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.
What are market-based approaches?
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.

Regulated entity purchases a credit to comply.

A regulator monitors & enforces.

Approves credits & trades.

Oversees permits.
Conservation Banking Example

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

Administers ESA

Regulating Entity

Entity buys credit

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

Approves banks & credits

Entity buys credit

$
Wetland Mitigation In-Lieu Fee Example

Developer impacts a wetland

In-Lieu Fee Sponsor uses fees to finance mitigation project

Mitigation credit required

Regulators approve ILF project

Regulating Entities

Developer pays fee to ILF Sponsor

US Army Corps of Engineers

Environmental Protection Agency

United States Department of Agriculture
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
- Wetlands
- CO₂ & Greenhouse Gasses

Ecosystem Goods & Services

Credit Trading
Payments for Watershed Services
Bi-Lateral Agreements
Mitigation Banks
In-Lieu Fee Programs
### Who are the buyers and sellers?

<table>
<thead>
<tr>
<th>Buyers</th>
<th>Sellers</th>
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</thead>
<tbody>
<tr>
<td><strong>Individuals</strong></td>
<td><strong>Governments</strong></td>
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<tr>
<td>• Markets for private ecosystem goods</td>
<td>• Public goods and services financed by taxes</td>
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<tr>
<td>• Land trust conservation easements</td>
<td>• Fees to government agencies for access to ecosystem goods</td>
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<tr>
<td>• Private environmental incentive payments</td>
<td>• Fees (taxes or charges) for license to discharge</td>
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<tr>
<td>• Consumption-based donations</td>
<td>• Federal grants for environmental protection</td>
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<tr>
<td>• Cap and trade markets</td>
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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.
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

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

Higher rates cover the cost of restoration

Healthy forests provide clean water and result in fewer disaster costs

Provides clean drinking water to city of Denver

FS works to manage forested watersheds

City of Denver consumes water
Voluntary approaches work if...

... the Public’s Interest is Protected

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

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