Measuring Outcomes for Bay Area Working Rangelands Program
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October 2019

Background

Issue. California's Mediterranean rangelands have been profoundly changed by non-native annual grasses, which have been introduced both accidentally and intentionally since the arrival of Spanish explorers. Controlling competition of these grasses and reducing their biomass is essential the conservation of many of California's native species including most of the state's threatened and endangered plants and animals found on rangelands. Livestock grazing, the number one land use in the state plays a crucial role in managing non-native grasses and conservation. A viable ranching industry can continue to provide managed grazing, but it is at risk from land use change, urbanization, and lack of public understanding and appreciation and even fear of livestock.

Clientele. Conservation Organizations (The Nature Conservancy, Defenders of Wildlife, etc), Resource Management Professionals (consultants), Resource Management Agencies (US Fish and Wildlife Service, Regional Water Quality Control Board, California Department of Fish and Wildlife, Public Landowners (East Bay Regional Park District, San Francisco PUC, Mid-Peninsula Open Space District, Santa Clara Valley Open Space District, Santa Clara County Parks, Zone 7 Water Agency, Contra Costa Water District, East Bay Municipal Utility District), Ranchers.

Research

1) Ecological sustainability. Compiled research findings and developed a decision support system including interactive website, Understanding Livestock Grazing Impacts (www.grazingimpacts.info).
2) Social sustainability. Conducted research using social media to understand park visitor's feelings regarding cattle and grazing in parks (research published in the Journal of Environmental Management).
3) Economic sustainability. Developed a cost study of cow-calf production on public land (UC Davis Cost Studies).

Extension

1) Workshops (4) for public land managers and ranchers focused on minimizing conflict between livestock and public in parks.
2) Coordinated a symposium, Grazing for Biological Conservation which led to published proceedings.

3) Developed a fact sheet series, UC ANR 8000 series, "Understanding working rangeland"
4) Developed interpretative signage of grazing values and sharing open space.
5) Developed two video series, Sharing Open Space and Ranching 101.
6) Shared research-based findings through review of policy documents e.g. Habitat Conservation Plans, Conservation Strategies.
7) Coordinated meetings of two coalition organizations to extend information to policy makers and land managers.

Measuring Outcomes Approach

In order to understand how research and extension efforts have impacted public land management I considered past and current policies of land management agencies. I surveyed land managers regarding the scope of their grazing program and reviewed policy documents. I also conducted a research project to assess the potential impact of livestock grazing on federally-listed species which documented benefits to specific species from control of non-native plants.

Outcomes

Learning and behavior changes

New rangeland properties acquired in the past 3-5 years by Contra Costa Water District (5000 acres), Zone 7 (5000 acres), and Santa Clara Water District (1500 acres) have all maintained or reintroduced grazing programs to maintain and enhance rangeland resources. Grazing was also been reintroduced on at least 5 properties and 11,000 acres managed by Mid-Peninsula Open Space District. Open space lands accessible to the public are posting information about sharing space with livestock to reduce conflict.

Policy changes

Managed livestock grazing is considered a primary tool to support conservation of habitat lands in the San Francisco Bay Area. Public agencies have included policy language to support ranching sustainability so grazing can continue to be a viable tool. Research findings document benefits to 76 federally-listed species from managed grazing. Public agencies are sharing information about the role of grazing in managing their lands.

Primary ANR condition changes and indicators

- Improved management and use of land – acres being managed
- Increased ecological sustainability – species and habitats benefitting
- Improved access to positive natural environments – incidents of reported conflict, and outreach by agencies to public on sharing open space (signage, website, brochures)

Associated ANR public value

- Protecting California's natural resources
- Promoting Healthy People and Communities

Lessons Learned

- Research and engagement are essential for policy change.
    - *Show up*. Being present at meetings, programs and engaging in public processes provides builds trust and provides opportunities for successful program outreach.

    - *Collaborate*. Partner with stakeholders, work with colleagues, and work to engage the UC network of experts.
    - *Follow through research-to-extension.* Consider different approaches for extending information and engage stakeholders at different levels.
- Strive to connect the dots. Effective program efforts will be interdisciplinary
    - Collaborate to extend our capacity, reach and create an interdisciplinary approach.
- Condition change takes time. Invest in a long-term vision. Set up research and projects that support a long-term vision.

Happy Hikers in East Bay Parks.