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ON THE COVER: A cow grazing in a field of wildflowers with a golf course and subdivisions in the background. This photo was taken on the Koopmann Ranch featured on page 14.





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Foreword

By Pelayo Alvarez





California Red-Legged Frog

Pelayo Alvarez works as the conservation program director for the Defenders of Wildlife in Sacramento. He is a co-coordinator of the California Rangeland Conservation Coalition featured on page 28. He holds a bachelor's degree in Veterinary Medicine from Universidad de Leon in Spain, a master's degree in Animal Science from Oklahoma State University and a Ph.D. in Ecology from University of California, Davis.

Driving through California, we have the opportunity to enjoy the view of the open landscapes occupied by our grasslands, oak woodlands and savannas. Most of these rangelands are privately owned, so it is easy to affirm that ranchers are an essential steward of California's remaining open spaces.

Rangelands provide Californians with much more than scenic vistas. They provide habitat for our native plants and wildlife; are essential in the provision of water, food and fiber; and also provide myriad recreational opportunities.

As urbanization progresses, we have become more and more detached, not only from the natural resources that make our life possible, but also from the people who take care of them. Ranchers, through their strong conservation ethic, have invested their own time and finances into managing and enhancing the private and public lands that we all enjoy.

Through published research studies, we know that a variety of species not only benefit from managed grazing, but actually depend upon it for survival. The unique inhabitants of our vernal pools are able to thrive and complete their life cycle thanks to cattle grazing. Endangered amphibian species such as the California Tiger Salamander and the California Red-Legged Frog are able to survive and breed in stock ponds, while invertebrates like the Bay Checkerspot Butterfly benefit from grazing and other ranching practices. Ranchers also use grazing to control invasive species and help prevent catastrophic wildfires by reducing fire fuel loads.

In the second edition of Grazing for Change, you will meet some of the families that have been stewarding California's grasslands for generations and learn about the relationships they have formed with diverse interests and the difficult business climate they operate within. You will also learn about an encouraging partnership that turned foes into friends and is working to keep ranchers on the land.

The stories in this booklet, produced by the California Cattlemen's Association, in collaboration with the California Association of Resource Conservation Districts and the Natural Resources Conservation Service, depict the work that ranchers do to sustain, enhance and preserve our rangelands for the benefit of all. With a passion for environmental stewardship and an emotional connection to the land, these ranchers are proud to share their stories with you.

A profound component of the ranches profiled in this second edition of Grazing for Change is the sheer breadth of individuals collaborating on rangeland management to enhance the natural resources on these working landscapes today, for the betterment of future generations. Representatives of organizations such as resource conservation districts, environmental interest groups, state agencies and federal government entities are featured working hand-in-hand with ranchers in the following stories.

From this booklet, you will be able to gain a broader understanding of the struggle to maintain those expansive vistas you drive by on your travels. We hope this book will capture your heart with the importance of rangelands, and inspire you to seize opportunities to promote, enhance and preserve California rangelands and the legacy of ranching. With the deep commitment of California's ranchers and your support, we can work together to improve our state's rangelands and natural resources for the enjoyment of future Californians.

Influencing Management

Rancher Improves Public Lands Management

Three Creeks Ranch Chet Vogt - Elk Creek

Gathered at the tailgate of a pickup truck with photos, maps and monitoring data, a rancher, environmentalists and government representatives discuss the health and future of a piece of public land. The pickup truck owner is rancher Chet Vogt with Three Creeks Ranch based out of Elk Creek, located in Glenn County. This innovative rancher brought together this team of stakeholders a few short years ago and, by doing so, has improved the overall health of the Bureau of Land Management (BLM) Bear Creek Unit.

For years, Chet had driven past the property, noticing its continuing decline. Located in the interior coast range in Northern California and studded with oak trees, native plants and occupied with a variety of wildlife, the property had not been grazed for years, resulting in a phenomenally thick buildup of thatch that was preventing new growth from germinating. Historically, Bear Creek had been grazed, but following BLM's acquisition of the property, the cattle were removed. It was believed that by removing livestock, the property would return to a pristine state.

In 1999, BLM had acquired nearly 13,000 acres of significant environmental value. The land harbors species such as mountain lions, coyotes, deer and Tule Elk, along with a variety of grassland

birds and wintering raptors. After the cattle were removed, the plant diversity on the property was in jeopardy. Invasive weeds such as starthistle, medusahead and barbed goatgrass were outcompeting more desirable forages preferred by wildlife, jeopardizing the abundant native wildflower population the area is known for

Part of it is relationship and part of it is what is happening on the ground

PARTNERS

- Bureau of Land Management
- California Department of Fish and Game
- Natural Resources
 Conservation Service
- Rocky Mountain Elk Foundation
- Tuleyome
- University of California Cooperative Extension

In the eye of the rancher, Bear Creek was prime grazing ground, especially for Chet who was a local. In the eyes of BLM and local environmental group Tuleyome, this property needed to be people friendly, but the intrusion of invasive weeds was actually making this place unfriendly to the public. However, while exploring the opportunity with BLM to graze the land, potential adversaries to the concept of cattle on public land became engaged and outraged.

"Tuleyome was very skeptical of reinstating grazing. The BLM property is a place we hike and we were not sure the impact cattle would have on the land," reflects Bob Schneider, Tuleyome president.

Chet

Initially, Tuleyome was skeptical of the cattle, and even more so of the rancher. To alleviate uncertainty and discuss the myriad benefits possible from grazing, Vogt invited Tuleyome to visit his private ranch in Elk Creek.

Located on the western edge of the northern Sacramento Valley, Three Creeks Ranch varies in landscape from broad, open valleys

to steep, brushy hillsides. This 5,300-acre ranch that sustains a 500-head cow/calf operation was founded on the management principles of environmental and economic sustainability.

Under Chet's management, Three Creeks Ranch has evolved from traditional grazing practices of year-long utilization to an intensive management program that divided the ranch into 32 individual paddocks, allowing for concentrated grazing

in a single paddock at any one time, while the other paddocks are resting. Each paddock is grazed for less than 10 days a year.

This resting period allows perennial grasses to re-establish, vegetation to reach desirable heights and plant vigor to be maintained, while enabling Vogt to control unwanted vegetation, particularly invasive weeds. The timing and duration of grazing in each paddock is closely monitored and controlled.

The time-controlled grazing, coupled with a detailed grazing management plan, results in efficient and effective energy, mineral and water cycles, as well as desired hydrologic conditions. Management on Three Creeks Ranch has extended the duration of the base stream flows and provided an increase in habitat for Neotropical migratory birds and numerous other wildlife.

Following a firsthand look at Chet's management style, Tuleyome conceded to the establishment of a managed grazing program to improve the biodiversity of Bear Creek on a trial basis. The deci-



RIGHT: The effects of grazing on the BLM unit are monitored by enclosures, like this one, that are moved annually.

LEFT: *Brodiaea elegans* on the BLM unit.



sion stems from the environmental group's positive impression of the management on Chet's private property.

This building of trust between ranchers and environmentalists was fostered by BLM's decision to reinstate a managed grazing program to improve the health of the land. This cooperative project focuses on controlling invasive species by utilizing cattle grazing in an effort to create healthier rangelands. "This is not a traditional BLM grazing lease. It is a contract with Chet to reduce weeds," states Greg Mangan a range consultant for the BLM.

Whereas Chet may look at the project from a different angle as a rancher, he has the same outlook on the project. "The main tool we are using is grazing to benefit the land," states Chet. "With a change in the management approach, you are able to effect change in the plant community by giving all plants a chance to compete for water, nutrients and sunshine."

"We knew we had to implement grazing, just not what kind or how," affirms Mangan. "Where you can graze, you can practice weed control without limitations."

With stakeholders on board, a plan for the future was outlined prior to the reintroduction of grazing on about 6,000 acres of Bear Creek to control invasive species, with the ultimate goal of improving the overall health of the property.

"We began with an inventory of the property," states Dennis Nay, rangeland management specialist with the Natural Resources Conservation Service (NRCS). "After we knew what we had and determined what we wanted, we were then able to create a grazing management plan to achieve those results."

With a managed grazing program in place and a monitoring program to track the results, cattle were reintroduced onto Bear Creek in 2005. The monitoring of the grazing program is a significant commitment by all the project partners, including the University of California Cooperative Extension, NRCS, BLM, Tuleyome and Chet.

The monitoring program consists of residual dry matter monitoring in the fall, species composition monitoring at 13 locations around the property in the spring and photo monitoring biannually at 80 points on the parcel.

The partners on this project realize they will have to take time to achieve the results they intend. "We must not jump to conclusions," states Nay, one of the folks who devoted time to monitoring the project's success.

This land is also managed beyond the use of cattle. With a focus on grassland composition, herbicide has been used on a few acres to actively control Yellow Starthistle, which BLM states has been temporarily effective.

Also at Bear Creek, there is a trial underway in several locations, totaling 200 acres, to re-establish native grasses. Since the ability to gradually change annual grassland composition is unknown, this trial seeks to demonstrate the effectiveness and economics of native grass seeding.

This cooperative project is more than just about weeds, it is all-encompassing. Chet is working with BLM to continuously enhance the property by implementing conservation practices such as fence installation for better livestock control and creating reliable watering sources on Bear Creek for cattle and wildlife.

While there is a lot of anecdotal information that has been passed down through generations of ranchers and observed by onlookers, one unique aspect of this project is that there will be a great deal of real science derived from the partnership.

In just a few short years, partners are already seeing the results of the managed grazing program, both visually and from monitoring documentation. For instance, grazing has opened up the medusahead thatch, resulting in increased wildflower composition from 3 percent in the first year to 6 percent in the fourth year.

"There has been very little adverse reaction of grazing on Bear Creek. However, there has been a lot of positive reaction since people know what the property looked like before," states Chet.

This partnership exemplifies the beneficial role of ranching on public lands, as well as the public benefits that can be derived from managed grazing. Ranchers, environmentalists, recreationists and the government, together, have developed a win-win project that is improving the health of the land. This collaborative effort can serve as a model for what can be accomplished when people work toward common goals for the benefit of all.

"Chet brings a real commitment to the project and really inspires our organization to be committed to this partnership," concludes Schneider. "There is an important story here to tell, part of it is relationship and part of it is what is happening on the ground."

Monitoring for Success

One rancher's approach to managed grazing

T.O. Cattle Company

Joe and Julie Morris - San Juan Bautista

A string of Ford Fusion Hybrids displaying bumper stickers ("I am Changing the Climate") and convertible BMWs lined a country lane in San Juan Bautista on a beautiful spring day. Bay Area residents had driven south for the annual spring field day at the T.O. Cattle Company. These conservation-minded urban dwellers had come to see firsthand how the Morris Grassfed Beef® they eat back in the city is raised.

Joe and Julie Morris of T.O. Cattle Company, based in San Benito County, manage thousands of acres of coastal grasslands and oak woodland savannahs. Their ranching career began in 1991, continuing the tradition of Joe's grandfather, John J. Baumgartner, who came to San Benito County to ranch in 1927. The Morris family cattle operation sells nearly 200 head directly to consumers through their beef company each year. The foundation of T.O. Cattle Company is centered on beef production, healthy watersheds and consumer awareness.

"We are doing some things differently and better, and others the same way we have done them in the past. We are taking advantage of information that my granddad never had," states Joe when discussing how the management regime on the property evolved under his direction.

To begin with, the Morrises use Holistic ManagementTM, a decision-making process developed by Allan Savory. In regard to their operation, the Morrises use the decision-making process to make grazing, land management and financial decisions that improve land health and productivity and move them toward their holistic goal. A component of this plan is to manage cattle to mimic the historic patterns of elk and bison that once grazed California grasslands.

Specifically, Joe works to prevent the cattle from overgrazing, which occurs when a herbivore bites a plant a second time before that plant has had sufficient time to recover its root mass. Joe manages overgrazing by moving the herd of animals according to the needs of the plants they will graze. The Morrises implement their grazing plan by herding, subdividing pastures with electric fencing to control livestock distribution and developing water infrastructure that can be used by cattle and wildlife.

RESOURCES

- www.morrisgrassfed.com
- www.holisticmanagement.org

The most important component to any grazing operation is the rancher, of course – the one who monitors the cattle, grass and water, and moves the

Monitoring evaluates

the overall grassland

health, including plant

biodiversity, wildlife

presence and water

quality



Joe and Julie with their children, Jack and Sarah.

cattle around the property. Joe is a firm believer and a case study that only overgrazing, not grazing itself, is damaging. On Joe's property you will find native plants, invasive species under control and a diversity of plants and wildlife coexisting in harmony with the cattle.

To find out more about the health of the grassland they were grazing, Joe and his dad, Rich, decided it would be worthwhile to bring together other ranchers, range science experts, representatives of conservation organizations and government staff from natural resources agencies to discuss the topic. They recognized that there was a great deal of conflict over the management of grasslands, and they wanted to see if they could develop a shared understanding of what constitutes and what produces healthy rangelands.

They gathered those groups to see if they could discover common ground, eventually creating the Central Coast Rangeland Coalition (CCRC). One of the group's projects is the development of a monitoring program, a peer-reviewed standard of rangeland/

watershed health, applicable to California's Central Coast. The basis of the program is the 1994 publication of the National Academy of Science's "Rangeland Health: New Methods to Classify, Inventory, and Monitor Rangelands."

"The project is directed at defining and identifying sites of healthy coastal grasslands, and at developing workable 'Standards of Rangeland Health' to assist land managers in choosing and evaluating their practices,"

states Rich, a primary CCRC facilitator, who works closely with Joe and Julie on the T.O. Cattle Company's range management. "We, along with 25 other ranchers managing about 200,000 acres from Sonoma County to San Luis Obispo County, are voluntarily participating in the annual CCRC monitoring program to evaluate the health of the rangelands and to determine if we can improve our management and develop region-wide indicators of rangeland health."

Between Holistic Management and the CCRC, the Morrises are promoting a healthy watershed. At the same time, Joe proclaims that, because of Holistic Management, not only has the productivity of his ranch improved, but he has also seen an increase in profits. Joe is excited to be part of the creation of the coastal grasslands 'Standards of Rangeland Health' so he and his ranching neighbors can be better stewards of the animals, air, water and soil they have influence over.



RIGHT: The fence line contrast illustrates the invasive weeds on the non-grazed side at right of the photo and the managed grasses on the left side of the fence.

LEFT: Joe speaking with a Morris Grassfed Beef® consumer.



On these California coastal grasslands, Morris' cattle eat a diet of fresh grass, forbs and legumes. In June, the animals are harvested and sold to more than 500 customers directly as Morris Grassfed Beef. The family has expanded their sales during the summers by attending the farmers' markets in Hollister and Santa Cruz.

"We are a grassfed operation. This does not mean the commodity market is bad, we are just taking a different path," explains Joe. "Direct marketing affords us the opportunity to educate our consumers on where and how their beef is raised, while receiving a premium in the marketplace."

The conservation-minded urbanites who drove their hybrids to the T.O. Cattle Company for the annual spring field day are consumers of Morris Grassfed Beef because of their concerns about healthy food, local ranching communities, climate change, clean water, open space and a healthy environment.

"We were influenced by books and the media about purchasing local, environmentally-friendly foods," notes Mimi, an Oakland resident who purchases Morris Grassfed Beef. "The field day was a great chance to meet the people who raise our food, see how the cattle are important for the state's grasslands and have a good time on the ranch."

The Morris family takes consumer and general public education on beef production very seriously, hosting field days, publishing newsletters and even maintaining a company Facebook® page. With 99 percent of the population unfamiliar with how beef is produced and what role ranching plays in preserving open spaces, providing income for rural economies and promoting an ecologically diverse environment, the primary goal for their community outreach is education.

In terms of monitoring data, Joe and Julie have continued to evolve their operation, implementing emerging ecological and economic approaches. Using the program set up by CCRC, the annual monitoring is conducted by both the rancher and outside rangeland

experts. The monitoring evaluates the overall grassland health, including plant biodiversity, wildlife presence and water quality.

Putting the data to use, they have trained their cattle to eat invasive weeds such as milk thistle and black mustard, allowing better utilization of forage that was historically neglected. At the same time, once overwhelming tap-rooted forbs on portions of the ranch have returned to historic grassland levels through planned grazing and close monitoring of the cattle.

The Morris family's future includes continued growth of the operation, helping to create a more cattle production-savvy public and implementing additional emerging ecological and economic approaches. One of those emerging issues for all ranchers is the ability to sequester carbon.

"With cows and grass, you have the tools to manipulate the process of photosynthesis. We are the custodians of that process, and we can manage it to sequester carbon on millions of acres in California," says Joe. "Ranchers are on the front line to participate in a voluntary carbon market, potentially providing additional revenue and protecting open grasslands that are home to a diversity of plants and wildlife."

This is just one more thing that will attract the conservation-minded public to purchase California beef and support the state's cattle producers.

Growing Green

Producing Beef for Green Consumers

Leavitt Lake Ranches

Darrell, Callie, Ramsey and Dallice Wood - Vina and Susanville

Imagine summers spent in the high mountain meadows with lush green grass and cool streams and winters in the mild climate of the Sacramento Valley in rolling foothills blanketed with wildflowers each spring. It's not just a dream – it's a distinct possibility. It's also how Leavitt Lake Ranches' 700 head of Angus cattle live.

In what some may say is a dying industry, this ranching family has found a way to be prosperous and environmentally conscious simultaneously. Darrell and Callie Wood ranch alongside their 20-something-year-old children in Vina and Susanville. The kids, Ramsey and Dallice, are the sixth generation growing cattle on the same land Darrell's family owned and managed in the 1800s.

This family ranching operation began back when Darrell's great-great-grandfather Dennis decided to earn a living by raising cattle near California's Nevada City, located in the Sierra Nevadas. A lifestyle that has its challenges, legend has it that one of Dennis's challenges included having a herd succumb to a particularly harsh mountain winter that left no forage for cattle. This did not set him back and three years later he drove a herd to Susanville where he began selling his fresh beef to nearby towns.

Flash forward to today, where Darrell and his family are selling

cattle raised in the same tradition as their ancestors. As one of the founders of PanoramaTM Organic Grass-Fed Beef, the Woods market their cattle along, with other ranchers, to grocery stores and local fine restaurants.

The Angus cattle spend the winter months on 10,000 acres of owned and leased grass-

lands about 90 miles north of Sacramento. As the grass begins to turn brown and spring turns to summer, cattle are shipped to 50,000 acres of Bureau of Land Management (BLM) permits and

deeded land in the Sierra Nevadas
near Susanville in Lassen County.

Improved our state's

natural resources and

gone green, to meet

consumer demand

PARTNERS

- Bureau of Land Management
- California Waterfowl Association
- · Ducks Unlimited
- Natural Resources
 Conservation Service
- The Nature Conservancy
- U.S. Fish and Wildlife Service

The cattle graze on certified organic land, from lower elevation ground to higher ground to promote regeneration of grasses they will take advantage of next season. A move that prevents overgrazing. This movement of livestock is very similar to that of the historic grazers that used to roam California, including species of elk, bison, pronghorns and mammoths.



Darrell's conservation work on private ground, public land and property owned by The Nature Conservancy attest to his proactive management attitude. By working with a variety of partners, Darrell has ecologically improved the land to benefit water quality, wildlife and the economics of his ranching operation.

"It is like an oasis," Darrell proudly states. "The Pete's Valley Ranch is green throughout the entire grazing season."

As he talks in greater detail about Pete's Valley Ranch, a privatelyowned property near Susanville, he reflects on the improvements he has made over the past 15 years since acquiring the property.

Working with the Natural Resources Conservation Service (NRCS), California Waterfowl Association and the U.S. Fish and Wildlife Service (USFWS) Partners for Fish and Wildlife Program, a multitude of features have been improved on the land.

One of those improvements includes the restoration of the hydrologic function of the land to restore a meadow. While the land was once a dehydrated piece of property, this group of partners placed the creek back in its historic channel and increased water reservoir storage capacity to provide flows almost year-round. Along the creek, willows and cottonwoods were planted to assist with stream bank stability and provide shade to keep the water cool.

"On this project, the rancher did more than the minimal requirements; he set aside a large chunk of land just for wildlife," states Dan Strait, USFWS partners program biologist who worked on the Pete's Valley Ranch restoration. "This project is more than about doing the right thing for the land. Darrell has told me time and again that it has benefited his bottom line."

With a little bit of management by mankind, the land is restoring itself. Deep head cuts in the stream are now self-repairing, native meadow grasses have re-established themselves naturally and the water table has risen from deeper than 10 feet to only 3-4 feet.

"A big problem on this ranch was the fencing," recollects Dar-



rell. "We needed to get control of our own cattle and fence out the neighbor's cattle that were congregating on the property."

Using the NRCS Wildlife Habitat Incentives Program and other matching funds, Darrell installed fencing to address the management problems in this privately-owned valley. Specifically, the riparian areas were fenced and are now grazed only for a limited time in the fall. This takes place after the water has receded and grass in other portions of the ranch has died off.

The Wood family also installed cross-fencing, allowing for implementation of a rotational grazing regime. After monitoring with photos taken annually at specific locations on the ranch, evaluation of species composition and comparing grazing enclosures to the actively managed land, all partners have seen the vegetation diversify, while forage quality and quantity has improved, benefiting wildlife as well as livestock.

For Darrell, the monitoring is important. "The enclosures show that we need to graze," he says. "But our partners won't agree unless we have the evidence to back it up."

On the public land managed by the Bureau of Land Management (BLM) adjacent to the Pete's Valley Ranch oasis, Darrell and his family have invested their own financial resources to improve the rangeland. Cross-fencing has been installed so the cattle are better controlled, thus preventing overgrazing. In addition, water troughs have been installed to provide reliable watering sources for livestock and wildlife during the rainless summers in the mountains.

Down in the Sacramento Valley, the Wood family grazes The Nature Conservancy Vina Plains Preserve. This is a working ranch that was purchased in 1982 by the conservation organization with the intent to protect it from ranching. Today, Darrell's cattle are

part of the conservation plan on the land for the benefit of vernal pools. Research has found that cattle are essential to preserving this ecosystem by managing populations of invasive plants, such as starthistle, that can out-compete the natives that are endemic to vernal pools.

Just down the road from The Nature Conservancy property in the valley, Darrell works with partners such as Ducks Unlimited and USFWS' Partners for Fish and Wildlife Program on the family's private property to improve water quality and quantity on the ranch. Riparian areas on the ranch have been fenced to facilitate cattle distribution throughout the property, a pond has been rebuilt to continue to provide water during the tail end of the spring and a settling basin was created to filter sediment from winter run-off.

"You can always do more for the land," notes Darrell as he begins to discuss his future plans for the land his cattle graze.

Future projects include exploring the feasibility of removing invasive juniper trees on BLM land and working with Ducks Unlimited to install a duck pond.

Darrell has raised his family on these ranches, grown grass to feed his cattle, improved our state's natural resources and gone green, to meet consumer demand. With the implementation of conservation practices through longstanding partnerships, Darrell has watched his land improve as well as his cattle business.

"By working with partners I have been able to make improvements to the land that would not be financially feasible otherwise," states Darrell. "I have watched these improvements benefit the land, but also contribute to the family ranching operation's financial stability."



Public - Private Partnership

Ranchers Improve Biodiversity on Public Land

Byrne Brothers Ranch

Mike Byrne and Dan Byrne - Tulelake

In Northeastern California, two brothers' cattle ranching operation has influence over the health and vigor of over 100,000 acres of public and private lands. The ranch is headquartered outside of Tulelake in Modoc County, a place where cattle actually outnumber people. Mike and the late Dan Byrne's cattle graze on private irrigated pastures and meadows, along with public land sagebrush at low elevations and Western Juniper uplands. The public lands are managed in close conjunction with private lands to enhance the vegetative community across the entire landscape.

Historically, ranch management was an 11-month cattle herding cycle within a 50-mile radius of public lands, with one month spent on the ranch headquarters on private lands. In the 1950s, the ranch was fenced into several pastures, a very progressive feat for the time. These pastures allowed for the creation of a rotational grazing system.

In the late 1980s, Mike and Dan began working with the U.S. Forest Service to enhance the rotational grazing system, increasing the number of pastures to mimic historic herding regimes. Through the implementation of an enhanced rotational grazing system, the Byrnes, like a number of other California ranchers, have witnessed

a positive change in weaning weights and production while providing better management for natural forage.

To improve their grazing management on Forest Service allotments, they have also developed 10 solar wells in uplands, providing reliable off-stream watering for livestock and wildlife. Installation of the wells and

watering troughs has also led to better distribution of livestock and removed grazing pressure on streams and riparian areas.

The Byrnes' conservation practices have also improved water quality by increasing vegetation in riparian zones, which has resulted in sediment entrapment.

The enhanced riparian vegetation also shades stream courses, resulting in cooler water temperatures that are beneficial to fisheries.

Attention to detail,

passion for

conservation and a

cooperative attitude

The biggest effort the Byrne family is undertaking today to improve western rangelands is control of juniper



Over the past five years, the Byrnes have removed juniper trees on more than 3,000 acres. Removal of trees is localized to promote wildlife migration. This project has been made possible, and deemed a success, due to cost-share funding from the Natural

other research suggests that this figure is closer to 150 gallons.

single juniper tree can consume 30 gallons of water in a single day;

Resources Conservation Service (NRCS) Environmental Quality Incentives Program and Wildlife Habitat Incentives Program.

"There is nothing that makes me happier than seeing the positive impacts from thinning juniper trees," stated Dan. "By removing them, we are increasing our range productivity to benefit our operation and wildlife, such as the

deer herds that thrive on the bitterbrush."

Tree selection is key. Junipers located in rock outcropping are left for wildlife habitat, because they likely would not historically have burned by natural occurrence. Once juniper trees are removed, the Byrnes work with range specialists to ensure there is adequate understory vegetation and soil depth to respond to such treatment.

Attention to detail, passion for conservation and a cooperative attitude to work with agency personnel to meet management objectives on public land have contributed to continued grazing by Byrnes on the U.S. Fish and Wildlife Service (USFWS) Clear Lake National Wildlife Refuge. On the refuge, cattle are used as a tool to meet the management goals of the publically-owned land. This refuge is an active breeding habitat for sage grouse, and the management of the land and cattle support the species by promoting preferred habitat that is dominated by sagebrush and a diverse understory of bunchgrasses and forbs.

"Biologists know what they want, and we are able to help them reach that outcome," states Mike. "We work closely with agency



Sage Grouse



employees to meet their objectives."

On private land, the brothers have undertaken numerous projects in cooperation with the USFWS Partners for Fish and Wildlife Program. Together, they have treated hundreds of acres of juniperinfested lands to promote revegetation with native plants. Wetlands fed by natural streams have also been restored, creating a prime migratory waterfowl habitat that continues to be grazed sparingly to control plant accumulation.

"The family has been very progressive, willing to look at new ideas and not get stuck in a rut," says Bridget Nielsen, USFWS Partners for Fish and Wildlife Program biologist. "They are doing these projects to stay in business and to protect wildlife."

In cooperation with USFWS, Forest Service, NRCS, University of California Cooperative Extension and Tulelake High School, the Byrnes also monitor their riparian systems. The monitoring consists of identifying the type of ground cover along a line between two permanent points and recording stream temperatures to evaluate the effects of increased shading. Riparian habitat is also monitored to track successful willow regeneration and plant community composition.

Mike and Dan have been recognized on many occasions for their conservation practices by organizations and by fellow cattlemen. "The Byrne family has been ahead of their time in understand-

ing how the grass, trees, cattle and different species could work together," notes Lee Bailey, representative of the Western Video Market, a livestock marketing firm.

But aside from being revolutionary cattlemen, Bailey says it is their willingness to work with diverse entities that has been unprecedented.

"They can cooperate with anyone, including organizations that others would not have considered working with. And they do it not only for the benefit of their family ranch, but for the benefit of the surrounding ranches as well," confirms Bailey.

The Byrnes' management of thousands of acres of rangeland in the extreme northern part of California has, for more than a century, supported their family, deer, sage grouse, antelope and myriad other species. Beyond that, they have also increased plant diversity and reduced soil erosion because of their aggressive management practices.

Public investment in conservation efforts to enhance natural resources clearly provides a public benefit. This is a symbiotic relationship benefiting both sides – the land manager and those concerned about our state's natural resources.

The experience of the Byrnes' and other ranchers has shown that many projects can benefit the land and wildlife. However, these projects don't necessarily pay for themselves on the basis of beef production alone, making it imperative that cost-share conservation programs remain flexible and well-funded so they continue to help ranchers implement projects that improve and enhance the ecological value of public and private land.

Haven for Endangered Species

Family Promotes Wildlife on Bay Area Ranch

Koopmann Ranch

Tim, Melinda, Clayton and Carissa Koopmann - Sunol

In the middle of California's Bay Area, a ranch provides a haven for wildlife. This family cattle operation is nestled between a golf course named after an endangered species, commuter-packed Interstate Highway 680 and ranchettes on what used to be working rangelands. The 850-acre Koopmann Ranch has been raising cattle on land that was settled by Tim Koopmann's grandfather and greatuncle, managed by his father and Tim now maintains in accordance with family tradition.

Today, Tim, wife Melinda, and children, Clayton and Carissa, are proud that the family's ranching legacy will never be surrendered to development. With the protection offered by two mitigation easements, this piece of rural heaven, that is passed each day by thousands of commuters and gazed upon by local residents, will always remain an open landscape dotted with cattle.

In the 1990s, following the passing of Tim's parents, Herman Jr. and Tillyann, the Koopmann family was grappling with the option to sell the ranch. The estate taxes on the small working ranch, in an area with some of the nation's most expensive land, reached nearly \$750,000.

At the eleventh hour, sale of the ranch was averted through the utilization of an emerging conservation template. By working with local, state and federal officials, Koopmann has established wild-

life habitat easements on his working ranch, protecting listed species including the California Tiger Salamander, California Red-Legged Frog and the Callippe Silverspot Butterfly. It is ironic that these endangered species are now helping to protect the California rancher.

Pleasanton, the California Department of Fish and Game ments. By mitigating on a private working

> ager. With all of this, natural resources win!

> > Tim can often be found sharing his story with other ranchers and opening up the wildlife haven to reporters, political leaders and bird enthusiasts. All the while, he notes that "California Tiger

Clayton, Melinda, Tim and Carissa

You can have an

endangered species

and it is not the end of

the world

Salamanders are the most lucrative livestock that I have ever raised."

While part of a last-ditch effort to avoid the sale of his ranch, the easement also fit squarely into the Koopmanns' lifelong conservation commitment. Tim has gone above and beyond the deeded terms of their easement to improve biodiversity on the ranch. In one instance, a Caltrans railroad grade changing project in Fremont was set to destroy a wetland area with a population of California Tiger Salamanders. Knowing this, Tim accompanied a local U.S. Fish and Wildlife Service (USFWS) biologist to the site,

> helped capture the species in jeopardy and volunteered to relocate them to his ranch.

"The USFWS did not want the salamanders to be graded over within the planned project, so we looked around and realized that the best place for them was at the Koopmann Ranch, because it was nearby, had suitable habitat and we knew it was never going to be

developed," recalls USFWS' Chris Nagano, who has worked with the Koopmanns on multiple occasions. "We recognize here at the Service that Tim has played a key role in the conservation of the salamander and, granted this may not work for every rancher, has shown that you can have an endangered species and it is not the end of the world."

Working with the Alameda County Resource Conservation District, Tim has hosted a variety of educational workshops on his family ranch. A majority of the workshops have been focused on stockpond management, specifically for California Tiger Salamander, for state and federal biologists, fellow ranchers, college students and consultants.

The Koopmann Ranch is home to a family, cattle, endangered species and a variety of birds. So many birds in fact, that the local Ohlone Audubon Chapter refers to the place as a "virtual bird factory." Over the years, the birds have been encouraged to come to

The easements were funded by the city of

and a local developer to satisfy mitigation requireranch, local economies are sustained, the county tax base remains intact and a ranching family with a vested interest serves as the land man-



California Tiger Salamander



RIGHT: Bull standing next to a water trough with a wildlife-friendly ramp.

LEFT: Female, Western
Blue Bird on the solar
panel for one of the
water distribution
systems on the ranch.



the ranch because of the 75 bird boxes that are scattered throughout the place, put up by local conservationist and birder Irv Tiesen.

"I started working with Tim in 2000, placing bird boxes on his ranch for the Western Blue Bird, and, to date, more than 1,900 of the species have fledged, with an annual record of 412 birds," states conservation cooperator Tiesen. "On the ranch, we have had to devise extender poles for the boxes, placing them seven and a half feet in the air, out of reach of predators such as coyotes, raccoons, possums and snakes."

Tiesen has also worked on the ranch to design, build and install bird ramps. A dozen of these ramps have been placed on livestock water troughs, allowing birds and small wildlife that have the unfortunate fate of becoming entrapped in the water a chance for survival.

"A fellow cattleman, George Work, shared with me a few years ago the need to install ramps in my watering troughs in an effort to keep them clean while allowing visiting and resident wildlife to survive," recalls Tim.

The ramps are attached to troughs scattered around the ranch that help facilitate livestock management and distribution on the rolling hills. The watering troughs are part of an extensive solar-powered water distribution system that provides a reliable source of water on the property for the cattle and abundant wildlife. With the help of the Environmental Quality Incentives Program from the Natural Resources Conservation Service (NRCS), the cost-share project resulted in the Koopmanns' cattle better utilizing forage on the ranch and not congregating in sensitive riparian areas.

This ranch is a prime example of the conservation ethic that has been instilled over generations in the ranchers who manage the lands today – and the love of the land that is being passed on to their children. The family's management practices have not only improved rangeland health, but have contributed to the Koopmann Ranch's economic sustainability.

"I am excited about the opportunity to have a career after college close to home where I can still ranch," says Carissa. "I plan to continue ranching this property, which has been made possible because of the mitigation easements that have allowed my family to keep the property and continue managing it for ranching and wildlife."

Tim shares his estate tax survival story and conservation ethic with other ranchers. This third generation rancher is actively engaged in the California Rangeland Conservation Coalition, serves as a board member of the California Rangeland Trust and chairman for the California Cattlemen's Association Water and Environmental Quality Committee.

Tim's conservation stewardship goes beyond his personal ranch to his position with the San Francisco Public Utilities Commission. As a certified rangeland manager, Tim also manages grazing on 33,000 acres of San Francisco Public Utilities Commission watershed lands that supply 2.4 million people with their daily water needs.

On the ranch, Melinda is out every day monitoring the herd of cattle and observing the wildlife. Managing the ranch and finding pride in the abundant and diverse wildlife is a family affair. Weekends, evenings and holidays, you can find Tim and Melinda working alongside their children on the ranch.

"Tim and I are very fortunate to be able to pass on a family tradition to our children," says Melinda. "More so, we are proud that our children want to continue the ranching legacy and have taken pride in the conservation practices that are ongoing on the ranch."



A Balancing Act

Working with Economic, Environmental and Social Values

Work Ranch

George and Elaine Work - San Miguel

All you can hear is a distant moo and sounds of wildlife as you look across vast acres of rolling grasslands and hillsides covered with Blue Oak Trees. In Monterey County, about 20 miles off Highway 101 northeast of San Miguel, you'll find a ranch that hosts everything from wildlife to city slickers.

George and Elaine Work are progressive ranchers who have a strong love for the land and are on a quest to be better stewards of their cattle ranch. This pair also has strong ties to people – everyone from their neighbors to a variety of ranch guests.

"The most important 'crop' we produce is our relationships, not only with the land, but with others," explains George, "be they family, guests, urban environmentalists – and the list goes on."

The ranch hosts everything from workshops for fellow cattlemen and urbanites to demonstrate ranching's ecological benefits and managed grazing first-hand to weekender couples strengthening their marriage vows and communication skills. The ability to host guests on their ranch was made legal through 1998 legislation the Works were instrumental in getting passed – the Farm Stay Program.

The hunting and guest ranch concept was implemented to help diversify and strengthen the ranch's economic viability. Guests, particularly hunters, make up nearly 30 percent of the income derived off the ranch in a given year. Working with the California Department of Fish and Game's Private Lands Management program, the Works have a small hunt club and offer guided hunts for pigs, Tule Elk and deer.

George is also a lifelong learner, improving his ranching skills through workshops, trainings and collaborative research endeavors.

PARTNERS

- Bureau of Land Management
- · Ducks Unlimited
- Natural Resources Conservation Service
- U.S. Fish and Wildlife Service

"We all have a purpose-driven life. One of my purposes is to find and share good information," states George.

"So what drives me to go to meeting after meeting is that I will get some good information, stuff to think about and I can help others in the process."

In the mid-1980's, George attended a five-day school in Holistic Management™. He describes Holistic Management as a goal-orientated, value-driven thought process utilizing guidelines

that cause decisions to be made that are environmentally, financially and socially sound. Holistic Management has had a tremendous impact on the Work Ranch.

George and Elaine

"When I came home after being exposed to the class, it was like I had bought a new ranch. I was seeing things that I had never seen

before or had just not thought about," recalls George. "I am still using the principles that I learned at the workshop today. It has been a valuable tool for my family and the ranch."

It goes beyond training to implementation on the Work Ranch. George is a firm believer that "If you want something on the land to change, then you have to change how people make decisions - and that is not easy."

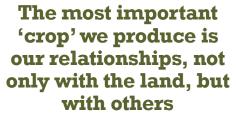
This 12,000-acre ranch is divided into 50 pastures, with more pastures planned in the future. The pastures allow George to better manage the cattle and grass on the ranch. With the recognition that he is a grass farmer and not just a cattle producer, he strives to increase grass production to provide for improved beef and wild-life production on the land, also improving ranch aesthetics in the process.

George has enhanced his ranch by installing cross-fencing to create additional pastures and through water infrastructure development. In this arid region of the state, water is a scarce resource for both livestock and wildlife. Over a decade ago, George noticed the challenges grasslands birds and wildlife faced when drinking out of traditional cattle watering troughs.

It started with placing concrete boards to create a ramp into and out of conventional livestock watering troughs. These concrete boards are 2 inches thick, 12 inches wide and 6 feet long with rebar sticking out of one end that hooks over the edge of the trough to hold the ramp in place.

The wildlife-friendly drinking ramps were a predecessor to the innovative ground-level water troughs that Work has since created.

"The key aspect we examined was water should be on the ground," states George. "The Creator put it there and we raised it 30 inches





RIGHT: Cow and calf on the range.

LEFT: George kneeling next to a ground-level watering trough on his ranch.



with a standard trough design which makes it inaccessible to most wildlife."

To date, the Works have installed five ground-level watering troughs and are in the process of installing them at additional sites on the ranch. These new watering sources are maintained year-round to provide water for wildlife and cattle. Monitoring on the ground-level water troughs has shown utilization by everything from lizards and raccoons to mountain lions and deer.

"A stewardship highlight for me is when I see a neighbor like Mitch Roth and son Garrett convert almost all of their watering points on their ranch to ground-level watering troughs," states George.

The third wildlife watering source on the Work ranch are quail guzzlers, which are filled by rain water. George's father worked with the California Department of Fish and Game to install secure, predator-deterring, dependable watering structures in the 1950s on the ranch. These structures have been maintained by the family for half a century and are believed to be some of the first conservation practices put into place on the ranch, serving as the foundation of George's conservation ethic.

George says one of the new concepts he is very excited about combines Fred Provenza's work at Utah State University on livestock foraging behavior, including how to train livestock to eat nutritious weeds they normally would not eat. He couples this with Bud Williams' low-stress herding techniques, which train cattle to stay in a herd and stay in a location for a day or more without fences, only leaving a location for water and then returning promptly.

"Together, these two management practices protect and enhance riparian areas without fencing. In addition, these techniques allow

cattle to be used as a valuable tool for prescriptive grazing, greatly improving rangeland health, reducing invasive species, controlling fuel load and removing fire hazards," explains George. "We have also used cattle to crush brush and to heal erosion cuts."

George's passion for learning and sharing land stewardship is shown by his active involvement in several groups. One is the Central Coast Rangeland Coalition, a cooperative research project working to identify the indicators of rangeland health, made up of over 40 ranchers in California's coastal region. George is also a founding member of the Rancher Self Assessment Project, which provides a method for individuals to evaluate how sustainable their ranch management decisions are.

In an attempt to meet the challenges of marketing local meat, George and a group of Central Coast ranchers were able to obtain a mobile, U.S. Department of Agriculture-inspected livestock processing plant. This unit provides an opportunity for producers to supply the niche market of grassfed meats.

The processing plant endeavor aligns with George's work on the Roots of Change Stewardship Council. This is a collaborative group in pursuit of a sustainable food system in California by the year 2030.

In the end, the Work family is happy to steward California's grasslands, showing that they can be managed for economic and ecological good. This third generation ranch is currently in transition to the fourth and fifth generations, with future plans including a conservation easement through the California Rangeland Trust.

George concludes, "As ranchers, we are miles ahead of where we were a few years ago, because of the collaborative initiatives that are ongoing."

Grazing for Wildlife

Rancher Working on State-Owned Lands

Victorine Livestock Clint Victorine - Hydesville

A high school beef cattle project has grown into a career for Northern California native Clint Victorine. After graduating from California Polytechnic State University, San Luis Obispo, with a degree in agricultural business, Clint decided to pursue his interest and passion in beef cattle production. At that time, Victorine Livestock was born.

"I did not grow up in a ranching family," explains Clint, "But I have worked for lots of ranchers, learning from them and grazing experts along the way." Like generational ranchers, Clint's father can be seen working alongside him when additional help is needed, and he hopes to build a tradition his children will be interested in continuing when they grow up.

Based in the stunning Eel River Valley in Humboldt County in the far reaches of Northern California, Victorine's 1,500 head of cattle graze on approximately 5,000 acres of private and state-owned land.

This unorthodox grazing operation began when Clint partnered with the Eel River Brewing Company to feed his cattle local, organic brew mash, the natural residual material that remains after grains have been fermented to produce beer. At first, the beef from these cattle was used in the Eel River Brewing Company restaurant.

Today, the organic, 100 percent grassfed beef Clint produces is marketed through Eel River Organic Beef, a subsidiary of Victorine Livestock. The

beef can be purchased in grocery stores, specialty markets and dining establishments from San Diego to Alaska.

Health-conscious individuals and environmental advocates can find a win-win situation in this humanely raised, high-quality product.

"Our cattle never leave the subirrigated clover and rye grass pastures they are accustomed to," states Clint.

> "These pastures allow us to raise a high-quality, grass-finished product that is a pleasure to eat and healthy all at the same time."

An intensive

grazing program

was put together

to create preferred

habitat for geese

Clint's cattle are managed in a high-intensity, short-duration fashion on both private land and land owned by the California Department of Fish and Game.



All lands are grazed in a sustainable manner – benefiting natural resources, producing beef in a humane manner and ensuring a profitable business.

The conservation story of Victorine Livestock began a few short years ago, after Clint became concerned about the Fish and Game land just across the fence from him that was supposed to be providing forage and habitat for Aleutian Geese. Like many other

publicly-owned parcels of land, the Fish and Game lands near Clint were not being actively managed.

In 1999, Clint began working with Fish and Game to develop a grazing management program that encourages the geese to use the state-owned land during their annual migration. Prior to that time, fire and mowing with heavy equipment had been used in the area in an attempt to create preferred habitat for the birds, but with limited suc-

cess. Working together, Clint and Fish and Game were determined to increase the land available for the birds by providing additional forage that would attract them off private lands.

The challenge is that the Aleutian Geese eat the same grasses that provide forage for cattle belonging to Clint and other ranchers in the valley. A number of ranchers, including Clint, were being hit hard by the tens of thousands of geese stopping off to feed in their pastures. Unfortunately, the geese are not good stewards of the land, and large flocks were eating all the grass in a pasture, leaving behind bare ground.

"An intensive grazing program was put together to create preferred habitat for geese and relieve the pressure of the species on private lands," states Bob Smith, Fish and Game wildlife habitat supervisor.

Aleutian Geese are a success story for the role of active management for wildlife. Cooperation from a variety of partners to remove the threat of predation from non-native foxes on their island breeding grounds, along with better management of migratory grasslands in California, has bolstered the population from 1,000 birds to an excess of 100,000 birds today.



Aleutian goose



RIGHT: A corner post with electric fencing that Clint has installed to help with management of cattle.

LEFT: Cattle in a lush green field they share with migratory geese.



"Grazing by ranchers is the main reason the geese are so prevalent in this area," states Clint.

The Aleutian Geese can be found on the Fish and Game Fay Slough Wildlife Area in Eureka and Eel River Wildlife Area in Loleta, where Victorine livestock graze, helping create the habitat the species desires

The grazing program has been very effective in the eyes of locals. According to Clint, Fish and Game land is heavily utilized by the Aleutian Geese, the number of other waterfowl has grown, the deer herd has expanded and the raptor population has nearly tripled.

"The hawks and egrets can now see to hunt," states Clint. "The rodents like to nibble on the new fresh growth, and, since the dead grass that was prevalent before grazing was reintroduced is gone, the raptors can spot their prey."

On the Fish and Game Table Bluff Ecological Reserve, Clint grazes cattle to promote the Western lily. This endangered species is threatened by the natural competition of shrubs and trees in coastal areas. The controlled grazing provided by Clint is one of the limited tools available to promote suitable conditions for the plant to successfully grow on the reserve.

Clint not only manages the cattle on the Fish and Game land, but has undertaken – at his own expense – rehabilitation projects on state-owned land under his management. At a projected cost of \$6,000, this rancher has restored an area by removing two to three feet of dead material accumulated at the Loleta Wildlife Area over 15 years of no management. Through active management, including high-intensity grazing and planting of native grasses, the area is now providing additional short grass habitat for the state's species of concern.

Clint is hopeful he may be able to recoup some of the costs with the increase in forage quality for his cattle when they graze the Loleta

Wildlife Area. He is also interested in the development of ecosystem service markets, where he may be able to capture income to offset the geese foraging on his private property adjacent to the Wildlife Area.

The presence of Clint's cattle on the wildlife area and the rehabilitation projects he has undertaken have not gone unnoticed. Anti-grazing activists and even some Fish and Game staff were not initially convinced that cattle could improve the state-owned land. Today, however, he is excited to tell you that his positive management has converted numerous skeptics who are now excited about the cattle-improved lands and the ecological values that they are providing.

"Grazing can be done and done right to benefit wildlife," proclaims Clint. "We have not done anything to harm the land or the wildlife. Everything that we have done on the wildlife areas has been positive."

And to no surprise, Clint is excited to showcase the positive benefits of managed grazing and his commitment to rangeland management. He uses his experiences on the rehabilitation projects as a true testament that grazing can be beneficial.

Smith agrees. "This is a really great program. It is a win for the ranchers and a win for the department, and we look forward to continuing it."

At Victorine Livestock, cattle are playing a vital role in providing habitat for wildlife. Clint, his family, and ranchers around the state take their stewardship of natural resources very seriously and are committed to a healthy landscape and investing in the management of both private and public lands to support the next generation of ranchers and wildlife.



A Family Affair

Improved and Preserved Rangelands

Yolo Land and Cattle Company Hank and Suzanne Stone, Scott and Karen Stone and Casey and Angela Stone - Woodland

If you strain your eyes, you can see the western hills of Yolo County during the day from Sacramento. Dark at night, these hills will never be filled with glimmering street lights because of the commitment of one ranching family. Hank and Suzanne Stone, owners of Yolo Land and Cattle Company, along with their sons, Scott and Casey, and their wives, Karen and Angela, have made a lifelong commitment to ranching.

The ranch headquarters sit at 300 feet, while the highest point is nearly 2,300 feet in the Blue Ridge Mountains of the California Interior Coast Range. The ranch is a mix of Blue Oak woodland savannahs and annual grasslands. On the ranch, there are a number of large stockponds that serve as watering sources for cattle and wildlife during the hot, dry summers. There are also perennial and ephemeral streams, along with natural springs, scattered throughout the property.

On this ranch you can find a number of tree species, including Blue Oak, Interior Live Oak, Mexican Elderberry and Fremont Cottonwoods. You will also notice wildlife such as mountain lions. bobcats, California Valley Quail, the threatened Swainson's Hawk and a number of other grassland birds and raptors. In the grasslands, you can spot annual species such as soft chess, filaree and native stands of California onion grass, creeping wild rye and foothill needle grass.

> This multi-generational ranching family has preserved the natural beauty, economic productivity and

wildlife habitat on their 7,500-acre ranch through a conservation easement. With a location in close proximity to both San Francisco and Sacra-

mento, the demand to convert this ranch to ranchettes. condos or a golf course

was continuously increasing.

decided to place a conservation easement on the property so their ranching legacy would remain in perpetuity. In 2005, the Stones recorded the

ranching legacy would remain in perpetuity

As a family, they

decided to place

a conservation

easement on the

property so their

As a family, they largest easement in Yolo



County held by the California Rangeland Trust. This easement to preserve working landscapes and wildlife habitat was made possible by public funding from the Wildlife Conservation Board and private funds from the Packard Foundation.

The easement is monitored annually to ensure compliance with terms of funding and the recorded deed on the property. This piece of land will be managed as a beef cattle operation and will continue to provide conservation values for generations to come. If this land was purchased by the government to preserve these natu-

> ral resources, the public would bear the management burden. With a conservation easement, the Stones are responsible for managing the property and continue to pay taxes on the land to support the local government.

"The easiest way for our family to ensure the ranch would remain a ranch in perpetuity was with a conservation easement," states Hank. "It was a business decision that fits into the bigger picture of projects taking place on the ranch."

For more than a quarter of a century, the Natural Resources Conservation Service (NRCS) has been implementing a vast array of projects and

prescribing management practices for Yolo Land and Cattle. The Stones have utilized the Conservation Reserve Program (CRP), Conservation Security Program (today known as the Conservation Stewardship Program), Wildlife Habitat Incentives Program and the renowned Environmental Quality Incentives Program (EQIP).

These programs help the Stones, along with other farmers and ranchers, address resource concerns on private working landscapes. The programs are voluntary and are based on a cost-share system, meaning that the Stones receive some public funding to complete a project, but they also have a private financial interest in the work. Program funding is authorized by Congress every five years under the Farm Bill.

"The Stones have never been afraid to take risks, trying new projects to see what will work out on rangelands and what will not," notes Phil Hogan, Yolo County district conservationist for NRCS. "They have done everything from planting and managing

PARTNERS

- Agricultural Research Service
- Audubon California
- CAL-FIRE
- California Rangeland Trust
- Natural Resources Conservation
- Packard Foundation
- Student and Landowner Education and Watershed Stewardship
- U.S. Fish and Wildlife Service
- Wildlife Conservation Board
- Yolo County Resource Conservation District
- University of California, Davis



RIGHT: A wide open view on the Stone family ranch.

LEFT: A beautiful display of wildflowers on the ranch.



native grasses to restoring stock ponds and addressing erosion water quality concerns on the ranch, and are still looking to implement new projects and practices in the future."

NRCS assisted the Stones in developing a rotational grazing plan, specifically designing appropriate pasture sizes and installing wildlife-friendly fencing material. Historically, the ranch had a set stocking rate, which is when a producer retains a certain number of cattle annually on the land, usually defined by the overall forage production.

Today, Scott and Casey have evolved their grazing management by grouping cattle in larger bunches, mimicking historic grazing regimes by native herbivores. The cattle are rotated around the ranch through the use of different fields, allowing periods of rest and recovery for grasses.

Also, the Stones' cattle have improved the grasslands on adjacent ranches. A neighboring rancher had placed grasslands in the CRP program for over a decade, but the lack of grazing on the property had resulted in a thatch and weed buildup that was reducing biodiversity on the land. The ranch was taken out of the CRP and now the parcels on the neighboring ranch are grazed in a rotational fashion to reduce fire hazard, break up the old thatch, invigorate native grasses and reduce invasive species such as yellow star thistle that are prevalent in the area.

On the cutting edge, Yolo Land and Cattle Company is collaborating with NRCS; the University of California, Davis; Agricultural Research Service; and an environmental group, Audubon California, to quantify carbon sequestration on rangelands, using perennial grasses that have been restored through former projects. Together, partners seek to measure the amount of carbon that is stored in the roots of perennial grasses and compare that to the carbon stored in annual grasses.

"Our ultimate goal is to be able to quantify the carbon sequestration on rangelands," states Scott. "This will allow ranchers to utilize the information so we can participate in a carbon credit system, creating a new revenue source for the ecosystem services we ranchers provide."

In collaboration with the Audubon California Landowner Stewardship Program, NRCS, Yolo County Resource Conservation District and the Student and Landowner Education and Watershed Stewardship (SLEWS), the Stones have enhanced riparian areas on the ranch to improve water quality and wildlife habitat. Additionally, brush encroachment on grasslands was addressed through a 45,000-acre Vegetation Management Program with CAL-FIRE (California Department of Forestry and Fire Protection), covering the Stone property and 25 other landowners. Currently, Scott is working with Audubon and other ranchers to renew the contract to continue providing managed fire to restore grasslands and control invasive brush.

"The Stone family has been an incredible partner for my program, not only doing the best things for the environment, but to make their operation profitable," states Vance Russell, program director for the Audubon California Landowner Stewardship Program. "Currently they are collaborating with Audubon on a carbon sequestration project to make ranchers money and, at the same time, help grasslands and oak woodlands."

Not only have Hank and his family been innovative in terms of their natural resource management, they have also done the same in terms of marketing their ranch products. Yolo Land and Cattle Company markets its grassfed beef directly to consumers and also at the Davis Farmer's Market. The family believes their sustainable land management practices are rewarded in the marketplace by consumers willing to pay a premium for their source-verified, natural, grassfed beef. You can also purchase Yolo Land and Cattle honey, bay leaves and beef jerky at local stores and on their Web site, www.yolograssfedbeef.com.

This ranching family has been a trailblazer in finding innovative ways to expand their ranching operation while continuing to focus on natural resources. They exemplify the best of California's many progressive cattle producers who maintain the philosophy to "take care of the land, and the land will take care of you."

A New Way

A Ranch Protected by a Protected Bird

Hafenfeld Ranch

Bruce and Sylvia Hafenfeld

Eric and Jamie Hafenfeld - Weldon

In the Kern River Valley, not far from the cowboy town of Bakersfield, a rancher looked through a new set of lenses. The environmental movement created the Endangered Species Act (ESA), which many on the ground are fearful will put them out of business. However, this California rancher used the ESA to preserve his ranch and livelihood.

Bruce and Sylvia Hafenfeld of Hafenfeld Ranch in Weldon run a cattle operation on private land, U.S. Forest Service permits and an Audubon California preserve. This ranching operation has been in existence for more than a century in the southern Sierra Nevada mountain range.

The Hafenfelds have watched the valley they live in transition over the years. Sylvia, who was born and raised here, saw the Kern River dammed, creating the Lake Isabella Reservoir that provides water for families and farmers in the Central Valley. With the lake also came tourist and vacation homes, forever changing the area.

More recently, they watched their neighbors change from ranchers

to government agencies, mitigation companies and environmental organizations, all because the U.S. Army Corps of Engineers (Corps) needed to fulfill its ESA mitigation requirements for the Southwestern Willow Flycatcher.

Not willing to lose the family tradition

Taking a step back, when the Corps created Lake Isabella, they also created habitat for the Southwestern Willow Flycatcher, a bird listed as endangered under the ESA. The Corps, in cooperation with the U.S. Fish and Wildlife Service (USFWS), designated the land around the lake as a wildlife preserve. The willows that provided habitat for the flycatcher were flooded under the Corps' management of the lake, resulting in the loss of flycatcher nests and a subsequent decline in the number of birds in the area.

Southwestern Willow Flycatcher

Page 22

To ensure the long-term survival of the species in the Kern River Valley, USFWS required the Corps, under a **Biological Opinion** required by the ESA, to acquire and protect (mitigate) 1,120 acres of riparian habitat. As the Hafenfelds had watched the Kern River Valley transition with the creation of the lake, they were set to watch it transition again as

Bruce and his son Eric working alongside each other on the ranch.

century-old ranching operations were slated to turn over to mitigation habitat.

Not willing to lose the family tradition that was already in the eyes of his son Eric, who was working alongside his father, Bruce looked for a new way to save the ranch.

"We were not willing to sell the place to a conservation organization or the government to protect habitat for the bird," states Bruce. "Our family has been providing habitat for the species through our ranching activities for decades, and my son wants to continue this tradition"

> The Corps had set aside funds to acquire flycatcher habitat (mostly ranches) along the Kern River. At the same time, USFWS had designated most of the area as critical habitat under the ESA.

"Right about then, I was fearful that I would lose my water rights and my hands would be tied, unable to continue ranching," reflects Bruce. "We ranchers are a benefit to the bird and not a threat, so I knew there had to be an alternative to selling out."

Attending meeting after meeting, the Hafenfelds finally found a glimmer of hope when the USFWS regional manager at the time, Steve Thompson, sent staff from Sacramento to Bruce's ranch.

Over 350 miles away from her cubicle, a biologist saw firsthand how a cowboy believed that conservation easements could be an alternative to outright property purchases to preserve a species with a declining population. What the biologist saw on the ground that day at the Hafenfelds was a ranch that had been legally diverting water from the Kern River since 1863.

This diversion was the principal contributor to the ranch's economic viability and the sole provider of the habitat for the flycatcher. The water that is used on the ranch to irrigate pastures travels through 2.7 miles of ditches before it is utilized and spread across a field to grow forage for cattle. In transport, 60 percent of the water is absorbed by the willows, creating riparian habitat that is home to flycatchers. These riparian corridors, which are sustained through the Hafenfelds' management practices, support contiguous habitat that is prime breeding ground for the species.



RIGHT: Cattle drinking in a stockpond that also provides water for wildlife.

LEFT: Riparian area on the working ranch that is perpetually preserved with a mitigation easement.



Seeing for USFWS' "own eyes" how the habitat for the Southwestern Willow Flycatcher in the Kern River Valley was created and maintained provided enough evidence for them to change the Biological Opinion to allow for a conservation easement as an alternative to outright acquisition.

"This was a key decision that has allowed the Service to meet the legal requirements for the protection of an endangered species while opening the door to collaboration with the ranching community," recalls Thompson. "This project exemplifies looking beyond traditional measures to preserve wildlife by viewing private landowners as an integral component."

With a conservation easement on the property, the Hafenfeld ranch will forever provide habitat for the Southwestern Willow Flycatcher and other species such as turtles, birds and butterflies. In the Hafenfelds' eyes, the ESA is protecting their ranching operation and family heritage.

The mitigation on the Hafenfelds' property only covered a portion of the ranch. Working with the Natural Resources Conservation Service (NRCS) through the Farm and Ranchland Protection Program, additional ranch acres were perpetually placed under conservation easement, expanding the scope of habitat preserved for the flycatcher and other plants and wildlife.

This success story did not happen overnight, and began with the commitment of a rancher who wanted to ensure his property forever remained open and that an endangered species was not going to put him out of business. In the end, all the meetings and phone calls finally paid off when the California Rangeland Trust recorded the easement.

The California Rangeland Trust will now annually monitor the terms of the agreement, ensuring the continuation of a harmonious relationship between the Southwestern Willow Flycatcher and the ranching operation.

The Hafenfelds' conservation ethic and habitat management for the flycatcher expand beyond the property lines. Annually, Hafenfeld cattle graze the Audubon Kern River Preserve that is adjacent to the ranch. The managed cattle grazing takes place in the open meadows and in the riparian areas, promoting habitat for a vast array of plants and wildlife.

"Bruce and his family are great neighbors with a diversity of skill sets and capacity that help me improve diversity on the preserve," notes Reed Toffelson, preserve manager of Audubon Kern River Preserve. "In a given year, we work with Bruce on grazing 50-60 percent of the preserve during a six-month period."

When the cattle graze in the riparian areas, it is specifically timed so they will not inadvertently knock a flycatcher nest out of a tree. Having the cattle graze the riparian areas on the preserve has also helped prevent a thatch buildup that would prohibit new plant growth. Therefore, grazing promotes a mixed understory that is conducive to the endangered bird and favorable to a variety of other species in the valley.

Research has proven time and again that working ranches are home to an abundant diversity of plants and wildlife, and that the management undertaken by families like the Hafenfelds actually promotes and protects these species. When combining these two schools of thought, one realizes there are tremendous mitigation opportunities available in the state to protect endangered species and ranchers simultaneously, if only people are willing to take the time to see the land and be willing to collaborate for conservation.

Grazing For Conserv

Protecting Public Watersheds Five Dot Land and Cattle Company

Todd and Loretta Swickard - Standish

Magnificent trees, clear flowing creeks and wide-open spaces coupled with a diversity of wildlife, recreationists and cattle is an impeccable description of the properties managed by the Swickard family's Five Dot Land and Cattle Company. This operation uses managed grazing to achieve myriad natural resources goals on a number of properties, with a variety of owners.

Five Dot is based in Lassen County and is the largest public lands grazing permittee in the state of California. The family ranching operation, nestled in the Willow Creek Valley northeast of Susanville, was founded in 1959 by Todd Swickard's father, Jack, when he and his wife Midge brought 200 registered Herefords from the Santa Clara Valley. Fifty years later, this same ranch is the foundation for the Swickards' grazing operation.

The Five Dot Willow Creek Valley ranch is actively managed today. A combination of permanent and temporary fencing, herding, timed grazing, off-stream water development and mineral supplement placement allows Five Dot to graze riparian areas at the most appropriate time and level of intensity.

"The most cost-effective method for enhancing water quality de-

pends on the situation", Todd says, adding, "Overthe long term, we've found that permanent fencing is the most economical solution, but with some of our public land and private leased land, it's just not an option."

A multitude of tools are utilized to ensure the natural resources are enhanced, property managers are satisfied and grazing remains economically viable.

grazing permits are critical, we wouldn't be an economically viable operation without them

Our public lands

With many diverse grazed properties in the state, the greatest challenge for Five Dot is to balance the various management priorities of the public agencies and private entities they work with. Todd states, "Each land has unique CATTLE GRAZING needs and must be KEEP GATE CLOSED managed to enhance its respective ecological values. In doing so, the grazing terms must TOP: California Poppy be workable to ensure that I can financially

> Lands grazed by Five Dot range from annual rangelands

graze the property."



ra Nevada and perennial rangelands in the Great Basin, creating a great diversity of ecological issues and natural resources concerns.

"On our U.S. Forest Service and Bureau of Land Management (BLM) permits, we work with allotment management plans," Todd articulates. "We have management plans that guide our grazing on East Bay Municipal Utility District (MUD) and Solano Land Trust lands, and we also use management plans on the private lands we graze." All properties are managed with a rotational grazing regime, mimicking historic grazers, that has Todd has developed.

"We manage public lands for the Carson Wandering Skipper, bald

eagles, tiger salamanders and red-legged frogs, just to name a few," notes Todd. Government and state agencies, he feels, are beginning to appreciate the benefits of controlled grazing in managing the habitats of these and other species. "They're finding more of these species of concern where we've practiced controlled grazing."

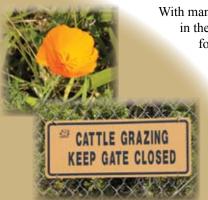
Livestock grazing is the primary tool utilized on East Bay MUD-owned watershed lands

to manage vegetation to meet goals for fire protection/fuel load management, water quality and biodiversity. Over the years, the grazing program has evolved from maximizing the economic benefit for the East Bay MUD, to protecting the resources and water quality.

"The Five Dot operation has been very cooperative in moving cattle to meet our management objectives," states Rodd Trip range supervisor for East Bay MUD. "We have taken multiple groups that are pessimistic about cattle grazing to see where Five Dot cattle have helped us meet our needs in promoting native grasses and controlling invasive species."

Like Five Dot's management, their monitoring programs vary with the ownership of the land they manage. "We're constantly monitoring grazing utilization and the health of the land visually," says Todd.

On Forest Service lands, Five Dot measures streambank stability,



BOTTOM: Signage on perimeter fence to ensure recreationist awareness of cattle.



RIGHT: A grazing exclosure used on the East Bay Municipal Utility District to monitor the impact of cattle on the watershed lands.

LEFT: Five Dot cattle on the watershed lands.



stubble height and utilization of woody vegetation (especially aspens and willows). On BLM lands surrounding Eagle Lake in Lassen County, Todd works with the agency to monitor water quality.

On the annual rangelands Todd manages, he measures residual dry matter (the amount of grass left after the grazing season). "Sometimes we work with the agencies to monitor our grazing, sometimes we do it on our own," Todd explains. "We're all starting to realize that managed grazing is critical to the long-term health of rangelands and that monitoring is the key to documenting our success."

In an effort to improve riparian habitat around a wet meadow in the Plumas National Forest where cattle tended to congregate, Trout Unlimited, University of California Cooperative Extension, the Forest Service and Five Dot joined together in a partnership called "Cowboy Unite" to develop a comprehensive solution. To enhance the health of the watershed and ensure cattle utilized the entire property, structural enhancements were made and revolutionary cattle herding techniques were employed.

To document success, photo and annual use monitoring were conducted. "After three years, this project turned out to be a win-win for everyone," comments Todd. "The improved health of the riparian area has benefited wildlife habitat, soil stability and water quality, while the improved distribution of livestock actually increased the amount of harvestable forage on the pasture and reduced our operation costs."

Most recently, Five Dot has started to market their beef directly to consumers. "Eventually, we hope to market all of our production this way," explains Todd. Although he admits that direct marketing will potentially improve their bottom line, it poses an entirely new set of challenges. "We have to do everything, from production to

processing to marketing."

The sale of excess hay off the Willow Creek Valley Ranch and direct marketing are just two ways Five Dot looks to diversify their operation and make their business economically viable. "We also offer hunting and fly fishing," notes Todd, explaining that the economics of the cattle business in California are driving ranchers to diversify. "Everything costs more in California," he says, "From the expense of complying with regulations, to the price of fuel."

Todd concludes any conversation about Five Dot by stating, "Our public lands grazing permits are critical – we wouldn't be an economically viable operation without them."

The ability for property managers and grazing operators to establish partnerships that are mutually beneficial is the foundation for success. Managed grazing can enhance the ecological values on landscapes throughout the state and ensure the economic viability of ranching. These partnerships are continuing to evolve, expand and develop through the creation of new grazing methods, monitoring results and the availability of research.

Ranching operations in California, like Five Dot, are excited about the opportunities to work with a variety of property owners around the state to achieve natural resources goals with cattle.



California Rangeland Conservation Coalition

Cooperatively Conserving California's Rangeland

by Sheila Barry, Tracy Schohr and Karen Sweet

A ranch in the San Francisco Bay Area was the backdrop for a meeting between environmentalists, ranchers and resource professionals from federal and state agencies. At this meeting of former foes in the summer of 2005, participants drafted a resolution documenting common ground for the conservation of the rangeland encircling the Central Valley, including the Sierra foothills and interior coast ranges. The California Rangeland Resolution (page 30) recognizes that the health of these rangelands and the diversity of species they support are largely due to grazing and other land stewardship practices of the ranchers who own and manage them.

The resolution is signed by agricultural organizations and environmental interest groups, as well as local, state and federal agencies. Together, these signatories form the California Rangeland Conservation Coalition. Rangeland Coalition members have pledged to work together to preserve and enhance California's rangeland for species of special concern, while supporting the long-term viability of the ranching industry.

Partners outlined a strategic plan that lays the foundation for Rangeland Coalition members to work together to acquire additional
federal funding for conservation programs, coordinate
permitting processes, garner support for cooperative
conservation projects, fill gaps in research, play
a role in the legislative process and provide
landowner assurances and incentives for
voluntary conservation. The Rangeland
Coalition has prioritized implementing
on-the-ground enhancement projects
and coordinating voluntary conservation easements on private
rangeland by working with
willing landowners.

The value of grazing and other land stewardship practices undertaken by California's ranchers is being increasingly acknowledged, not only as preferred land use, but also as an essential resource management tool. Recent published studies on rangelands throughout California have documented the positive impact of grazing

on habitats of several

species of special concern.

In California's Southern San Joaquin Valley, preliminary research indicates that populations of Giant Kangaroo Rats, San Joaquin Kangaroo Rats, San Joaquin Antelope Squirrels and blunt-nosed Leopard Lizards – all listed as threatened or endangered – are affected negatively by thick ground cover. The research acknowledges

An image clearly depicting

the conversion of rangeland in California

"The simple fact is that the only practical way we will retain sufficient habitat for the rangeland wildlife of this state is through the maintenance of viable cattle ranching operations"

- Ed Pandolfino, conservation chair, Sierra Foothills Audubon Chapter

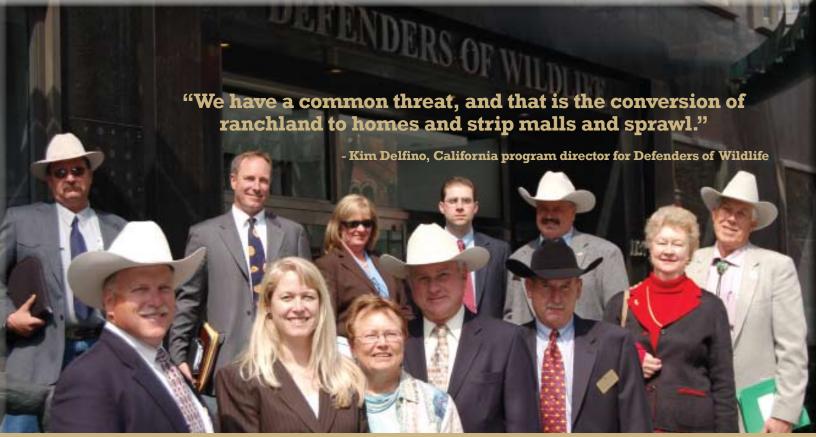
that although grazing may have originally contributed to the introduction of non-native plants, moderate to heavy grazing by livestock currently may be the best way to manage habitats for these small vertebrates.

Similar benefits from grazing have been found in controlling non-native annual species in serpentine sites. The endangered Bay Checkerspot Butterfly in south San Jose was extirpated following the exclusion of cattle grazing, while nearby populations under continued grazing did not decline. Bay Area commuter car emissions enrich the nutrient-poor serpentine soils that sustain native grasses, allowing invasive weeds to flourish. Managed grazing controls invasive weeds, allowing native plants the butterfly depends upon to more successfully compete for survival.

In California's Central Valley, research has found that grazing main-

Steve Thompson, past regional director for U.S. Fish and Wildlife Service speaking at the initial gathering.

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Partners photographed outside of the Defenders of Wildlife headquarters during the Rangeland Coalition annual lobbying trip to Washington, D.C.

Back Row L-R: Tim Koopmann, rancher, Sunol; Mark Kramer, The Nature Conservancy, Oakland; Nita Vail, California Rangeland Trust, Sacramento; Matt Byrne, California Cattlemen's Association, Sacramento; Darrell Wood, rancher, Vina; Judy and John Ahmann, ranchers, Napa.

Front Row L-R: Kevin Kester, rancher, Parkfield; Kim Delfino, Defenders of Wildlife, Sacramento; Karen and Darrel Sweet, ranchers, Livermore; and Bruce Hafenfeld, rancher, Weldon.

tained native plant and invertebrate diversity in ephemeral wetlands or vernal pools. When cattle were excluded, non-native annual species invaded these habitats, reducing native plant cover and wetland inundation periods. The inundation period of pools is critical; shorter inundation periods make it difficult for some vernal pool endemic species to complete their life cycle.

"The protection of our state's most valuable natural resources is highly dependent on working partnerships between conservation interests and landowners"

- Mark Nelson, rancher

The message that grazing can benefit habitat on California's rangelands has been heard beyond the conservation research community, and is even impacting conservation regulations. The federal listings of two species under the Endangered Species Act (ESA) in California contain the 4d rule. The 4d rule exempts routine ranching practices

from the prohibitions of the ESA, including taking, harming and harassing listed species. The U.S. Fish and Wildlife Service has recognized that ranching activities including grazing and maintenance of stockponds benefit the California Red-Legged Frog and the California Tiger Salamander.

For additional information on the Rangeland Coalition, partners, and research cited in this article, please visit www.carangeland.

Example of Partner Diversity

- The Nature Conservancy
- California Cattlemen's Association
- Defenders of Wildlife
- University of California
- The Environmental Defense Fund
- California Farm Bureau Federation
- Sierra Foothills Audubon Society
- San Joaquin et al
- U.S. Fish and Wildlife Service
- East Bay Regional Park District
- California Department of Fish and Game
- California Council of Land Trusts
- Humboldt State University Rangeland Resources
- Institute for Ecological Health

California Rangeland Resolution

Over 100 entities have voluntarily signed on to the California Rangeland Resolution, recognizing 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.

The California Rangeland Trust

Protecting Private Lands and a Way of Life

By California Rangeland Trust Staff

Recognizing that the environmental health of rangelands and the economic health of rural communities are inextricably linked, a forward-thinking group of ranchers within the California Cattlemen's Association formed the California Rangeland Trust (Rangeland Trust). Created in 1998, the Rangeland Trust works to conserve California's open spaces while providing new business opportunities to ranching families.

The California Rangeland Trust uses conservation easements – voluntary, legally-recorded agreements between the landowner and the Rangeland Trust – to forever restrict the use of the land to agricultural purposes, while keeping ranchers managing their own ranches. This preserves the present state of both the land and the ranching operation for future generations. Landowners know the Rangeland Trust understands their concerns and works to sustain both the environmental quality of their property and the economic viability of their ranching operation.

"It is important to us to do something in our lifetime to preserve this open space. An easement was the tool to see this place stay intact and outlive us all"

- Mike Knapp, Lazy K Ranch Easement placed on ranch in 2008

The California Rangeland Trust is governed entirely by ranchers – men and women who understand the importance and challenges of maintaining working landscapes. These leaders of the organization, along with Rangeland Trust staff, work closely with property owners to craft individualized easements that reflect the unique environmental and economic benefits that their working landscapes provide.

Preservation of Private Rangelands

Today, the Rangeland Trust holds conservation easements on more than 236,000 acres of rangeland, ensuring that these working landscapes will be forever protected. In fact, the California Rangeland Trust has protected more working landscapes in the state than any other organization.

These conservation easements stretch over 20 counties and protect the habitat of many of our state's species of special concern, including wildflowers, wetland and riparian area species, kit fox, sage grouse, fairy shrimp, raptors, oak woodlands, California Tiger Salamander and an abundance of bird species.



There are many economic benefits to preserving our private rangelands as well. Privately-owned ranches remain on property tax rolls, providing tax income to the local community. It is also less expensive to acquire conservation easements than for a state or local agency to purchase the land in fee title – the cost per acre for an easement is a fraction of the fee value. Privately-managed land is less expensive to the public and through conservation easements, Californians can be assured that land will remain as open space.

Since ranchers have seen firsthand the benefits and business opportunities provided by the sale or donation of a conservation easement, demand continues to grow. Today, the organization has more than 120 willing landowners representing nearly 500,000 acres of wildlife habitat, watersheds and working landscapes on the project waiting list.

A Vision for the Future

The importance of preserving our state's private rangelands touches Californians and visitors alike. Ranchers' voluntary steps to protecting rangeland from future development ensures clean water, wildlife habitat, scenic vistas, multi-generational family succession on private lands and the many environmental benefits of open and working land-scapes.



Rangeland Facts



- Ranchers own or manage more than 34 million acres of rangeland in California. (California Department of Forestry and Fire Protection, Forest and Range Assessment 2003)
- Almost all of our surface water crosses the state's millions of acres of rangeland. (University of California)
- Over two-thirds of species federally listed as "endangered" or "threatened" utilize habitat provided by private rangelands. (Precious Heritage Report 2000)
- U.S. grazing lands, including managed pasturelands, have the potential to remove an additional 198 million tons of carbon dioxide (CO₂) from the atmosphere per year for 30 years (Follett et al. 2001). This would offset 3.3 percent of U.S. CO₂ emissions from fossil fuels (EIA 2008) and help protect rangeland soil quality for the future.
- Around 90 percent of the species listed in the inventory of Rare and Endangered Species in California inhabit California's grassland ecosystems. (Skinner and Pavlik 2004 Barry, Larson and George, 2006)
- Research has demonstrated that the abundance of western fence lizards and western skinks is significantly greater in grazed grasslands. (David Riensche 2005)
- The population of rare Sonoma Spine Flower dramatically declines after the removal of livestock grazing. (Liam and Sherman 1992)
- Grazing is an important disturbance in vernal pool grasslands. Grazed vernal pools have longer water pool periods, thus allowing species to complete their lifecycles. (Jaymee Marty, The Nature Conservancy 2005)
- Research has demonstrated a strong, positive association between grazed grasslands and healthy ecosystems for burrowing rodents and California Tiger Salamanders. (Joe DiDonato, East Bay Regional Park District 2005)
- It has been demonstrated that managed grazing can improve habitat for threatened and endangered species such as the Bay Checkerspott Butterfly, considered an umbrella species for grassland ecosystems (Murphy and Weiss, 1988).
- California's rangelands support more bird species of conservation concern than any other habitat. Each winter, Central Valley grasslands provide crucial habitat for the highest concentrations and diversity of hawks found anywhere in North America. (Ed Pandolfino, Sierra Foothills Audubon Society 2008)
- Livestock stock water ponds on ranchlands provide up to 50% of the remaining habitat for the threatened California Tiger Salamander (United States Fish and Wildlife Service, 2006).
- Most small vertebrates that are federally or state protected in the San Joaquin Valley of California benefit or are not harmed by livestock grazing. Species include the Blunt-Nosed Leopard Lizard, San Joaquin Antelope Squirrels and Giant Kangaroo Rats. (Germano, Rathburn and Saslaw 2006)



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- Page 7 California Rangeland Trust
- Page 10 Anne Morris
- Page 14 Sage Grouse, U.S. Fish and Wildlife Service
- Page 16 California Tiger Salamander, Alameda County Conservation Partnership
- Page 20 Clint, Matt Byrne
- Page 20 Aleutian Goose, U.S. Fish and Wildlife Service
- Page 21 Matt Byrne
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Grazing For Change Second Edition

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