

home:
subscribe
today's page 1
contact us
search

western Perspective

insight and analysis

Headwaters News
engages our readers in a
different issue every other
Wednesday.

We encourage you to [send
us your comments](#). Your
email must contain your
name.

on this page:
column
analysis
post a comment
readers respond
backgrounders
archives

[Send this page
to a friend or
colleague](#)

[Read the rest of
White's columns](#)

[Read Western
Perspective](#)

[Read past
Perspectives](#)

[Read the Interior
Secretaries series](#)

Western
Perspective is
sponsored by:



A West that works

Grassbanks spread north



Courtney White photo

Maria Sonett stands near the Eagle Nest Creek riparian project on The Nature Conservancy's Heart Mountain Grassbank near Cody, Wyo. Sonett is the director of the grassbank.

The Nature Conservancy helps sage grouse habitat restoration efforts by providing graze to cattle on its Wyoming Heart Mountain Grassbank

By Courtney White
for Headwaters News

[Editor's note: This column on The Nature Conservancy's Heart Mountain Grassbank is the second of a two-part series.]

Innovation has a way of turning stumbling blocks into stepping stones.

When The Nature Conservancy purchased the scenic 16,000-acre Heart Mountain Ranch in 1999, it considered selling the 600 acres of irrigated ground that came with the property. After all, what did The Nature Conservancy, a large conservation nonprofit organization dedicated to preserving rare native plants and animals, want with irrigated agricultural ground?

It had bought the ranch, located a few miles north of Cody, Wyo., – a growing gateway to Yellowstone National Park – to protect important wildlife habitat from the threat of development. Everything from elk to Peregrine falcons, including the endangered sage grouse, call the place home. The ranch also harbors four rare plant species of concern.

As a bonus, Heart Mountain itself is something of a 'must see' among geologists who consider it a curious oddity.



Courtney

White writes a monthly column for Headwaters News that focuses on people who embrace a sustainable approach to western resources.

White is executive director of the Quivira Coalition, a Santa Fe-based group devoted to collaboration as the approach to an ecologically healthy region.

Much of Quivira's emphasis is on ranching, but its principles of education, cooperation and innovation apply to many of the region's biggest issues.

[comment on this column](#)

All of this fit The Nature Conservancy's national methods and mission, as well as the Wyoming chapter's carefully considered priorities. Specifically, the regional conservation plan identified protecting elk migration corridors as a top concern in the Yellowstone area.

What the regional plan did not specify was that The Nature Conservancy would get into the farming business.

It would have been easy to sell the irrigated land, and the water that came with it – there were plenty of eager buyers among local farmers. Instead, The Nature Conservancy decided to hold onto the land. It had decided to try its hand at agriculture after all, and not just on the irrigated ground, but on the whole ranch.



"Grassland is a lot like an ocean, there's an inherent mystery in it."

**– Maria Sonett, project director,
Heart Mountain Grassbank**

The Wyoming chapter had decided to try its hand at grassbanking.

Grassbanks are a place where forage is exchanged for conservation benefit – a quid pro quo between landowner and the larger community. The idea originated within the Malpai Borderlands Group, in southeastern Arizona, where the large Gray Ranch exchanged grass for conservation easements (TNC is a major partner in the Malpai).

The concept shifted next to New Mexico's Rowe Mesa, near Santa Fe, where Bill deBuys and The Conservation Fund leveraged the grass of a 36,000-acre forest service allotment into prescribed fire and other conservation activities.

Inspired by these examples, The Nature Conservancy decided to give the concept a go. By 2002, the Heart Mountain Grassbank was enjoying its first full season of operation. It was also enjoying strong local support from the ranching community, as well as full cooperation from the U.S. Bureau of Land Management and the Wyoming Game and Fish Department.

In 2004, the last major piece of the puzzle fell into place when Maria Sonett, and her partner Skip Eastman, were hired to direct the grassbank and manage the ranch. Maria came to Cody from the Rowe Mesa project, where she had worked as assistant director of the grassbank there. The Nature Conservancy had, in fact, courted both of them for Heart Mountain.

Now all she had to do was turn stepping stones into a real business.

Grasslands and Horses

Born in northern California, Maria moved to Tucson, Ariz., as a teen-ager when her father became a professor in planetary sciences at the University (today the University of Arizona features a building called the Charles Sonnett Space Sciences Center). Maria had no initial interest in agriculture; but there was a foreshadowing – she loved horses.

"I started riding when I was five," she recalled. "We lived on the edge of ranches in California, maybe not what we would call a ranch today, but they all had horses. And I thought it was the greatest thrill to go out and catch a neighbor's

loose horse."

She was allowed to keep one of the horses she caught, and she has been involved with horses ever since.

As a child of the suburbs (which, she notes, makes her a new type of range professional in the West), Maria admits she "didn't pay much attention to what was under the hooves of my horses." It wasn't until graduate school that she began to develop what has become a lifelong love affair with grass and grasslands.

It began with a move to New Mexico.

"One day I got off my horse and decided to collect all the range grasses that I didn't recognize, which was most of them," she said. "I was in grad school at UNM in landscape architecture at the time focusing on the 'hardscape' of parking lots and handicap spaces. I really didn't like it. I wanted to learn how to 'read' the natural landscape instead."

She took the grasses down to the Albuquerque office of the old Soil Conservation Service (now the NRCS) where she met John Warner, who became a mentor. She volunteered in the office, becoming increasingly fascinated by grass, grasslands, and the range issues entangled with both.

"Grassland is a lot like an ocean," she said, "there's an inherent mystery in it."

"I dislike the overused term 'win-win' but it fits the grassbank idea."

**– Maria Sonett
Heart Mountain Grassbank**

In the meantime, she was raising two kids and worrying about money. She needed to get engaged in the "real world." So with the encouragement of professor Bill Fleming at the University of New Mexico, she abandoned 'hardscapes' and wrote her master's thesis instead on mine reclamation.

"How to grow grass on impossible soils," is how she described her research. "It's part of what they call restoration ecology today. In any case, it led to a job with a private firm, thankfully."

After an adventure in Alaska, followed by a move to Prescott, Ariz., Maria returned to New Mexico to become the assistant director of a grassbank. A year later she found herself directing the Heart Mountain project.

"I dislike the overused term 'win-win' but it fits the grassbank idea," she said "It reduces conflict because it gets things done. It gets conservation done and it helps the ranchers."

According to a recent Nature Conservancy publication, the Heart Mountain Grassbank in 2004 received 365 cow-calf pairs from the Sage Creek grazing allotment northeast of Cody, which enabled the BLM wanted to carry out 3,300 acres of sage grouse habitat improvement using prescribed fire and mechanical treatment.

Sage grouse populations have declined 40 to 80 percent throughout portions of their range in the West. The current population is estimated to be 140,000 – about 8 percent of historic population – due to the spread of sagebrush and the decline of fire.

"We couldn't have done this [the treatments] without the grassbank," wrote Tricia Hatle, BLM range conservationist for Sage Creek. "We have to rest the range for a couple of seasons while we do the project. Grasslands need to get built up in order to carry a fire, and then the vegetation needs a chance to

regenerate after both the fire and the mechanical treatment."

The cows graze on the 600 acres of irrigated pasture that is set up for high-intensity, short-duration grazing. The cattle gain two to three pounds a day. The water comes from the Heart Mountain Irrigation Canal which flows out of the Buffalo Bill Reservoir near Yellowstone.

"We've installed new filter systems, buried pipe, built new fences, repaired lots of old ones, monitored utilization and re-growth on our irrigated ground, experimented with state-of-the-art organic fertilizer, and planned many more projects," wrote Maria. "But one of the more difficult tasks we've had is not running over the bumper crop of sage grouse who move to the irrigated ground to grow up. Wherever we walk, ride, or drive, we send numerous young grouse scrambling into the air."

Skip, Maria and The Nature Conservancy recently expanded their stepping stones. There is another herd on the Heart Mountain Grassbank – on the ranch lands itself. They are cows from a Forest Service allotment in big horn sheep habitat. The Nature Conservancy and the rancher have made a ten-year commitment to each other.

"It was a happy confluence of needs," said Maria.

Future

Despite their 'win-win' status, grassbanks face significant challenges, not the least of which is their financial insecurity. Every grassbank is subsidized currently – either by government grants, foundation funding, or donor support. As a "business," Grassbanks have yet to turn a profit.

Another challenge is defining and expanding the "conservation benefit" that grassbanks deliver. In particular, how do you measure a "fair trade" of forage for conservation? What is improvement to sage grouse habitat worth to society?

Perhaps more importantly, as Maria Sonnet notes, how do you measure the goodwill among neighbors created by a grassbank?

While these challenges have sunk a few grassbanks around the region, others are emerging in Oregon, Nevada, South Dakota, Arizona and Nebraska.

Another successful grassbank is the Matador Ranch, a 60,000-acre property owned and managed by The Nature Conservancy in north central Montana. Its director is Linda Poole, who recently summarized the hope and potential of grassbanks in a set of operating principles. They are set forth below both as an example of lessons learned and as a way of peeking at the future.

While many obstacles remain to creating "A West That Works," one useful stepping stone – a grassbank – is becoming easier to see daily.

Matador Ranch Grassbank's Operating Principles

By Linda Poole

The over-arching goal of the Matador Ranch Grassbank is to foster significant, lasting conservation of native prairie plants and animals in the Glaciated Plains of Montana. For more than a hundred years, private ranchers and public agencies have been the primary conservators of this region.

With skills honed by decades of harsh, variable conditions, many of these third and fourth generation ranchers provide low cost, low risk, high-quality stewardship of the prairies. The basic premise of the Grassbank is that we provide forage for cattle of our ranching partners in partial exchange for

conservation practices on the home ranches of our partners.

Adherence to key principles is crucial to the success of the Matador Ranch Grassbank:

1. Large scale. Dominant processes (herbivory, weather, fire and flooding) and featured species (grassland birds, sage grouse, prairie dog, mountain plover, swift fox, burrowing owl) operate at a vast scale in the northern plains. Threats to those species and processes are similarly widespread (weed invasion, sobusting, climate change, exotic diseases).

For conservation to yield significant results and persist through time, it is critical that many hundreds of thousands of acres of the Glaciated Plains be conserved, and then managed for the long-term for conservation. Our aim with the Matador Ranch Grassbank is to provide at least a 4:1 ratio of leverage of conservation, such that for every acre of land we own (31,000 in 2005), we secure at least four times that amount in conservation value (measured variably as number of acres of protected habitat, number of animals, or dollar value).

2. Long term. In all actions, we work to build conditions to secure long-term success. We've learned that the process of Grassbanking substantially increases understanding, improves trust and strengthens relationships between all involved, thereby laying a foundation for sustained success. The Grassbank works in concert with, rather than in opposition to, the local economy, culture and communities. When evaluating alternative courses of action, we will consider direct and indirect effects, in both the short and long term (i.e., the next hundred years).

3. Right partners. Some lands inherently provide greater conservation benefits than do others, and our focus will reflect sound conservation planning. By working with ranchers that manage strategically important properties, we increase conservation effectiveness.

In general, actively engaging the widest feasible group of partners (agencies, non-governmental organizations, business people, donors, researchers and others), including people that may disagree with us, will enhance our rigor and success.

4. Effective relationships and communication. We employ consensus building and conflict resolution processes where everyone is invited to participate openly and equally in creating shared solutions. Our rule of thumb is "When in doubt, talk it out."

Mutual respect and high integrity are the essential foundation of Grassbank success. At the same time, no one participating in the Grassbank abdicates any pre-existing rights or responsibilities; we remain separate entities even as we choose to collaborate.

For example, The Nature Conservancy retains full management authority and responsibility for the Matador Ranch, even while we agree to collaborate when that makes sense for all involved.

5. Flexibility, or stable dynamism through time. Conservation and ranching both demand flexibility to optimize changing conditions and opportunities. At the same time, both ranching and conservation are more cost and environmentally-effective given stability from year to year (e.g., multi-year agreements to protect wildlife habitat or to provide forage for cattle).

We will design our partnership to provide as much stability and predictability as is feasible, while also building in assurances or conditions to provide necessary flexibility.

6. Model the best of what we'd like to see elsewhere.

- **a. Professional, friendly, constructive** relationships built on mutual respect and high integrity.

- **b. Safe, fair and effective work environment:** facilities, EEO, respectful workplace, reasonable workloads, opportunity to grow and thrive as workers, lifelong learning, foster creativity and wise innovation.
- **c. Adaptive management,** based on effective, affordable and repeatable monitoring that is well-documented and continued through time.
- **d. Weed prevention, control and monitoring.**
- **e. Sustainable range management,** with the primary goal (of grazing, fire and water management) being the conservation of native species, communities and key processes.

On the Matador Ranch, sustaining biodiversity and the ecological health of the ranch itself are the foremost concerns in on-the-ground management. In no case will we compromise good management of the Matador Ranch in order to meet broader programmatic goals.

- **f. Good husbandry** and gentle handling of livestock, using low stress techniques.

7. Pioneer new practices that may have application at the broader scale.

Our ranching partners may not be able to risk innovation, but many are eager to employ affordable, proven practices that will better the condition of their ranches. Where appropriate, we will test and refine practices that may be beneficial to rangeland conservation.

8. Effective use of resources. For conservation to be truly sustainable and occur at the vast scale necessary for significant success, we need to ensure the most effective use possible of our resources (people, land, money and time). Ideally, conservation would make money above and beyond what it costs to produce. As much as possible, we will craft programs that are market-based and self-perpetuating, rather than depending on continual infusions by philanthropy or government programs.

9. Learning and teaching. We will provide learning opportunities for ourselves and our partners that help us move toward our goals. We will share lessons learned with others, just as others have helped us along our own path. We will provide and participate in forums to advance knowledge.

10. Adherence to policies and procedures. Long-term success of this and other grassbanks hinges on meeting the letter and intent of applicable laws and guidelines. We will educate ourselves on pertinent rules, then comply with them and document our actions.

We will employ the best information available to set rates for conservation discounts and grazing fees, in compliance with IRS regulations. We will also utilize and comply with clear, thorough contracts with our partners. We will establish clear, fair guidelines for operation of the grassbank, and share these openly with our current and potential partners.

[join the discussion](#) | [readers respond](#)

[back to top](#) | [to page 1](#)
[send this page to a friend](#)

produced by Shellie Nelson, assistant editor
contents copyright 2005 | Headwaters News

Headwaters News is a project of the
Center for the Rocky Mountain West
at the University of Montana.