

Achieving Ecosystem Services through Range Management Practices

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Range Management Practices

- Grazing
- Nutritional supplementation
- Animal Health
- Weed Control
- Brush control
- Seeding, Fertilization, etc.
- Water Development

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Ecosystem Services

- Regulating - Carbon Sequestration
- Preserving - Habitat Biodiversity
- Supporting - Clean Air/Water
- Cultural - Ecotourism
- Provisioning - Food

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CONCEPT:

PAYMENT for ECOSYSTEM SERVICE (PES)



- Money
- Other benefits



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Reduce Fire Fuel Load

Objectives:

Reduce weeds infestation
Increase carrying capacity

Reduce shrub brush invasion
Increase forage production

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Improvement of Habitat / Targeted Species

Objectives:

Maintain desired buckwheat species

Reduce/Eliminate spread of
undesired invasive grasses

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Real Life Examples

Payment for Ecosystem Services (PES)

Grazing with Goats!
Typical charge: \$700- \$1000/acre for fire

Grazing with Cattle!
Payment for removing undesired species to protect butterflies

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Conservation Stewardship Program

A USDA-NRCS Farm Bill Program

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Conservation Stewardship Program

- **Payments** to landowners
- **Reward** for good stewardship
- **Contact** your local NRCS office

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Ecosystem Services Decision Support Matrix


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Forage for Livestock

Resource Goal: Management of Forage and Livestock Production.

Objective: Increase forage production, increase number of species, species health.

Process: Rangeland stewardship including effective grazing management and animal husbandry results in the production of palatable, quality forage which can be harvested by livestock.
Rangeland management and ecology involves maintaining a healthy nutrient, water and energy cycle.



Forage for Livestock



Practices:

- Grazing management
- Noxious weed control
- Fertilization
- Forage seeding
- Water development
- Brush control
- Soil health

Outcomes:



- ↑ Increased carrying capacity
- ↑ Increased pounds of forage
- ↑ Increased livestock produced



Forage for Livestock

Ecosystem Service/Goals:
 ↑ Increased biodiversity
 ↑ Increased carbon sequestration
 ↑ Increased water quality

External Outcomes:
 Maintains open space
 Reduces risk from catastrophic wildfire
 Soil stability
 Some crops (e.g. nitrogen fixers) enrich the soil
 Maintains or enhances habitat for wildlife including some special status species
 Supports rural economies

The most knowledgeable people to manage the Ecosystem Services are the LAND OWNERS / MANAGERS OF THE LAND



Questions?



August 18, 2011 Ecosystem Services: Defined & In Practice

Thank you!



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