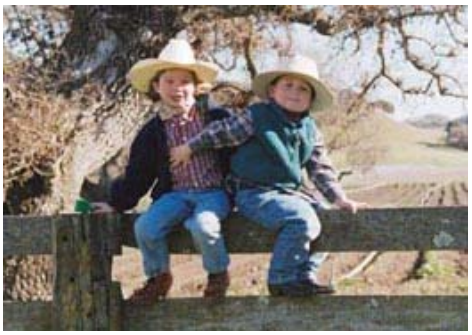
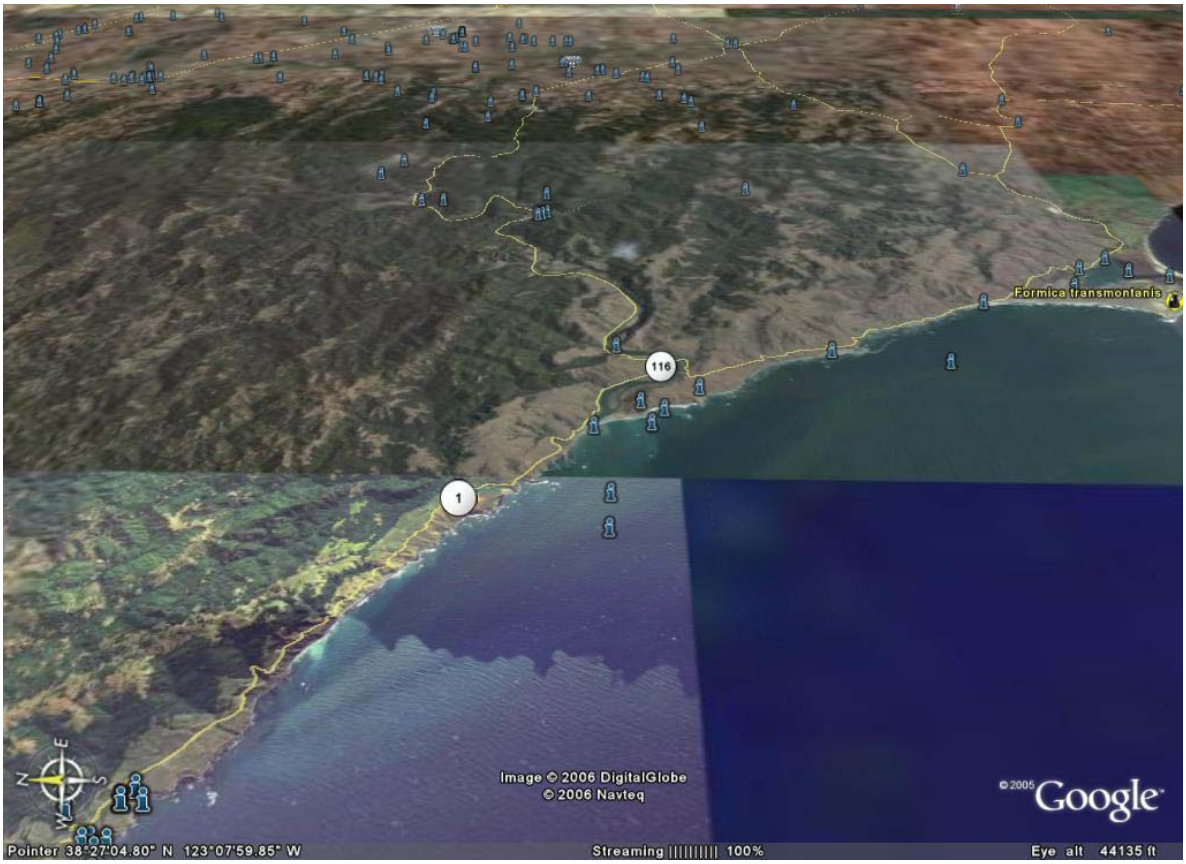
Protecting Coastal Prairies for our Children's Children



RESOURCES AGENCY CALIFORNIA DEPARTMENT FISH&GAME

Coastal Conservancy

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE



The Night Scented Owl's Clover, Moss Landing, California

The Biologically Endangered Point Reyes Horkelia, Pt. Reyes California

The Endangered Ohlone Tiger Beetle, Santa Cruz, California

U. S. Fish and Wildlife Service

The Grassland Dependent Western Meadowlark, California

http://www.mountainwatch.org

The Endangered San Bruno Elfin, San Bruno Mountain, California

San Francisco Zoo

The Endangered San Francisco Garter Snake, San Mateo Coast, California

Tufted Hairgrass

Tufted Hairgrass

http://polyland.calpoly.edu

Purple Needlegrass

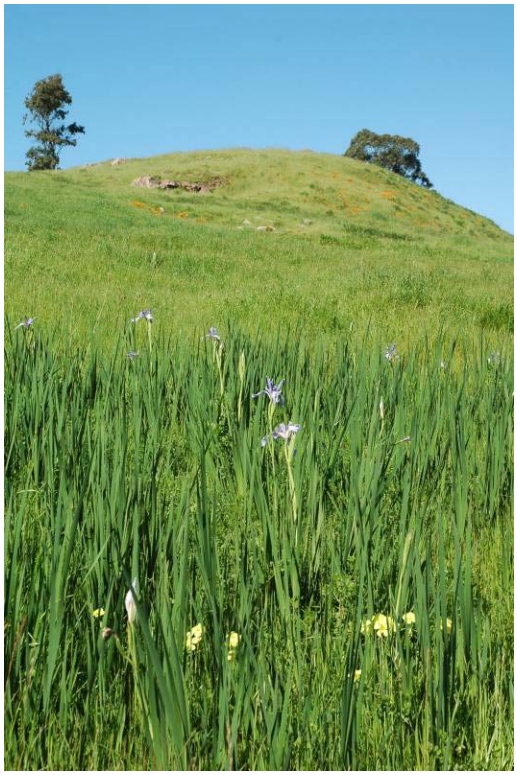
http://www.cof.orst.edu

California Oatgrass

Coastal Terrace Prairie

Hill Slope Coastal Prairie

Grassy Balds



http://www.natureinthecity.org

Coastal Bluff Prairie

North Coast Range Grassland

Mima Mound Prairies

Sedge Meadows

Vernal Pool Grasslands

Perennial Wildflower Meadows

Annual Wildflower Fields

Coastal Serpentine Grasslands

What are the Threats to Coastal Prairie?

It depends on who you ask….

Overgrazing

Housing Developments

Weeds

Conservation Land Protection

Ranches

The California Rangeland Resolution

The undersigned recognize the critical importance of California's privately owned rangelands, particularly that significant portion that encircles the Central Valley and includes the adjacent grasslands and oak woodlands, including the Sierra foothills and the interior coast ranges. These lands support important ecosystems and are the foundation for the ranching industry that owns them.

WHEREAS, these rangelands include a rich and varied landscape of grasslands, oak woodlands, vernal pools, riparian areas and wetlands, which support numerous imperiled species, many native plants once common in the Central Valley, and are home to the highest diversity and density of wintering raptors anywhere in North America;

WHEREAS, these rangelands are often located in California's fastest-growing counties and are at significant risk of conversion to development and other uses;

WHEREAS, these rangelands, and the species that rely on these habitats, largely persist today due to the positive and experienced grazing and other land stewardship practices of the ranchers that have owned and managed these lands and are committed to a healthy future for their working landscapes;

WHEREAS, these rangelands are a critical foundation of the economic and social fabric of California's ranching industry and rural communities, and will only continue to provide this important working landscape for California's plants, fish and wildlife if private rangelands remain in ranching;

THEREFORE, we declare that it is our goal to collaboratively work together to protect and enhance the rangeland landscape that encircles California's Central Valley and includes adjacent grasslands and oak woodlands by:

- Keeping common species common on private working landscapes;
- Working to recover imperiled species and enhancing habitat on rangelands while seeking to minimize regulations on private lands and streamline processes;
- Supporting the long-term viability of the ranching industry and its culture by providing economic, social and other incentives and by reducing burdens to proactive stewardship on private ranchlands;
- Increasing private, state and federal funding, technical expertise and other assistance to continue and expand the ranching community's beneficial land stewardship practices that benefit sensitive species and are fully compatible with normal ranching practices;
- Encouraging voluntary, collaborative and locally-led conservation that has proven to be very effective in maintaining and enhancing working landscapes;
- Educating the public about the benefits of grazing and ranching in these rangelands.

SIGNED BY:

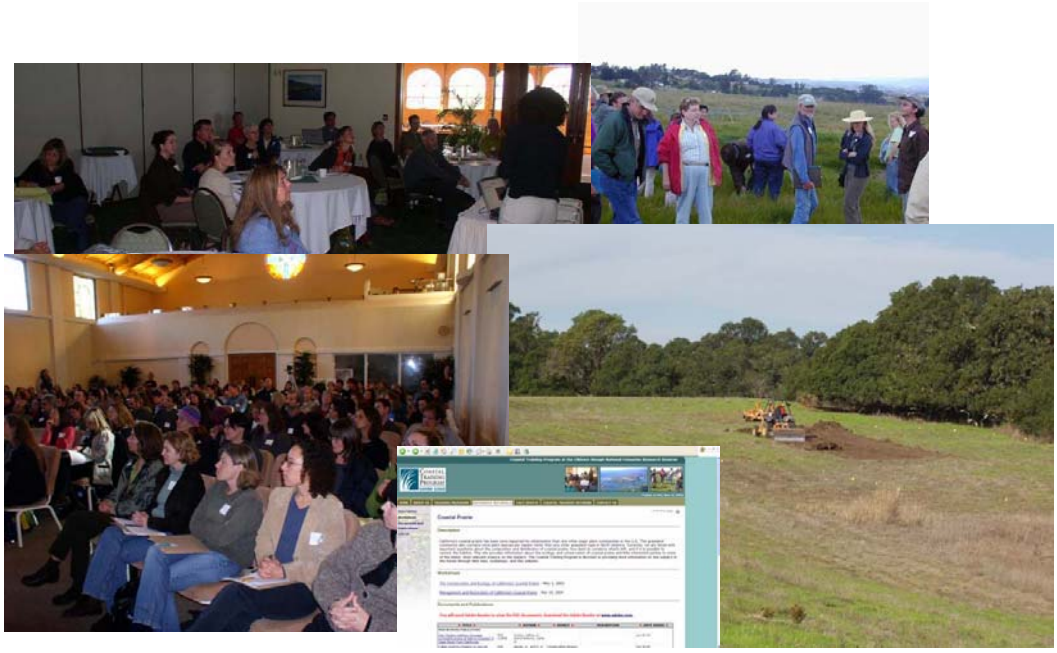
Alameda County Board of Supervisors	California Native Plant Society	Natural Resources Conservation Service
Alameda County RCD	California Oak Foundation	San Joaquin Raptor/Wildlife Rescue Center
American Land Conservancy	California Rangeland Trust	San Joaquin Valley Conservancy
Bureau Land Management	California Resource Conservation Districts	Sierra Foothills Audubon Society
Butte Environmental Council	California Resources Agency	The Nature Conservancy
California Audubon Society	California Wildlife Foundation	Trust for Public Land
California Cattlemen's Association	Central Valley Land Trust Council	US Fish and Wildlife Service
California Dept of Fish and Game	Defenders of Wildlife	US Forest Service
California Farm Bureau Federation	Environmental Defense	VernalPools.org
California Native Grasslands Association	Institute for Ecological Health	Wildlife Conservation Board

December 20, 2005

What do healthy coastal prairies look like?

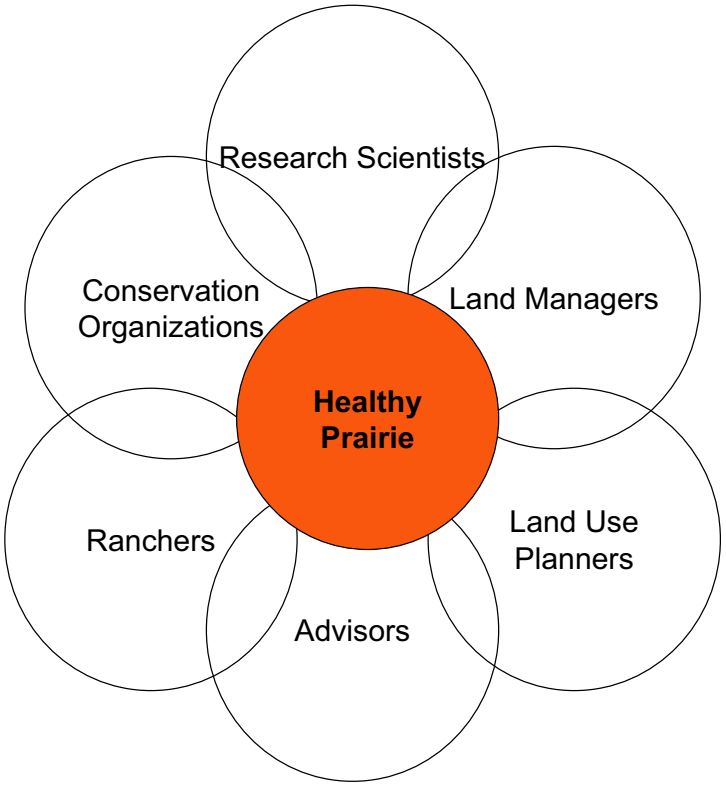
How do we sustain them?

Elkhorn Slough Coastal Training Program



Workshops, field trips, independent scientific review, and website

How are California's Grasslands Being Protected?



Healthy Prairie is Important!

- Research scientists: important questions
- Private land managers: fire break, property value, beauty
- Conservation land managers: conserve species
- Land use planners: legal obligation, open space
- Advisors: mesh public and private motives
- Ranchers: productivity, beauty, fire break
- Conservation organizations: rarity, species

Central Coast Rangeland Coalition

What Does the CCRC Do?

Maintaining sustainable rangelands through adaptive management, outreach, and education

Who is the CCRC?

Ranchers, conservation organizations, and education groups

Collaborative Learning

- Creation of a formal learning framework
- Define specific learning questions and collaborate to document, validate, and disseminate best practices
- Face to face communication

How Does the CCRC Work?

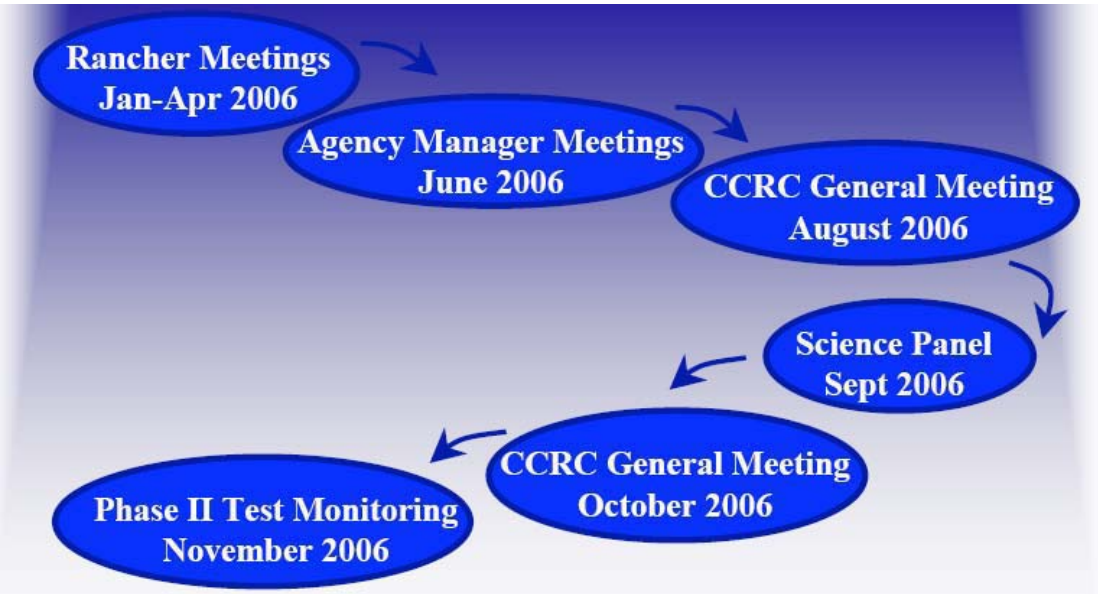
- Create vision: what are sustainable rangelands?
- Define goals: how do we create them?
- Monitoring and management
- Outreach and education: demonstration

Sustainable rangelands include: sustaining ranching economies while maintaining the landscapes and species as well as the human and non-human communities

Biological Indicators of Rangeland Health

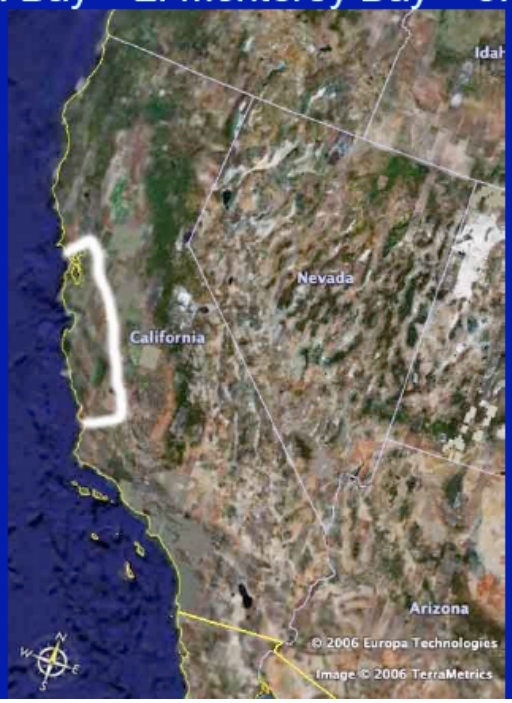
- **Degree of soil stability and watershed function**. Rangelands should not be eroding, and they should capture and retain water rather than shed it as run-off.
- **Integrity of nutrient cycles and energy flows**. Rangelands should support plants that capture energy from the sun and cycle nutrients from the soil.
- **Presence of functioning recovery mechanisms**. Rangelands should be resistant to extreme disturbances and resilient to change--that is, they should be capable of recovering from more ordinary disturbances.
- **Conservation of species and natural communities.** Rangelands should maintain species diversity as well as a wealth of associations of those species.

Forming Specific Rangeland Health Indicators



Three Project Areas within the Central Coast Region:

1. East S.F. Bay 2. Monterey Bay 3. Morro Bay



Medium Term Goals of the CCRC

- Test indicators system
- Demonstrate sustainable rangeland practices
- Outreach and education
  - Increase the sustainability of grassland stewadship

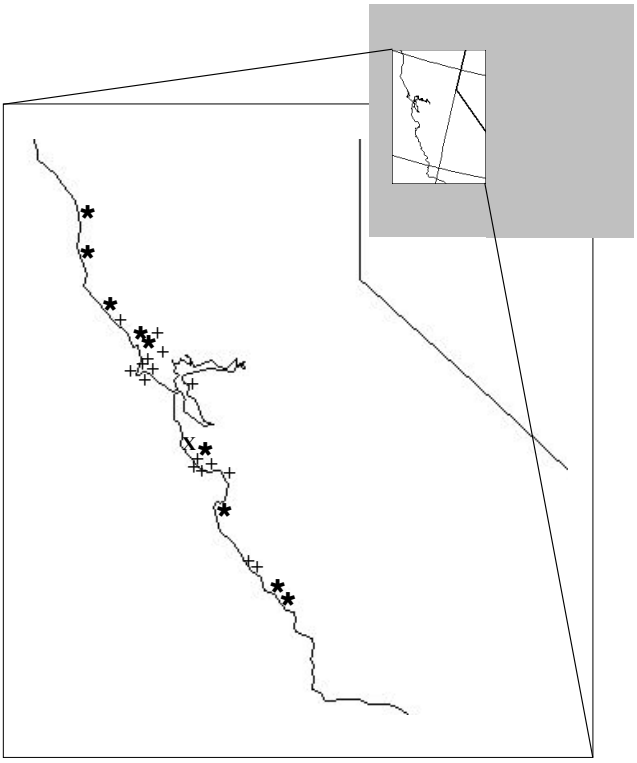
Why I got involved

- Personal interest in grassland stewardship from the results of my research
- My work to help forward grassland stewardship through collaborative learning

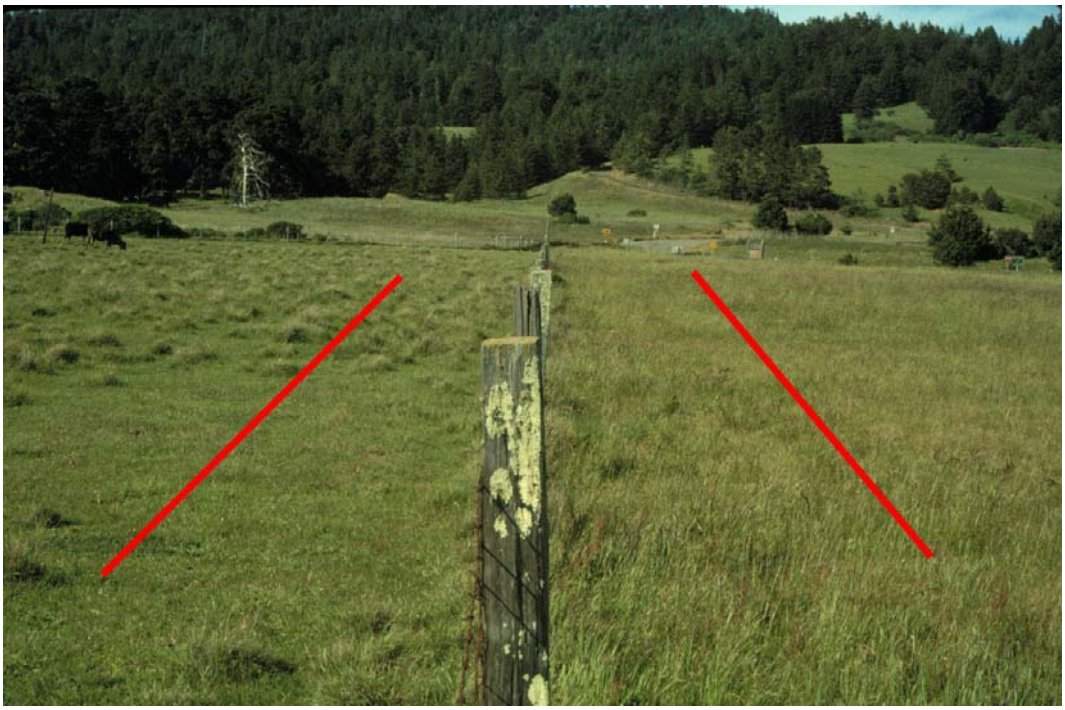
Survey Sites

LEGEND

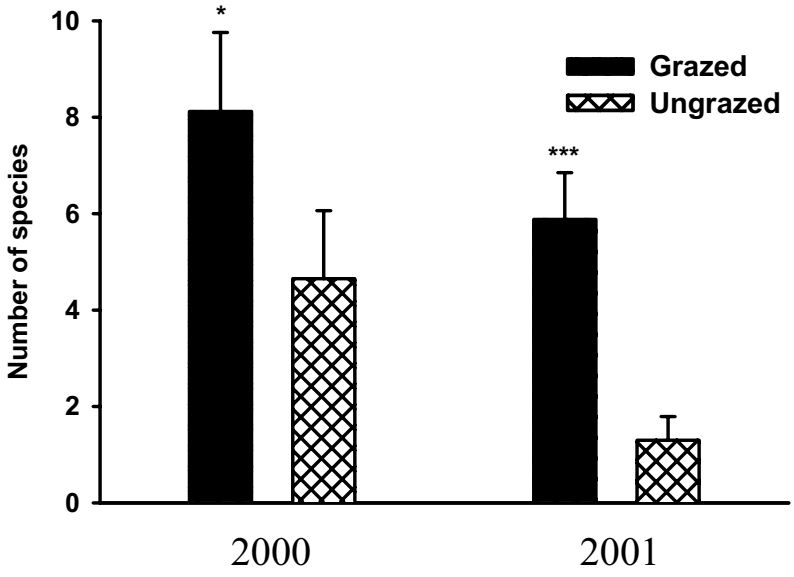
X 2000
* 2001
\+ Both years



Transect Placement

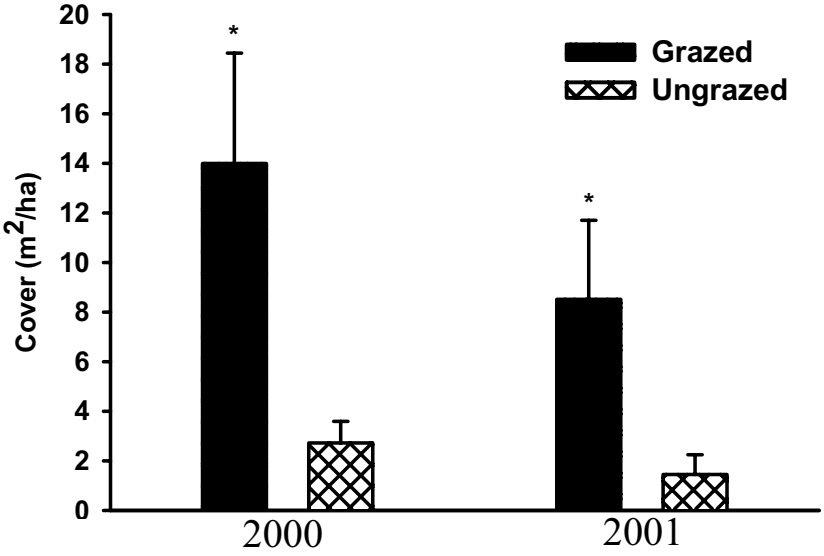


Annual Forb Species Richness



* = p<0.05, ** = p<0.01, *** = p<0.001

Annual Forb Cover



Rare and Endangered Coastal Prairie Annual Forb Species

Blennosperma nanum var. robustum	Point Reyes Blennosperma
Campanula californica	Swamp harebell
Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower
Chorizanthe cuspidata var. villosa	San Francisco spineflower
Chorizanthe howellii	Mendocino spineflower
Chorizanthe robusta hartwegii	Howell's spineflower
Chorizanthe valida	Sonoma spineflower
Eriogonum luteolum var. caninum	Tiburon buckwheat
Hemizonia congesta ssp. tracyi	Tracy's tarplant
Hemizonia parryi ssp. congdonii	Congdon's tarplant
Holocarpha macradenia	Santa Cruz tarplant
Limnanthes douglasii ssp. sulphurea	Point Reyes meadowfoam
Limnanthes vinculans	Sebastopol meadowfoam
Linanthus acicularis	bristly linanthus
Linanthus grandiflorus	large-flower linanthus
Micropus amphibolus	Mt. Diablo cottonweed
Plagiobothrys chorisianus	artist's popcornflower
Plagiobothrys diffusus	San Francisco popcornflower
Polygonum hickmanii	Scotts Valley Polygonum
Stebbinsoseris decipiens	Santa Cruz Microseris
Trifolium amoenum	showy Indian clover
Trifolium grayii	Gray's clover
Trifolium buckwestiorum	Santa Cruz clover
Trifolium polyodon	Pacific Grove clover
Triphysaria floribunda	San Francisco owl's-clover

What kind of annual wildflower management can be healthy for watersheds?

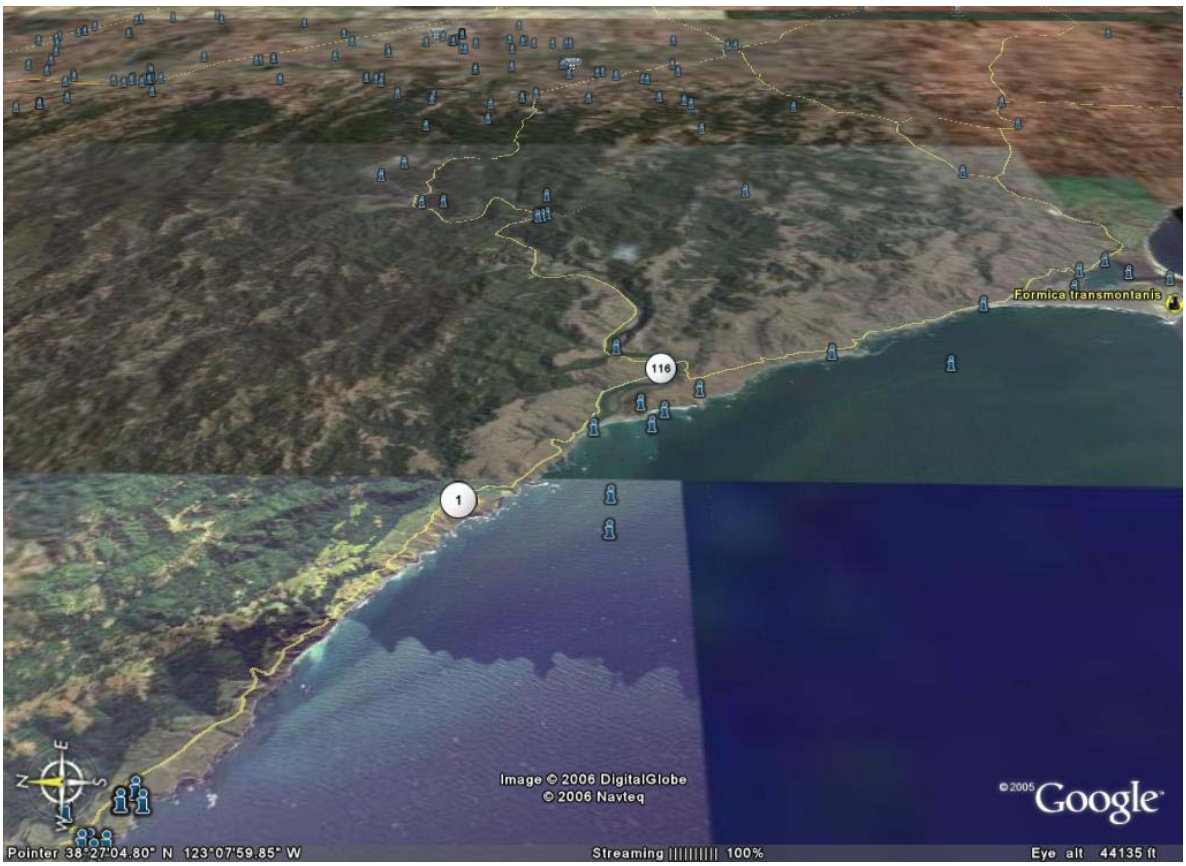
How can it be sustained?

There are at least 60 plant species that are prairie dependent

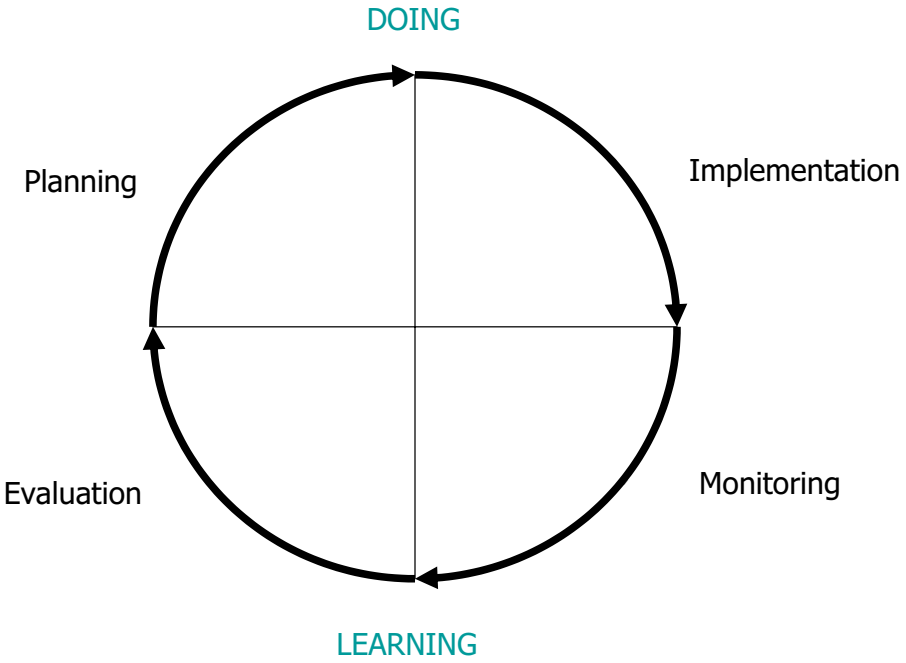
Scientific name	Common name
Anagallis minima	
Brodiaea terrestris	
Brodiaea elegans	Elegant Brodiaea
Calandrinia ciliata	Red maids
Calochortus luteus	Yellow mariposa lily
Calochortus uniflorus	
Camissonia ovata	Sun cups
Carex breviculus	
Carex densa	
Castilleja castillejoides	
Castilleja densiflora var densiflora	Purple owl's clover
Castilleja densiflora var noctuinus	
Cicendia quadrangularis	
Cirsium quercetorum	Brownie thistle
Clarkia prostrata	
Clarkia purpurea purpurea	Four spot
Chorizanthe robusta hartwegiana	Scotts Valley spineflower
Danthonia californica	California oatgrass
Deschampsia caespitosa	Tufted hair grass
Deschampsia danthonioides	

Scientific name	Common name
Dichondra donelliana	
Dodecatheon clevelandii	Cleveland's shooting star
Hemizonia corymbosa	
Holocarpha macradenia	Santa Cruz tarplant
Horkelia marinensis	Pt. Reyes Horkelia
Isoetes spp.	Quillworts
Juncus bufonius	Toad rush
Juncus occidentalis	Western rush
Lasthenia californica	Goldfields
Lilaea scilloides	
Linanthus parviflorus	
Lotus formosissimus	Coast trefoil
Lupinus nanus	Sky lupine
Microseris bigelovii	Bigelow's Microseris
Microseris paludosa	
Montia fontana	
Panicum acuminatum var. acuminatum	Pacific panic grass
Perideridia gairdneri	Gairdner's Yampah
Perideridia kelloggii	Kellogg's Yampah
Plagiobothrys chorisianus	Artist’s popcornflower

Scientific name	Common name
Plagiobothrys diffusus	San Francisco popcornflower
Sanicula arctopoides	Footsteps of spring
Scirpus cernuus	
Scirpus koiolepis	
Sidalcea malvaeflora	Checkerbloom
Spiranthes romanzoffiana	Western ladies tresses
Trifolium buckwestiorum	Santa Cruz clover
T. variegatum, T. barbigerum, *T. microdon, T. depauperatum*, *T. appendiculatum, T.grayi, T. truncatum, T. hydropyllum*	Many clovers
Triphysaria eriantha eriantha	
Triphysaria eriantha rosea	
Triphysaria faucibarbata	
Triphysaria pusilla	
Triteleia hyacinthina	Hyacinth flowered Brodiaea
Viola pedunculata	
Zigadenus fontanus	
Zigadenus fremontii minor	Dwarf star lily


Formica transmontanis
116
1
Image © 2006 DigitalGlobe
© 2006 Navteq
©2005 Google
Pointer 38°27'04.80" N 123°07'59.85" W
Streaming 100%
Eye alt 44135 ft

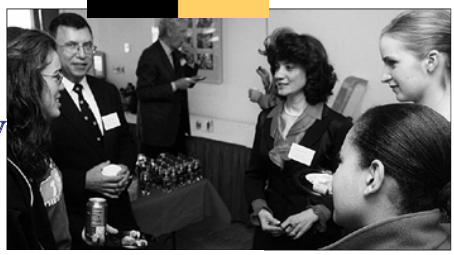
Adaptive Management Cycle



From Mike Vasey, SFSU

California Wool Growers Association

Coastal Conservancy



NRCS
Natural
Resources
Conservatio
Service

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