INCENTIVIZING ECOSYSTEM SERVICES FROM WORKING LANDSCAPES FROM PRESUMPTION TO PRACTICE TO POLICY

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Presumption

Ecosystem services – clean water, clean air, etc. (natural capital) are abundant and endless

- Benefits not always taken into account when land use and policy decisions are made

- Working lands have been preserved by conservation easements or mitigation (based on development)

- Challenge to quantify biophysical and economic values of ecosystem services provided by working landscapes

- Create Payments for Ecosystem Services through legislative action that leads to sustainable payment structures

California's Working Landscapes

Importance of building strong science-based programs, actively engaging local communities and building coalitions of support.

Working landscapes – including rangelands & croplands
Investments to manage Climate Change

Regulating - Carbon sequestration

Provisioning - Food

Supporting - Water yield

Cultural - Scenic value

Ecosystem Framework
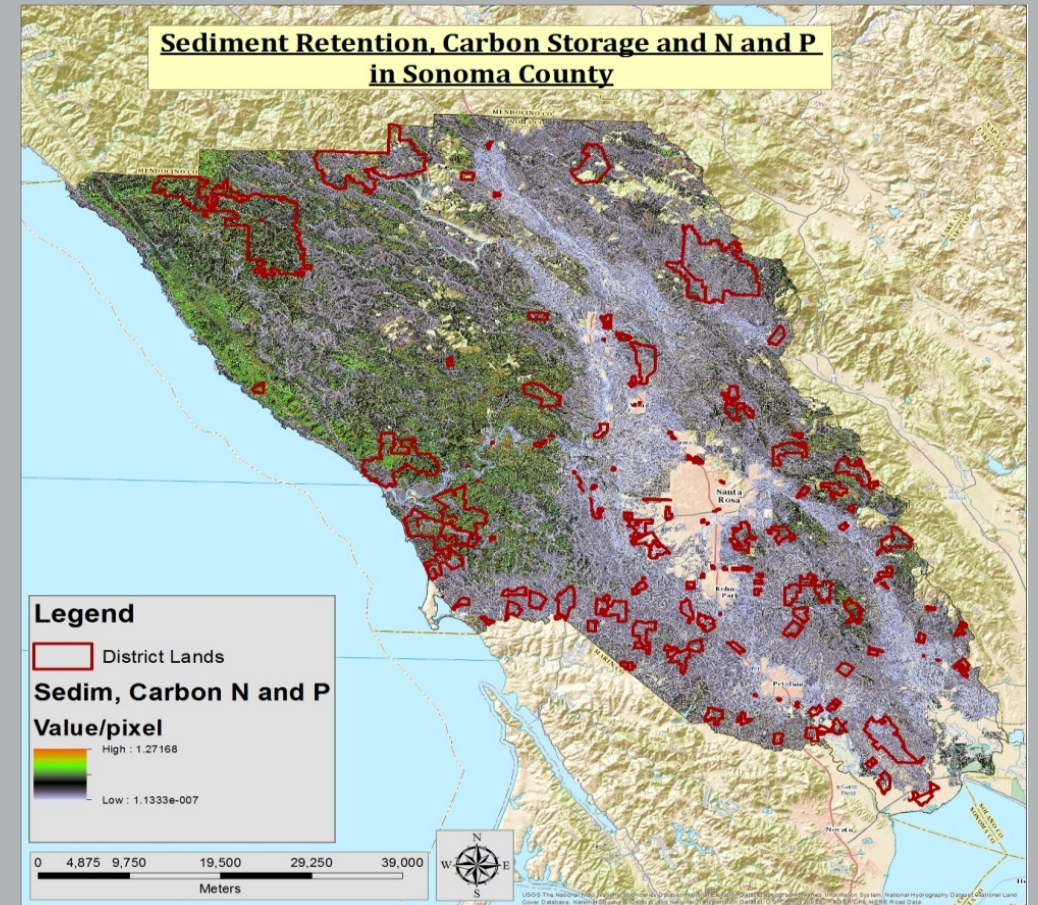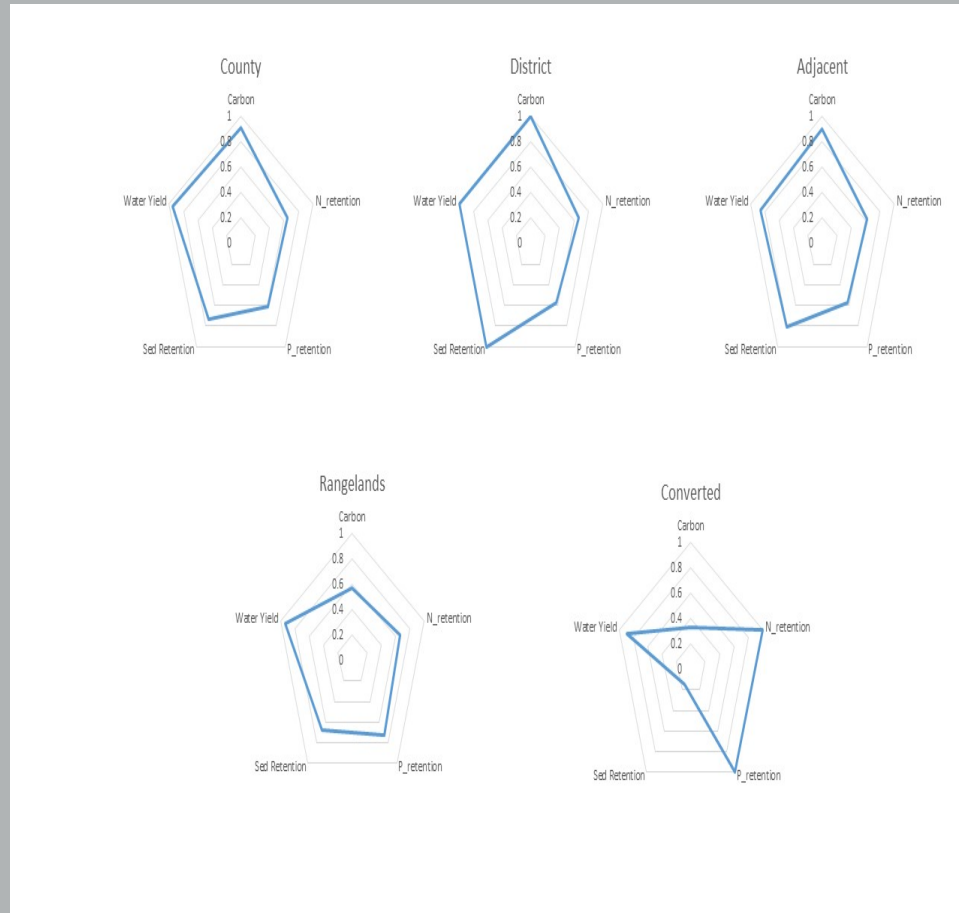
Strength & Weakness

Methodology to institutionalize PES

Biophysical Aspects	Political-Economic Control	Community	Management
Data Tools	Climate Change	Health Benefits	Conservation Easements
LANDFIRE, National land Cover, Soil Surveys, ESD	Working Landscapes	Clean Water & Air Recreation Food	Public Holdings
	Fire		**Payments for Ecosystem Services**

Mapping

Quantifying ecosystem services produced under different scenarios provide quantitative assessments of the ecosystem services

Protected lands provide higher levels of ecosystems services

Advanced Mapping Technologies

Ecosystem services stacking

Hot spots

Land use planning

Ecosystem services from presumption to practice to policies

- Use enhanced infrastructure Financing District's (EIFDs);

- Expand existing markets for farmlands and rangelands conservation;

- Expand the market for habitat conservation;

- Expand the market for carbon sequestration;

- Expand and integrate markets for agricultural practices that provide multiple ecosystem services;

- Provide regulatory incentives to support market participation;

- Design programs to be responsive to participants' needs;

- Provide technical assistance to help farmers and ranchers participate in ecosystem services markets;

- Support mapping technology integration.

How to provide policy recommendations

How to document current legislation, potential markets and funding sources to create a sustainable incentivized program?

- **Honest broker role** – Present policymakers with various policy options, based on sound research. Have a clear understanding of the science behind your messaging. Use qualitative data to tell the story of the hard quantitative data.

- **Active engagement** – Be part of informational and oversight hearings. Empower communities to take action and foster community engagement.

- **Build coalitions** – Collaboration is imperative. Develop unexpected allies and foster long-term relationships, realizing it may take some time to bear fruit.

- **Disseminate information** – Share your data in user-friendly formats. Target local community, Legislature and state agencies to inform policies. Get your science into trainings and continuing education programs. Leverage your coalition to expand the circulation of your research results.

- **Target messages** – Develop a strong, concise message to deliver your research. Use an emotional connection – "Old-growth oak woodlands" versus "oak woodland."

Current Legislation

- Background, Legislative History

- Existing Policies – amendments?

- Source – what person, organization or government

- Funding Sources – state budget?

- Support/Opposition

SOIL HEALTH INIATIVE

- Understand the importance of soil health

- Develop strategies to evaluate soil

- Make decisions on how to improve soil health, as it relates to ecosystem services

Reduction of Wildfire Threats

Policies on Forest & Rangeland Health
Increased Biodiversity
Wildlife Habitat
Water & Carbon
Leave Raking

Ecosystem Services Case Studies

Southern California

Central California

Northern California

PRACTICE - Policy-related Activities, Tasks, Processes

Agenda Setting

Articulate needs, gaps, additional information

Demonstrate through research results the rationale for policy change

- Create public awareness/get issue on agenda
- Build relationships/mobilize support/participate in or lead coalitions
- Provide relevant information to decision-makers
- Prepare white papers, policy briefs, etc.
- Conduct research to identify high priority issues for policy decision making

PRACTICE - Policy-related Activities, Tasks, Processes

Formulation

Research based information contributes to and/or influences the content of proposed rules and regulations

Changes in a local, state or federal law, agency or regulatory framework

- Craft legislative language, regulations, rules or ordinances, etc.

- Participate in debates and negotiations over alternatives, helping to expand or narrow options

- Equipping decision makers with the data they need to develop successful policies

PRACTICE - Policy-related Activities, Tasks, Processes

Legitimize

Enactment of bills, regulations, rules, ordinances, etc.

Consensus built among those with competing agendas

Better informed stakeholders and citizens

- Inform the creation of specific goals and identify means for achieving them
- Monitor and assess formal decision making by proper authorities
- Educate stakeholders about policy changes

PRACTICE - Policy-related Activities, Tasks, Processes

Implementation

Influence content of implementation rules and/or maintenance of a policy

Influence distribution of resources to solve problems

Influence regulatory processes or enforcement actions

- Inform options about the best strategies to implement new programs
- Inform resource allocation options and choices
- Inform policy or regulatory compliance options and actions
- Monitor intended or unintended impacts

PRACTICE - Policy-related Activities, Tasks, Processes

Evaluation

Inform next round of policy decision making

Create greater efficiencies in use of public and private resources

Best practice recommendations

- Conduct formal/informal impact assessment
- Conduct formal/informal process evaluation
- Develop evidenced-based recommendations as to why existing policies/programs should be continued, revised, or eliminated

PRACTICE - Policy-related Activities, Tasks, Processes

Community Building

Participation in community events and processes of governance comes from a broad cross section of the community

Consensus reached on contentious issues

Improved group cohesion

Improved capacity/capacity building

- Maintaining, extending, or deepening relationships with key stakeholders, elected officials, funders, etc.

- Becoming known and trusted for a body of work and for particular areas of expertise

- Helping forge constructive debate and community consensus

- Building respect and confidence in the local Cooperative Extension (CE) office and/or programs

PRACTICE - Policy-related Activities, Tasks, Processes

Information Brokering

Deliberations and decision making is based on well-informed participation

Decision makers have timely, relevant information

- Synthesis and communication of existing data
- Translating scientific language to communicate in public settings
- Sustained projects that focus on extending and applying research findings
- Helping citizens and citizen organizations navigate community networks or the policy process

PRACTICE - Policy-related Activities, Tasks, Processes

Community-based research

More informed local leaders and public

Asset-based solutions implemented

Research skills and capacity more broadly distributed

- Targeting & filling information gaps
- Focused research that improves the quality of decisions
- Research that documents or evaluates the process and outcomes of locally important programs or initiatives
- Helping identify community resources
- Identifying and applying existing data
- Collaborating with others to gather new data

PRACTICE - Policy-related Activities, Tasks, Processes

Entrepreneurial Skills

Responsiveness in a timely fashion to community needs

Flexibility in adapting programs to local realities in order to meet needs

New business or program opportunities seized

- Developing proof of concept pilot projects
- Mimicking project or program designs from successes elsewhere
- Creating strong teams
- Seizing timely opportunities

Policy - Payments for Ecosystem Services

- Conceptually ecosystem services is an accepted idea, practically there are few methodologies in place to incentive the payment for such services.

- Education and research is needed to increase awareness of the interdependence of ecosystem services and human well-being.

- A stronger framework for mapping, valuing and investing in ecosystem services will help to protect California's working landscapes and narrow the economic develop between its urban and rural regions.

- Science must be used in decision-making policies that affect these landscapes.

Thank you

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