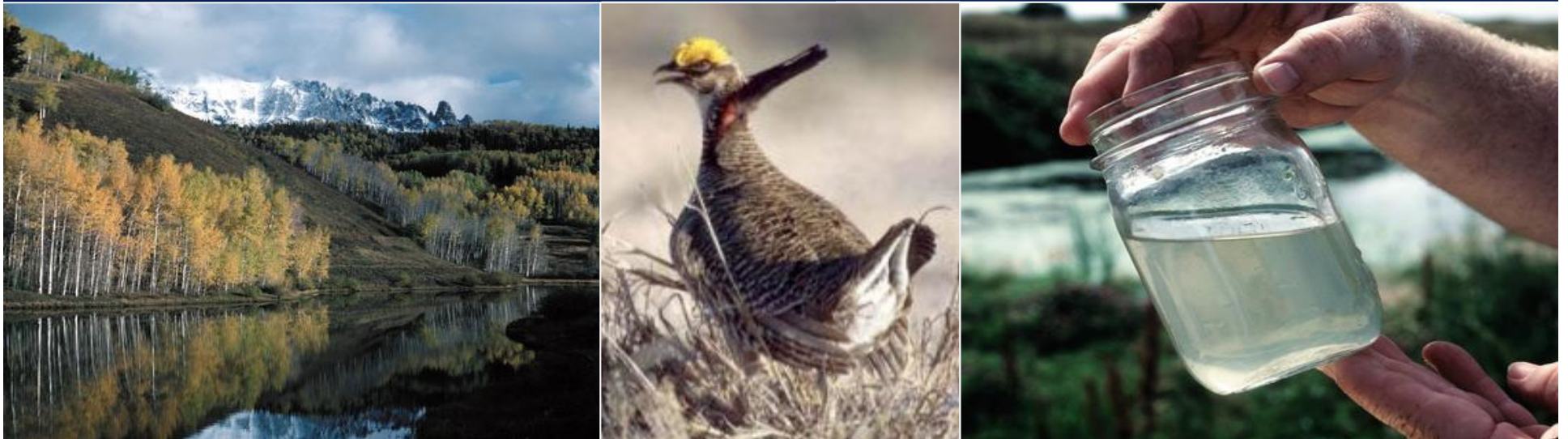


Introduction to Environmental Markets in the U.S.

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What are Environmental Markets?

Markets are a voluntary means to reduce the cost of compliance with environmental regulations
AND
a tool to create incentives for better resource management





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Environmental Markets Can...

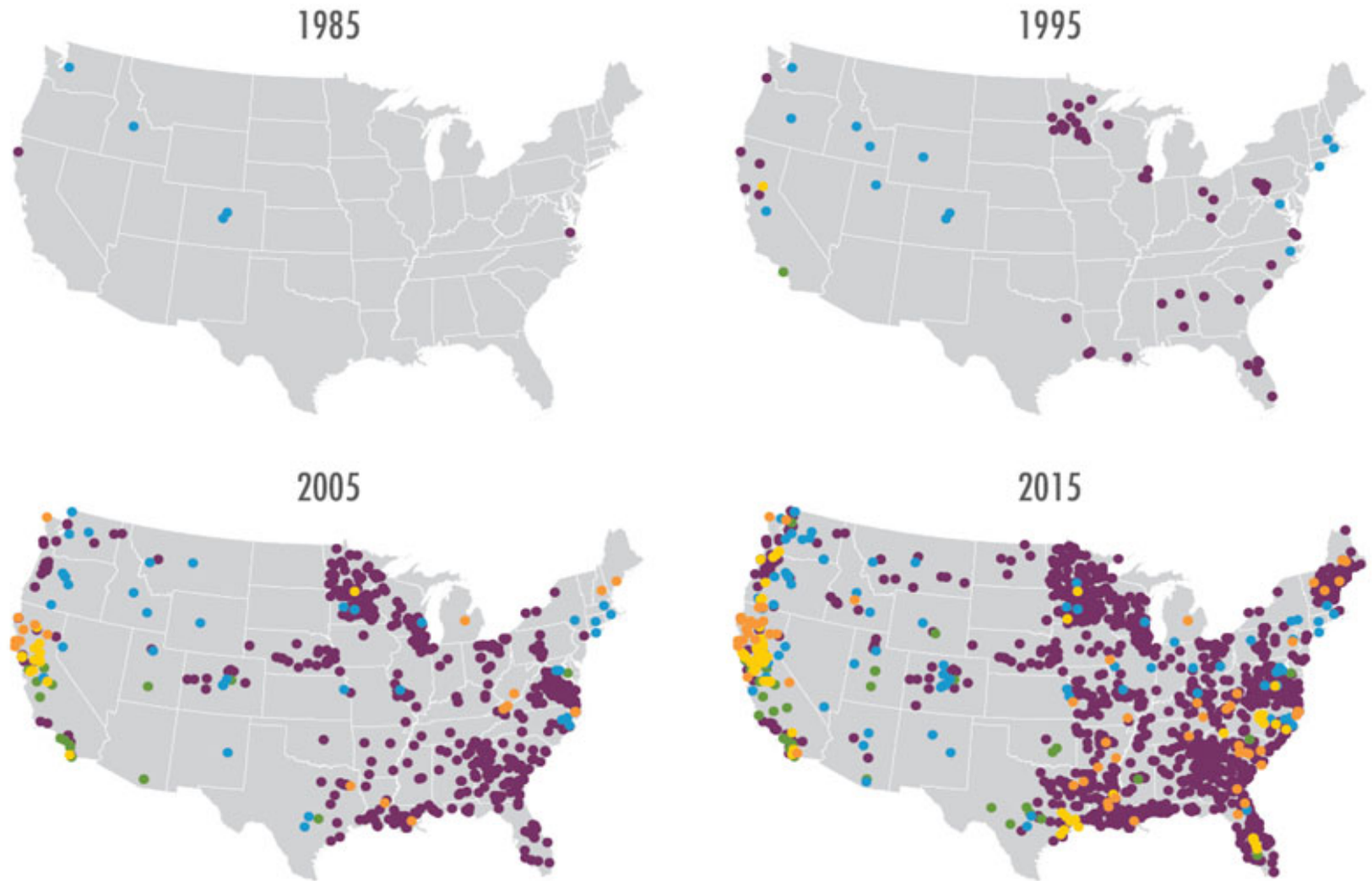
- Provide environmental benefits
- Reduce costs of restoration or compliance
- Increase opportunities for investment
- Expand revenue for working lands
- Accelerate conservation activities
- Improve accountability/effectiveness of existing conservation programs



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**Markets emerge naturally
when the institutional
conditions are right**

Market Growth 1985 - 2015



● Forest carbon ● Imperiled species/habitats ● Wetlands and streams ● Watersheds ● Multiple asset types



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U.S. Environmental Market Activity

Sector	Estimated Volume	Year
Wetlands		
Banks	\$3.50 billion	(2016)
In-Lieu Fees	\$0.04 billion	(2015)
Species and Habitat	\$0.35 billion	(2016)
Carbon and Greenhouse Gas		
Voluntary	\$0.05 billion	(2015)
CA Regulatory	\$0.06 billion	(2015)
Water Quality		
Trading	\$0.03 billion	(2015)
PWS	\$0.07 billion	(2015)
Water Quantity		
In-stream buybacks	\$0.05 billion	(2015)

Source: Forest Trends Ecosystem Marketplace



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What is bought and sold?





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Stakeholders

- Government entities (Federal, State & Local)
- Regulated community (buyers)
- Bankers (private sector)
- Public (beneficiaries)
- Philanthropic & NGO community (facilitators)
- Farmers, ranchers, forest landowners (sellers)



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Do Market-based Approaches Make Sense?

- Assess potential control costs for other point sources, nonpoint sources in the watershed and identify potential trades
 - Trading / mitigation ratios
 - Transaction costs
 - Risk
 - Alternative compliance strategies



Enabling Conditions

- **Market Driver**
 - Regulatory requirement
 - Financial or resource-based incentive
- **Cost Differential**
 - Incentive for entering into a trade
- **Support**
 - Policy and tools for trading available



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Common Reasons Market-based Programs Fail to Succeed

- Legal and regulatory obstacles to trading
- Inadequate drivers / missing incentives
- Uncertainty about rules, liability, performance
- Market design flaws
 - High trading ratios
 - High transaction costs
 - High baseline requirements
- Unrealistic expectations



Role of Government

- Develop policy to meet public needs
- Provide flexibility in mitigation structures
- Improve transparency
- Reduce perceived risk and uncertainty
 - Support development of tools and resources
- Support innovation
 - Pilot projects and demonstrations



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Metrics, Tools and References

Improving Consistency and Removing Barriers

- Transparent
- Science-based
- User-friendly
- Meaningful
- Appropriate
- Consistent
- Accepted
- Meet Regulatory Criteria





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Coordination Opportunities

- Conservation Programs
- Other Markets
- Public-Private Partnerships
- Payment for Success



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Markets can 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?

<https://www.usda.gov/oce/energy-and-environment/markets>

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