



**USDA Efforts
Supporting
Ecosystem Services and
Markets**

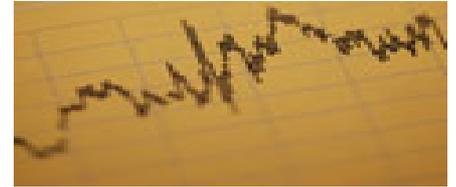
Carl F. Lucero

Acting Deputy Director

USDA Office of Ecosystem Services and Markets

What are Ecosystem Service Markets?

- ❑ Mechanism for placing value on marketable natural assets/benefits
- ❑ Platform where services can be bought, sold or traded
- ❑ Financial system through which those receiving benefits can compensate producers of benefits



Marketable

Non-Marketable

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Priceless



What makes a Market Successful?

- ❑ Low transaction costs
- ❑ Clear rules/protocols for market transactions and trades
- ❑ Credible measurements and reporting
- ❑ Certainty/low risk – ability to accurately define & deliver benefit
- ❑ Adequate number of buyers and sellers that are easy to locate
- ❑ Drivers



The Trading Process

You must Reduce your impacts



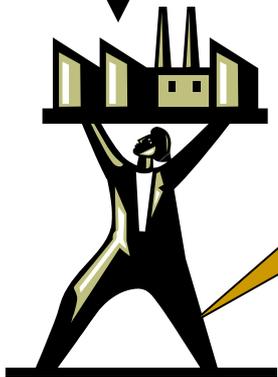
Regulator

Ok. I can do some myself and I'll look to the market for the rest



Buyer's agent

Where can I buy credits?



Buyer



Activities

Riparian planting

Upland planting

Wetland restoration

Conservation easement



Wetland credits



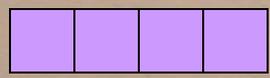
Water Quality credits



Carbon credits



Species credits





You have 10 credits of premium quality

Verifier



Credits are registered, ready to sell

Seller

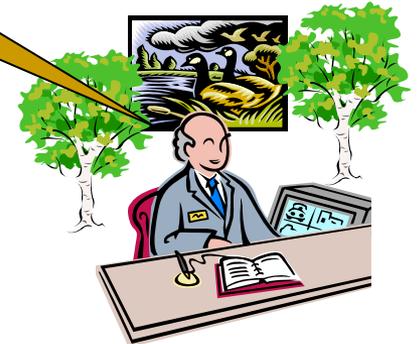
Where can I sell credits?



Seller's agent



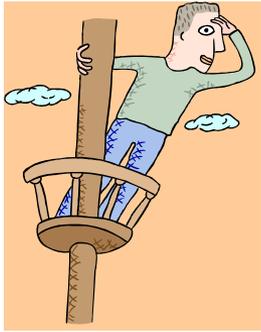
Regulator



Registry

Standards look good to me

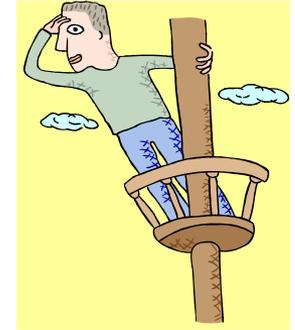




Buyer's agent



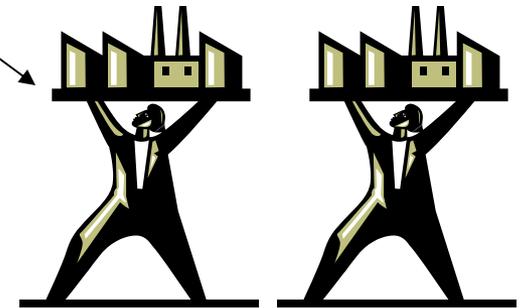
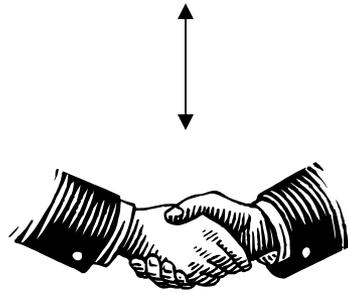
Centralized Credit Registry



Seller's agent



Nonpoint to point Trades



Point to Point Trades





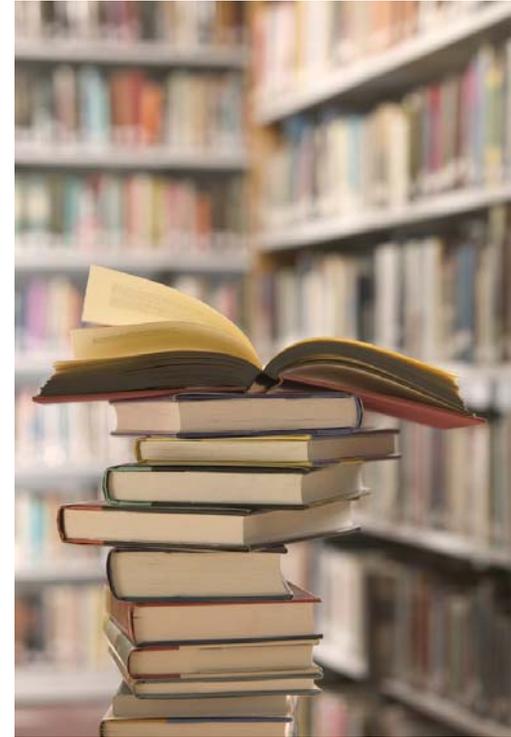
What's Our Role?

- ❑ Establish a role for Ag and Forestry
- ❑ Promote the use of Market Mechanisms
- ❑ Develop Innovative Tools
- ❑ Conduct Outreach
- ❑ Increase Awareness



Technical References

- ❑ Environmental Credit Trading Handbook
- ❑ Environmental Credit Trading Information Series
- ❑ Training Courses



Accounting Tools

Models:

- ❑ Nutrient Trading Tool
- ❑ Comet VR
- ❑ Cole – Carbon online Estimator
- ❑ 1605b Voluntary Registry



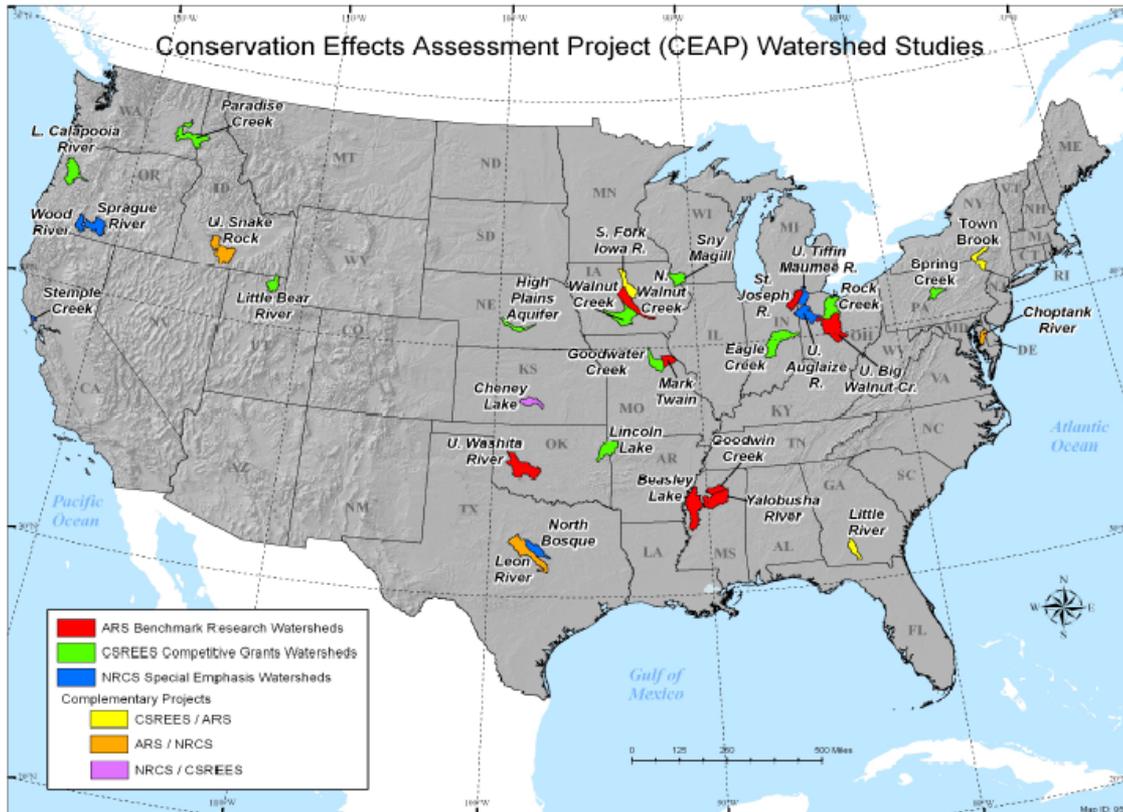


Collaborative Efforts

- ❑ **USDA/EPA WQT Partnership**
- ❑ **USDA/FWS/AFWA HCT Partnership**
- ❑ **Cosponsor of the 12th Mitigation and Conservation Banking Conference**
- ❑ **Sponsor of Ecosystemmarketplace.com**



Conservation Effects Assessment Project



CEAP is designed to help standardize approaches for estimating the value of environmental goods and services generated by conservation systems.

Farm Bill: Food, Conservation, and Energy Act of 2008

Section 2709 authorizes USDA to create a Federal framework to facilitate Environmental Services Markets.



Section 2709

The Secretary is directed to develop:

- ❑ **Guidelines to Measure Environmental Benefits**
- ❑ **A Registry to Collect and Record these Benefits**
- ❑ **Verification Protocols to ensure these Benefits are real**





Section 2709

and....

- ❑ **Facilitate the Participation**
- ❑ **Consider the Role of Third Parties**
- ❑ **Build on Existing Information and Guidelines**
- ❑ **Consult with Stakeholders**





Office of Ecosystem Services and Markets (OESM)

The Notion is to help *build a more unified, transparent market system* where landowners can actively participate in emerging markets and investors can trust that they're purchasing a real conservation benefit.



OESM

Staff:

- ❑ **Sally Collins – Director**
 - ❑ **Mark Nechodom (Carbon Markets)**
 - ❑ **Carl Lucero (Water Markets)**
 - ❑ **Beth Larry (Ecosystem Services Manager)**
 - ❑ **Thelma Strong (Chief of Staff)**





OESM

Information Gathering:

- ❑ Inventory and Catalogue existing information
- ❑ Focus on Carbon and Water Quality
- ❑ Research and Analysis





The New Administration

- ❑ Make government more *transparent, inclusive, and collaborative*
- ❑ Focus on ensuring that financial assistance goes where it's really needed
- ❑ Strong emphasis on scientific integrity



Ecosystem Services and Markets

*“It’s important to me that the **USDA** lead efforts to incentivize management practices that **promote and provide clean air, clean water, and wildlife habitat, and to help farmers participate in markets** that reward them for sequestering carbon and limiting greenhouse gas emissions.”*

- Secretary Vilsack 1/26/09 Radio News Conference



End

For more info...



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