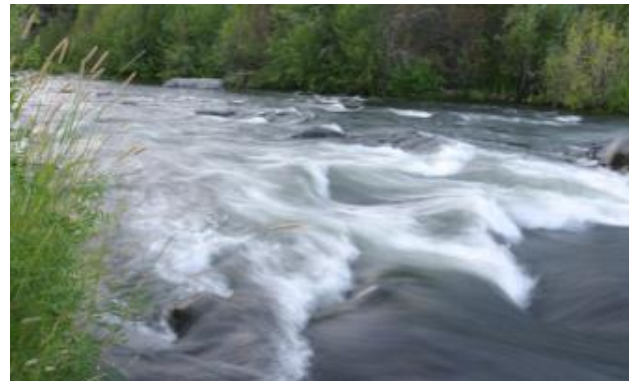




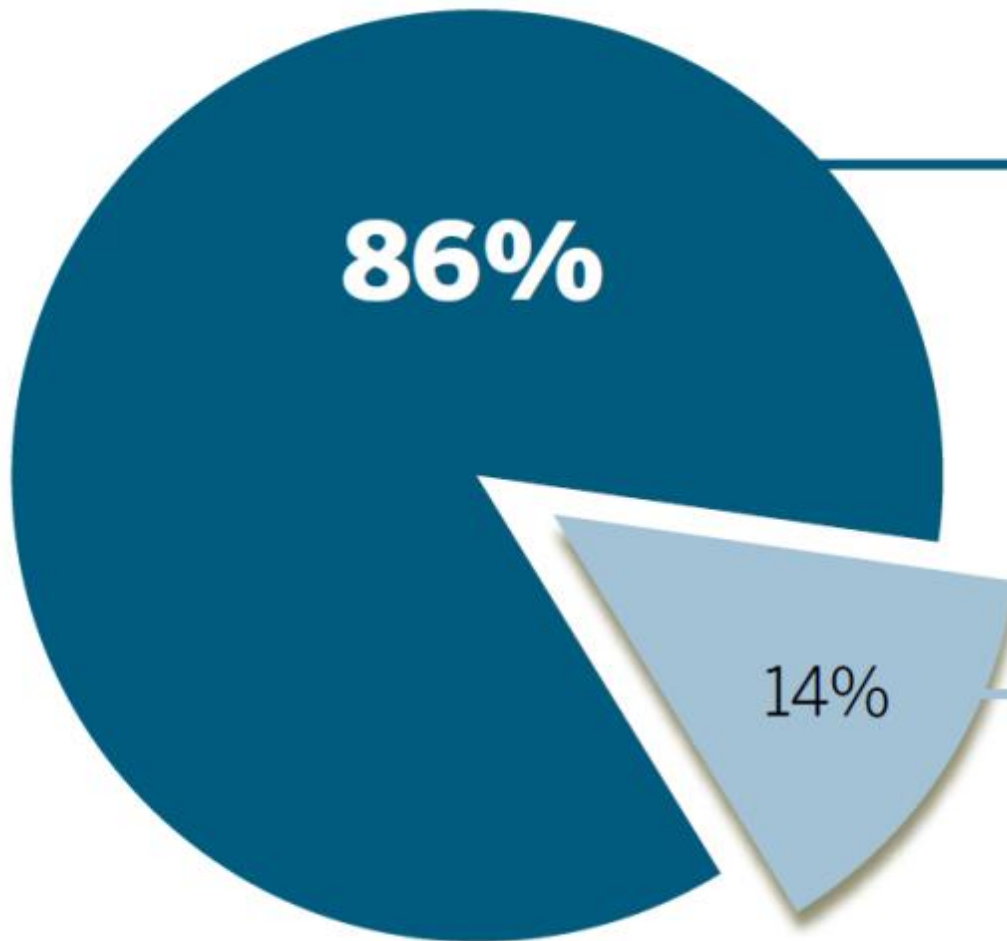
Operating water quality programs in Oregon

Some case examples



Restoration for Compliance

Investing how Mother Nature would



Non-Point Source



Point Source

Tualatin River, Oregon

Restoration for compliance, converting...

Cooling Towers

\$60 -
\$120
million

35 miles of restoration
Additional instream flow

\$6
million

FROM THIS...



...TO THIS

Summer, 2004



Summer, 2007

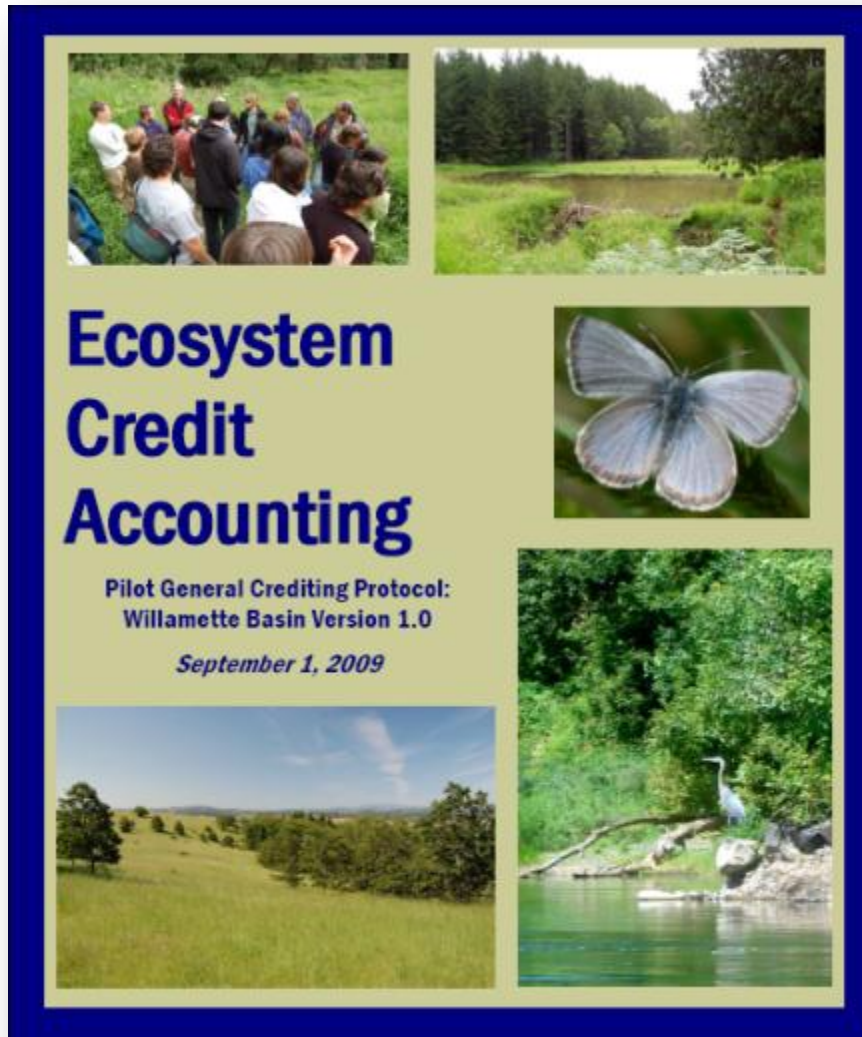


Summer, 2010



Crediting Protocol

Standards, Metrics, and Process



Credit types

Wetland

Salmonid habitat

Upland prairie habitat

Water temperature

Water nutrients

Oak habitat

Coming soon

Floodplain habitat

Sagebrush habitat

Benefits of flow



Rogue River, Oregon

With demand, infrastructure, and risk

Cooling Towers

>\$20
million

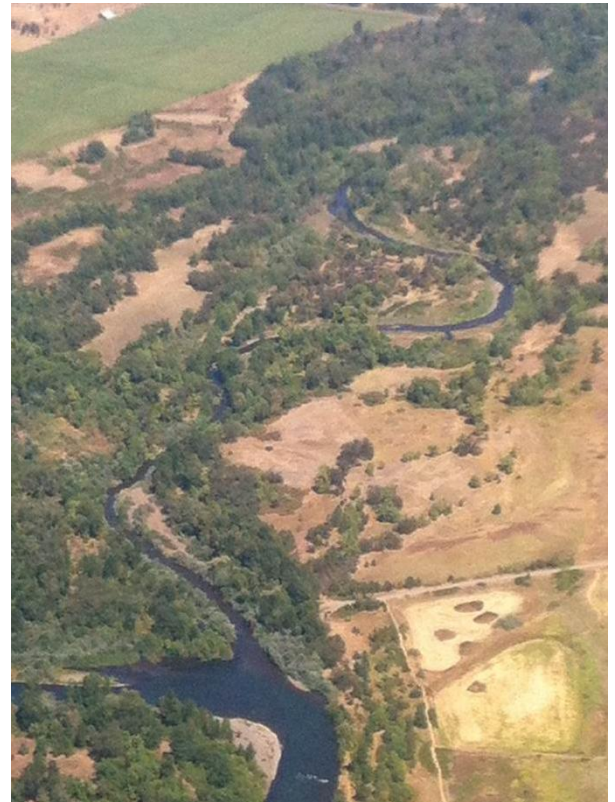
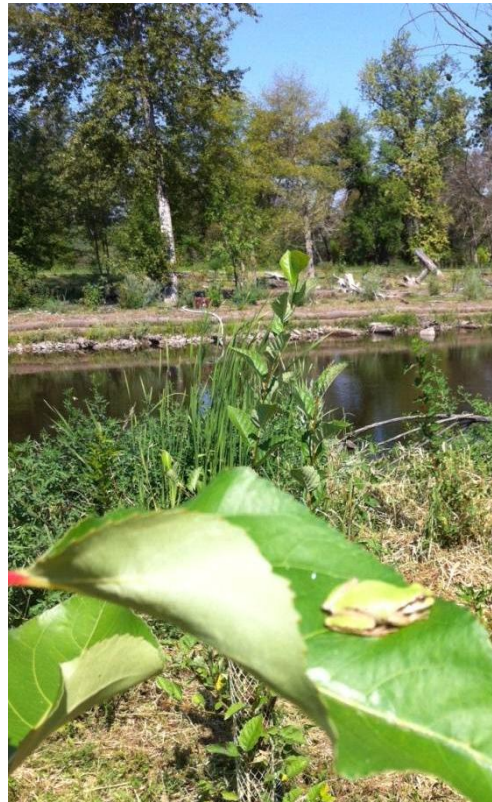
Holding Pond

\$16
million

30+ miles of restoration

\$8
million

FROM THIS...



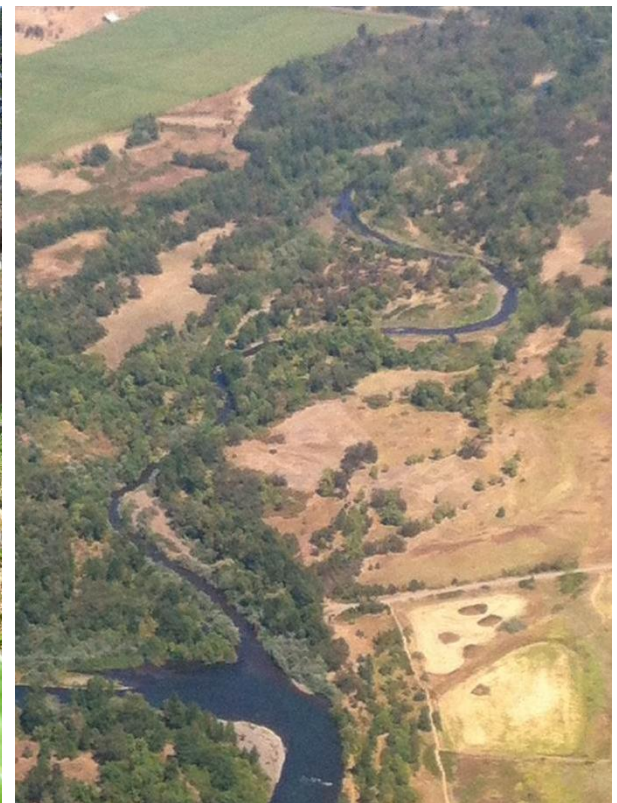
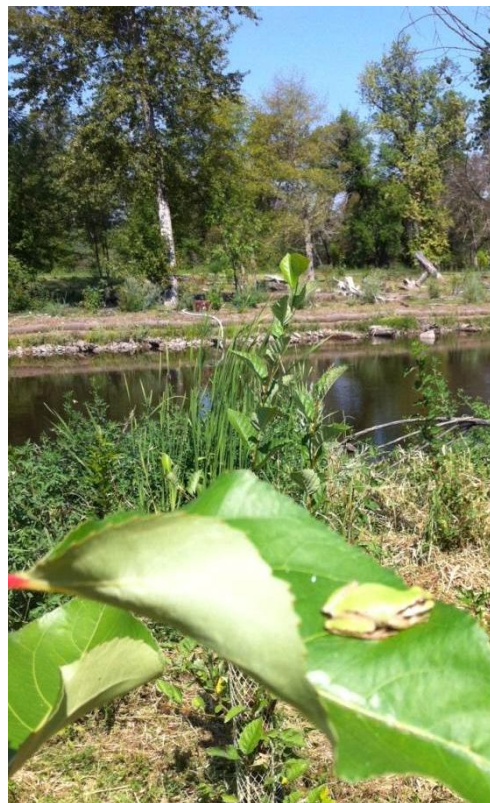
More water quality trading activity in the NW

Oregon

Eugene-Springfield
Port of St. Helens
Ashland?

Idaho

Boise River cities



Hurdles have been cleared

Ecosystem Payments & Markets

- **CLEAR DEMAND:** Utilities are investing, financing is available.
- **CLEAR PATH:** Templates and capacities are available for agency policies, program design, and operation
- **CLEAR RISK:** There are third parties willing to finance and deliver compliance-grade projects



What's our likely reality?

Ecosystem Payments & Markets

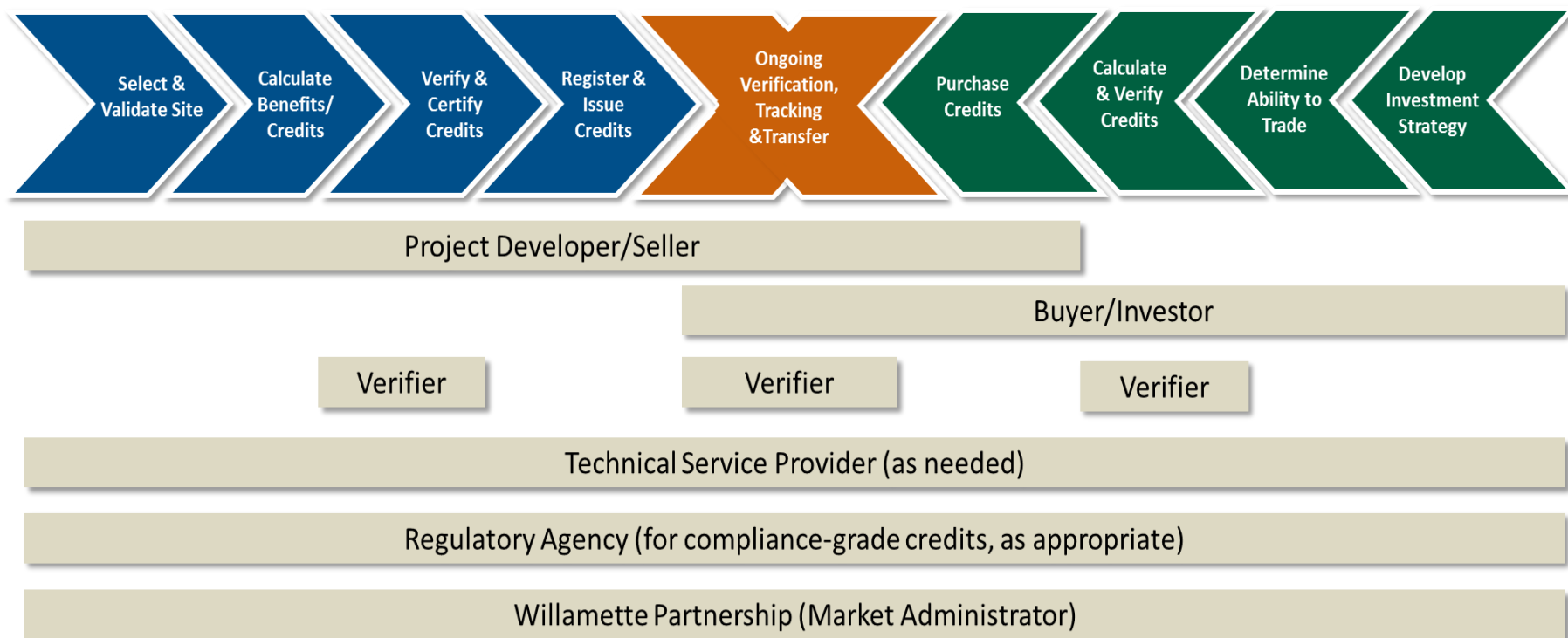
- **Markets are a tool:** Markets create a demand for clear goals, sound science, and accountability. They won't solve the world's problems, but their lessons might.
- **Environmental markets depend on law:** Good rules and engagement are essential
- **Volume thin and local:** It will continue to be hard to scale quickly



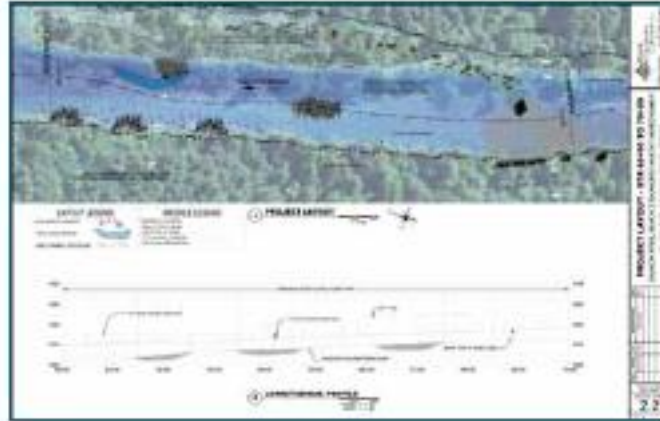
Credit Issuance Process

Validation through registration

Steps for buyers and sellers:



Verification



markit

Welcome to the Markit Ecosystem Registry - Oregan Region

BRUNDAUM | POWERUSER | 00000000 | 8/10/2008

Home | Partners | Business Relations | Instruments | User Administration | Accounts | Registry | Calendar | System Parameters | Logout

Create | Query | Check | Correct

PROJECT AND ISSUANCE DETAILS

Project Details

Project ID	GCMS001	Project Name	Gales Creek Half Mile
Project Developer	Markit WILLAMETTE	Validator	Markit DETROIT
Project Site Site	http://www.willamettepartnership.org/galescreek		
Regulator Tracking #	WILLAMETTE000012345678	Other Tracking #	
Land Manager		Land Protection Instrument Holder	
Start Date	8/10/2008	End Date	8/10/2019
Approval Date	8/10/2008		
Site Address	Mr Gales Creek Rd Oregon USA		
	GPS Coordinates	gmscreek.html	

Add Accounting Unit

Select &
Validate Site

Calculate
Credits

Verify &
Certify Credits

Register &
Issue Credits

Ongoing
Verification,
Tracking
& Transfer





Verification

- Goal: Protocols followed, Actions complete, Documentation in place, Estimates reasonable +/- 15%
- Activities: Review docs, review map unit boundaries, spot check data sheets.





Verification Cycle

- Year 1, Year 2-4, Change verifiers, Repeat
- Agency certification



Project Background



July 20, 2010



Project Background



August 22, 2012



Denman Verification

Overview

- Verifier Engagement
- Documentation review
- Desk audit of credit calculation
- Site visit
- Verification reports
- Certification of credits



Denman Verification

Verifier Engagement

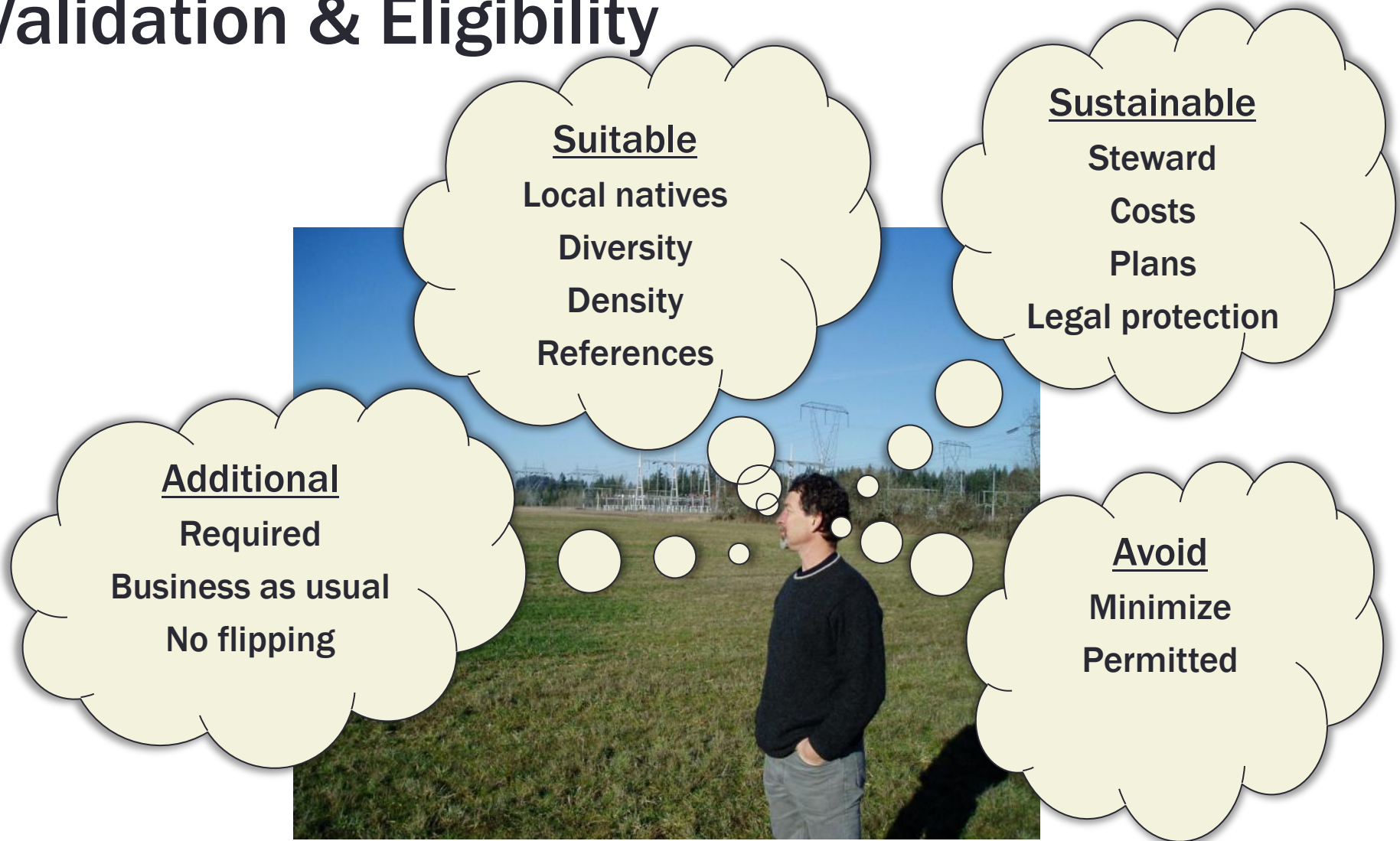
- Conflict of Interest Form
- Verifier Services Contract
- Scheduling/coordination

Resulting protocol document changes and updates:

- Verifier services agreement template



Validation & Eligibility



Denman Verification

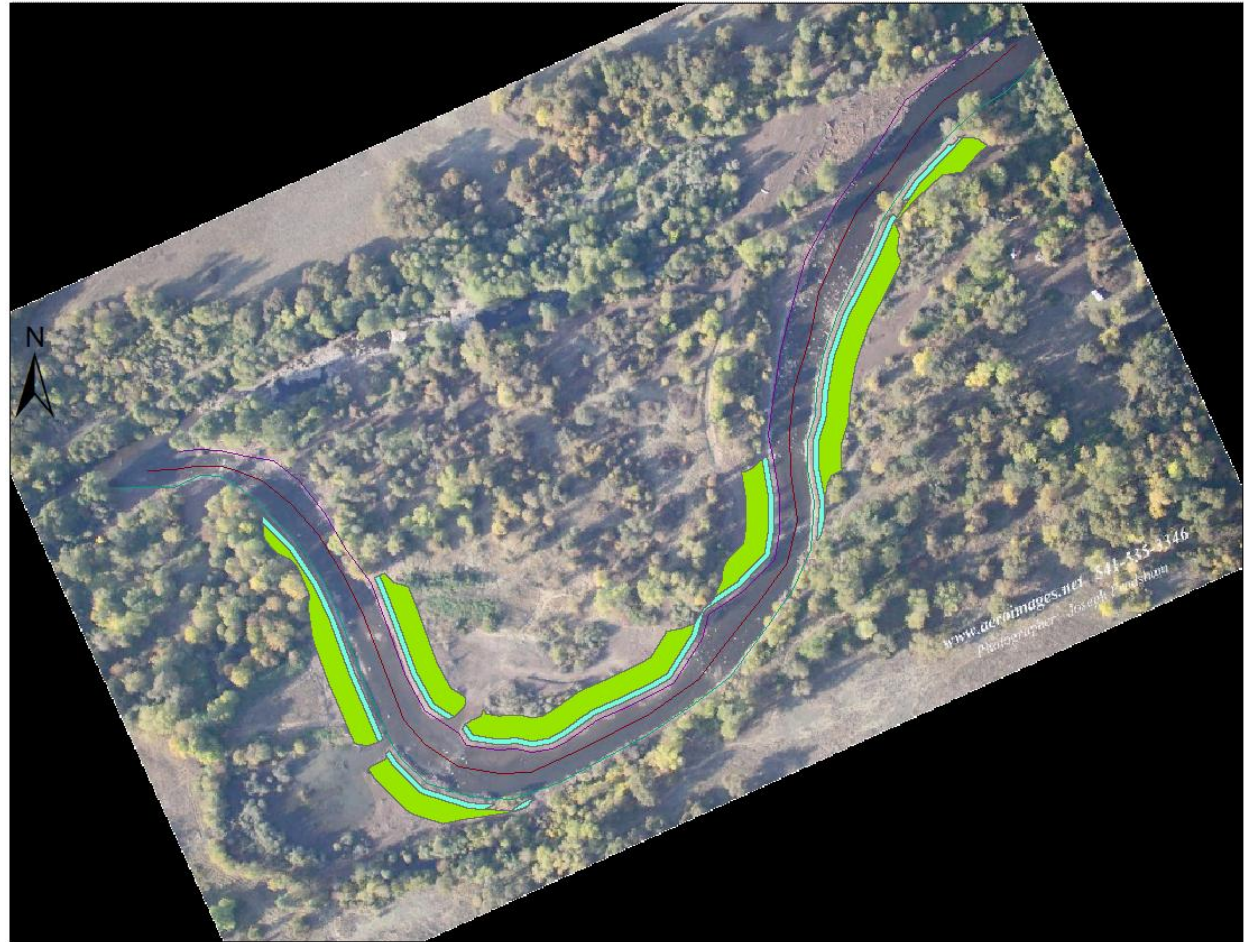
Document Review

- Validation Checklist
 - Proof of Ownership
 - Project Map
 - Project Design
- Validation Notice (& letter)
- Proof of Rights to Credits
- As-built project design
- Monitoring and stewardship plan



Denman Verification

- ☑ Credit calculation
- ☑ Stewardship plan
- ☑ Monitoring plan
- Additional comments

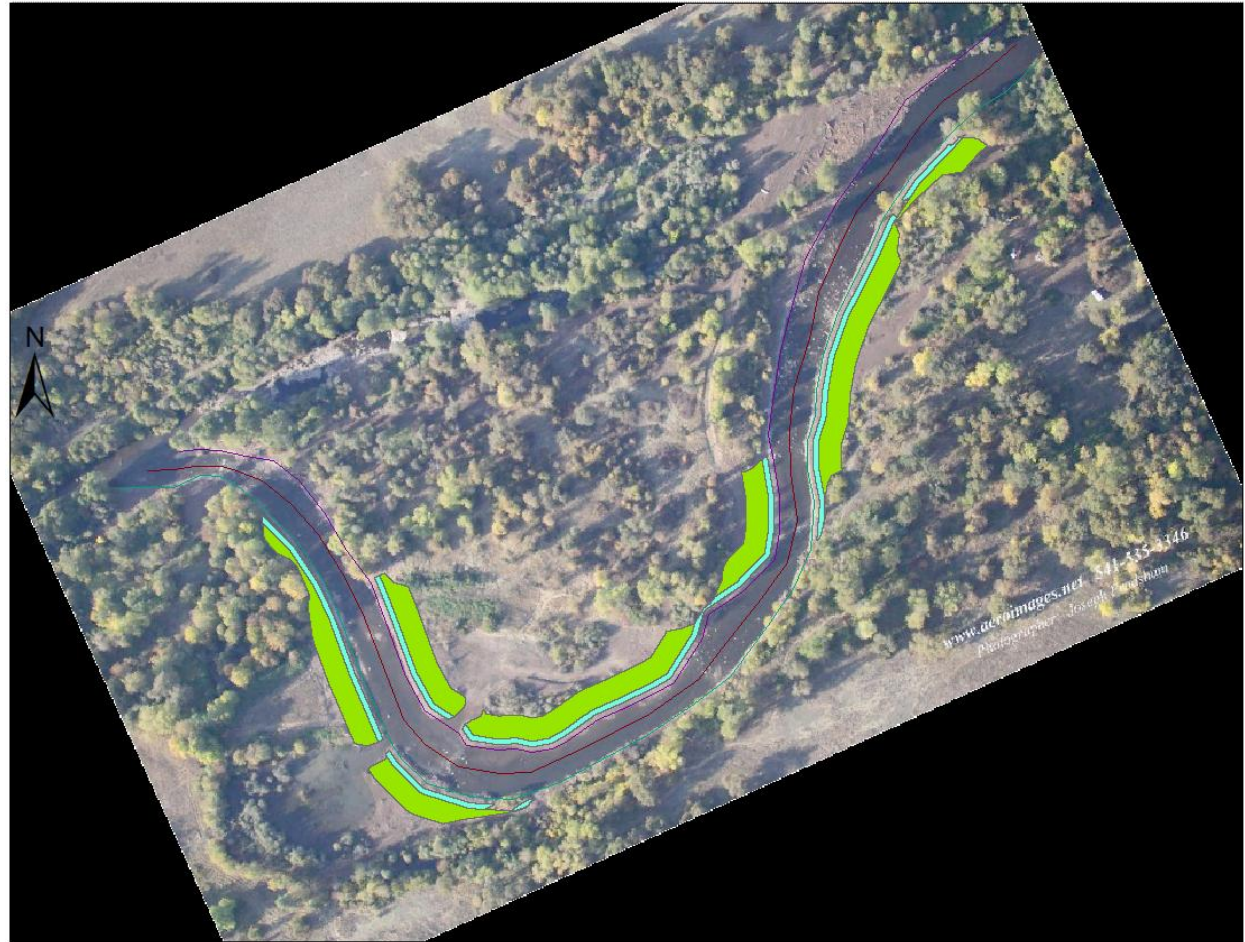


Denman Verification

- ✓ Final Verification Report
- ✓ Certification
- ✓ Registration on Markit

Resulting protocol document changes and updates:

- Monitoring and stewardship plan template



Registration & Tracking

Secure, transparent & publicly accessible

markit Welcome to the Markit Ecosystem Registry - Demo Region
BRENDANM | POWERUSER | 000000010 | 31/07/2009

Reports Business Relations Instruments User Administration Accounts Registry Calendar System Parameters Logout

Create ▾ Query ▾ Check ▾ Correct ▾

Home Create Project Details ✕

PROJECT AND ISSUANCE DETAILS Save Clear Back

Project Details

Project ID	GCHM0001	Project Name	Gales Creek Half Mile
Project Developer	Markit ▾ WILLAMETTE ...	Validator	Markit ▾ DETNOR001 ...
Project Web Site	http://www.willamettepartnership.org/galescreek		
Regulator Tracking Nr	WILLAMETTE000012345678	Other Tracking Nr	
Land Manager		Land Protection Instrument Holder	
Start Date	01/09/2009	End Date	31/08/2019
Approval Date	01/09/2009		
Site Address	NW Gales Creek Rd Oregon USA	GPS Coordinates	galescreek.kml Upload KML File

Add Accounting Unit



Thurston County Prairie Habitat Conservation Plan

Three new endangered species, and 13 more in 5 years

Developed protocols guiding rules, processes, and framework for prairie permitting and application of crediting methodology.

County, USFWS, NRCS, and others using to target conservation dollars

Very similar approach used for water quality and habitat crediting

Photo credit: Rod





FISH PASSAGE BANKING

Opening miles of stream, saving transportation millions

Developed protocols guiding rules, processes, and framework for fish passage permitting and application of crediting methodology.

OR DOT, County public works, OR Watershed Enhancement Board, and others using to target conservation dollars

Very similar approach used for water quality and habitat crediting



Klamath Tracking & Accounting Program

What did I get for all that \$?...

Nutrient Reductions & Tracking TMDL progress





Ecosystem Markets

Catalyzing Investment in Conservation



Willamette Partnership
cochran@willamettepartnership.org
(503) 946-8350