacific Northwest – that's our mission.



## The Current Regulatory Reality

- Natural systems are not working the way we need them to work
- Site-by-site, species-by-species and pipe-by-pipe regulatory approaches, that were developed piecemeal over decades, are not fixing these systems (although they have helped).



## How Do We Get to Ecological Resiliency?

- By going beyond narrowly-defined, compliance-based restoration projects to the stewardship of entire ecosystems.
- A functioning marketplace for ecosystem services, that meshes with existing rules and practices, can move us in the right direction.

<p><b>Grey Infrastructure</b></p> <p><u>Cooling Towers</u></p> <p>Compliance Achieved Cost - \$60 Million</p> <p>Ecological Value Not Much</p>	<p><b>Green Infrastructure</b></p> <p><u>Restore 35 miles of streams</u></p> <p>Compliance Achieved Cost - \$10 Million</p> <p>Ecological Value HUGE</p>
	



**A New Approach:  
Counting on the Environment**

- Funded by a USDA Natural Resource Conservation Services' Conservation Innovations Grant.
- Will run for two years
- Includes every agency with permit authority for natural resources plus other private and non-profit stakeholders
- Intends to develop a publically-approved, integrated, functions-based, accounting system for quantifying ecosystem benefits and impacts



# A New Approach

This General Crediting Protocol provides market participants with the overall process and framework they need to develop, verify and trade multiple types of ecosystem service credits using an integrated, functions-based, accounting system.



**Joint Statement of Agreement**  
for an  
**Ecosystem Credit Accounting System**  
Issued and signed by organizational leadership  
September 2009

**Status:**  
Version 1.0 of the Crediting Protocol is approved for pilot use in Oregon's Willamette Basin



## The General Crediting Protocol

Validation: Does the project qualify?

Credit Calculation: What are the ecological benefits?

Verification and Certification: Are these benefits real?

Registration: Who is responsible for these benefits?

Monitoring: How are these benefits tracked over time?



## Currencies

### First Round

- Wetlands
- Temperature
- Prairie
- Salmon

### Second Round

- Water: Flow
- Generalized Habitat
- Nutrients





## Nutrient Trading Tool

1. Created by NRCS
2. Currently being applied in Ohio and Maryland
3. Is a run-off based model
4. Inputs include precipitation, soil-type, crop-type and fertilizer use.
5. Calculates edge-of-field reductions in sediment, nitrogen, phosphorous and pesticides resulting from implementing best management practices.
6. Focuses strictly on agricultural fields



## Credits from Nutrient Reductions

1. Work will include calibrating the tool for Oregon crops and best management practices
2. Gaining consensus on how NTT outputs may be turned into different credits (will include Phosphorous, Nitrogen and Sediments)
3. Developing related protocols to allow the use of NTT in trading programs.
4. Piloting the use of NTT in the Willamette Valley.

# New Technology: Crediting Platform

**Ecosystem Crediting Platform**

Project Baseline | Project Design | Project Verification | Project Certification | Credit Registration | Credit Issuance | Project Monitoring

**Welcome Message**

Learn more about the program >  
 find a market coordinator in your area >  
 see if your property qualifies >

**How it Works and Tips, etc.**

read more >

**Have a Question?**

see all FAQs >  
 submit your own question >

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# New Technology: Registry

**markit Biodiversity & Water Registry Public View**

Project Name	Project ID	Category(s)	Standard(s)	Project Type(s)	Status	Developer	Location
Evarts Creek Instream Flow Restoration	10003	Water Quantity	BEF Flow Restoration Standard	Water Flow Restoration	Active	Bonneville Environmental Foundation	United States, Oregon
Half Mile Lane	10001	Species Habitat	COTE: Willamette Salmonid	Salmonid	Active	Oregon Department of State Lands	United States, Oregon
		Wetland Habitat	COTE: Willamette Wetland Habitat	Freshwater Wetland			
		Wetland Habitat	Oregon Wetland Regulatory (Partic) Standard	Freshwater Wetland			
		Water Quality	COTE: Willamette Water Quality (Temperature)	Temperature			
		Wetland Habitat	COTE: Willamette Wetland Habitat	Freshwater Wetland			
		Wetland Habitat	Oregon Wetland Regulatory (Partic) Standard	Freshwater Wetland			
		Wetland Habitat	Oregon Wetland Regulatory (Partic) Standard	Freshwater Wetland			
		Wetland Habitat	Oregon Wetland Regulatory (Partic) Standard	Freshwater Wetland			
Maliva BioBank	10002	Species Habitat	Global Biodiversity Conservation (Various)	Biodiversity & Habitat Conservation	Active	Eno Products Fund LP	Malaysia
Prickly Pear Creek Instream Flow Restoration	10005	Water Quantity	BEF Flow Restoration Standard	Water Flow Restoration	Active	Bonneville Environmental Foundation	United States, Montana
The Middle Reaches Instream Flow Agreement	10004	Water Quantity	BEF Flow Restoration Standard	Water Flow Restoration	Active	Bonneville Environmental Foundation	United States, Oregon

Please note this is not a complete listing of all Registered Projects, but only those that the account holder has requested be publicly available.

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## What's Next

### New Currencies

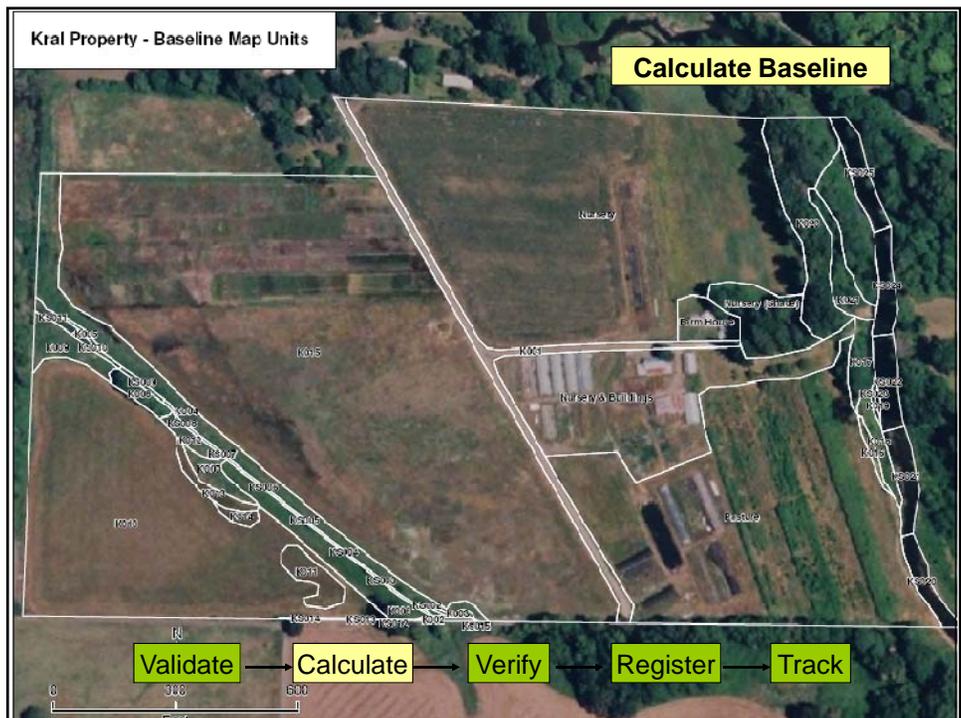
- Nutrients
- Habitat Metric

### Training

- Project Planning and Calculation
- Credit Process
- Verifiers Certification Program

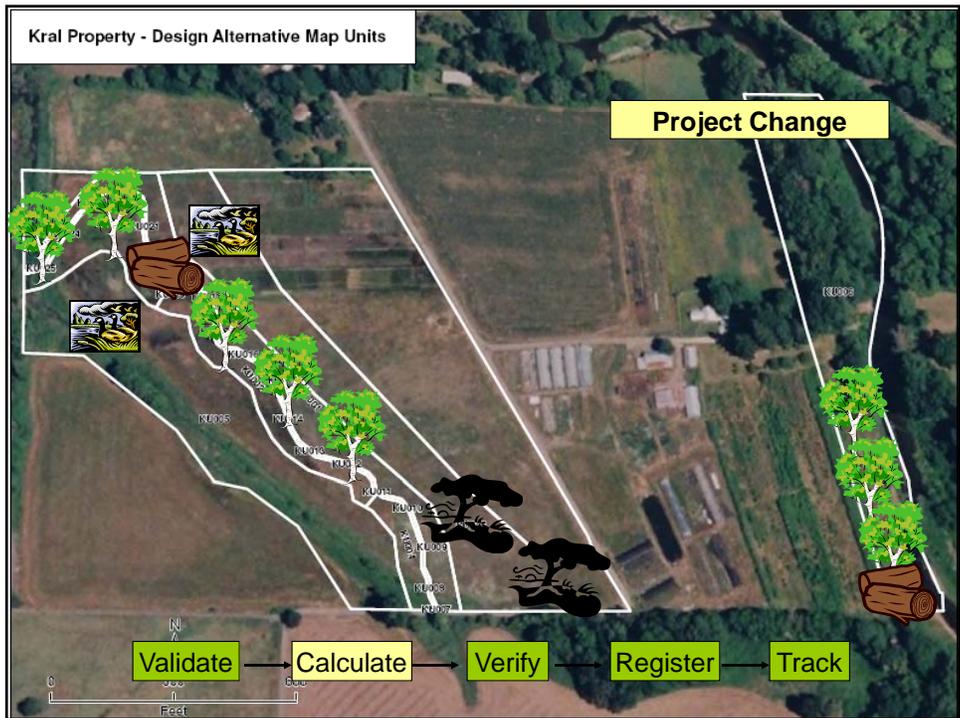
### New Places

- Can multi-credit markets work elsewhere?
- Where and under what are the conditions?
- Can the Process we've developed make it easier?



# Baseline Ledger

Credit Type	Baseline
Wetlands (Functional acres)	1.07
Salmonid Habitat (Functional In ft)	723
Upland Prairie (Functional acres)	0.5
Temperature (kcal/day)	8,015,377





## Calculating Credits

Credit Type	Baseline	Post-restoration	Functional Gain
Wetlands (Functional acres)	1.07	11.12	10.05
Salmonid Habitat (Functional ln ft)	723	1,429	707
Upland Prairie (Functional acres)	0.5	3.75	3.25
Temperature (kcal/day)	8,015,377	10,968,404	2,953,027

