



Meeting Regulatory Needs with Voluntary Conservation

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ALGAL BLOOM ADVISORY

A harmful algal bloom has been
detected at this location.
Users are encouraged
to avoid ingesting water and
avoid surface scum.



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What are market-based approaches?





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Market-based approaches are a voluntary means to reduce the cost of compliance with environmental regulations.



Water Quality Trading Example



A regulated point-source entity has a pollution limit



Another entity can reduce the pollutant at a lower cost

Oversees permits



A regulator monitors & enforces



Approves credits & trades

Conservation Banking Example



An entity impacts a listed species (an “incidental take”)



Entity buys credit



Mitigation banks conserve and manage natural resource values for species' benefit

Administers
ESA



Regulating Entity



Approves banks & credits



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Wetland Mitigation In-Lieu Fee Example



Mitigation credit required



Regulating Entities



Regulators approve ILF project



Market-based approaches can...

- Reduce costs and increase flexibility of restoration or compliance requirements
- Expand revenue for working lands
- Provide environmental benefits
- Accelerate conservation activities
- Increase opportunities for investment
- Improve accountability/effectiveness of existing conservation programs



What is bought and sold?

Water Quality &
Quantity

Wildlife Habitat

**Ecosystem
Goods &
Services**

Wetlands

CO₂ & Greenhouse
Gasses

Credit Trading

Payments for
Watershed Services

Bi-Lateral
Agreements

Mitigation Banks

In-Lieu Fee
Programs



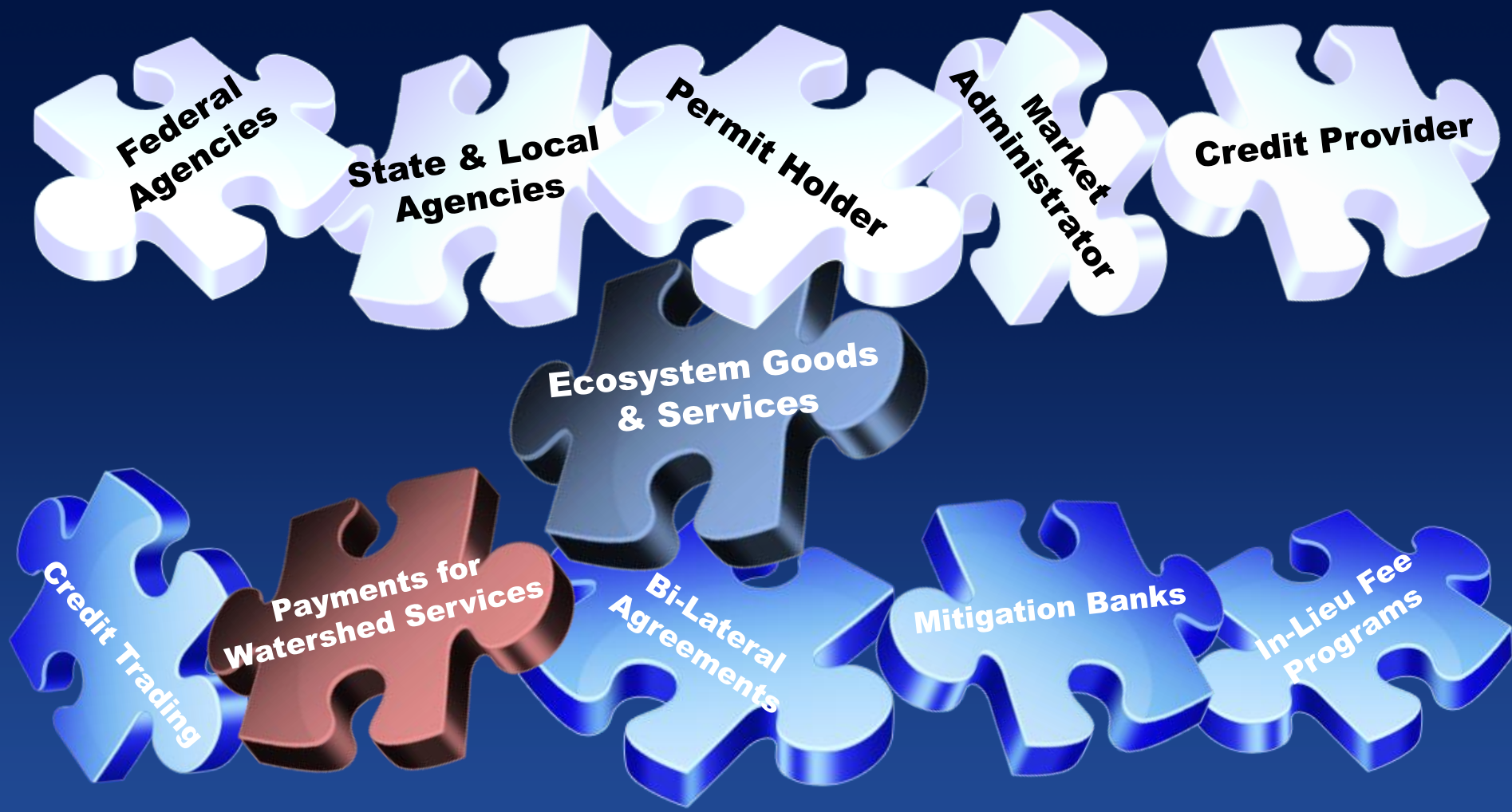
Who are the buyers and sellers?

		Sellers	
Buyers		Individuals	Governments
	Individuals	<ul style="list-style-type: none">• Markets for private ecosystem goods• Land trust conservation easements• Private environmental incentive payments• Consumption-based donations• Cap and trade markets	<ul style="list-style-type: none">• Public goods and services financed by taxes• Fees to government agencies for access to ecosystem goods• Fees (taxes or charges) for license to discharge
	Gov't	<ul style="list-style-type: none">• Incentives to private parties for provision of ecosystem services	<ul style="list-style-type: none">• Federal grants for environmental protection



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Who is responsible for oversight?





Why are other Agencies involved?

- Consistent with mission and existing authorities
- Potential need for credits

For USDA,

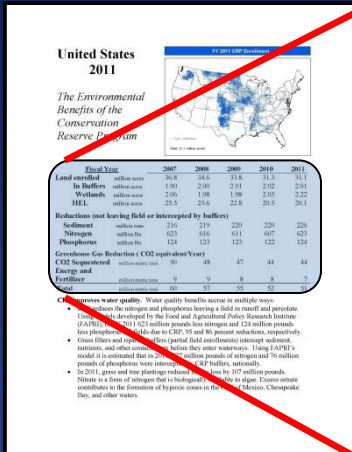
- In the 2008 Farm Bill, Congress instructed USDA to establish uniform guidelines for science-based methods to measure ecosystem services benefits ... and facilitate the participation of farmers, ranchers, and forest landowners in emerging ecosystem services markets.



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Farm Bill investments facilitate market-based approaches and improve government programs

Example: FSA Conservation Reserve Program (CRP) performance data



CRP improves water quality.

- Prevented 226 million tons of sediment, 623 million pounds nitrogen and 124 million pounds phosphorus from leaving the field.

CRP enhances wildlife habitat.

- Independent studies identified benefits to Prairie Pothole ducks, ringed-neck pheasants, sage grouse, northern bobwhite quail, and other grassland birds.

CRP sequesters carbon.

- Sequestered 51 million metric tons CO2 equivalent.



Market-based approaches will not work everywhere

Market-based approaches work where:

- There is a strong "driver" (regulatory or financial)
- Participants have different abatement costs
- Uncertainty can be reduced
- Stakeholders and regulators work together to design and implement trading programs

Payment for Watershed Services Example



Provides clean drinking water to city of Denver



Invests \$16.5 million in forest restoration, matching FS for \$33m total



FS works to manage forested watersheds

Higher rates cover the cost of restoration



City of Denver consumes water



Healthy forests provide clean water and result in fewer disaster costs



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Voluntary approaches work if...

... the Public's Interest is Protected

Good Policy

...and the Buyers, Sellers and Regulators
are Confident in the Efficiency &
Credibility of the Programs

Good Science



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Questions?

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