

# Landowner Participation in Implementing Landscape Conservation Cooperatives: Policy Implications of Payment for Ecosystem Services Programs

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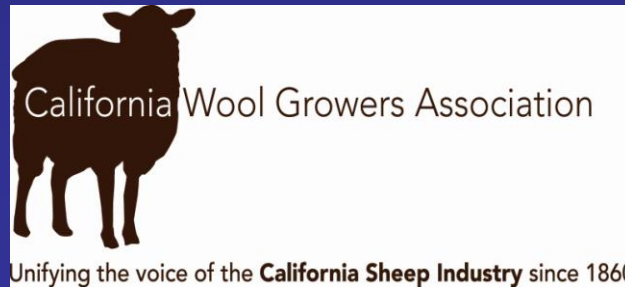


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# Acknowledgements



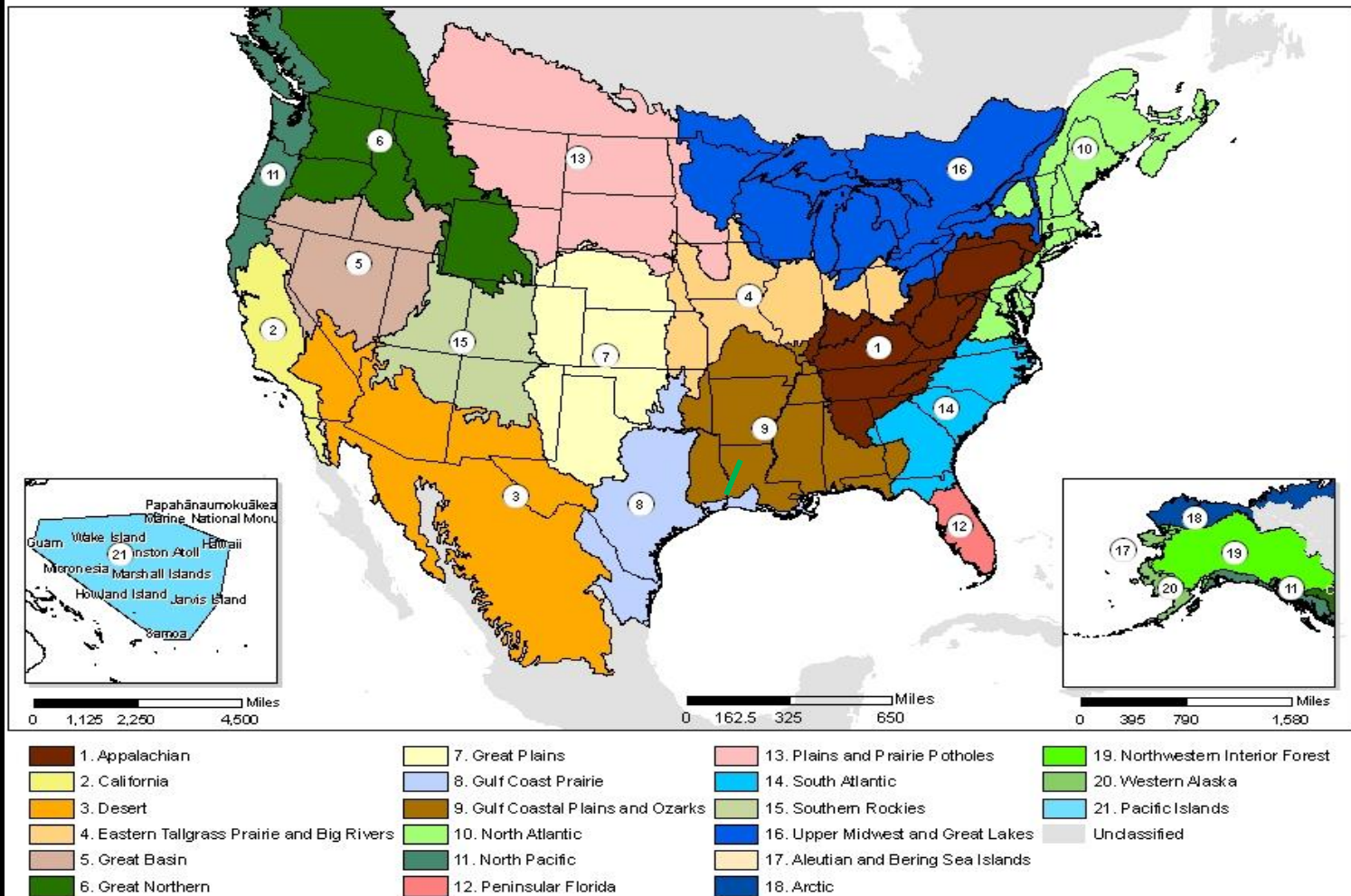
# Overview

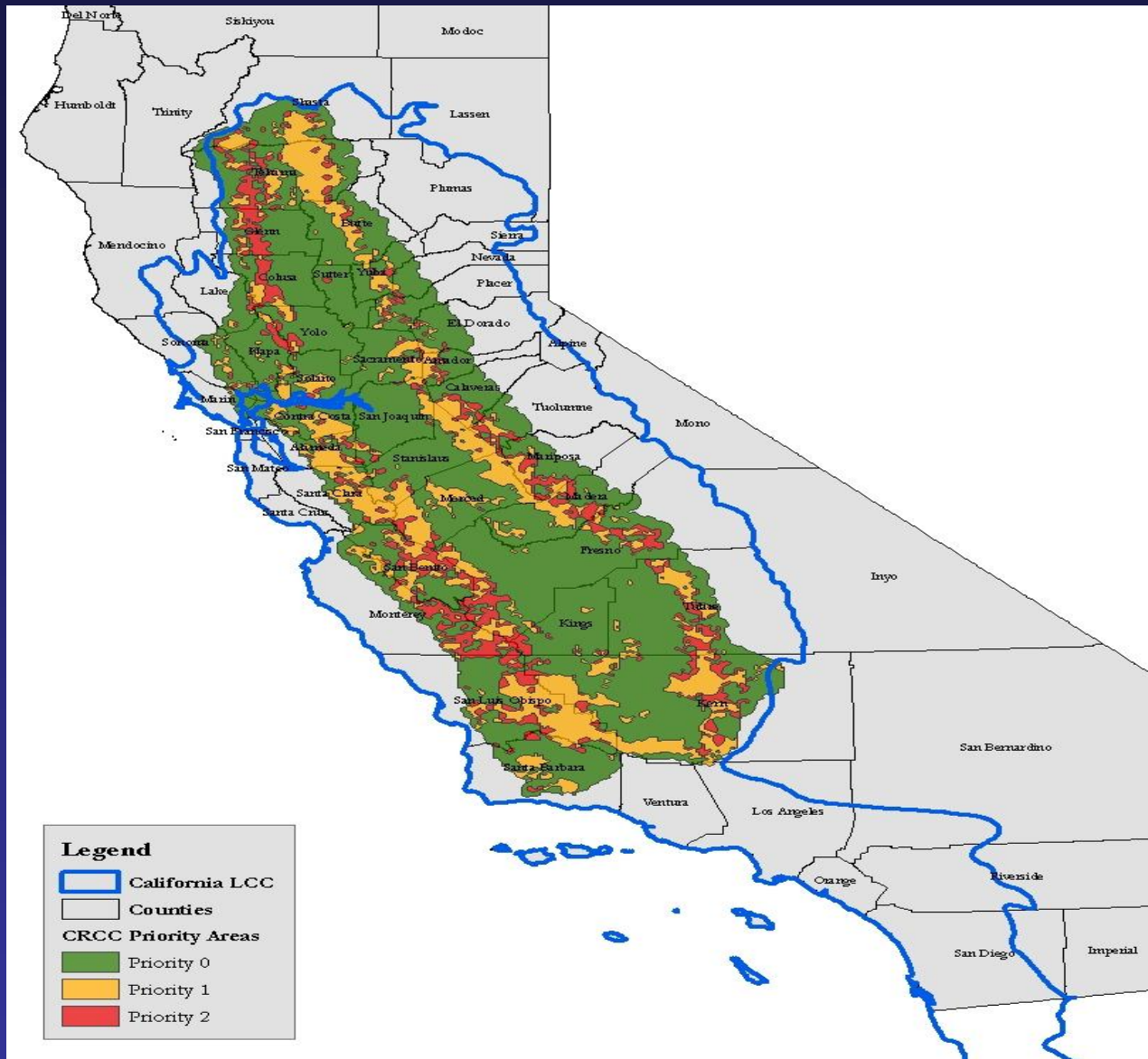
- Motivation
- Landowner Interest in Ecosystem Service Payments
- Payment Program Characteristics
- Program and Policy Design Implications



# Landscape Conservation Cooperatives

Secretarial Order No. 3289 establishes Landscape Conservation Cooperatives, which are management-science partnerships that inform integrated resource-management actions across landscapes (February 22, 2010).





# Motivation

- LCC Success will Depend on Private Lands
- Ecosystem Restoration Practices
  - Climate Change Mitigation: Carbon Sequestration with Perennial Grasses and Oaks
  - Water Quality: Riparian Buffers, Grazing Management



## *An Economic Analysis of the Benefits of Habitat Conservation on California Rangelands (2009).*

- California rangelands generate a wide range of valuable services.
- Ranchers are unable to prevent others from enjoying the benefits from their management and do not have an incentive to take full benefits into account.
- Without cost share programs or ES markets, highest benefits will not be produced.



# Conservation Program Participation

- High Participation and Satisfaction Level
  - 91 % participate in some program
  - 73% participate in the Williamson Act
  - 47% in Farm Bill programs (70% in EQIP)
  - 27% have easements





# Important Program Features

- Increases productivity/promotes wildlife
- Promotes soil preservation/health
- Improves water quality/saves money
- Erosion control/additional income



# Major Reasons for non-Participation in Conservation Programs

- Concerns about government restrictions or access
- Hassle associated with paper work
- Lack of understanding/knowledge of application processes



# Payment for Ecosystem Services

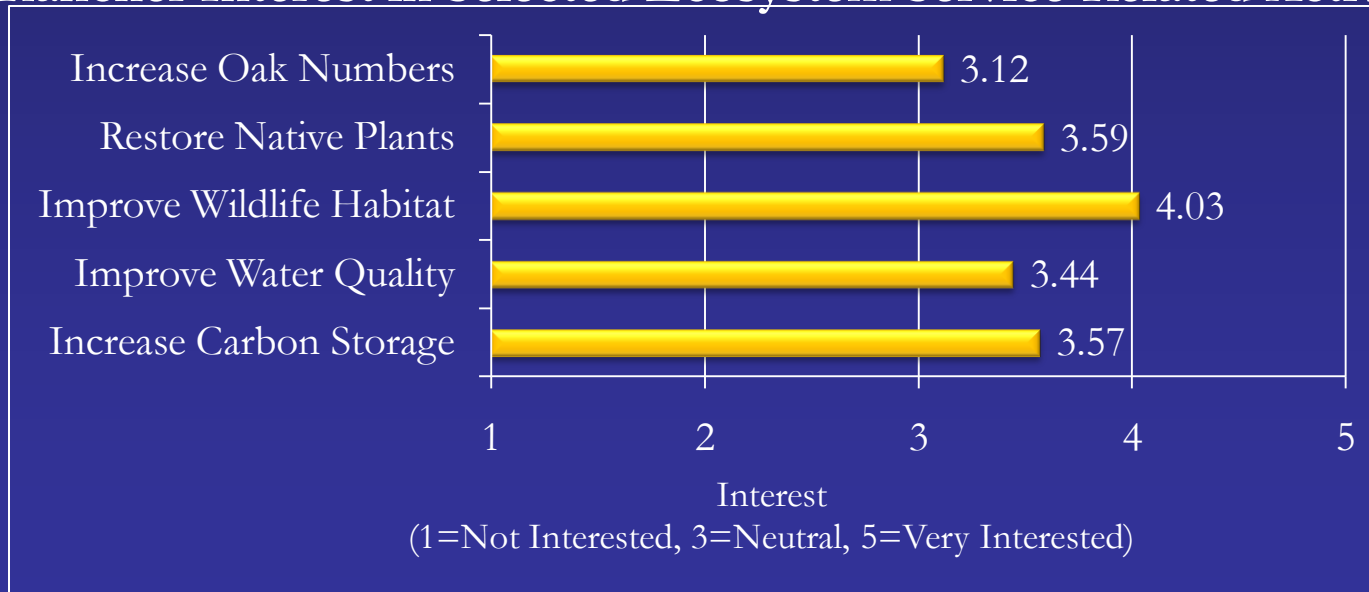
- Very little familiarity with terms Ecosystem Services or Payments for Ecosystem Services (PES). **BUT**
  - Familiar with terms such as wildlife habitat management, water quality improvement, vegetation management, invasive species control
- Interested in participating in PES programs: 77% Yes; and favor creation of PES programs
- PES contract length, payment level, and administrator all equally and very important to participation decision



# A California Rancher Survey on Payments for Ecosystem Services (2010)

- Ranchers are strongly interested in PES programs, particularly those tied to wildlife habitat.
  - 77% of respondents were willing to participate in a PES program

## Rancher Interest in Selected Ecosystem Service Related Activities



# PES Program Attributes

Attributes	Description	Levels
<b>Contract Length</b>	Amount of time that land can be enrolled in a conservation program	5, 15, 30 years
<b>Program Administration</b>	Organization that would administer the program	Federal Agency State Agency Conservation Organization Private Company
<b>Payment Level</b>	Rental payment (per acre, per year) for enrolling land in a program	\$5, \$10, \$20, \$50

# Example Choice Question

Program Features	Program A	Program B	Neither
Contract length	30 years	15 years	
Program administration	Non-profit organization	State agency	
Payment level (per acre per year)	\$20	\$5	
<i>Please indicate your preferred program (circle one)</i>	I would prefer Program A	I would prefer Program B	I would not participate in either program.

# Rancher Preferences

- Ranchers prefer flexible program structures that are built on shorter contracts, higher payments and minimal administrative burden.
  - Contract Length:
    - An additional year would cost an extra \$ 0.81/acre
  - Program administrator:
    - Conservation organization is the preferred administrator
    - Private company costs additional \$ 2.28
    - Federal agency costs additional \$ 11.50
    - State agency costs additional \$ 25.22



# Policy Implications

- Participation in conservation programs may not be an indicator of a viable PES program
- With low easement rates, permanence may be an issue
- Low familiarity with PES terminology will require substantial outreach, education, and pilot testing using traditional media





# Policy Implications

- PES outcomes must result in win-wins
  - Conservation happens but also improves financial and productive health of the operation
  - Conservation of wildlife habitat is shared interest
- Implementation of a PES program more likely to succeed using conservation partners
- Payment levels will have to be higher for long term conservation contracts
- Coordinate and target strategic areas within Landscape Conservation Cooperative areas

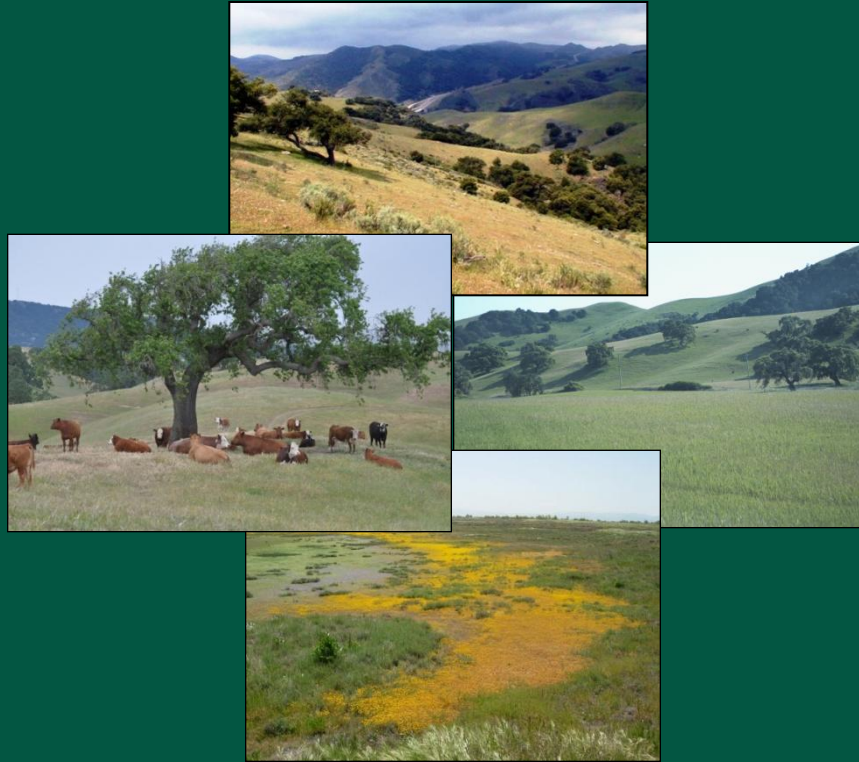


# LCC Application

- Project: Climate Change and Land Use on California Rangelands
- Partners: USGS Western Geographic Center; USGS California Water Science Center, Defenders of Wildlife, USGS Science and Decisions Center
- Identify Climate/Land Use Change Threats, Quantify Ecosystem Services, Determine Restoration Needs and Costs



# An Economic Analysis of the Benefits of Habitat Conservation on California Rangelands

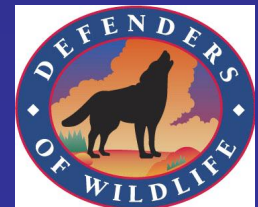


## Conservation Economics Program

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Molly Cheatum and Lily Tavassoli

October 2009

[http://www.defenders.org/programs\\_and\\_policy/science\\_and\\_economics/conservation\\_economics/valuation/index.php](http://www.defenders.org/programs_and_policy/science_and_economics/conservation_economics/valuation/index.php)



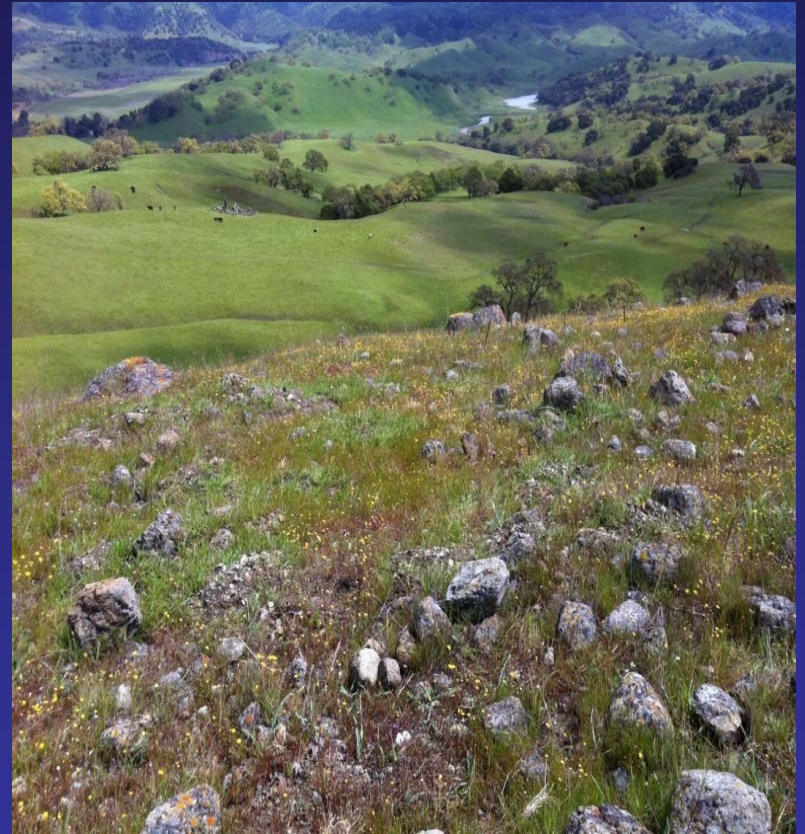
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# Types of Ecosystem Services

- Climate, water, and gas regulation
- Water supply, nutrient supply
- Soil formation, nutrient cycling
- Waste management, biological control
- Wildlife habitat, food production
- Recreation, cultural and scenic values



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# Valuation Tools

Ecosystem Service Market Establishment: Negotiations between buyers and sellers

Social Values for Ecosystem Services (SoIVES)

Ecosystem Portfolio Model (South Florida, Puget Sound)



# Land Ownership and Use

- Ownership Structure
  - Private individual or family: 50%
  - Family Limited Liability Corporation: 23%
- Hunting as a Land Use
  - 72% of respondents allow hunting
  - 67% derive no income from hunting
  - 20% make \$5-10 K per year from hunting





# Major Sources of Conservation Program Information

- Printed media (Magazines, Bulletins, Newsletters)
- Agricultural Organization/Resource Conservation Dist.
- Other Ranchers
- Only 11% indicated that electronic media (TV, radio, internet) was source of conservation program info.



# Rancher Interest in PES Activities

- Improve wildlife habitat
- Restore native plants/Increase carbon storage
- Improve water quality



# PES Implications

- Baseline Scenario: Conservation Organization/Year to Year Contract
- Program A: Federal agency/ 10 year contract: \$13.70/acre **additional**
- Program B: State agency/ 20 year contract: \$35.00/acre **additional**

