

Ecosystem Markets for Agricultural Lands

Ecology Agriculture and Water Quality Advisory
Group

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Conservation Markets

What is a Conservation Market?

- Economic value is applied to various ecosystem functions on land, such as wetlands, forests, habitat, carbon sequestration, etc.
- This value is converted to “credits” that can be sold.
- Buyers of the credits would be either private or public sector entities who are proposing development projects that will impact ecosystem functions and these impacts must be mitigated.
- Mitigation for the impacts may come in the form of purchasing the ecosystem credits in a market setting.
- A goal of the conservation markets program is to provide a source of revenue for working farms and forest landowners.

Activities

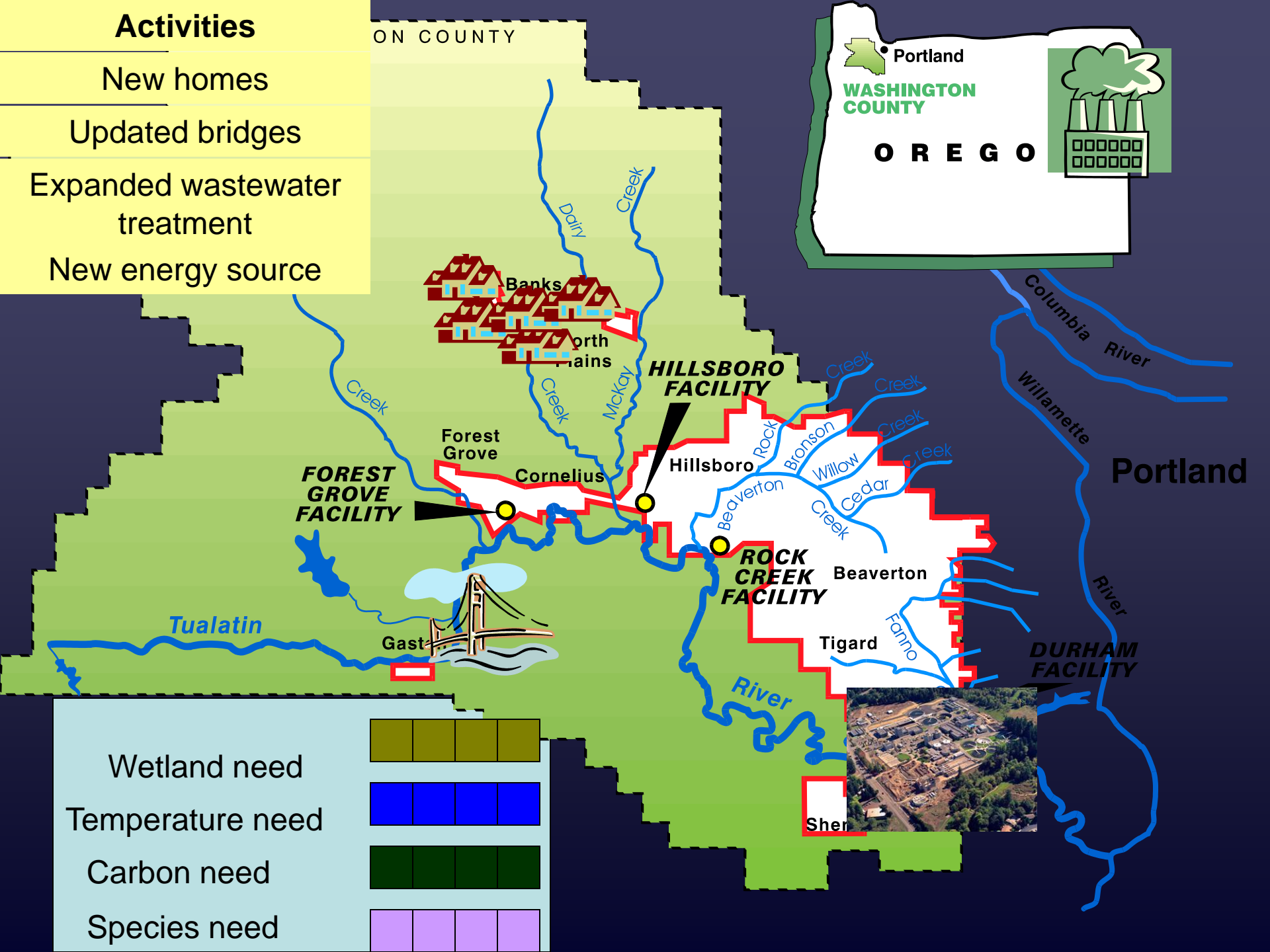
New homes

Updated bridges

Expanded wastewater treatment

New energy source

ON COUNTY



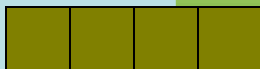
FOREST GROVE FACILITY

HILLSBORO FACILITY

ROCK CREEK FACILITY

DURHAM FACILITY

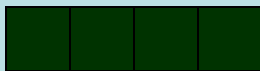
Wetland need



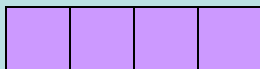
Temperature need



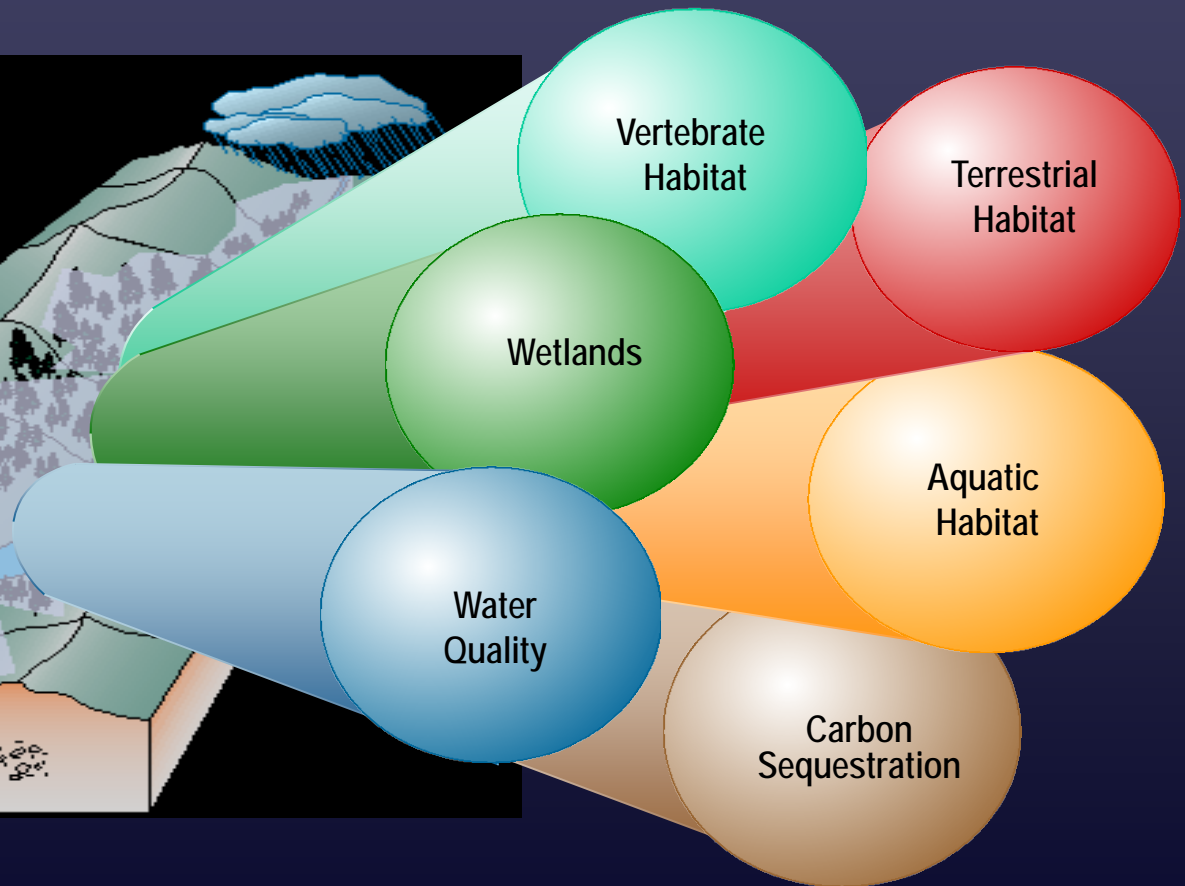
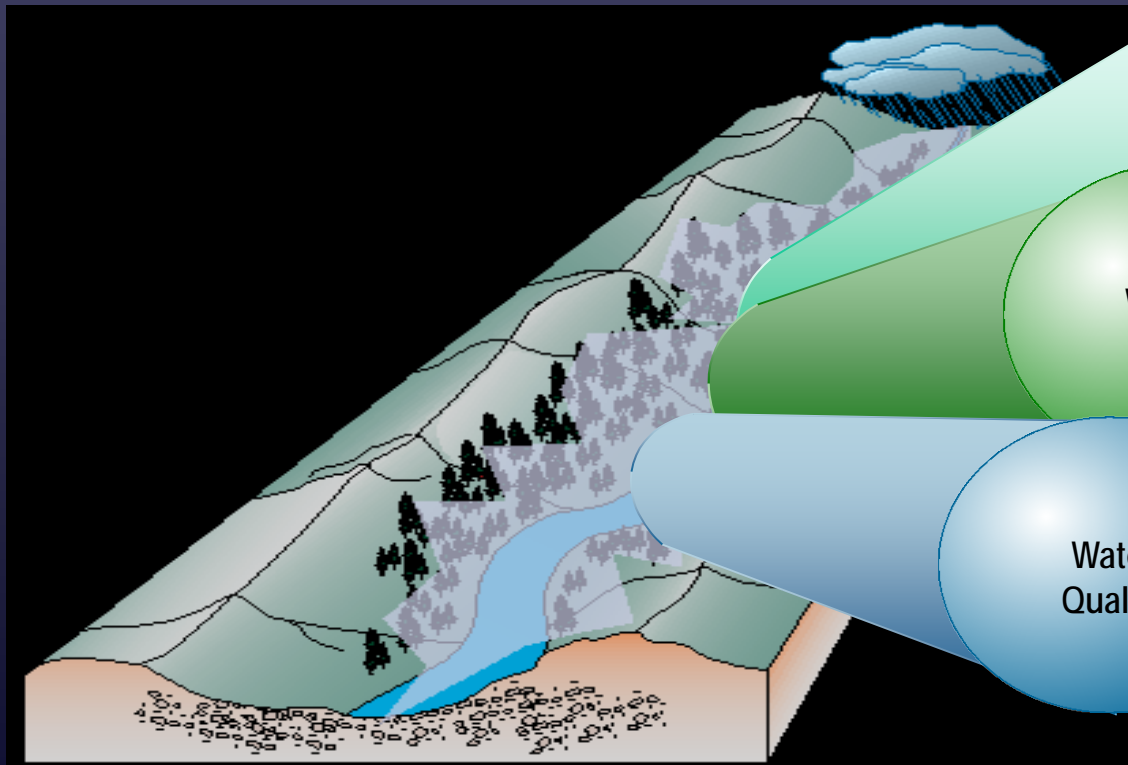
Carbon need



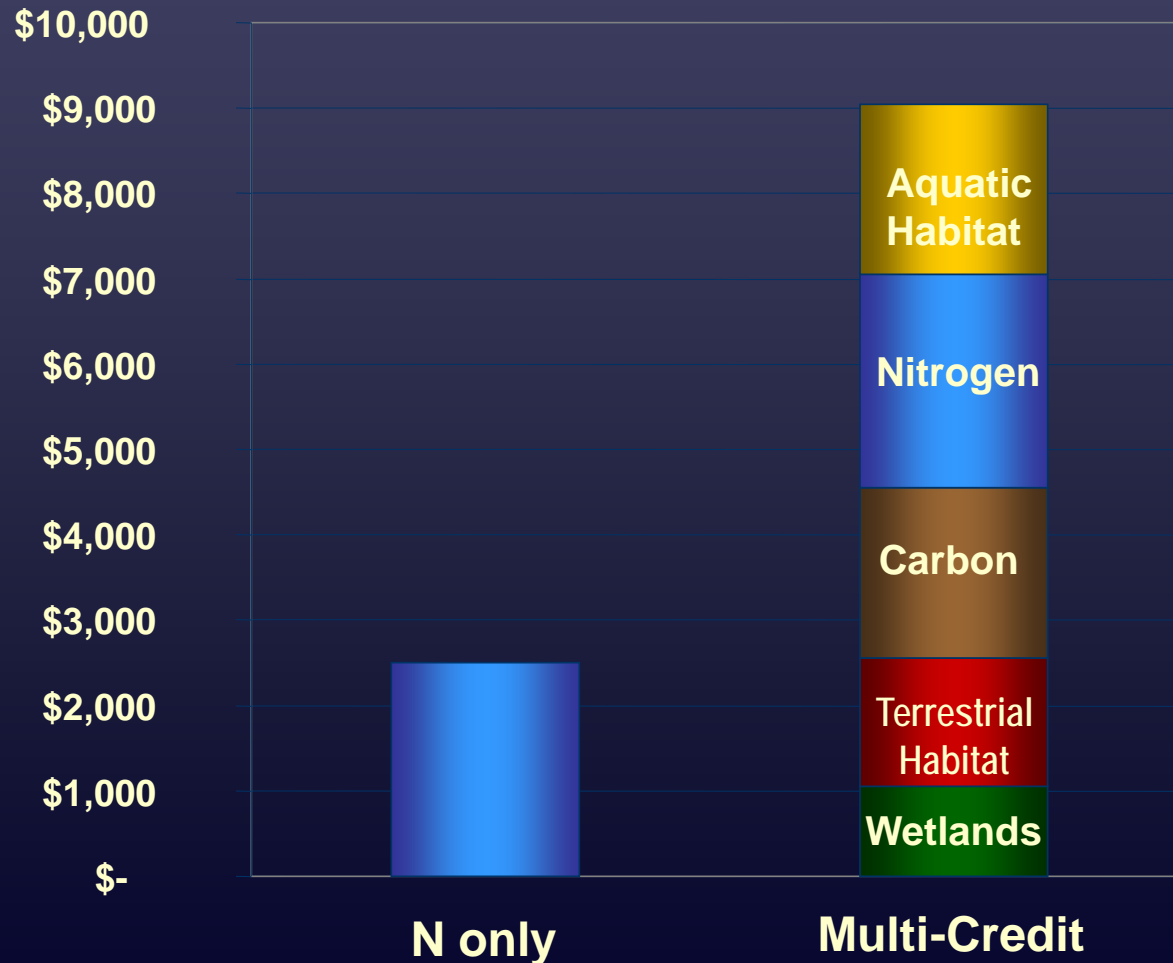
Species need



Bundle of Property Rights and Ecosystem Values



Bundling values in a multi-credit market increases incentives



Activities

Riparian planting

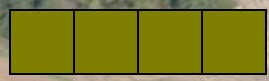
Upland planting

Wetland restoration

Conservation easement



Wetland credits



Temperature credits



Carbon credits



Species credits



How does an ecosystem market work?

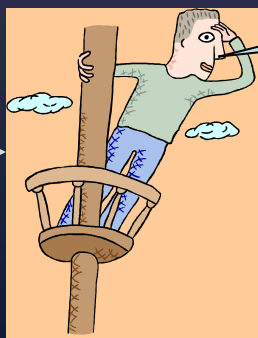
Reduce your impacts please



Regulator



Buyer



Buyer's agent

Where can I buy credits?

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

You have 10 credits
of premium quality

Standards were
followed

Credits are registered with
unique serial numbers and
can be monitored and
tracked over time.
They are ready to sell

Where can I
sell credits?



Seller



Verifier



Certifier



Registry

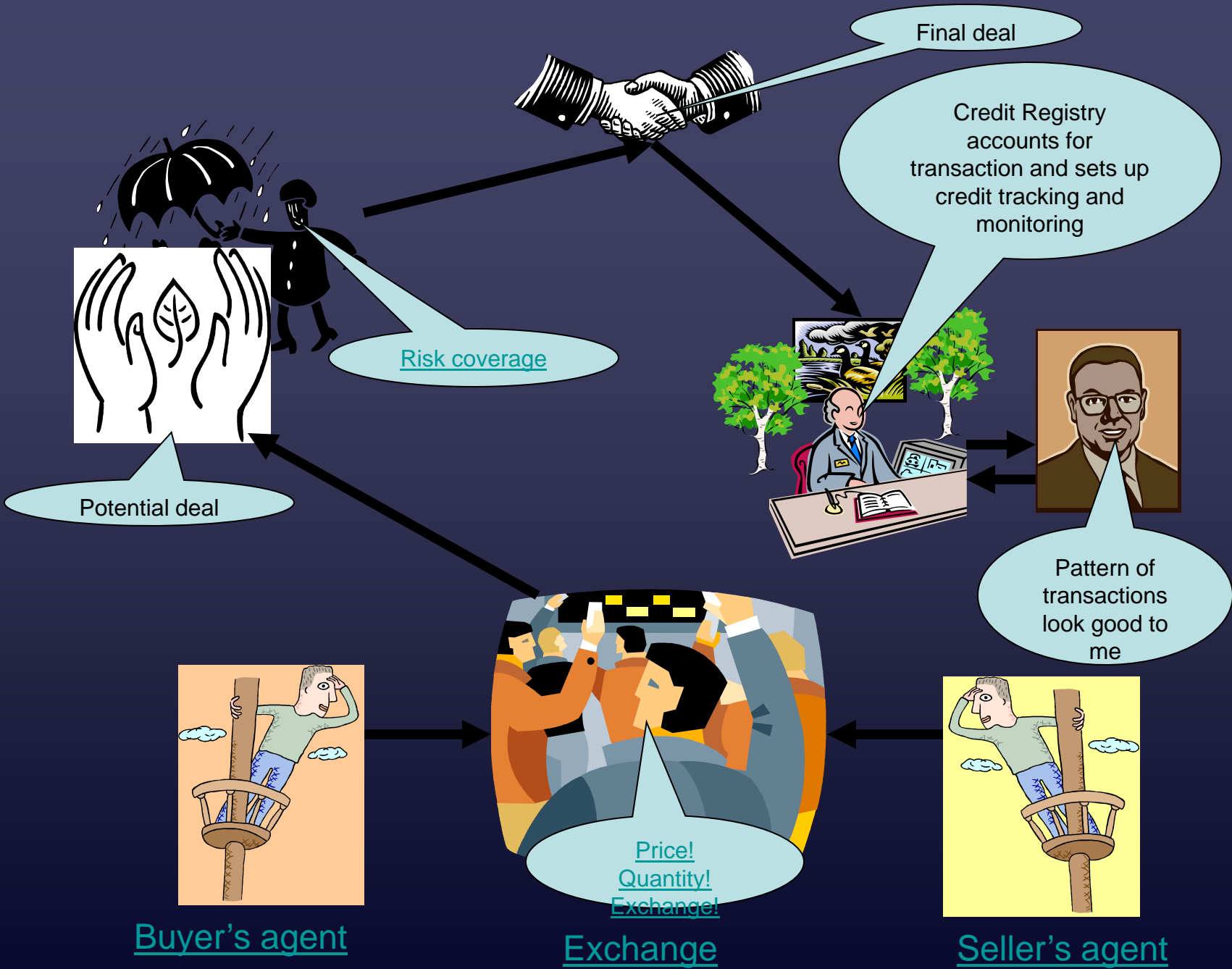


Seller's agent



Standards
look good to
me

Regulator



SCC Conservation Markets Study

- Legislation passed in 2008 directing the Conservation Commission to conduct a feasibility study and implement two pilot projects.
- Budget cuts resulted in study only, no projects.
- Scope of study:
 1. Evaluate existing models of conservation markets.
 2. Characterize potential supply of and demand for market credits.
 3. Assess stakeholder interest in and priorities for market creation.
 4. Evaluate alternatives for structuring and supporting conservation markets.
 5. Develop findings and recommendations.

SCC Conservation Markets Study

Summary of Study Findings

- Private farms and forests could supply substantial conservation gains in Washington.
- Markets for greenhouse gas emissions appear to be the most promising for early implementation.
- Water quality markets are also somewhat promising, but will take longer to develop.
- The growth in conservation markets in Washington would be stimulated by more energetic governmental leadership and coordination of efforts.
- Attention is needed to establish the appropriate market institutions before new markets take off.

SCC Conservation Markets Study

Summary of Study Recommendations

- Establish a center for state efforts to stimulate creation of new conservation markets.
- Develop a template for structuring new regional or statewide conservation markets, potentially based on the in-lieu-fee program being developed by the PSP.
- Pursue a strong role for farmers and foresters in production and marketing of greenhouse gas credits.
- Provide stronger incentives for conservation actions on farms and forests.
- Pursue pilot projects to continue development of conservation market policies and procedures.

ECY WQ Trading Guidance

- Developed in September 2010 and distributed for stakeholder review and input.
- Ecology supports the concept of pollution trading markets that:
 - Meet the requirements and objectives of Washington's water quality standards and the federal Clean Water Act.
 - Promote cost-effective water quality protection and restoration.
 - Result in water quality trades that are verifiable and fully enforceable.

ECY WQ Trading Guidance

Washington trading programs must also comply with the U.S. EPA trading policy, which recommends that state programs provide:

- Timely public access to information on trades.
- Public participation during program development and implementation.
- Mechanisms to monitor progress, evaluate program effectiveness, and revise the program as necessary.
- Legal mechanisms to facilitate trading.
- Clearly defined units of trade.
- Methods to quantify credits and address uncertainty.
- Compliance and enforcement provisions.
- Accountability for all trades.
- Assurance that NPDES permit holders meet their permit limits.

ECY WQ Trading Guidance

- The guidance outlines the regulatory path for water quality trading under Washington Water Quality Standards and the Clean Water Act.
- This process is designed to develop trading programs that satisfy state and federal regulatory requirements (permit limits and TMDL load allocations).
- In some limited circumstances, a community may choose to develop a proactive and non-regulatory trading program to help them manage their long-term water quality needs.

ECY WQ Trading Guidance

- For example, a point source discharger may want to pay for nonpoint pollution control efforts to preempt the need for future impaired water listings and subsequent water clean-up efforts.
- In these situations, where state and federal law compliance is not a goal of the trading program, a community need not follow this process.
- However, it is important to note that trading programs that do not follow this process *will not provide a regulated entity with any legal assurances or protections under applicable state and federal water quality regulations.*

Water Quality Trading Bill

- 2014 legislation – SHB 2454.
- Legislative findings:
 - ▶ Water quality trading is an innovative approach adopted in at least 17 states;
 - ▶ Can lead to more efficient achievement of water quality goals;
 - ▶ Trading programs allow facilities facing higher pollution control costs to meet regulatory obligations by purchasing reductions;
 - ▶ Reductions are to be environmentally equivalent or superior pollution reductions from another source at a lower cost;
 - ▶ Trading achieves the same water quality improvement at overall lower costs.
- EPA is supportive of water quality trading programs – National Water Quality Trading Policy.

Water Quality Trading Bill

- Legislature also finds:
 - ▶ Water quality trading is a voluntary option that regulated point sources can use to meet the discharge limits in their NPDES permits;
 - ▶ WQ trading program must be transparent, have real, accountable reductions in pollution inputs, must be defensible, and must be enforceable;
 - ▶ May not be suitable in all watersheds;
 - ▶ Washington should explore the option as a tool for achieving water quality goals and investigate whether this tool is viable given the specific, local water quality concerns.
- Ecology has produced a draft water quality trading framework that enables trading in Washington.
- To date, a major barrier to trading is a lack of interested credit purchasers.

Water Quality Trading Bill

- In the bill, the Conservation Commission, in partnership with Ecology, shall build upon the SCC report on conservation markets and explore whether there are potential buyers and sellers in Washington watersheds for a water quality trading program.
- The SCC should examine watersheds in which a TMDL has been produced, and assess whether there are potential buyers, or permit holders, and sellers of credit to support a water quality trading program consistent with the water quality trading framework developed by Ecology.
- SCC must coordinate with Tribes, WSDA and other state agencies, local governments, and other interested stakeholders.

Water Quality Trading Bill

- Prior to finalizing the assessment and report, the SCC must ensure Ecology concurs with its determination of whether or not there is the potential for a viable water quality trading program.
- Report findings are due October 31, 2017.

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