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A Paper for People who Care about the West

Three dollars

BUCKING TRADITION: Moving Toward Sustainable Ranching



Society for Range Management

2-High Country News — March 12, 1990

Dear friends,



HIGH COUNTRY NEWS

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Tom Bell
Editor Emeritus

Ed Marston
Publisher

Betsy Marston
Editor

Linda Bacigalupi
Development

Steve Hinchman
Special Issues

Florence Williams
Research/Reporting

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Peter Carrels
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DeBonis quits

As hinted in the Feb. 26 issue of *High Country News*, Jeff DeBonis has done himself out of one job and into another. The timber sale planner on the Willamette National Forest in Oregon is resigning after 12 years with the agency to become executive director of an organization he founded last year, the Association of Forest Service Employees for Environmental Ethics.

DeBonis says he is resigning because he does not want to continue helping to liquidate old growth forests and because his organization needs his full-time help. He is not resigning because of pressure. He says he has been treated fairly by the Forest Service.

We skipped winter

For a while, it was not clear if we were having an early spring or a late winter. Now it is clear: winter is not coming, spring is here, and a long, hot, dry summer in west central Colorado will soon be here. Rumors are that some of the irrigation ditches will not flow at all, which means this valley's fruit trees may be in danger. The lack of snowpack could also mean extensive forest fires.

On the bright side, the mild, open winter has been enjoyable, there has been a minimum of driving on ice and snow, and visitors are beginning to come through the *High Country News* office. Carlos Lucero, a lapsed subscriber from Alamosa, Colo., came by as part of his campaign for the United States Senate seat now held by William Armstrong. Lucero, a Democrat, faces a primary. The winner will face Republican Rep. Hank Brown. Lucero left us campaign literature and we gave him back issues of *HCN* and a renewal blank.

Also visiting was Marty Durlin, a native of Delta County who now is station manager of KGNU-FM, the community radio station in Boulder, Colo. Marty said grandparents had taken her two children on a trip, giving her a week in which to hike the banks of the Gunnison River and revisit other childhood spots.

Words from readers

Some readers took time to write. Grant Wiegert of Eugene, Ore., says that a wet January and February have been making up for the dry December. He also asked our computer to stop sending him two copies of *HCN* so as to "save a tree or two."

University of Colorado professor Spense Havlick wrote to say that his 106-person ecology and design class in the Environmental Design College is enjoying its biweekly copies of *HCN*. We offer a special cut-rate subscription to classes that enroll, *en masse*, in *High Country News*. The *masse* can be as small as six or seven students.

Michael McCoy of Missoula, Mont., writes to ask: "What sort of vehicles do you folks drive, that get you from a board meeting in Utah ('30 miles west of Wyoming') and back to Cheyenne in time for supper?" The Dear Friends account of the board meeting should have read 30 miles west of Cheyenne, Wyo. McCoy also enclosed a description of his new book, *Mountain Bike Adventures in the Northern Rockies*, available for \$10.95 from The Mountaineers, in Seattle, by calling 1/800/553-4453. We

are going to get a copy and see if we can catch him in a mistake.

South to Venezuela

HCN publisher Ed Marston spent four days in the Andes, in the town of Merida, Venezuela, at a conference of 40 Venezuelan journalists and official types interested in environmental reporting. The conference was sponsored by BIOMA, a/k/a the Venezuelan Foundation for the Conservation of Biological Diversity, and the Center for Foreign Journalists, based in Reston, Va.

High Country News has expanded its territory over the past few years, but thoughts of moving into the Andes were discouraged by the questions the journalists asked. After hearing a description of *HCN* and the stories it runs, one woman wanted to know: Who in the United States tries to stop your paper from publishing? The assumption was that there must be lots of people and organizations attempting to keep the paper from reaching its readers.

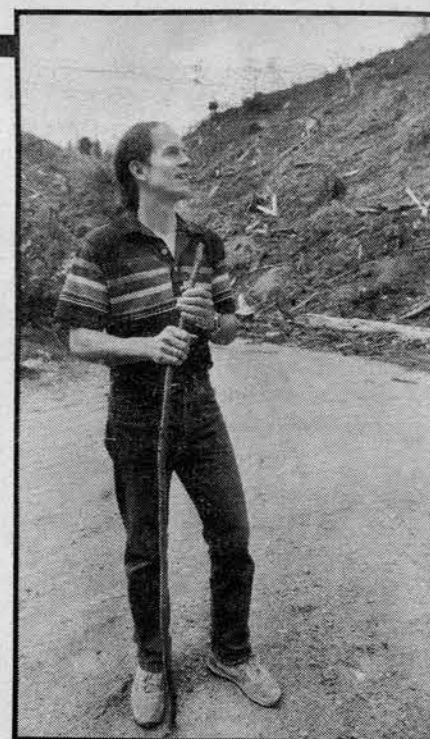
Another writer expressed envy at a newspaper that had readers who already care about the environment, and who only wanted information. "In Venezuela, we must first convince people that environmental issues are worth reading about. Your kind of newspaper could never succeed here."

A major complaint at the conference was that Venezuelan editors did not assign or print stories on environmental topics. According to a statistical study presented at the conference, fewer than 1 percent of the stories in Venezuelan newspapers are on environmental topics. Stories about local environmental problems — the burning dumps within city limits, the damage done by Venezuela's extensive oil industry, urban noise and air pollution — get little notice.

In addition, environmental reporting is part of the larger area of science reporting. As a result, issues such as air pollution are approached in a technical way: in terms of tons of pollution, ambient air quality measurements and the like. Stories, one observer said, are rarely dramatized or even illustrated with on-the-ground examples of the damage pollutants, noise and burning dumps do.

Venezuelan journalists have one final problem: Much of that nation's industry is owned by the government, and those companies do a large amount of advertising. It is as if the Forest Service, the Bureau of Reclamation, the Bureau of Land Management and the Army Corps of Engineers were to dominate the ad columns of the West's newspapers. The government's economic clout, added to still low environmental consciousness, makes reporting on these issues very difficult.

But progress is being made, as was



Jeff DeBonis

illustrated by a day-long outing to a nature preserve that BIOMA, the Venezuelan version of the Nature Conservancy, now owns. The preserve, located at roughly 12,000 feet of elevation in the Andes, is a new concept for Venezuela, and much of the time was spent on the tour with BIOMA representatives trying to convince the local press that it did not plan to explore for uranium or perpetrate other development schemes.

The rest of the time was spent on a hilarious horseback tour of the preserve, with 40 generally out-of-shape *periodistas* clinging to the backs of small but very tough Andean horses. The style in the Andes, it turns out, is to ride horses without bits. As a further concession to the comfort of the animals, the *vaqueros* were gentle when it came to cinching the saddles, making for an even more unsteady situation. An upward climb to 14,000 feet went well. But on the return, a certain amount of running away by the horses and falling to the ground by the *periodistas* occurred. Because the horses were small, and therefore close to the ground, none of the falls did permanent damage.

Corrections

In our Feb. 12 issue, the Utah Rock Art Research Association was incorrectly identified as the "Utah Rock Art Resource." The organization, which develops elementary school programs and presentations about the cultural and historic value of rock art, is at 3890 West Lewisport Drive, West Jordan, UT 84084 (801/966-7326).

In the February 12th issue, we identified a photo of a grizzly bear as its smaller cousin the black bear.

— Ed Marston for the staff

HOTLINE

Montana survey wasn't, environmentalists say

Environmentalists aren't happy about a wilderness questionnaire sent to 230,000 Montanans by Sen. Conrad Burns, R-Mont. Burns says he was trying to measure attitudes towards the state's stalemated wilderness issue. But John Gatchell of the Montana Wilderness Alliance says, "It is a thinly disguised wilderness smear campaign." Gatchell points to the wording of just one question as proof: "Senator Burns, although I recognize that federal restrictions on Montana's land will jeopardize some jobs and opportunities

for Montanans, and that preventing exploration and extraction may cause us to rely more heavily on foreign minerals, I do not believe that we should allow mining and exploration on these lands." The senator's office disputed allegations of bias in the survey. "Any fair and reasonable survey would upset wilderness advocates," said Burns' press secretary Bryce Dustman. The information gathered from the questionnaire, he said, would help the senator resolve the debate over the future of six million acres of wild lands. Dustman also defended the survey's wording, saying that the senator "wants to make it (the survey) simple enough for Montanans to understand."

WESTERN ROUNDUP

Mountain lakes are in a delicate balance

In 1983, four energy companies in Wyoming proposed to develop Riley Ridge, the largest natural gas field in the state and perhaps the most prolific in the world.

Located near the town of LaBarge in west-central Wyoming, Riley Ridge just happened to sit 55 miles upwind from the Bridger Wilderness, a rugged area in the Wind River Mountain Range. It contains 1,300 lakes and is considered one of the finest trout fisheries in the country.

Unfortunately, Riley Ridge produced "sour" natural gas laden with hydrogen sulfide, which is oxidized to sulfur dioxide in the atmosphere.

Critics of the project feared that despite control devices on the refineries, enough sulfur compounds would escape to damage lakes in the Bridger Wilderness.

Under the Clean Air Act of 1977, a law currently being overhauled in Congress, the federal government is mandated to protect air quality in wilderness areas and minimize pollution from its source of origin. Then came the news that the wildlands of the greater Yellowstone region were already subjected to pollution problems such as acid rain.

It began when a group of U.S. Forest Service hydrologists and college researchers made a routine check in the Winds to measure levels of acidity in the high-elevation snowpack, said Bridger-Teton National Forest hydrologist Al Galbraith.

Expecting to find nothing, Galbraith said the scientists seven years ago instead "made an unfortunately confirming discovery." Several lakes in the Bridger Wilderness were approaching acidity thresholds similar to levels that had killed lake ecosystems in Scandinavia.

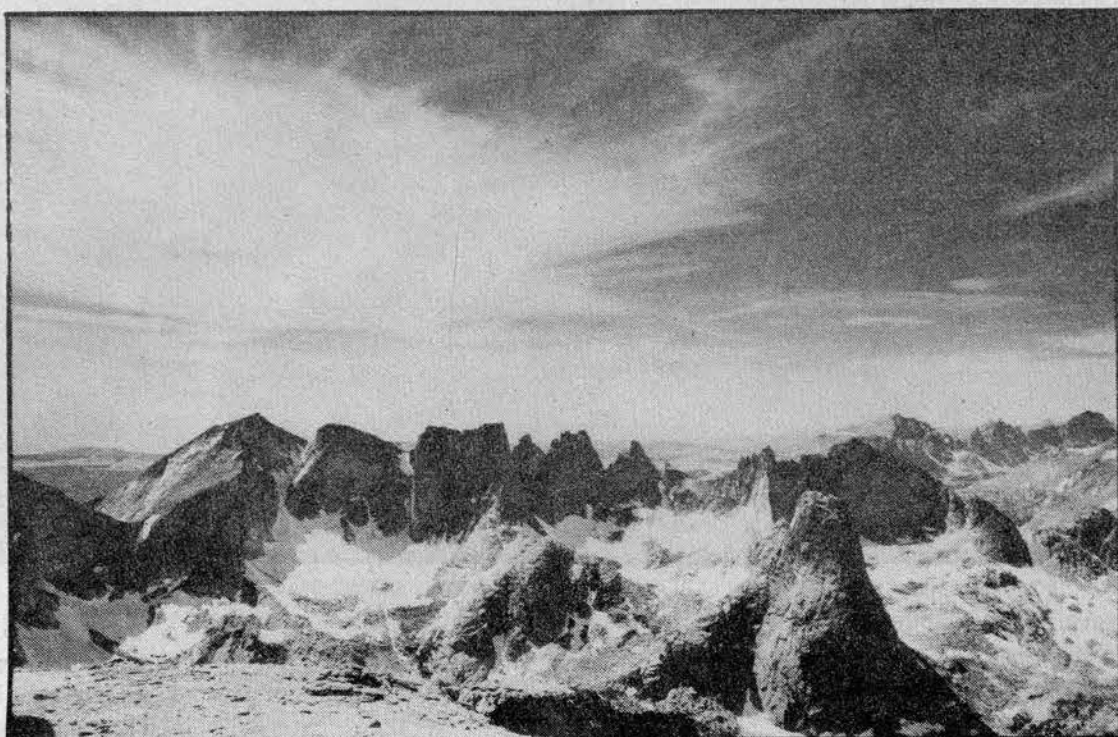
"This level of acidity was cause for concern since studies in Norway indicated lake acidification took place in similar granitic mountains areas," Galbraith wrote in a report delivered to the American Water Resources Association last year.

According to Galbraith, no lakes in the Bridger Wilderness have died, but half are dangerously approaching their "buffering" capacity. In nature, buffering takes place in lakes on alkaline limestone deposits, which neutralize levels of acidity.

The Bridger lakes, however, were formed around granite rock formations, making them highly susceptible to acid rain. Each spring, the lakes are also vulnerable during the run-off when acid levels accumulated in the snowpack are flushed through lakes and streams.

"Not all lakes respond the same way to acidity," Galbraith said. "Some of these lakes are barren and sterile to begin with. In those places with a low buffering capacity, microorganisms and fish are just barely hanging on."

"If you jolt some of those lakes with acid," he added, "it might be pretty tough to ever bring them back to life."



Cirque of the Towers, Wind River Range, Wyoming

At one time, more than 200,000 tons of sulfur dioxide and nitrous oxide were emitted annually into the air from Riley Ridge. Full-field development, even with scrubbers, could push that figure even higher, officials say.

Hydrologists say that the Bridger Wilderness lakes are prone to pollution generated hundreds of miles away. Wind patterns from the Southwest and Mexico occasionally shift and carry pollutants across Wyoming.

Samples of lakebed sediment and ice taken from glaciers in the Winds show that since the turn of the century, lakes in this isolated region have been bombarded by mineral wastes believed to originate from copper and other mineral smelters in Arizona, Nevada and Utah.

"The Wind River Mountains have experienced air pollution in the past sufficient to produce heavy metal deposition and precipitation acidity (from rain and snow) close to, if not exceeding, an acidification threshold," the report delivered to American Water Resources concluded. "Fortunately, the lakes appear to have retained their buffering capacity over the last 50 years."

Experts claim that luck played a significant role. Because Riley Ridge did not move into full-field development, as it was anticipated in the 1980s, and because scrubbers were installed on smokestacks and mineral smelters to the west, there has been a decline in pollu-

tion penetrating the Bridger Wilderness.

"I think it (acid rain) could be a significant factor in southwestern Wyoming, particularly if industry goes into phase two of their operation," said Donn Kesselheim, director of education for the Wyoming Outdoor Council.

"Our concern with acid rain may be slightly less at this point compared to what is happening with carbon dioxide release at Riley Ridge," Kesselheim added. "But certainly we see acid rain as possibly being a significant problem."

Ironically, the region around Wyoming's unsurpassed wildlands may be exporting pollution.

Exxon, by its own admission, is currently emitting 100-250 million cubic feet of carbon dioxide a day into the air at Riley Ridge. Exxon hopes to sell the carbon dioxide to oil companies to rejuvenate depleted oil fields. But at present the gas is simply exhausted to the atmosphere.

"This is a large enough daily emission of CO₂ to be significant nationally and probably on the world level," Kesselheim said. "I'm sure there must be people at Exxon who are concerned about the greenhouse effect, but their concern about economics overrides their concern about the environment."

— Todd Wilkinson

Wilderness bill scuttled

The agreement between Idaho Gov. Cecil Andrus and Sen. James McClure on a joint Idaho wilderness bill is over. Andrus withdrew his support Feb. 23, over a disagreement on how to define and identify roads. His action dooms the bill in Congress where it was awaiting a Senate floor vote.

The two men crafted the 1.5 million-acre bill in late 1987; from the start it had little support. During Senate committee mark-up in late 1989, a complex five-year process for defining and deleting "roads" from wilderness boundaries was added without Andrus' involvement. He objected, McClure held firm, and Andrus withdrew in response.

McClure, who retires from Congress after this year, must now decide whether to drop the bill or pursue a purely symbolic Senate vote. It is likely that the busy House Public Lands Subcommittee will not waste any time on a bill so obviously DOA.

This is the fourth attempt and failure to pass a statewide Idaho wilderness bill since 1983. Come 1991, McClure will be gone, and Andrus — assuming his re-election in November — will be the key Idaho politician deciding whether to try again.

— Pat Ford

HOTLINE

Wetlands pact gets watered down

Environmental organizations say that President Bush's waffling in signing a pact to protect wetlands substantially weakened the agreement. An agreement between the Corps of Engineers and the Environmental Protection Agency was scheduled to go into effect last November. But Bush delayed the starting date until Feb. 7, giving the oil and gas lobby time to influence White House staff who then revised the pact, says Linda Winter, director of the Izaak Walton League's Wetlands Watch program. The February agreement has two major loopholes: Developers will not be required to evaluate alternatives to wetlands construction, and areas with a large number of wetlands are exempt from the agreement. Winter says the latter concession benefits the oil industry, which wants to develop the unspoiled Alaskan wilderness. Wetlands, once called marshes or swamps, are home to fish and wildlife, aid in flood and erosion control, maintain stream flow during droughts, improve water quality by filtering pollution and sediment and provide recreational activities. Despite federal acquisition and regulation programs, 400,000 acres of wetlands are destroyed every year. In the October 1988 issue of *Sports Afield* magazine, President Bush said: "My position on wetlands is straightforward: All existing wetlands, no matter how small, should be preserved."



Craters of the Moon, Idaho

Idaho park bill stalled

Questions about grazing and hunting have stymied progress on turning Idaho's Craters of the Moon Monument into the state's first national park. Idaho Rep. Richard Stallings' bill would enlarge the 53,545-acre monument to a 373,785-acre park, plus designate an additional 123,040 acres as the Great Rift National Preserve. The bill, drafted by local supporters, allows continued grazing but encourages permit-holders to trade for areas elsewhere. The Idaho Conservation League wants grazing phased out or eliminated, says staffer Mike Medberry, while sheep and cattle interests oppose any change. Stallings, a Democrat, has said he thinks ranchers and tourists can co-exist; he suggests the park include grazing in its interpretive program. Another hot issue is hunting in the park, which the bill prohibits. Cathy Jones, an aide to Stallings, says the congressman may sponsor a formal negotiating process so that interest groups can iron out their differences before a parks subcommittee considers the bill. So far, the Park Service has taken no position on the legislation.



USDA - Soil Conservation Service

by Ed Marston

It has taken more than a century for livestock grazing on public lands in the West to reach maximum pain and minimum profit.

What could be one of the most benign and sustainable of all agricultural operations, because it is based in part on the consumption of naturally growing, perennial plants, has become frozen into a system in which few win and many lose or must scramble frantically to stay even. Among those who lose are many ranchers, public land bureaucrats, the land itself and the public interest.

Public land grazing in the West consists of more than 30,000 rancher-permittees spread over 400,000 square miles of the nation's least inhabited land. Ranching is associated with wide open spaces. But public land grazing as a system is best compared to the gridlock that ties up Manhattan streets and Los Angeles freeways. Also like an urban traffic jam, there is a maximum of noise interspersed with obscene gestures and occasional violence.

This special issue of *High Country News* is about grazing gridlock — how it came to be and its prospects for the future. This issue focuses on the public lands that are an integral part of most western ranch operations. In the classic case, a small amount of private, low-elevation, irrigated acreage is used to raise hay and provide a winter home for a herd that spends much of its time grazing on public lands. The public range is not a severable part of most ranches, but a vital component. Without the public range, the West's livestock industry would be a very different, much diminished, creature.

The public land grazing permits, although they must be renewed regularly, are assets a rancher can take to the bank and borrow on, or take to the real estate market and sell as if he or she owned them. Their value comes from one thing: A permit allows a rancher to graze animals on public land — land administered by the Bureau of Land Management, the Forest Service, the National Park Service, the U.S. Fish and Wildlife Service — at lower cost than on private land. This politically guaranteed subsidy is what the banks loan money on and what buyers buy.

That subsidy is in jeopardy because the politics are changing. As a result, the value of permits is being discounted, just as an oil company's assets in a Third World nation are discounted when the politics turn unstable.

The West's real cattle heritage: Damaged land and political paralysis

Can ranchers change the way they do business?

There is a joke about Buffalo, N.Y., that goes: Buffalo is not the end of the world. (Pause) But you can see the end of the world from Buffalo. In the same way, grazing subsidies of a few dollars to \$10 per animal grazed per month are not about to be abolished. But it is possible to foresee their end.

What is impossible to foresee is the course that public land grazing will take over the next decade or two. There is no conventional wisdom in grazing. In fact, the best minds and most enthusiastic people have been driven out of grazing. So many policy-makers, bureaucrats and scientists have been burned or frustrated by the issue over the past generation that few wish to touch it.

A bright young staffer in the Forest

Service or BLM will specialize in recreation or wilderness, where initiative and change are seen as possible, rather than in the straightjacketed, aged world of grazing. A new Forest Service Chief or BLM head, understanding that to raise grazing fees to market value would require buckets of blood, prefers to make his or her reputation in some other aspect of land management.

Cowboy clout

But it may be that public land grazing is not as immovable as it seems. Until a decade or so ago, the grazing battle was fought by bureaucrats and a few

policy-makers and technical people versus ranchers. It was not much of a battle. The ranchers were and still are well-organized politically, easily able to work their will on the grazing bureaucrats.

For example, a Forest Service or BLM range person — a range con — who drives out to a ranch house to deliver news of a reduction in a grazing allotment, might find, on return to his office, transfer orders awaiting him. In other cases, it might take a few days for the transfer to come through.

The political clout is not confined to intimidating ground-level personnel. It has had a profound effect on policy, as illustrated by the just-ended eight-year reign of Robert Burford over the Bureau of Land Management. Burford, a public lands rancher from western Colorado, was in charge of this multiple use agency, which administers approximately 175 million publicly owned acres. That is 273,000 square miles, or almost the areas of Colorado, Wyoming and Idaho together.

Burford took command in the wake of a series of generally successful lawsuits brought by the Natural Resources Defense Council. NRDC's goal was to force the BLM to reexamine and change its grazing policy. In response to the suits and congressional pressure, the BLM completed environmental impact studies and then pleaded for time, saying it needed to study the land further.

Then, during Burford's administration, BLM grazing budgets were cut so that the studies could not be done. When he left office, the BLM's grazing policies had been strongly criticized in a series of independent reports, but little had changed on the ground.

On the local level, ranchers often turn the range bureaucrats into objects of derision or contempt. Some have not hesitated to browbeat, pound on desks and even threaten violence. Talk to a BLM or Forest Service range-con long enough, and you will see a picture of public land ranching that does not resemble the courtly Marlboro Man. And talk to a rancher who holds public land permits, and you will likely be told that BLM and Forest Service bureaucrats are so dumb it's a wonder they remember to breathe.

Environmentalists, of course, are also scornful of the bureaucracies. But they might temper their scorn if they had a better feel for the exposed political positions many bureaucrats occupy and the battering they must take on occasion.

Land managers come to terms with their vulnerability in a variety of ways. Some sympathize with the ranchers and willingly comply with their demands. Some resent the politics, but cooperate.

And some resist as much as they can without calling down a transfer or reprimand on their heads.

Perhaps most galling to the bureaucrats is the way the ranchers stick together. Ranchers are not a homogeneous group. Some love and protect the land, some do a middling job, and some approach the public range the way Attila the Hun approached his enemies.

The National Cattlemen's Association and other political arms of ranching do not distinguish between good and bad ranchers. There is no code of ethics, no standards of minimum performance. They protect all ranchers from bureaucratic oversight, regardless of the issue.

The present system also protects ranchers against having to recognize some painful historic truths. Throughout the West, the 19th-century pioneers are greatly respected. But many present ranchers eke out a living on private and public land their sturdy ancestors permanently damaged through overgrazing.

Breaking the stranglehold

For this reason and others, the system is stacked against progress and reform. Land managers who resent ranchers' political clout may respond by going by the book, and even resisting changes that would be good for the ranchers and for the land and wildlife. The system encourages time servers and chases away those who wish to see change.

Under the direction of attorney Johanna Wald, the Natural Resources Defense Council tried to break this stranglehold on the public lands from the top. The NRDC went to court to force the BLM to treat grazing as one of several uses of the land, rather than as a privileged use. The NRDC won court victories but had trouble transferring those victories to the ground.

Now, in this issue, attorney Joe Feller describes his efforts to affect public land grazing from the bottom, by focusing on one grazing allotment. Feller is in the early stages of his effort, but it appears that if reformers could put someone onto each of the 20,000 BLM allotments, they could change national grazing policy. That makes sense. There is one rancher paying full-time attention to each allotment, and it will take a similar army to win the war on the ground.

This tactic, of course, is not practical. Ranchers earn at least part of their living from the permits; range environmentalists would have to work as volunteers. In addition, ranchers live near their allotments; many who care about the public land live far from that land, as in the case of Feller.

Moreover, mobilizing an army will not be easy. Public land grazing is not as emotional or straightforward an issue as the forest issues that have galvanized so many in the last few years. Clearcutting of an old-growth forest can be seen and felt in a way that the cropping of native grasses cannot. Some old-growth forests are still alive and thriving; they are there to protect and rally around. There is a contest one can watch, as the public land loggers race to road and cut surviving forests and conservationists dig in to stop them.

Things are different on the range. The destruction, or at least the profound transformation, of the range took place in the late 19th century.

As this special issue discusses, with the exception of a few scattered, often hidden, relict areas, the original range is gone. Biological succession, pushed by herds of domestic cattle and sheep, has

moved on. The native plants and the wildlife that depended on those plants cannot even be described as "history" because they have left no record. Desertification, gullying and other changes have obliterated what once was.

As in all public land issues, the producers have done more than capture or immobilize bureaucrats. They have also controlled academic research, turning most of the land grant scientists in this field into handmaidens of the industry rather than independent researchers. The result is that we know little about the past state of the range, or its potential for renewal.

Even in this rigidly controlled, stultified industry, nature abhors a vacuum. Witness the startling rise of Allan Savory, the creator of Holistic Resource Management. He is, of course, outside the grazing establishment, occupying neither an academic nor a government position.

But his call for renewal of the ranching family, combined with his prediction that properly managed grazing by domestic livestock can restore the desertified West, has moved the debate off center. He has been more effective in creating discussion and stimulating research than all grazing professionals, academics and environmentalists put together.

Savory's positive reception by some ranchers, environmentalists and federal land managers must be seen as healthy. It represents, by the ranchers, an admission that all is not well on the range. And it represents, by the environmentalists, an admission that the West and cows can, perhaps, coexist to their mutual benefit.

Savory's analysis and prescription may or may not be correct. Even he says that, at best, only 1 percent of those who follow his advice fully succeed. But he is creating thought and movement.

And possibly the ranching community itself is ready for change. There are some admirable aspects to ranching and the small towns that ranching created and still nurtures. But in terms of the larger America, it is an alienated community, hostile to or unaware of the forces and ideas that move other Americans.

One practical example of that alienation is Western ranchers' inability to market their product. The cowboy and rancher are used by advertisers to sell everything from cigarettes to high-fashion clothing to yogurt, but not to sell beef. Americans may wear cowboy boots, listen to Western music, and even watch Westerns, but they are eating less and less of the only food identified with the region.

Part of the reason for that failure can be seen in the pages of ranching journals, which are almost always hostile to the dietary and environmental concerns

of urban Americans. To take one example, the recent reports that flatulence in cattle — cattle produce lots of methane — may aggravate global warming has sent these publications to new heights of outrage.

To the journals, concern over methane from livestock is just another example of the craziness of the environmental and consumer movements. That is, it is another example of the craziness of the people they must sell their product to.

Ranching could be sustainable

The tragedy is that so much is at stake, and the potential is so great. Livestock have damaged or destroyed riparian areas, fisheries and wildlife habitat and damaged the appearance of wonderful landscapes. They have not done this to a small part of the public land, but to the greater part of it.

This is especially unfortunate because ranching has the potential to step lightly on the land. Along with fruit growing, it is one of the few forms of agriculture that could be easily sustainable.

The classic Rocky Mountain ranch grazes cattle on perennial mountain vegetation all summer and feeds them hay in the winter. The mountain vegetation requires no cultivation. And alfalfa need be replanted only every few years, and doesn't necessarily require fertilizer or spraying. It will be difficult to switch most of agriculture to low-cultivation, low-chemical approaches. But cattle and sheep ranching could make giant strides toward sustainability tomorrow.

Instead, harsh grazing practices have degraded and eroded more than half of the public lands, and made a mockery of livestock ranching's potential for sustainability.

How will this paralyzed situation resolve itself? That depends on the answer to two questions: What capacity do the public land ranchers have for reforming their political and grazing practices? And what capacity does the land have for renewing itself biologically?

"Livestock free by '93" is an effective rallying cry, and it is part of the reason ranchers have begun to respond to outside pressures. But total eviction of the cattle and sheep would not be much of a victory. The real victory will be reform of public land ranching so that it becomes an asset to the West rather than its present liability. That reform will have to come from the ranchers and land managers, with strong pressure from environmentalists.

This special issue on grazing explores the possibility that ranching — as a human and biological activity — is capable of change. ■

BUCKING TRADITION: Moving Toward Sustainable Ranching



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CONTRIBUTORS

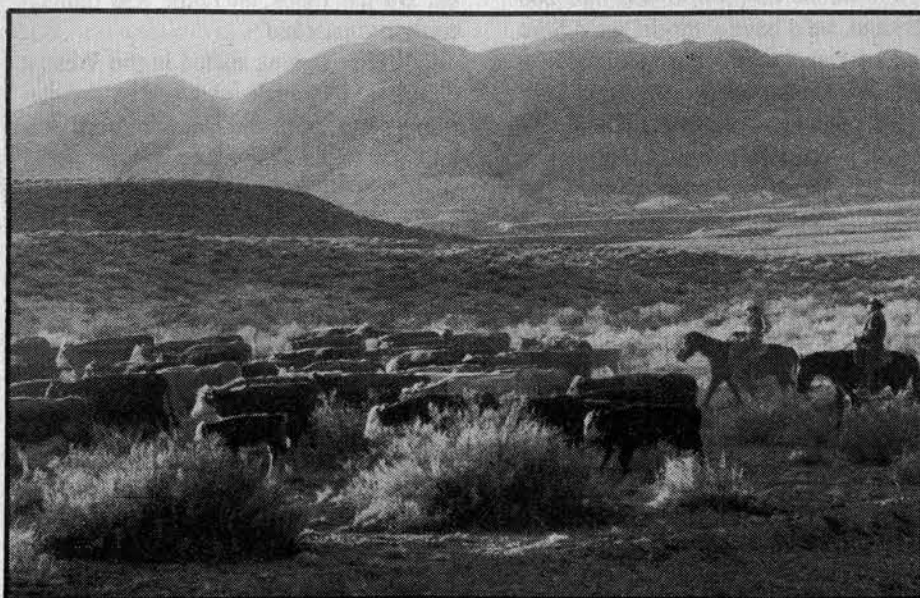
Ed Marston has been publisher of *High Country News* since 1983.
Florence Williams is a staff writer for *High Country News*.
Joseph M. Feller teaches law at Arizona State University in Tempe, Ariz.
Ray Wheeler trained for a career in journalism working as a cab driver, bicycle messenger and river guide. He now lives and writes in Salt Lake City.
Jon Christensen is a Western correspondent for Pacific News Service. He lives in Washoe Valley, Nev.
Steve Collector is a freelance photographer based in Boulder, Colo.
Sam Bingham is a freelance writer in Denver, Colo.
Jim Fergus is a freelance writer who straddles homes in Hailey, Idaho and Rand, Colo.
Steve Bagwell is editorial-page editor at the *Idaho Statesman* in Boise.
Pat Ford, a former director of the Idaho Conservation League, covers the Northwest for *High Country News*.
Tom Wolf worked until recently on the Gray Ranch project for the Nature Conservancy in New Mexico.

SPECIAL ISSUES STAFF

Editor — **Ed Marston**
 Associate editors — **Florence Williams, Betsy Marston**
 Production editor — **Steve Ryder**
 Production assistants — **Ann Ulrich, Peggy Robin, Jane McGarry**
 Development — **Linda Bacigalupi**
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THANK YOU

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Cowboys drive a herd to its winter range in western Nevada

Kit Miller

The West's time capsules

Livestock have obliterated almost all of the West's original grasslands. But here and there, a few patches of native range survive.

by Florence Williams

A secret place is how the National Park Service designates a certain grassland nestled deep in canyon country. The lush meadow is not found on any map; nor are there signs, parking lots or rangers to indicate its location. Unlike most park resources, this one is not meant to be found.

The grassland, roughly 300 acres, sticks out like a green postage stamp on the vast, dry range. Surrounded by high sandstone cliffs, its pastures have never felt the mandibles of a cow, sheep or horse. The tall bunchgrasses here are native. There is no Russian thistle, no tumbleweed, no cheatgrass; there is not even sage.

The land is an almost intact gift from the past, and because of the meadow's pristine condition, scientists treat it as a rare clue to how the West might have looked before the arrival of Europeans.

The meadow's most striking feature is not grass; it is the cryptogam from which the grass springs. Elsewhere in Canyonlands National Park, the cryptogam is pink and knobby, just beginning to recover from years of intensive cattle grazing. But on these few hundred relict areas, it is a thick, dark, ancient matrix of lichen and moss.

The rest of Canyonlands is slowly recouping its range. After Congress carved the park out of Utah's public domain in 1964, the ranchers gradually left. But much evidence of their trade remains in the stark land.

In some places, rich, moist meadows, once kept intact by the cryptogam, have turned into grassless, eroded plains sliced by arroyos; shrubs, brush and weeds have driven out the leafy forbs; and where the grass remains, hardy imported annuals have replaced the nutritious bunchgrasses. In a shift of ecological succession, a climax community may now be made up of greasewood and sand. Edward Abbey called this country "cow-burnt."

Long a gripe shared by hikers, bikers, wildlife advocates and other preservationists, grazing has for generations occupied the "highest use" on a vast majority of the West's public lands.

Ranchers lease about 270 million acres, or 80 percent of all lands in the West administered by the Bureau of Land Management, the U.S. Forest Service and the National Park Service. That includes range in wilderness areas, national recreation areas, national monuments and national parks. Cows are allowed in 103 of 109 national wildlife refuges, and in 30 percent of the national parks in the Rocky Mountain region.

Because few pristine, ungrazed areas remain in the West, range scientists have little direct information about the

pre-settlement landscape. But as the struggle to diversify the uses of the public domain gains strength and the land comes under closer scrutiny, a better understanding has emerged of how the range works and what makes it thrive or deteriorate.

Research into relict areas — those survivors of the past — has added a new dimension to the public lands debate. At least in the short term, the inquiry has further polarized the pro-grazing and pro-wilderness camps; it enables environmentalists to grow nostalgic for the buffalo grass (as well as for the buffalo) while ranchers remain willful guardians of the status quo.

The more scientists study the ungrazed pockets, the more they understand the overall capability of the range. For range managers, however, the potential plant community may not be the desired end. Ranchers want maximum productivity for livestock at a minimum cost.

Even if scientists come to understand what the original range was like — and they are a long way from that — there would be conflicts. Range restoration through burning and reseeding is expensive as well as difficult to achieve. And the original range, if it could be reestablished, might not fit today's needs. Finally, in many regions, particularly in the Southwest, the land may have lost its capacity for renewal, at least within a human time scale.

No money for research

Perhaps because of the threat it represents, funding for the relict studies has been scant. Abundant funding exists for paleontological research, but few foundations seem interested in the more recent history of the range.

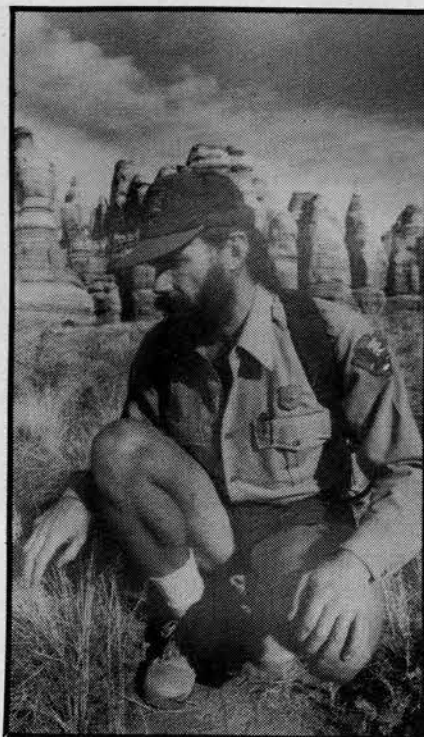
"Funding has been abysmal," says Tim Graham, a Canyonlands biologist. "It's probably my cynical view, but if we knew what the landscape was like 200 years ago, we'd have a model we'd have to be working toward. It could require a big change in behavior."

He speculates some ranchers may have an interest in keeping the studies under lid. "The grazing lobby carries a lot more weight than a piddly park," notes Graham.

In spite of a very late start, some work is being done. Organizations like the Nature Conservancy collect and analyze all the data they can, both from relict and grazed areas. Researchers hope that in a hundred years we will at least know what the range looked like today.

Nick Van Pelt heads the conservancy's Natural Heritage Program in Utah, where he is compiling a directory of all the relict areas on the Colorado Plateau.

"It's amazing how pervasive grazing has been," says Van Pelt. "There aren't



Florence Williams

Biologist Tim Graham

many pristine areas left. We want a regional sense of how those units would contribute to a total natural system."

Thadis Box, former dean of the College of Natural Resources at Utah State University, says the relict areas, while imperfect, may be the best indicators of the past that we have.

"We know very little other than what we read from pioneer journals, and those reports are pretty undependable," says Box.

Uncertainty makes it difficult to compare past and present range conditions. It has been estimated that some areas, particularly in the dry Southwest, are only one-tenth as productive as they were before ranchers arrived.

Although little is known about the early ecology of the range, scientists and environmental historians have pieced together a general chronicle of the human movement within the landscape.

They know that in the 17th and 18th centuries Spanish missionaries in Texas and California brought with them a breed of cattle that evolved into the Texas longhorn. Other European breeds, notably the stocky Hereford, trickled in as well.

When the gold rush petered out in the middle of the 19th century, many would-be miners began raising stock. Soon others arrived, making ranchers the next great wave of Western settlement. The invention of barbed wire in 1874 allowed more ranchers to raise more cattle. By the 1880s, the range was dangerously overstocked.

"After grazing started in the West, it didn't take three decades before the carrying capacity of the range was exceeded," says Box. The range was probably at its lowest point productively between 1880 and 1920, he says.

In reaction to the overgrazing, the U.S. Forest Service in 1906 began requiring permits and nominal fees from the ranchers who used its land. But it was not until 1934, with the passage of the Taylor Grazing Act, that the Bureau of Land Management (then the U.S. Grazing Service) followed suit.

The 1934 act grew out of reports to Congress that over 36 percent of the public lands suffered "extreme depletion" and another 47 percent "severe depletion," in the language of the service.

Do cows belong here?

Ask range scientists today what they think about the potential of semi-arid, Western range, and their unanimous response is, "The grass evolved under grazing pressure — it needs to be grazed to be healthy."

Ecologists lacking a ranching bent say: "This grass did not evolve with intensive grazing — cattle are not meant to be here." In a sense, both sides are right, according to paleontologist Paul Martin at the University of Arizona.

The grass, says Martin, probably evolved with large grazing animals now extinct, such as mammoths, dinosaurs, and precursors of the horse and bison. Up to a point, the grass will produce more biomass (what ranchers call productivity) under gentle pruning, which permits the sun to photosynthesize the plant's basal growth cells. But those extinct animals mostly roamed the Plains.

In the mountainous West, those grazers probably never approached the population densities that cattle and sheep did during the late 19th and early 20th centuries, says Martin.

Just as there is no easy answer to whether or not cows "belong" here, there are diverging opinions of how bad the inherited range really is. The politics of range evaluation are such that few agencies and special interests can even agree on standard adjectives to describe the range.

The BLM, the Forest Service and the Soil Conservation service all use different indicators to measure range health. The BLM has changed its evaluating methods at least five times in the last 50 years, says Utah State University range professor Neil West.

But whichever adjectives and variables they use, most range watchdogs, including ranchers, agree that much of the land is in sorry shape.

The statistics, although offering a better prognosis than in 1934, remain bleak: Roughly 10 percent of all the land in the West has reached a state of severe desertification, meaning it has virtually lost its ability to support life, according to Harold Dregne of the International Center for Arid and Semi-Arid Land Studies at Texas Tech University.

A 1984 Senate report estimated that 76 percent of the BLM range was in either fair or poor condition, unable to produce more than half its estimated original potential.

Streamside habitat, on which 75 percent of all vertebrates in the West depend, is hardest hit. In Nevada's dry sagebrush country, riparian zones make up only 2 percent of the landscape yet they receive 50 percent of the grazing pressure. In a complicated chain of events, overgrazing causes streambanks to erode, water tables to drop and creeks to dry up. Fish and birds lose their habitat at an alarming rate.

A 1982 Forest Service report found that due to poor grazing practices, 20 percent of all range acres in the mountain West were eroding at a rate faster than that at which they could sustain grass production.

A report on the range published by the Natural Resources Defense Council in 1989 concludes that the BLM has neither the resources nor the motivation to improve its poor rangelands. "A combi-

nation of such factors as lack of funding, unachievable directives and an absence of top level management practices has led to this state of affairs," states the report.

The public rangelands, often marginal, are leased to ranchers at a subsidized, below-market cost. Permit fees make up less than 1 percent of federal agencies' budgets, not nearly enough to cover the cost of range rehabilitation.

The public lands in the West produce only 2 percent of the nation's beef, yet over one-third of all Western ranchers use the public range. Few family ranchers are able to get by on their ranch operations alone; most have second and even third sources of income. Nevertheless, the ranching way of life is deeply entrenched and not likely to disappear.

As Frank Gregg, former director of the BLM during the Carter administration, puts it, the challenge is how to turn a dominant Western livestock economy into one that is well within the capacity of the range, while preserving a way of life.

"Grazing absolutely can be sustainable," says Dick Loper, a range management consultant based in Lander, Wyo. "We're learning to do a better job. We're learning how much to leave in the ground as opposed to how much to take; we're learning about the below-ground ecology, like water tables, as well as what's above ground. You have to look at the whole ecosystem."

Most reformers seem to agree that the poor condition of the range is not the fault of the cows per se, but of livestock managers who neglect the needs of the range. Some ranchers overstock the range, fail to give grasses time to recover, and make little use of recommended rotation schedules.

The Savory debate

It has only been in the last few years that people have begun listening to more creative ways of sustaining the range. One of the more revered innovators is Allan Savory, who is as controversial a figure as any on the Western landscape (*HCN*, 8/2/87). Savory, a wildlife biologist originally from Rhodesia (now Zimbabwe), believes that any degraded range can be resurrected using a carefully applied regimen of intensive grazing. That's right: more cows.

The Western range, says Savory, with its dry, brittle soils, needs to be hoofed and kicked so that grass seeds can gain a stronghold and water can percolate through the topsoil. But the brief, intensive grazing has to occur at the right moment, and then the cattle must be moved on.

Savory has followers among both environmentalists and ranchers, but he also has critics in both camps who loathe his Holistic Resource Management approach. Critics say the semi-arid lands need fewer cattle, not more; in fact, they argue, some range is so far gone it deserves complete rest from any grazing.

Savory once offended the Nature Conservancy's Van Pelt by saying cattle should move into the secret meadow in Canyonlands. The cryptogamic cover, Savory reportedly said,

keeps the ecosystem in a straightjacket so that few new seeds can germinate.

Van Pelt, who was trained as a range ecologist, laughs at this assessment. He says that the cryptogam, which helps trap moisture, fix nitrogen and prevent erosion, is itself critical to the ecosystem.

While many condemn Savory's pro-grazing approach, others value it for its vigilance; Savory, they say, has jolted ranchers out of their complacency by telling them to think, plan and get out on the land to keep their cows moving.

Alan Carpenter, a plant ecologist and land steward for Colorado's Nature Conservancy, applauds Savory for the land ethic he encourages. "Grazing is not necessarily a bad thing," comments Carpenter. "It gets a bad reputation because it's improperly managed. It requires time and effort. (Savory's) right with the pitch that ranchers need to spend a lot more time thinking and managing."

Carpenter says ranchers are beginning to respond to the growing demand for a better managed range, particularly near riparian zones.

"The urban, recreational interests will continue to achieve more political clout," Carpenter speculates. "The more enlightened ranchers will respond appropriately and improve their management to accommodate the criticism."

Bill Krueger, a professor of range science at Oregon State University, agrees. Krueger, a founder of the Oregon Watershed Improvement Coalition, often mediates disputes between ranchers, environmentalists and government officials. He started the coalition in 1986 and recruited a broad, somewhat unusual roster of wildlife advocates, foresters and ranchers to meet regularly and discuss range improvement ideas (*HCN*, 12/4/89).

"Lo and behold, we found we could get along," says Krueger. "At first, both sides were reluctant to listen to each other. But we found we all want the

same thing — everybody wants to make the land better."

As the name suggests, Krueger's group focuses on watershed rehabilitation. Representatives from Oregon Trout, the BLM, the Society for Range Management and other interests get together and visit ranches in the region. If they see an eroded streambank, they brainstorm ways of repairing it. They may spend a weekend building a small structure, such as a log dam, to trap sediment for rebuilding the banks. With the cooperation of the ranch owner, Krueger says it is usually possible for grazing to continue in the degraded area at certain times of the year, when the grasses are dormant.

Much of the watershed coalition's work involves volunteer consulting. "We're trying to educate ranchers about watershed issues," continues Krueger. But he also says that to many ranchers, rehabilitation is a remote and abstract goal.

"They want the land to improve," Krueger says, "but it's difficult to perceive how a creek you've known your whole life could look different. It's awfully hard to believe it." Krueger nevertheless foresees a changing ethic.

Both the Oregon Livestock Association and the Society for Range Management have promised a greater commitment to riparian restoration. Oregon's governor recently formed a riparian advisory council. Colorado, Utah, Wyoming and California are forming associations similar to Krueger's.

Wayne Elmore, Oregon's "riparian specialist" for the BLM, is a member of both Krueger's coalition and the governor's council. He spends most of his time doing on-the-ground restoration or giving workshops to ranching organizations throughout the West. He has recovered flood plains, recharged aquifers, rebuilt riverbeds and revegetated streambanks. He has even fenced off streams from cows, a radical departure from the

BLM's usual hands-off policy.

Elmore admits that he is something of an anomaly within the BLM.

"I'm different," he jokes. "But they allow me to stay, so I guess that's a good sign."

In the 22 years Elmore has worked for the bureau, he has witnessed some progressive policy changes.

"We're so much better than we were," he says. "We're still not great, but today there's a better understanding of the range ecosystem. Today we talk about watersheds."

The BLM is starting to put more money and resources into watershed rehabilitation and other range programs, says Elmore.

"As far as incentives, commitment and understanding, we'll see some big changes in the next five years."

The real challenge

Back in Canyonlands, biologist Graham hopes that some of those big changes will include more funding for more relict area studies. In Capitol Reef National Park, where grazing is allowed, managers have used what they learned from relicts there to phase grazing out of sensitive areas. Similar studies will begin in the Glen Canyon Recreation Area this spring.

Nick Van Pelt, the man in charge of finding, scrutinizing and cataloguing the ungrazed areas of the Colorado Plateau, is thankful that we have as many small relicts in North America as we do.

"In the Old World, they don't have any. They just manage the land like it is. We still have the luxury of finding those that do exist."

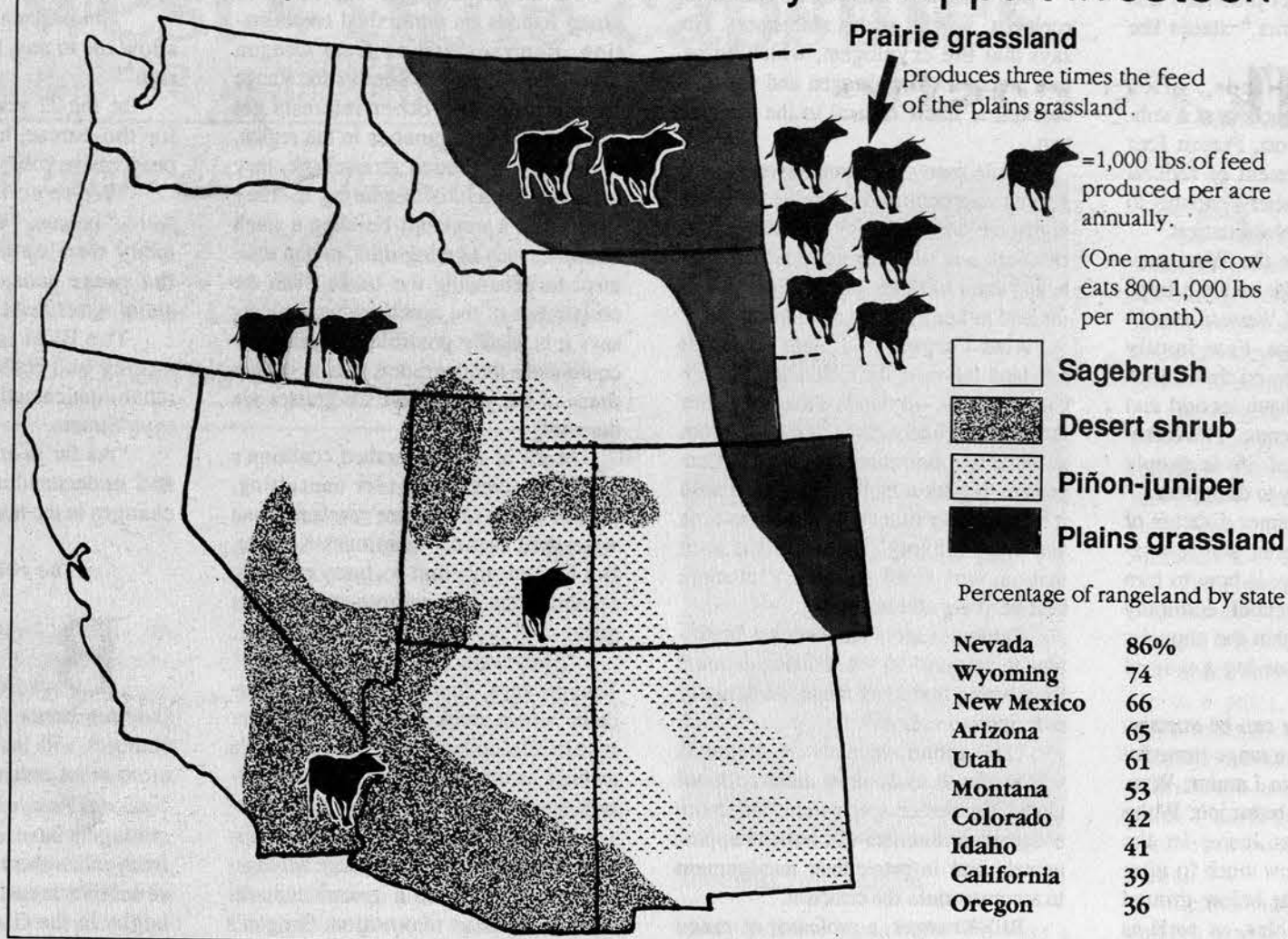
Brooding over that lesson, Van Pelt adds, "It's all well and good to find these relicts, but if we can't, we shouldn't sweat it. The challenge is really to manage the rest of the place." ■



Utah Travel Council

Canyonlands National Park, Utah, is slowly recovering from heavy grazing.

Major ecosystems and their ability to support livestock



The West is literally covered with livestock, from the highest elevation tundra down to the driest sagebrush basins. Domestic animals munch in national forests, national parks, "recreation" areas, wilderness study areas and river bottoms.

Livestock graze seven out of every 10 acres in the West, where "West" is 11 states: Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Montana, Wyoming, Colorado and New Mexico. Over half of that grazed land is public — 33 percent is administered by the BLM, 19 percent by the National Forest Service, 3 percent by the National Park Service and 7 percent by state agencies. The remaining 38 percent is private land.

Most western ranchers use a combination of public and private land to raise their stock. The subsidized public allotments helped sustain many through the beef slump of the early 80s. But the expected drought of the early 90s may be a truer test of endurance. The ranches without irrigated private land could be at a serious disadvantage.

Ira "Hammy" Kent, 79, won't have to worry. He works what many would consider an ideal ranch. A fourth generation Nevadan, his family started grazing cattle on BLM land in 1862, long before it was BLM land. With a permit for nearly a thousand head, exclusive grazing rights on 140,000 public acres east of Reno, and federally subsidized irrigation, Kent is one of the lucky few who can graze his cattle year round and feel secure about drought.

Thanks to the Newlands Reclamation Act of 1902, a reliable flow of water from the Sierras enables Kent to grow 1,000 tons of alfalfa hay, just in case of a bad year. He hasn't needed it since the drought of 1961.

In years of normal rainfall, Kent's cows graze Indian rice grass and white sage at the foot of the Stillwater mountains in the winter. During the spring, they move north and uphill, to about 6,000 feet in the same range. The drier summer months force the animals even higher, to the land of cheatgrass and Idaho fescue, at an elevation of 8,700 feet.

When the grasses "go dormant" in the fall and his 10-month federal permit is up, Kent grazes the cattle on the ranch's own 300-acre pasture. That is also when he weans the calves from their mothers, culls the aging stock, brands the young and takes his yearlings to market.

Most western ranchers have less generous grazing permits. In Nevada, most permits are good for only three to six months, as determined by weather and range quality. Dry, damaged areas that characterize much of Nevada, and much of the West, cannot withstand full-year grazing.

From deserts to mountains, ranching practices remain fairly consistent. About three-fourths of all ranchers have cow-calf operations, in which they breed calves from their own stock, fatten them on the range from late June to October, and sell them in the fall. Many ranchers also grow and irrigate their own alfalfa to use as winter feed for the breeding cows.

The remaining ranchers run yearling

operations: They buy calves in spring, fatten them all summer and sell them in the fall. Known as stockers, these ranchers operate mostly in areas with harsh winters, such as Wyoming and northern Colorado, where keeping a mother herd year round and raising calves is difficult. Yearlings require less investment and yield a higher short-term return. Many ranchers, like Kent, raise both cow-calves and yearlings.

It is sheep, however, that may be best suited to a damaged range. They are traditionally herded in mobile bands and can cover more ground to seek forage. In desperate years, Navajo herders will carry their small sheep up steep walls on their backs, one by one, to reach the grassy tops of mesas.

In general, grazing animals are not too picky about their terrain, which, in the West, can vary to extremes. The major rangeland biomes include the relatively fertile mixed grasslands of the Great Plains, most of which are privately owned; the mountainous bunchgrass

zone, administered by the Forest Service; the grassland-sagebrush mix of the high valleys; the semi-desert sagebrush of Nevada's Great Basin, nearly all of which is BLM land; and the Southwest's desert shrubland and desert brushland. Precipitation ranges from 25 inches to under 10 inches.

Colorado, Idaho and Nevada lead the West with the most BLM acreage in poor or fair condition: 82 percent, 79 percent and 77 percent, respectively, based on environmental impact statements from 1985 to 1989. Land in Montana and Wyoming ranked healthiest, with over 50 percent of the range satisfactory.

Range health is determined using a combination of factors, including precipitation, past land use and current grazing practices, especially the number of animals maintained and the mobility of the stock. Precipitation is typically the major variable.

A general truth is: the wetter an area, the more cattle it can support. A cow needs about 800 pounds of forage a month. In humid Missouri, that amounts to roughly half an acre per cow. That same cow would need from six to 40 acres of land in arid Nevada.

As of 1984, 30,000 ranchers leased permits to use the federal lands, for a total of 18 million AUMs. (An AUM equals the amount of forage needed to feed a cow plus a calf, or five sheep or goats for one month). In 1988, over two million head of livestock grazed on BLM lands at some point during the year.

While private rangelands in the West, including irrigated pastures and feedlots, yield 17 percent of the nation's red meat, cows fed on the public lands make up only 2 percent of the market, according to a 1986 report by the General Accounting Office.

Broken down further, cows graze on 89.5 percent of all land administered by the BLM (175,000 million acres); yet the vast acreage translates into about 0.78 percent of the beef in your supermarket.

Altogether, nearly one in five steaks and one in two lamb chops was once a Western grazing animal.

—Florence Williams

Who's at home on the range?

The Western wing of Kafka's castle

After discovering the public range is not very public, a law professor does some ruminating of his own to determine where the BLM went wrong.

by Joseph M. Feller

I have reached the end of the line. I am standing — no, kneeling — in a dry wash in a remote corner of southeastern Utah with a cattle rancher and two employees of the Bureau of Land Management.

We are huddled with intense interest around the living thing that has brought me over 400 miles to this spot. This specimen, along with millions of others like it, has been the focus of congressional investigations, federal legislation, litigation, books, articles and demonstrations.

We are measuring the length of a blade of grass. Or at least the length of what is left of this blade of grass after it was eaten by a cow.

We are measuring the length of this blade of grass, along with a few dozen others nearby, in order to quantify the intensity of cattle grazing on this particular pasture. If the grass is too short compared to the length of an ungrazed blade of grass, it may indicate that this pasture is being grazed too heavily for its own good.

If that is the case, then, according to the BLM's proposed land use plan for this area, the BLM should do something to reduce the intensity of cattle grazing here.

Under the proposed land use plan for this area, as in all BLM areas, there may be no reduction in grazing unless overgrazing has been documented by this kind of "monitoring." This documentation policy is BLM's response to the legal mandate — found in federal statutes and in court decisions interpreting those statutes — that it manage the public rangelands in an environmentally responsible manner, a manner that recognizes the nation's need for natural beauty, clean water, wildlife, recreation and conservation of resources as well as the public's demand for beef and the rancher's need to make a living.

That legal mandate represents the response of Congress to decades of investigations, reports, books and articles decrying the sorry state of our public lands and crying out for better management.

So whether or not this whole chain — from public outcry, to federal statute, to court decision, to administrative policy, to local land use plan — will actually make any difference, will actually cause the BLM to do something different, will actually result in the moving of a single cow on (or from) this allotment, depends on the lengths of the blades of grass that we are measuring today. Maybe.

And then again, maybe not. Maybe all these measurements are just the BLM's way of stalling, of putting off the

necessary hard decisions that may offend the cattle industry. Maybe, no matter what the results of the measurements, the BLM will claim that it needs to make more measurements before it can consider changing its ways.

Maybe the BLM will simply rationalize whatever the measurements reveal, changing its standards of what is acceptable to fit the data. Maybe the BLM will find excuses, blaming the weather, the soil, introduced plants, anything but cows, for the poor condition of the range.

Maybe, when all else fails, the BLM will play a shell game, shuttling cattle from one pasture to another to create an illusion of better management while failing to face up to the fact that there are simply too many cattle on the allotment.

That is what I am here to find out. Whether the buck stops here, with the local BLM range staff who make day-to-day, acre-by-acre decisions about cattle grazing on individual allotments, or whether the buck keeps bouncing in an endless juggling act.

A spectacular allotment

“Here” is the Comb Wash Allotment, 70,000 acres (more or less) in southeastern Utah's San Juan County. If there are any grazing allotments that cry out for a recognition of environmental values, for concessions to interests other than those of the cattle rancher, then surely the Comb Wash Allotment is one of them.

Within the confines of this mid-sized (by cattle ranching standards) grazing allotment are no less than five spectacular redrock canyons — Arch Canyon, Mule Canyon, Fish Creek Canyon, Owl Creek Canyon and Road Canyon.

All five contain spectacular walls and pinnacles of orange sandstone hundreds of feet high. All five are popular for hiking and sightseeing. All five contain fragile ruins left by the ancient Anasazi Indians.

In fact, the canyons on the Comb Wash Allotment are among the richest on the Colorado Plateau in archaeological sites. All five contain fragile riparian areas. Three of the canyons — Fish Creek, Owl Creek and Road — are wilderness study areas that the BLM has recommended for designation as wilderness.

Even the “dull” part of the Comb Wash Allotment, Comb Wash itself, into which all of the canyons flow, is a pretty amazing place. The wash parallels Comb Ridge, a spectacular 500-foot-high sandstone rib that bears a striking resemblance to the cliffs of Zion National Park.

(Continued on page 10)



Arch Canyon, Utah

A do-it-yourself guide

The BLM's regulations provide for public participation in the management of individual grazing allotments. Such participation may help to curb some of the worst abuses and to bring about some improvements in areas that are of particular concern because of their special value for scenery, recreation, wildlife habitat, etc.

If you are concerned about the impact of livestock grazing on a particular area of BLM land, write to the local BLM district manager or resource area manager and ask to be designated an “affected interest” with respect to the grazing allotment (or allotments) that includes that area. (If you don't know which district manager or resource area manager to write to, write to the state director.)

In your letter, explain why you are affected by livestock grazing in the particular area; for example, because you hike, camp, hunt or fish there, because it is habitat for wildlife or fish that you like to hunt, fish or observe, etc. It is also helpful if you can explain exactly how it is that the grazing affects your use or enjoyment of the area; for example, by dirtying the streams, by marring the scenery, by destroying wildlife habitat, etc. Make your letter as specific to the particular area as you can. Finally, state that you qualify as an “affected interest” under 43 C.F.R. S 4100.0-5, which is the regulation that defines “affected interest.” Keep a copy of your letter and of any related correspondence.

Once you are designated an “affected interest,” the BLM must consult with you whenever it formulates or amends an allotment management plan, and whenever it makes an adjustment in the number of livestock on the allotment.

The BLM must also give you notice and an opportunity to protest

whenever it issues or renews a grazing permit or license for the allotment.

The latter requirement is very important. Although BLM grazing permits are often issued for a term of 10 years, on some allotments the BLM issues a new permit each year or each season.

On many other allotments, the BLM issues annual or seasonal grazing licenses even though a 10-year permit is in effect; an annual or seasonal license may authorize a different number of livestock than does the 10-year permit, or may contain details that are not contained in the 10-year permit, such as which portions of the allotment are to be grazed and which rested, the exact dates of use of each pasture, etc.

In either case, an annual or seasonal license may determine whether, and how heavily, your area of interest is grazed each year. As an “affected interest,” you have a right to be heard on such issues.

You may find that the BLM denies your request to be designated an “affected interest,” or that, after granting your request, the BLM makes decisions about the allotment without consulting you.

If so, the BLM may have violated the law. The Natural Resources Defense Council is monitoring the BLM's implementation of its grazing regulations and would like to know when the agency denies affected citizens their right to participate in grazing management.

If your request to be designated an “affected interest” is denied, or if the BLM does not give you the opportunity to participate fully in its plans and decisions, send a copy of your correspondence with the BLM and any other relevant documents to: Johanna Wald, Director, Public Lands Program, Natural Resources Defense Council, 90 New Montgomery St., San Francisco, CA 94105.

—Joseph M. Feller

Kafka's castle...

(Continued from page 9)



One of the canyons on the Comb Wash Allotment, Arch Canyon, is particularly inspiring. A scout for National Park Service Director Stephen Mather, looking for potential sites for national monuments in 1926, wrote of Arch Canyon:

"I am fearful that somebody may obtain a lease of this area and use it for commercial purposes ... This canyon is about nine miles long and is one of the most beautiful I have ever visited. It would be a shame to have it get into the hands of exploiters."

Well, someone did get a lease — a grazing lease — on Arch Canyon and on its neighbors, and the impact of cattle grazing on the area has been heavy (though no heavier than on thousands of other BLM grazing allotments; the Comb Wash Allotment is typical). A BLM assessment of range condition on the Comb Wash Allotment in 1968 rated most of the allotment as poor or worse.

BLM staff reports in the late 1970s concluded that the allotment was overgrazed and still in poor condition; an evaluation in spring 1989 found that conditions had not yet improved. Over much of the parcel, the native perennial grasses are being displaced by invaders

such as tumbleweed, cheatgrass and broom snakeweed — all indicators of overgrazing.

You don't have to be a range plant ecologist, though, to tell that something is wrong on the Comb Wash Allotment, for one of the great costs of overgrazing on the allotment is just plain ugliness.

Ugliness, like neon signs and gas stations, is something we sometimes have to live with, but there are places where ugliness, like neon signs and gas stations, does not belong. Arch Canyon is one of them.

In the winter of 1987-1988, cattle grazing had left the lower end of the canyon looking like a battlefield: the vegetation had been cropped off nearly to the roots and the soil pulverized. Instead of shrapnel, however, this battlefield was sprinkled with piles of manure.

The devastated condition of Arch Canyon in March of 1988 motivated me to delve into the esoterica of the BLM's management of cattle grazing. I wanted to know what happened to all of the laws, the court opinions, the regulations, and the plans that were supposed to prevent this from happening.

More damage than forage

In a rational world, there wouldn't be cattle in Arch Canyon. The area of the canyon floor is relatively small and can't support many cattle. The value of the small amount of cattle forage in the canyon is far outweighed by the damage that cattle do to the scenic and recreational value of the canyon, not to mention the degradation of riparian habitat and water quality. The same is true of the other canyons on the Comb Wash Allotment, none of which contain extensive range areas and all of which are easily damaged by grazing. Most of the allotment's forage is in Comb Wash itself; all of the canyons combined contain less than 10 percent of the cattle feed.

The BLM, however, has refused to do this kind of cost-benefit calculation.

Instead, the agency has declared that virtually all of the lands it manages will continue to be grazed. And the BLM will not consider reducing the number of cattle on overgrazed areas unless the overgrazing is documented by its own range monitoring measurements.

It has also conveniently decided that most of the measurements taken in the past are inadequate, and that any reductions in cattle use must be justified by new measurements. That is why we are out in Comb Wash today measuring the length of blades of grass.

The BLM's refusal to think seriously about whether grazing is really a good idea on some of its environmentally sensitive lands is one of a number of ways in which the agency is giving short shrift to its statutory mandates, and, in many cases, to its own regulations. For example, the Federal Land Policy and Management Act of 1976 (FLPMA) contains a clear requirement that the BLM involve interested members of the public in its management of the public lands.

The BLM's regulations implement this requirement by, among other things, requiring notice and opportunity to protest to affected citizens whenever the BLM is about to issue a grazing permit.

I tried to exercise my rights under this regulatory requirement when the permit for the Comb Wash Allotment came up for renewal in February of 1989. Several months in advance of the expiration of the old permit, I informed the BLM of my interest in the allotment and requested an opportunity to comment on the new permit. The BLM conceded that I had a recognizable interest, but refused me an opportunity to comment on the new permit. It claimed that the renewal of a permit did not represent a "decision" worthy of public input.

The BLM's refusal to allow or consider public comment on the renewal of a grazing permit illustrates two recurring themes.

First, the agency persistently resists FLPMA's public participation mandate by interpreting it as narrowly as possible, despite a federal Court of Appeals decision holding that FLPMA requires

public input in "all decisions that may have significant impact on federal lands."

Second, the BLM steadfastly insists that, when it authorizes continued, often destructive, grazing of livestock on the public lands, it is not taking an "action" or making a "decision" that requires public input, environmental impact analysis, or even rational thought. This, despite another federal court decision holding that issuance or renewal of a grazing permit is a "major federal action significantly affecting the human environment."

Rather, in a perverse twist of logic, the BLM insists that to fail to renew a grazing permit, or to authorize a reduced number of livestock on an allotment, would be a major action that should not be taken without the most rigorous — and virtually unattainable — level of scientific certainty about the precise impacts of grazing on the environment.

Combine this heavy burden of proof with the BLM's insistence that most of the range monitoring data collected in the past are flawed, throw in the BLM's self-induced lack of funds with which to collect more data — throughout the Reagan administration the BLM successfully sought to reduce its own range management budget — and you've got a perfect recipe to ensure that the cows will never come home.

Waiting for a hearing

When the BLM renewed the permit for the Comb Wash Allotment in February 1989, I filed an administrative appeal.

Among the issues raised in my appeal were the failure of the BLM to allow for public input before issuing the new permit, the failure of the agency to prepare an adequate environmental impact statement, and the failure of the agency to consider whether environmentally sensitive portions of the allotment, such as Arch Canyon, should be subject to continued cattle grazing. According to

Major milestones in grazing regulation

- The Taylor Grazing Act (1934) established federal regulation of previously unrestricted grazing on public lands. It authorized the Secretary of the Interior to issue grazing permits and to specify the number of livestock and the season of use on each grazing allotment, and required the payment of grazing fees. The law gave preference, in the issuance of permits, to owners of private land or water rights near federal rangelands, and required the Secretary of the Interior "to preserve the land and its resources from destruction or unnecessary injury (and) to provide for the orderly use, improvement and development of the range."

- *LaRue v. Udall* (U.S. Court of Appeals for the District of Columbia Circuit, 1963); *United States v. Fuller* (U.S. Supreme Court, 1973) established that a grazing permit does not create a "vested interest." The government may, for adequate reason, revoke a grazing permit without compensating the permittee.

- The National Environmental Policy Act (NEPA) (1969) created a national policy of incorporating environmental considerations into all decision-making by federal agencies by requiring environmental impact statements (EISs) for all "major federal actions significantly affecting the quality of the human environment."

- In *Natural Resources Defense Council v. Morton* (U.S. District Court for the District of Columbia, 1974; affirmed by the U.S. Court of Appeals for the District of Columbia Circuit, 1976), it was determined the BLM's grazing permit program is a "major federal action significantly affecting the quality of the human environment" and therefore is subject to the requirements of NEPA. The BLM must prepare EISs assessing "the specific environmental effects" of "particular

permits or groups of permits" issued in each BLM district. The EISs should include "the detailed analysis of local geographic conditions necessary for the decision-maker to determine what course of action is appropriate under the circumstances."

- Federal Land Policy and Management Act (FLPMA) (1976) declared that:

"The public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use."

FLPMA required the BLM to develop land use plans in accordance with the principle of "multiple use," defined as:

"The management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people;"

The BLM must, in developing land use plans, "consider the relative scarcity of the values involved and the availability of alternative means and sites for the realization of those values." Existing permittees have first priority for receipt of new grazing permits, but the BLM may close lands to grazing in its land use plans. The law also required public participation in all aspects of public land management.

- The Public Rangelands Improvement Act (1978) declared that the goal of range management "shall be to improve the range conditions of the public rangelands so that they become as productive as feasi-

ble" except on lands where the BLM has determined, through the land-use planning process, that grazing should be discontinued.

- In *Natural Resources Defense Council v. Hodel* (1985) the U.S. District Court for the Eastern District of California struck down the BLM's "cooperative management" program that would have allowed selected grazing permittees to manage their own allotments "as they determine appropriate" without interference by the BLM. The court held that the program was an unlawful abdication of the BLM's authority.

- *Natural Resources Defense Council v. Hodel* (U.S. District Court for the District of Nevada, 1986; affirmed by the U.S. Court of Appeals for the Ninth Circuit, 1987) upheld the BLM's land use plan and EIS for the Reno, Nevada, planning area, despite allegations that the BLM did not assess the specific impacts of grazing on the area's environment, did not consider an adequate range of alternatives, did not ensure that authorized grazing was within the grazing capacity of the area, did not consider or adopt specific measures to address the impacts of grazing on other resources, and ignored existing data showing that parts of the planning area were overgrazed.

While rejecting challenges to the land use plan and the EIS, the court stated that the BLM must evaluate grazing capacity when it issues grazing permits or prepares allotment management plans, and that the plaintiffs could return to court if the BLM failed to follow through on commitments in the land use plan to install range improvements and to reduce livestock numbers.

—Joseph M. Feller

the BLM's regulations, I am entitled to have my appeal heard by an administrative law judge. The BLM has acknowledged that I am entitled to a hearing, but I am still waiting for the hearing to be scheduled.

Meanwhile, heavy grazing continues on the Comb Wash Allotment, although the BLM has kept the cattle out of Arch Canyon, which contains about 3 percent of the allotment's forage, for the last two years.

The exact number of cattle on the allotment varies from year to year, demonstrating another quirk of the BLM's system of grazing management. Each permittee has a "preference" for a certain number of cattle. In principle, the preference represents the maximum number of cattle the permittee may put on the allotment. In practice, the preference is often higher than the number of cattle that even the rancher would consider putting out.

In Comb Wash, the permittee has a preference for 540 cattle. But for the last 30 years the cattle population has never exceeded 450 and has averaged fewer than 400. Both the rancher and the BLM recognize that the allotment, at least in its current state, cannot support 540 cattle.

The unrealistically high preference acts as a blank check, allowing the BLM and the permittee to agree informally each year or each season on the number of cattle that will graze the allotment.

Since the actual number is always less than the preference, the BLM can always claim that it is "reducing" the number of cattle on the allotment in order to protect the environment. The rancher can take his choice of either complaining about the oppressive "reduction" or boasting about his magnanimity in taking a voluntary "reduction" for nature's sake. (Beware of stores whose merchandise is always "on sale.")

On the Comb Wash Allotment the BLM and the permittee meet informally once or twice each year and agree on the "grazing schedule" for the allotment — that is, which pastures on the allotment will be grazed and on what dates.

The grazing schedule is critical; it largely determines what each portion of the allotment, including the sensitive canyons, will look like the following year. It also determines whether the native perennial grasses will receive sufficient rest so that they can survive and stem the onslaught of cheatgrass, tumbleweed and snakeweed.

Despite the critical role of the grazing schedule, the BLM — at least in the San Juan Resource Area — has maintained that the schedule, like the issuance of a 10-year permit, is not a "decision" of which the public has any right to have notice or input.

Thus, the BLM has maintained that none of its regulatory requirements of notice, opportunity to protest, etc., apply to the setting of the grazing schedule. (One begins to wonder what, if anything, the requirements *do* apply to, and why the BLM bothered to write the regulations if they do not apply to anything.)

The question of whether anyone besides the permittee has a right to participate in setting the annual or semi-annual grazing schedule came to a head on the Comb Wash allotment this past summer and fall.

During that time I wrote, twice, to the BLM's area manager, requesting that I be given advance notice of, and opportunity to comment on, the BLM's proposed number of livestock and proposed grazing schedule for the Comb Wash Allotment. His response was that my request "may not be appropriate."

The next word I received from the

BLM was a copy of a letter from the area manager to the permittee, reciting that drought conditions in the region would require a reduction in the number of livestock, and stating that the number of cattle on the Comb Wash Allotment this fall would be 390, "as we agreed at our field meeting with you last week."

I immediately called the area range supervisor to let him know that I considered this decision of the BLM to be outrageous for two reasons.

First, the BLM held a meeting of which neither I nor any other interested organizations or individuals were notified and to which no one but the permittee was invited. In other words, the BLM had ignored my requests and had flagrantly violated its own procedural regulations.

Second, contrary to the impression given by the BLM's letter, the 390 cattle that the letter authorized represented an increase, not a decrease, over the number of cattle that had grazed on the allotment for the last two years (i.e., another bogus "sale"). Furthermore, that number exceeded the number authorized by the BLM's proposed management plan for the area.

A special invitation

In a response that has become all too typical, the BLM decided that now, *after* it had made its decision, it would invite me and other interested parties to meet, visit the allotment, and discuss that decision. Although I considered this invitation to be too little and too late to satisfy the BLM's obligation to consult with affected parties, I accepted it (partly because I already had plans to be in the area around that time anyway).

I came to the meeting armed with a Notice of Appeal to the area manager's decision, on the procedural and substantive grounds I had already explained. I served the Notice of Appeal on the area manager at the beginning of the meeting, much to his displeasure.

I also told him that I would be willing to withdraw my appeal if the BLM would withdraw its decision.

Then it was out to the allotment with the area ranger supervisor, Nick Sandberg; the district range specialist from Moab, John Shive; a BLM range conservationist, Paul Curtis, the only foot soldier in this detail; and three other interested enviro-types, including Jim Fish of the New Mexico Public Lands Action Network.

A funny thing happened as we rattled down a dirt road through Comb Wash in a BLM Jeep: A call came in over the radio from the area manager, and all of us non-BLMers were asked to move out of earshot while the range supervisor and the area manager held a confidential radio conversation.

At the end of this confab the range supervisor informed me that the area manager had decided that he would rescind his letter setting the grazing use at 390 cattle and would issue a new decision after considering public comment, if I would withdraw my appeal as I had offered.

Since the area manager was accepting my offer, I had little choice but to agree, though I knew that the likely end result would be the same decision, procedurally sanitized.

So we went through the motions. A few days later I received Sandberg's letter rescinding his previous letter, along with a notice to issue again that very same decision and to invite my comments. As I had promised, I sent a letter withdrawing my appeal, and explaining,



Ray Wheeler

Arch Canyon

as clearly as I could, why I believed that the "proposed" decision was contrary to the BLM's own management plan and regulations, and that the increase in the number of cattle would cause further overgrazing and environmental destruction on the Comb Wash Allotment.

I also suggested a few stipulations designed to reduce destruction of riparian zones.

After receiving my comments, the BLM issued its final decision. As I expected, the BLM was unmoved with respect to the principal issue, the number of cattle. It would be 390. But the BLM did include some of the stipulations I had suggested to protect the riparian zones.

Was anything gained by this exercise? I would say so. Although the BLM's acceptance of public participation in this small but important facet of its operations was grudging and somewhat *pro forma*, the agency did seem to recognize in the end that interests other than those of the permittees do need to be heard from in the month-to-month, pasture-to-pasture management of its rangelands. And the stipulations that the BLM included in the annual grazing authorization may lessen the impact of grazing on Comb Wash's riparian areas a little this year, though they do not even approach a proper riparian management plan.

Nothing was resolved

The larger issues with respect to the Comb Wash Allotment — let alone the other 99.9 percent of the BLM's rangelands — remain unresolved. My appeal of the 10-year permit still awaits the scheduling of a hearing.

More immediately, the BLM will need to decide where cattle on the Comb Wash Allotment will go after Feb. 28, 1990, when the current grazing schedule runs out. At that time, the portions of the allotment with the most abundant forage will have been pretty well used up, and the only remaining options will be to reduce the number of cattle drastically or to graze heavily those parts of the allotment that are already in the worst shape and most badly in need of rest.

Another somewhat different issue lurks in the background. The permittee on the Comb Wash Allotment is the White Mesa Ute Cattle Company, associated with the Ute Mountain Indian tribe. The allotment isn't reservation land; the tribe became the permittee when it purchased the ranch belonging to the former permittee. Even the ranch that the tribe now owns is not reservation

land; it is private land that belongs to the tribe. Therefore, from a legal standpoint, the fact that the permittee is an Indian tribe does not make any difference.

But, given the historical treatment that Native Americans have received at the hands of whites, and given the poverty of the Ute Mountain tribe, I can't feel entirely comfortable knowing that, if I succeed in bringing about badly needed reductions in cattle grazing on the Comb Wash Allotment, there may be economic loss to the Utes.

The best solution may be for the government to compensate the Utes for any lost income. The amount of money involved is not extremely large, and surely it is a worthwhile investment in protecting an area of immense ecological, scenic and recreational value. In any event, I am convinced that the best way to compensate the Utes for past injustices is not by authorizing overgrazing of such a jewel of an area.

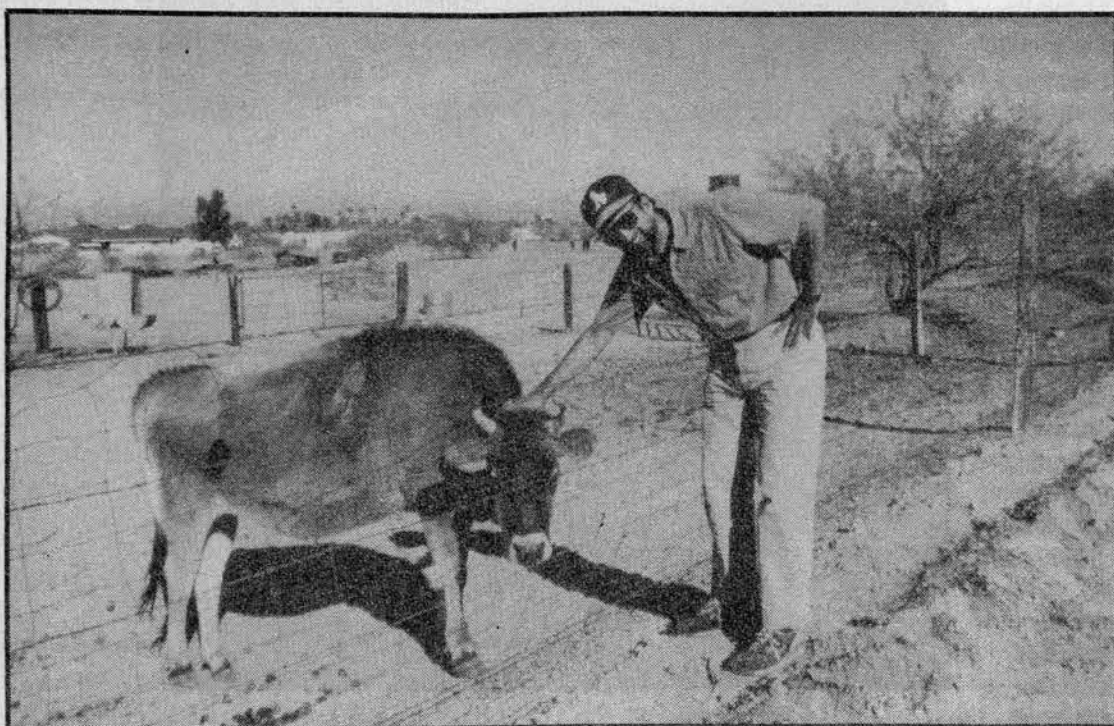
Permits in areas like Comb Wash, whether held by Native Americans or by third, or fourth or fifth generation ranchers need to be re-examined on the basis of more than mere historical patterns. The BLM needs to start taking seriously its "multiple use" mandate under the Federal Land Policy and Management Act of 1976 and recognize that livestock grazing is a contingent, not a privileged use of the public lands.

"Multiple use" does *not* mean that every possible use must be permitted on every acre of the public lands. It is the responsibility of the BLM to determine on which parts of its lands livestock grazing is doing more good than harm to the public interest.

The public interest is a broad concept, and it certainly includes the interests of the rancher and the beef-eater. Nonetheless, there are many areas of the public lands — Arch Canyon is a prime example — where the small contribution that grazing makes to the local economy and the food supply is greatly outweighed by its environmental costs. Better cattle forage can be found over hundreds of millions of acres of the American South and Midwest.

The BLM's view of livestock grazing as a privileged and protected use of the public lands is grounded in history, sociology and politics, but not in law.

The BLM has long held the legal authority and, in my view, the legal duty to curtail grazing where its environmental costs exceed its economic benefits. It remains to be seen, however, whether the laws passed by Congress will make any difference back at the ranch.



Ray Wheeler © 1989

Joe Feller and his neighbor's steer, Nathan Boy

One view of Joe Feller: He doesn't give up

—by Ray Wheeler

There is something archetypal about Arizona State University law professor Joe Feller's effort to reduce the number of cattle on the Bureau of Land Management's Comb Wash Grazing Allotment in Utah.

The lore of the American West is dominated by the lone gunman, the stranger who rides into town and through some accident of fate finds himself fighting for justice. Almost always this battle pits a powerless but resourceful outsider against a powerful but corrupt establishment.

The obscure world of public lands management would seem an improbable setting for the lone-gunsman myth. What could be less heroic, and more boring, than an allotment management plan?

But when one is told of the day Joe Feller rode into town — metaphorically speaking — one can almost hear the wheels of the great myth begin turning.

It could have been any of us. One blustery Spring day in March, 1988, Feller put on a pack and walked up Arch Canyon, a thousand-foot-deep canyon studded with huge natural arches, spectacular pinnacles, soaring cliff walls, old-growth Ponderosa pine, and Anasazi Indian ruins.

Following a stream up the floor of the canyon, Feller was struck with horror at what he saw. Puzzled, he tried to imagine what natural disaster might have caused such devastation. A tornado? A fire? A flood? Finally he noticed the abundance of cow pies. "My God — it's grazing!"

Thus began Joe Feller's quest to answer two questions. First, why had the BLM allowed the floor of this magnificent natural area to take on the appearance of a war zone? And second, must it continue to look like one?

All visitors to intensely overgrazed areas are likely to have asked the same questions. I have. Many times. But, intuitively, I always knew that getting the answers would be a task of heroic proportions. And so I never tried.

Feller has been trying now for nearly two years — and he is still far from getting answers to his questions. He

expects to be at it for years to come. During the past two he has generated a steady flow of comments, suggestions, protests and appeals. Twice he has traveled the hundreds of miles from his home in Phoenix, Ariz., to meet with grazing management officials and to participate in field trips to the Comb Wash Allotment. And there is no end in sight to the procedural maneuvering.

"The BLM is constantly operating on a series of promises," Feller explains. "I want to hold them to their promises. And in some ways, if I stop at any point, I've lost any good I might have done. The longer you work on this, the more you build up a record, a history of their promises. And the stronger and stronger your case gets. Delving into it for a short period of time doesn't do any good. They make some promises. You go away — and maybe the promises are forgotten."

To anyone who has challenged a bureaucracy, or read Franz Kafka, this situation should be familiar. An entrenched bureaucracy can almost always win a dispute with its critics, for it has one simple but nearly omnipotent weapon: infinite delay. Sooner or later, bureaucrats know, simple inertia will wear opponents down. Sooner or later critics will run out of patience, or will die of old age. And then promises may be forgotten.

But this tactic may backfire in the case of Joe Feller. What most of us would find unspeakably boring — the convoluted logic of BLM's grazing policy; the massive and tedious resource management plans and procedural manuals; the vacuously phrased documents; the esoteric particulars of the science of range management — all these Joe Feller finds intriguing.

"A lot of what keeps me going is that I just enjoy doing it. I once saw some guy on a TV show who talked about being in a 'flow' state. I hate psychobabble stuff, but I recognized something there. He said that if you have just the right level of challenge in work — not so hard that you can't deal with it, and not so easy that it's boring — you get into this state where things just flow, and time flies by. I get a lot of that working on this grazing stuff."

Why would a person like Joe Feller

— or anyone — choose to accept this impossible mission? What motivates such a man? Are there more like him? If so, how many? Are there enough? If not, can those that exist be replicated?

Feller loves writing, and he especially loves the research and the reasoning that goes into the preparation of a legal brief. "This is lawyering," he explains. "It's not corporate lawyering, but it's lawyering. You're making a case. When I write comments on an allotment management plan, I'm making a case, and I like doing that. I'm proud of my comments and appeals."

Feller also loves the outdoors. He is an occasional hiker, biker and skier, but his favorite recreational pursuits are not strenuous. His ideal vacation is a visit to the wine country of northern California. When he is not writing grazing allotment plan appeals, Feller enjoys "sitting around vegetating."

A visit to Feller's apartment in Phoenix will typically entail a swim in the pool; an introduction to the neighborhood steer, Nathan Boy, who lives in a small pen behind the apartment complex; a spaghetti dinner; a bottle of wine; and a hearty discussion. It is fair to say that Feller's most strenuous activities are thought and conversation.

When Joe Feller sits down in front of the word processor to write a grazing allotment plan appeal, he is a man transformed. His adrenaline begins flowing. Mind racing, fingers pounding the keyboard, he feels the lawyer's equivalent of the runner's high.

He is determined to understand how the BLM makes its grazing management decisions, and he is determined to have an effect on that decision-making process.

Feller's determination has met with some resistance from BLM management staff, some of whom have been downright rude. "You don't know enough about this to question what we're doing," scolded Moab district manager Gene Nodine in a May, 1989, meeting with Feller. "If I don't know enough," Feller replied, "it's because you didn't do an adequate enough environmental impact statement to tell me what I need to know. It's your job to inform me through this EIS."

"It seemed to me he sort of set himself up," Feller recalls mildly.

Although he is strongly critical of BLM range management policy, Feller harbors no ill will toward BLM staff, some of whom, such as San Juan Resource Area range manager Nick Sandberg, he praises for being particularly helpful in supplying information. That is fortunate, for Joe Feller's appetite for information is easily as large as the agency's capacity for manufacturing it. "They have these proposed utilization standards," Joe explains, by way of example. "And I say, 'Well, where do you get these from?' And they send me these copies of these scientific articles, and I read them, and I say, 'Wait a minute, that's not what this article says. What you've done is twisted around what this article says.'"

Feller is no stranger to quantitative analysis. In addition to his diploma from Harvard Law School, Feller holds a B.A. in physics from Harvard and a Ph.D. in experimental elementary particle physics from the University of California at Berkeley. Evaluating the quantitative aspects of forage allocation and range utilization should not be more difficult, he believes, than studying the behavior of photons and quarks.

What, so far, has he learned about range management? "I've learned the institutional rules, written and unwritten, that the BLM has created for itself, that sort of lock it into patterns of not changing anything ... The system seems designed to keep the cows out there ... A number of assumptions and presumptions ... make it very difficult to bring about any kind of a change."

Good work, Joe. Interesting, but is this new?

Feller has advice for would-be range management advocates, and not all of it is esoteric or technical.

"If you're dealing with areas where scenery is the greatest value, people should not be afraid to say, 'Look, grazing impacts are ugly. And ugliness is bad.' Now if this were Kansas, we might say, 'this is ugly, but we need our beef supply.' But in Arch Canyon, that argument doesn't make any sense."

Perhaps Feller's most important insight is this one:

"The basic motivating factor of any BLM official is to minimize stress in their lives. And in general, they minimize stress by not offending the cattle rancher."

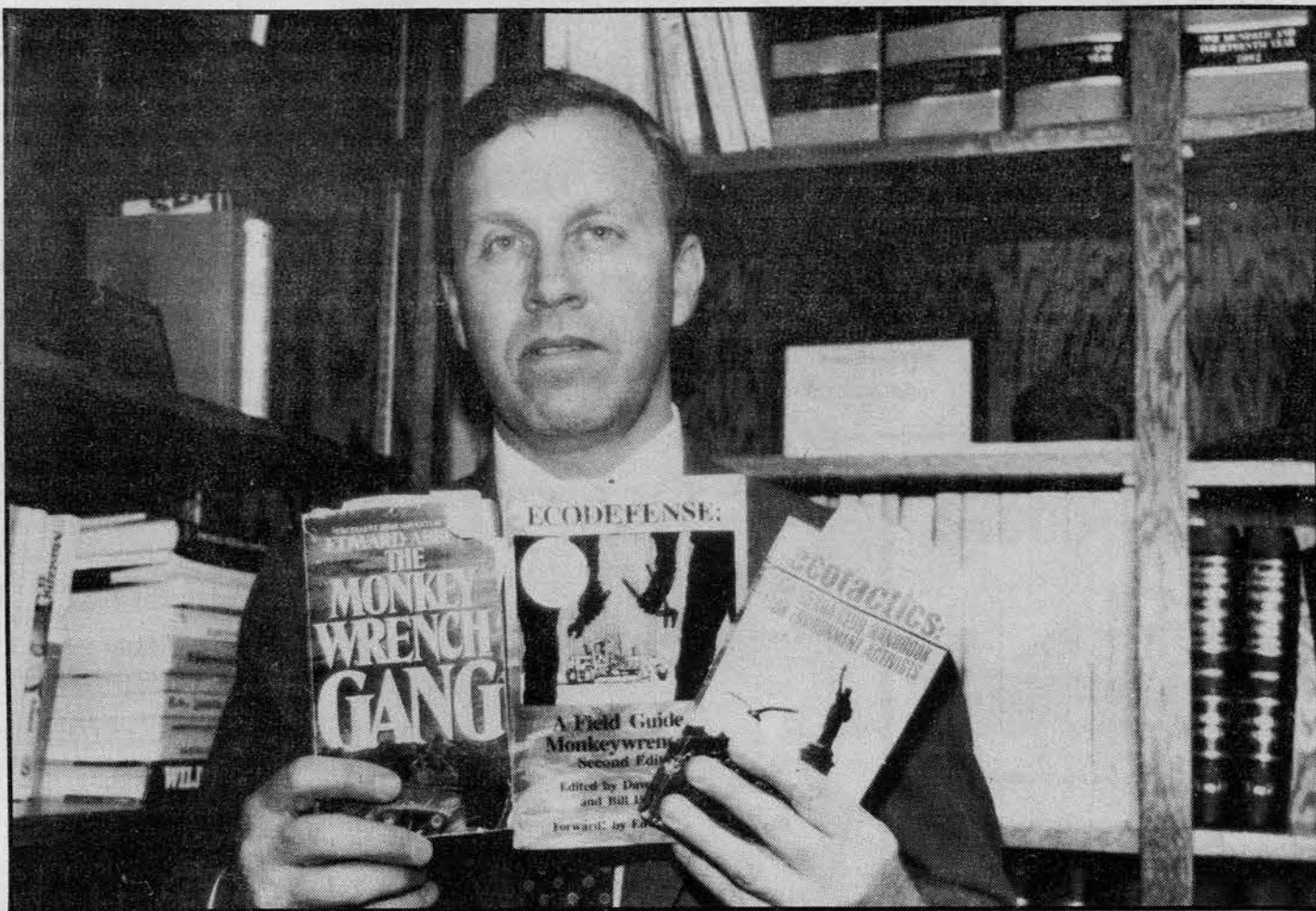
If this is true, then the way to bring about change, Feller suggests, is to become adept at creating stress for BLM managers. In this Joe Feller has undoubtedly succeeded.

After two years with Feller on their grazing management team, BLM's San Juan Resource Management Area staff is resorting to the second tactic of bureaucratic warfare: strategic accommodation. After Feller filed extensive comments on the agency's proposed Comb Wash Allotment management plan amendment, he recalls, "the BLM decided to greatly reduce the number of cattle in Arch Canyon. And the range conservationist working on it told me in one of those meetings, 'Well, we kept the number of cattle down in Arch Canyon in this plan, because that seems to be your favorite canyon.'"

This raises a final question. If power is the ability to create stress in other people's lives, just how will Joe Feller's foray into the world of BLM range management help to empower the rest of us who wish to persuade the agency to stop overgrazing the public domain? Using the Feller "stress-maximization" technique everywhere would require a veritable standing army of Joe Fellers.

Feller says that, even if he succeeded, "it's taken a tremendous amount of work, and I'm not sure it's realistic to hope that in every allotment in the country — all 20,000 of them — that somebody's going to put in that much time and that much work. And even if a thousand people do something like what I'm doing — adopt an allotment, and try to ask the right questions and make the BLM do the right thing — is that a way that you can get real change, or is it hopeless until you get new laws or can get new people in the agency or new leaders in Washington?"

I find the latter a more plausible scenario for change. But I'm still rooting for Joe.



Says Elko, Nevada attorney Grant Gerber: "Know thy enemy."

by Jon Christensen

Elko, Nev. — Home to the annual Cowboy Poetry Gathering, Elko clings to its ranching heritage in the midst of a mining boom that has brought traffic jams to a town once dominated by rustlers and cowboys. But it is not just gold that threatens Elko's tradition. The town and the land around it are caught up in a new range war, pitting radical environmentalists against western ranchers.

Environmental complaints about grazing on western public lands are not new. But now, for the first time, eco-saboteurs are heeding the late Edward Abbey's call for an "open season" on cattle ranches in the West.

Earth First! and its cohorts, an anarchic band of ecological fundamentalists and animal rights activists whose credo is "No compromise in defense of Mother Earth," recently carried out threats to try to "run ranchers out of business." Their battle cry is: "Grazing Free by '93!" And their war manual appears to be: *Ecodefense: A Field Guide to Monkeywrenching*, published by Earth First!

At least three ranches in remote northeastern Nevada were hit last year. Jim Connelly, president of the Nevada Cattlemen's Association, was one of the first victims. His ranch is 85 miles north of Elko and near the Jarbidge Wilderness Area, until recently Nevada's only designated wilderness.

A saboteur drained the oil from Connelly's tractor differential at a gravel pit three miles from his house. When he drove the tractor home, the differential froze up. The mechanic who came down from Boise to fix it said he had done similar repairs at six other ranches in the vicinity.

Two tractors at the Sharp ranch in Ruby Valley, adjacent to the marshes of a wildlife refuge, were also damaged. Tactics this time involved pouring Coke into one engine and loosening the oil plug on the other. Both engines burned out the next time they were used.

Also hit was Demar Dahl, then president of the Nevada Land Action Association, the legal arm of the cattlemen's organization. A water pump on Dahl's ranch near Oasis, close to the Goshute

wilderness study area, broke down when someone dropped a piece of steel down the well casing. A nearby water trough was overturned and damaged at the same time.

Earth First!'s *Ecodefense* contains

the ideological justification for such acts. A chapter on overgrazing proclaims: "The livestock industry has probably done more basic ecological damage to the western United States than has any other single agent." The book also tells

activists what they can do to prevent the damage: cut fences, move salt blocks, destroy vehicles and water developments, and spike roads.

"Some of the most damaging livestock operations are on a precarious financial basis," the book asserts, and "enough losses from ecotage can eliminate the grazing problem."

Leaders of the "Sagebrush Ripoff," vocal opponents of wilderness and ranchers who operate in wildlife refuges, wilderness areas, parks and monuments, are all "suitable targets," according to Earth First!

Elko attorney Grant Gerber knows the rap by heart. *Ecodefense* and *The Monkey Wrench Gang* have a place of honor on his book shelf. For Gerber, though, it's a case of "know thy enemy." His law office also serves as headquarters for Nevadans for a Practical Wilderness and the Wilderness Impact Research Foundation, groups that lobby against wilderness designations on public lands.

Gerber has set up a toll-free hot line to gather information about eco-terrorism around the West. He announced the "1-800-SABOTAG(E)" service while testifying against the Nevada wilderness bill before a U.S. Senate committee in July last year. (The bill passed and was signed by President George Bush.)

After grazing itself, wilderness is the cause that most galvanizes both camps. For example, the new range war erupted in Nevada during recent wilderness debates. And in Arizona, New Mexico and Utah, cattlemen's association leaders report receiving death threats last year during contentious wilderness hearings.

On the other side, in the canyonlands of the Colorado Plateau, anti-wilderness saboteurs have cut through gates, run bulldozers up roadless areas, and threatened environmentalists in honor of Multiple Use. Eco-saboteurs responded by cutting fences, pulling up stakes, damaging equipment and stock tanks, shooting cows and threatening cattlemen in the name of Mother Earth.

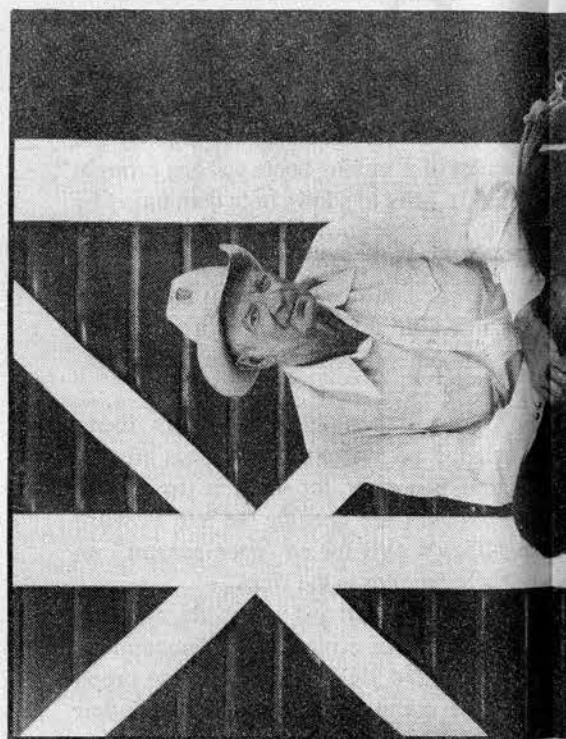
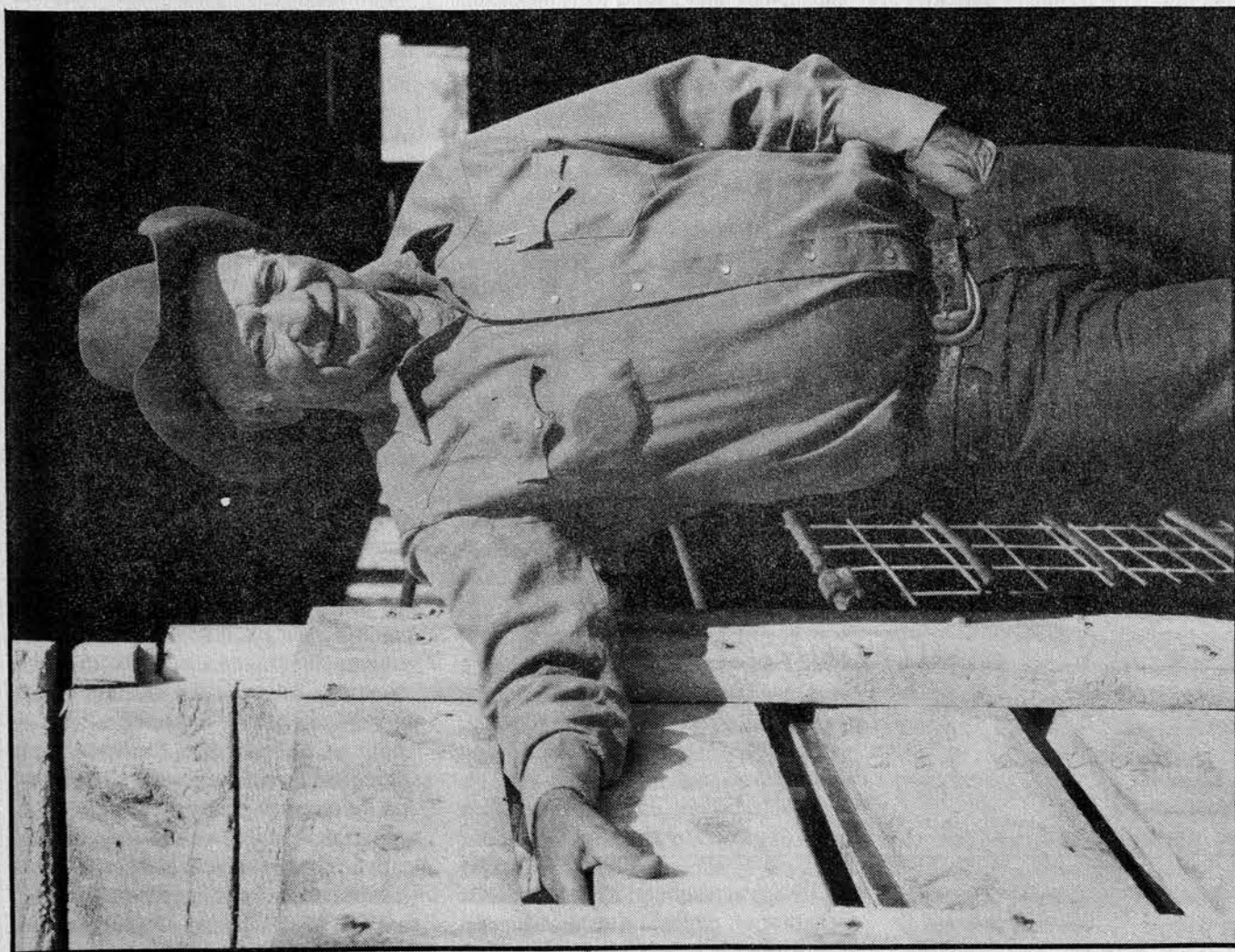
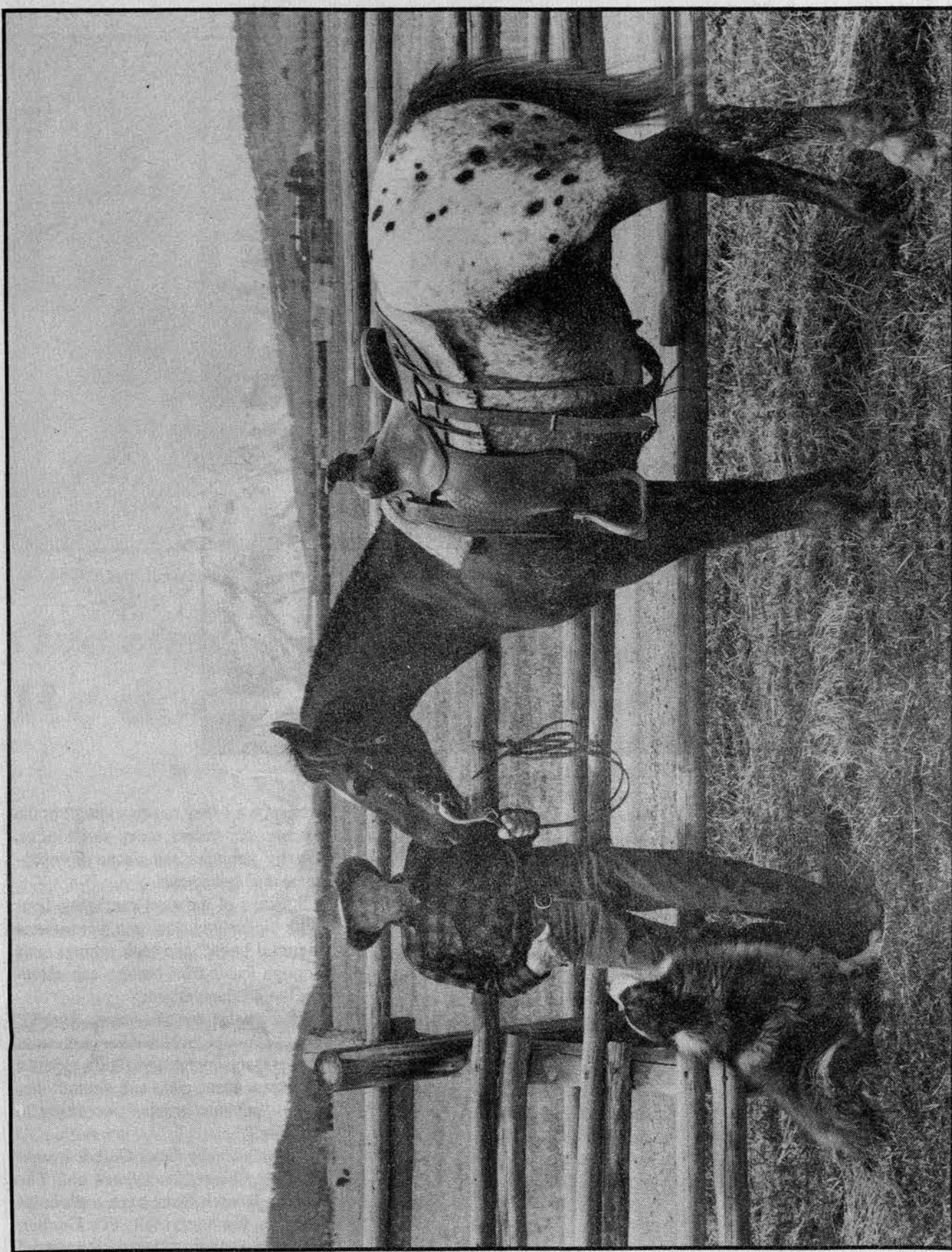
The voice of Edward Abbey, who died last year, still rings clear in the arid Southwest. "Anyone who goes beyond the limits of any Western town can see for himself the land is overgrazed," he

(Continued on page 16)

Call 1-800- SABOTAGE

Ranchers in Nevada stand guard against vandalism from radical environmentalists. Has the confrontation hurt or helped the push for better land stewardship?

14-High Country News — March 12, 1990



Modern-day

Tom

Horn



In 1980, photographer Stephen Collector of Boulder, Colorado, began a project to find and photograph modern-day stock detectives "in the tradition of Tom Horn."

Tom Horn, for those who never saw the 1970 movie of the same name, was a stagecoach driver, cowboy, rodeo champion and Indian scout. His final job was as a stock detective for the Swan Lake Cattle Company in Wyoming, which hired him to "eliminate" cattle rustlers. He did the job but was charged with murder.

Some people say Horn was framed. That did not prevent his death by hanging in 1903.

When Collector went looking for contemporary stock detectives, he was told they were gone, replaced by brand inspectors who do any necessary detective work.

Collector has photographed 40 inspectors since his project began; most recently he found more men to photograph in Montana.

— Steve Ryder

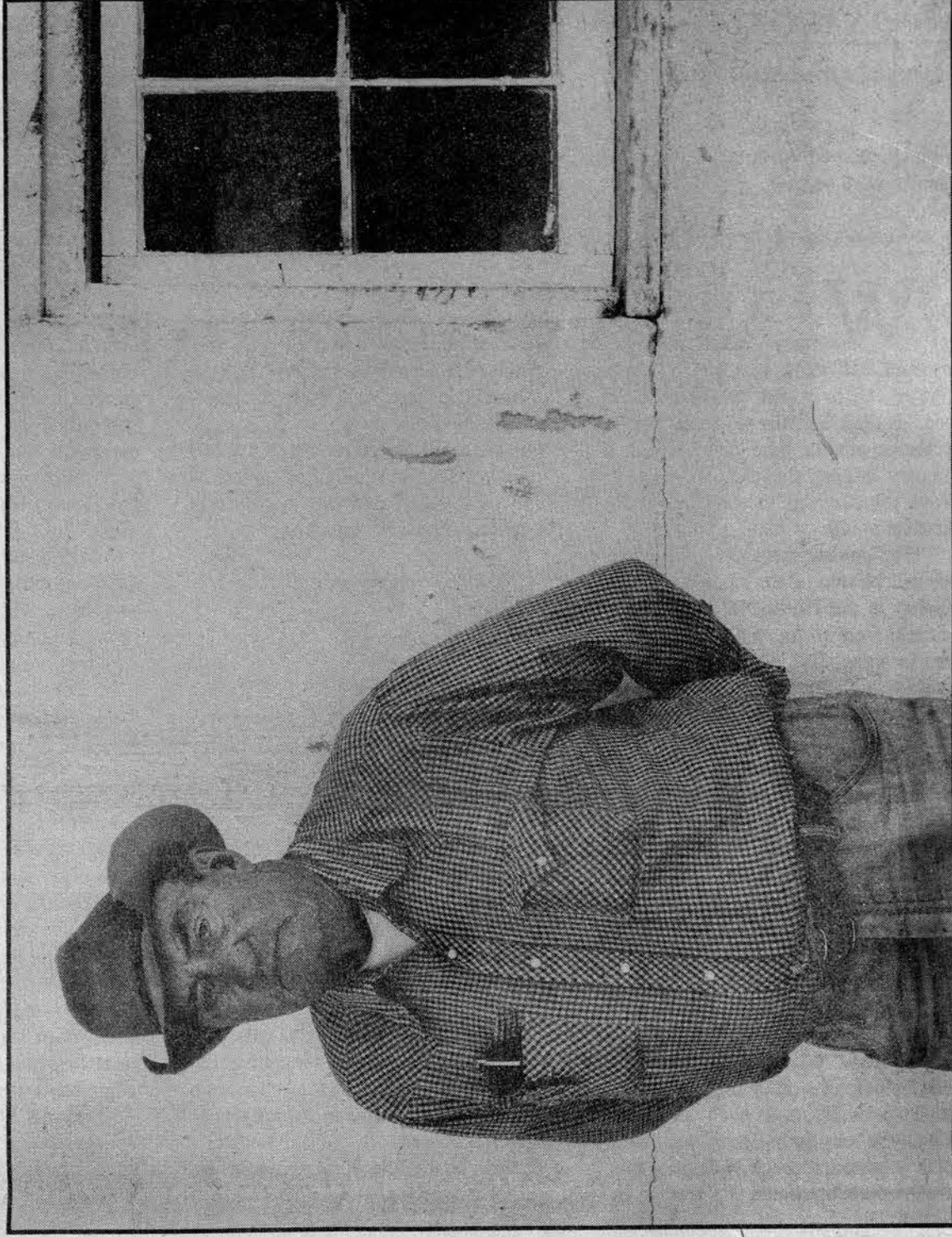
Upper left: **Chief Bader**, Worland, Wyoming 1983

Upper right: **Walt Feuz**, Moran Junction, Wyoming 1986

Center: **Herb Callen**, Wheatland, Wyoming 1985

Right center: **Friz Bartley**, Hygiene, Colorado 1980

Lower right: **Lance Robinson**, Rock River, Wyoming 1981



1-800-SABOTAGE...

(Continued from page 13)

wrote. He coined the term "cowburnt" to describe what he saw.

The challenge is broad-based

Western ranchers have brushed off such criticism before. "We're the original stewards of the land," is their familiar rejoinder. But the escalating attacks have convinced cattle industry leaders that they will have to prove themselves to an increasingly skeptical public.

"The environment and animal welfare will be two of the top issues for the industry in the 1990s," says Bill Miller, editor of *Beef Today*, a glossy magazine sent to some 220,000 beef producers nationwide.

Ranchers have always stuck together, offering political and legal protection even to those who were clearly abusing the land. And ranchers still don't relish sticking their noses in other cattlemen's business or having their own operations scrutinized by colleagues. But Sheila Massey, director of regulatory affairs for the California Cattlemen's Association, says they'll have to get used to it. An industry code of ethics is in the works.

"Don't continue to hide your head in the sand," she recently warned producers in *Beef Today*. "Whatever their particular philosophies, (the animal rights groups and Earth First!) mean business and are in it for the long term. Don't wait until a bomb is hurled through your front door or a livestock operation is wiped out by terrorists."

The California Cattlemen's Association had a Molotov cocktail lobbed into its offices last year. Luckily, it was not lit. The Livestock Auction Yard in Dixon was not so fortunate. Nor was a San Jose meatpacking facility. Both were torched by arsonists in 1989. Graffiti left behind read "Livestock Destroy," "Animals Are Not Slaves," and "Earth First!"

Last year Pamela Neal, president of the Arizona Cattlemen's Association, was one of the leaders told by an anonymous

caller that she was "going to get shot."

Today, Neal says the intensity of the conflict in her state has led to "renewed efforts on the part of cattlemen and the more reasonable environmental groups to try to get along and to work harder with each other."

Jim Connelly says Nevada cattlemen have also discovered that they "can work with environmental groups." As president of the state cattlemen's association, he recently met with Patricia Honeycutt, director of public lands restoration efforts for the Isaak Walton League, a traditional conservation organization. The cattlemen agreed to help sponsor a volunteer riparian restoration project on one of northern Nevada's severely degraded streams this summer.

Riparian restoration

If "Cattle Galore by '94" is the stockmen's comeback to "Grazing Free by '93," the more mundane "riparian restoration" is the current battle cry of moderate reformers.

While riparian areas represent only about 1 percent of the West's federally owned rangelands, their ecological importance far surpasses their relatively small acreage. Yet 20 years ago, "riparian areas" were written off as "sacrifice zones" in the lingo of federal land managers.

Although some critics dismiss the negotiations as window dressing, the Bureau of Land Management now has a model riparian restoration project in every district and the Forest Service's "Change on the Range" program makes riparian restoration an agency-wide priority.

Both the BLM and Forest Service, however, are still playing catch-up. During the Reagan administration, staffing levels of BLM wildlife and fisheries biologists were cut 34 and 54 percent, respectively; the Forest Service lost 15 percent of its riparian-related positions.

When the congressional General Accounting Office reviewed 22 riparian restoration efforts in 10 western states two years ago, it found that the agencies did not even have a comprehensive

inventory of western watersheds, and that none could be expected for years to come. However sketchy their data, agency personnel confirmed the alarming picture visible to many Westerners. While thousands of miles of streams and rivers are in perilous condition throughout the West, only a few hundred miles are currently slated for restoration.

In Colorado, 90 percent of the state's 5,000 miles of perennial streams were rated in poor or fair condition. Arizona's assessment was that riparian conditions were "generally less than satisfactory" and Idaho stated that about 80 percent of its 11,867 miles of streams and rivers were in degraded condition.

Resistance from ranchers, however, has slowed restoration efforts around the West. On Tabor Creek and Pearl Creek in northeastern Nevada, for instance, GAO investigators found that trespass and fence-cutting by grazing permit holders sabotaged costly BLM "showcase" restoration projects.

Nonetheless, on the local level, Elko district fisheries biologist Carol Evans says she is more optimistic than ever before. One of the agency's most vocal opponents has quieted down and begun negotiating with the agency for a \$190,000 restoration project on a six-to-eight-mile stretch of a stream that runs through his grazing allotment. Evans thinks the rancher will even agree to maintain the fence, a major first step.

Similar rewards and frustrations have visited restoration projects throughout the West. But perhaps the most hopeful sign of change is that cooperative restoration efforts, such as the Oregon Watershed Improvement Coalition and the Montana Riparian Association, have sprung up in most western states.

While Earth First! activists claim monkeywrenchers make more "reasonable" environmentalists look good (and many people believe that extremists force the middle to define itself), others contend that radicals on both sides of the public lands debate have made cooperation much more difficult.

"Where people are frightened and under the gun, it is harder to get cooperation," says Patricia Honeycutt of the Isaak Walton League. "Hostilities," she says, "both verbal and in the sly of the

night, have set our work in northeastern Nevada back by about three years."

Since 1987, Honeycutt has been trying to bring together ranchers, miners, state and federal agency employees, Kiwanis and Rotary club members, conservationists and environmentalists, students, teachers and other concerned citizens for summer weekend work parties repairing damaged streams in the West. She has three riparian enhancement teams set to go in eastern Oregon, northeastern California and Nevada this summer.

"We cannot restore public lands without the commitment of everyone who uses them," Honeycutt says.

Why not just "put the public lands livestock growers out of business," as Edward Abbey suggested, and turn the range over to "real animals," such as elk, buffalo, pronghorn antelope, bighorn sheep, mountain lions and bears?

The allure of that idea has caught on in proposals for a "Buffalo Commons" and a "Big Open," vast wildlife rangelands where there are now farms and ranches.

The Institute of the Rockies in Missoula has called for ranchers, the federal land management agencies, and state wildlife departments to develop ways to turn marginal grazing land over to wildlife. Ranchers could make more money from hunting tags than at beef auctions, the argument goes. But institute director Charles Jonkel says some advocates have gotten so wrapped up in the theory that they have alienated the people they most need to reach.

"If you talk about making people quit ranching, you put up an instant red flag," Jonkel says. "They'll throw your head through the wall up here in eastern Montana."

"If, on the other hand, you say we want to help you ranch in a different way," he says, "to manage the land better and make a profit without government subsidies, then maybe they'll listen."

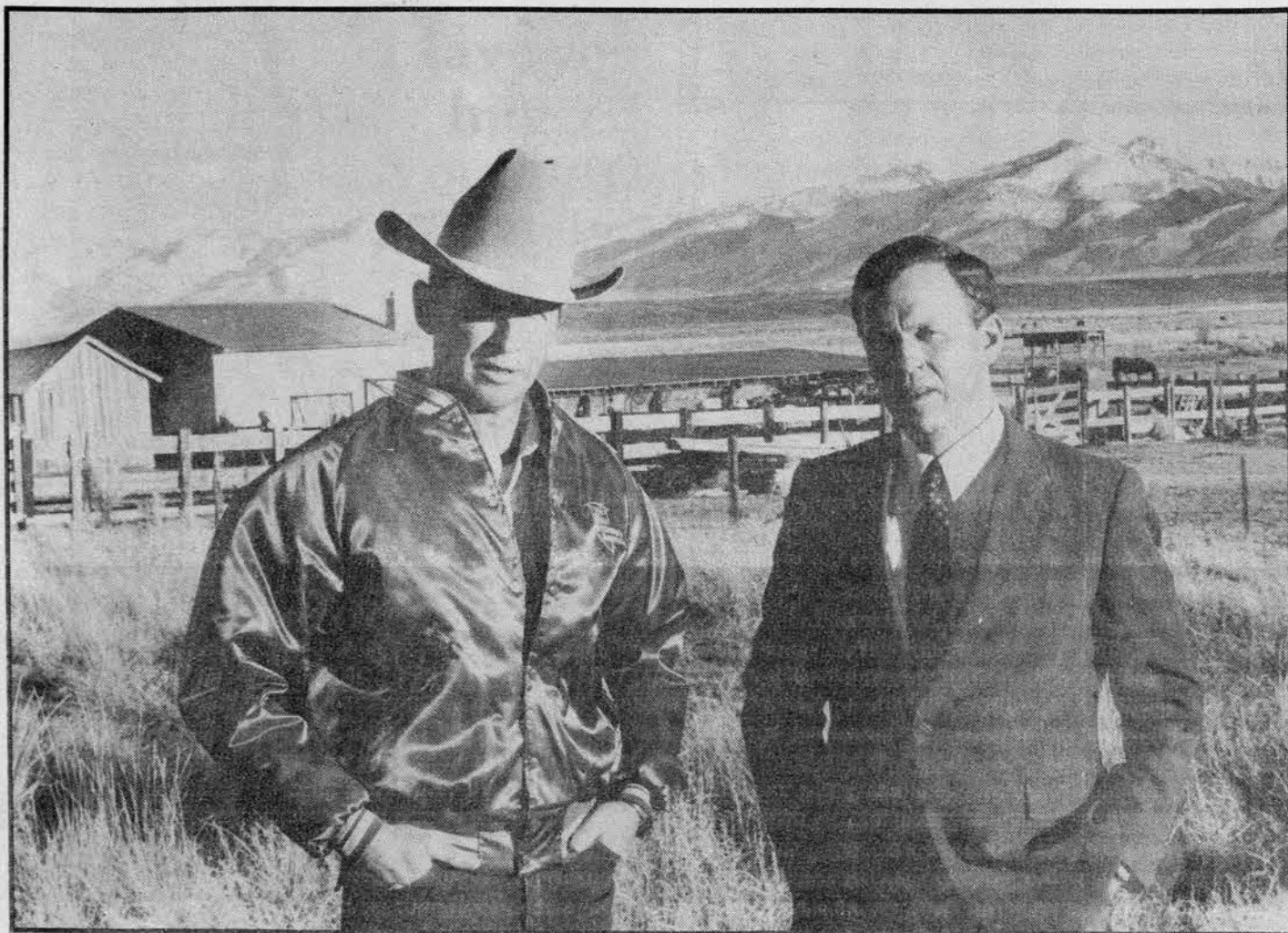
A century of law and legislation governing western water and rangelands has also set certain parameters.

Livestock grazing is the oldest use of the largest portion of federal lands — lands that were never given away because various homestead acts never recognized the needs of western ranchers. But the law has long recognized a rancher's private property interest in grazing rights — rights codified by dozens of legislative acts. And the doctrine of prior appropriation of water — adopted throughout the West — effectively sealed the control of ranchers over large areas of rangeland.

Three things seem certain in 1990: Ranchers are not going to give up their grazing rights on public rangelands; the federal government is not going to relinquish its duty to regulate the use of public lands; and water will continue to be the key to defining sustainability in the West.

The real questions are: Where will there be meaningful movement within those parameters? What changes will the public demand? And who will pay for reform?

While many western environmentalists continue to thumb their noses at the "cowboy myth," Patricia Honeycutt tips her hat. Ranching, she says, may be one of the few activities truly compatible with long-term stewardship of the land, water, wildlife, and the vaunted western way of life. "There has never been a time when cowboys were more needed," she says.



Jim Connelly, left, victim of eco-sabotage, and attorney Grant Gerber

Kit Miller



Jeff Clack

by Sam Bingham

Montana taxpayers spend over \$5 million a year to kill them. In every Western state but Arizona, New Mexico and Colorado, authorities can enter private land to kill them and make the landowner pay.

"They" are noxious weeds, by some accounts one of the worst threats the West has faced. Most, but not all, are exotic species blooming and booming without natural adversaries.

Soon a number of bills will come before Congress for a nationwide weed control law. Behind them is fear of wholesale loss of rangeland, crops, wildlife habitat and soil stability.

Barbara Mullin, Montana weed control officer, figures that spotted knapweed alone infests 4.5 million acres in the 90 million acre state now. At the present 10 percent annual expansion rate, she says knapweed could eventually fill its potential habitat — fully half of Montana.

Mullin has a list of about 25 other plants that pose similar threats: They include leafy spurge, which has already devastated one million acres of North Dakota, and is expanding at 25 percent a year. It has also staked out a 500,000-acre claim in Montana.

"That's bad," she says, "because you can't kill it. Not even (Dow Chemi-

Barbarians within agriculture's gates

Do we need a nationwide policy to fight the war against weeds?

cal's) Tordon will hold it once the roots have established well."

The threat of weeds is the miracle of compound growth that savings banks used to promote so heavily. In 25 years, a 100-acre patch of weeds which expands 10 percent a year will have grown to 1,000 acres. The cost of suppressing the outbreak has grown even faster, thanks to economic inflation.

If you are a farmer or rancher, you may be out of business long before the 25 years are up. And the abandonment of the land by agriculture doesn't mean the land reverts to natural wilderness. The

impact of a spreading weed on wildlife and other plants could be disastrous.

Like a social disease

Such statistics appear to justify all-out attack by any available means. But weeds do not yield to brute-force assaults.

Brian Sindelar, assistant professor of range science at Montana State University, views weeds as a social disease in more than a metaphorical sense.

"The whole scope of humanity's immensely complex relationship to nature is encompassed in the word weeds," he says.

"Weeds have a life of their own. They cross boundaries. They mock our sense of property rights. They develop resistance. They are often propagated by the very activities we find necessary. They cost us money. Direct intervention has side effects we don't begin to understand. And one person's weed may benefit his neighbor," Sindelar says.

What is a weed, anyway?

The difficulties begin with defining a weed. One draft of a Colorado weed bill that died in the 1989 legislature listed 26 weeds. After the wildlife lobby objected to the listing of species such as ragweed and millet that provide winter bird feed, and the livestock lobby knocked out forage plants such as field bind weed and jointed goat grass, only two remained — leafy spurge and Canada thistle.

The bills in Congress avoid this problem by not naming species. Instead, they define as undesirable any plants that "are of little economic, aesthetic, or nutritional value; or are classified as exotic or noxious plants."

An "exotic" plant is either "not a
(Continued on page 18)



Weeds . . .

(Continued from page 17)

regular member of the native or natural community, of little economic value, or colonizes disturbed ground."

A "noxious" plant is "aggressive, difficult to manage, detrimental, destructive, or poisonous; a carrier of insects or disease; parasitic; or directly or indirectly detrimental to the management of a desired ecosystem."

Such language outlaws virtually any plants that get in our way. But the language does more than that: it often flies in the face of nature and raises what might be called the King Canute question. That 11th century Danish ruler tried to rescind the law of gravity by ordering back the tides. Later, the Dutch achieved some of Canute's ends through money, labor and technology.

Most weed eradication programs start out like King Canute: They try to repeal the law of succession. When that proves impossible, they fall back on money, energy and technology to defy it as much as possible.

Nature is more obvious than we think

Succession is a universal characteristic of organic communities, comparable in some way to the law of entropy in inorganic systems.

The ecosystem always tends toward more diversity, stability and efficiency, and along the way niches for various types of organisms develop and change. One stage leads to another in an ordered sequence.

The West should understand the power of succession by now. Literally hundreds of millions of dollars have gone into killing mesquite in Texas. And the chaining, spraying, plowing and reseeding of "invasions" of sage, pinon, juniper, broom snake weed and prickly pear have proceeded over hundreds of thousands of square miles for decades without shifting the battle lines very much.

They are stable because millennia of co-evolution provided a full complement of native pathogens and debilitating creatures to limit these plants.

Nevertheless, because they are economically undesirable — because we wish they weren't there — much propaganda still portrays them as rogue organisms that have broken out and will destroy range, wildlife and the Western Way of Life if not beaten back by technology.

Addressing the invasions as a matter

of succession rather than an attack by individual species leads to a different approach. Pure succession theory simply declares weeds a symptom and focuses on land use — grazing, crop cycles, cultivation methods, etc.

Under the succession approach, the species of plant infesting rangeland matters no more than the name of the drug on the city streets. Only the niche counts.

If you have a lot of bare ground and cracked soil surface, then some tap-rooted plant will exploit it. If you spend enough money to spread enough chemicals to kill one invading species, you will simply make room for another.

Closing the niche

Successionists maintain that you can only control weeds generically by closing the niche. This sounds good until one looks at the real cases.

In Colorado's Arkansas Valley, some 60,000 acres of irrigated land must be returned to range because of the sale of water rights to Denver suburbs.

That much disturbed ground is a big enough niche for "noxious" seed production to infest every field to the other side of Kansas. To combat this danger, in many cases the water court has ordered the buyer of the land and water to establish stable grassland requiring no further management; the court has also granted one year of irrigation water to start the grassland.

Karen Conrad, the Soil Conservation Service researcher responsible for making nature comply with the court's order has studied ways of combining seeding, irrigation, and cultivation to achieve stable grasslands.

"The SCS has a lot of experience in revegetation," she says, "and the thing is possible, but it's unfortunate we can only treat it as a technical problem."

"The buyer is a distant municipality, not interested in management. The seller often as not never wants to see the place again. Much of the land is in the Conservation Reserve Program, so it can't be grazed, even though that might be the best way to manage some species. We agronomists can't even question those conditions," she says.

To restore grassland within such limits, Conrad must try to stand natural succession on its head. Weeds always colonize disturbed ground first, but the court has given only a year to achieve the grasslands.

Her only hope of starting high successional grasses first is to kill the weeds and keep them out artificially, while planting the grasses. Her only options to suppress the weeds are very persistent herbicides, because she can't count on follow-up management.

Letting nature take its course does not seem to be an option, even without the court order. She can point to other old fields in the area that have not succeeded past the weed level decades after they were abandoned.

Her problem may be extreme, but wherever weeds have become a political or social issue, similar distortions occur. Over most of the West the debate centers on grazing policy. Much of the livestock industry and the agricultural research establishment follow the nuke-the-weeds-approach.

From the other side, Earth First!

seeks a radical return of the West to a land without people or fences where natural succession can succeed.

The effectiveness of sheep and goats in controlling some weed outbreaks throws a monkeywrench in both arguments. Both sheep and goats happen to love one of the most widespread of the noxious aliens, leafy spurge. Especially in Montana, private landowners and government agencies have used the animals to clear infested areas without polluting water tables and streams.

It may be that instead of seeing the land as infested by leafy spurge, such land should be seen as ideal goat and sheep habitat.

But they should not be seen as a cure. A manager applying goats out of a strictly kill-the-weed attitude risks exposing the land to a reinfestation as surely as if he had sprayed or bulldozed. The goats are a cure only if they are combined with other steps to enhance opportunities for other plants.

If politics prohibit the use of livestock or can't assure that the land is managed in a way that shifts succession away from weeds, and we have ruled out chemicals, what hope remains?

Enter the possibility of controls less susceptible to human misuse and abuse than livestock and chemicals — bugs and pathogens native to an exotic species' home territory that will eat only the targeted weed.

Montana State's Sindelar points out that merely attacking weeds with other organisms, no matter how specific, does not solve the niche problem. "If you don't encourage succession on our infested ranges, a lot of something you probably don't like will grow there," he says.

"As an ecological principle, health and stability are functions of diversity. Anything that simplifies the environment, whether a poison, poor grazing management, or an exotic plant outbreak, means instability," Sindelar says. "Lose one species, and dozens of other organisms go too."

"Adding diversity by introducing host-specific insects and pathogens for exotic plants respects the diversity principle where herbicides violate it. We can't expect to eradicate these plants, however."

"If we did, the bio-control organisms would starve, and the cycle could start again. The best we can do is help them find a balanced position in a diverse local community," Sindelar says.

Sara Rosenthal, who studies knapweed-eating insects at the Department of Agriculture's research facility at Montana State University, emphasizes the complexity of the challenge.

"It isn't enough to find just one bug. There is always a fly, a moth, and a weevil that attack seed heads, for instance. The same is true for other parts of a plant, and of course there is an array of pathogens as well."

"We need to find half a dozen organisms to really get stability. In any given year or climate or situation some will have more impact than others. Diversity is important."

Spoonfed chemicals

Progress on the biological front takes time. Sindelar laments the meager support for it in the past. He suspects that large chemical companies have an interest in buying small research firms and simply underfunding or suppressing their work. Others don't see much promise in private research anyway.

"Again, we're talking social, political, and economic limits," says USDA's Norm Rees. "A private company can invest a few million to develop an herbicide, and they can sell tons of it to the government and land owners year after year and make a big profit."

"That fits very neatly into our whole way of life. In contrast, we in this lab are spending money to find a few bugs that will reproduce themselves and have no concept of private property," Rees says.

"You may buy a few, but we can't send another bill when their grandchildren eat your neighbor's weeds as well as yours. We will have to depend on public funds. Producers' organizations might back this research, but that's still quasi-public."

At present the weed debate has developed no consensus. But the obvious dangers and limits of chemical herbicides have caused even their most ardent backers to admit the need for more subtlety.

The buzz phrase in the weed business at the moment is Integrated Pest Management (IPM) for a planned attack that includes chemicals, bio-controls, land-use techniques and, as in the drug war, education.

The concept sounds wonderful. A small outbreak of spurge in Yellowstone would still be knocked off with herbicides. Bio controls and better land management would then keep old infestations down to acceptable levels. Public vigilance and strict inspection of livestock shipments would stop the spread.

George Beck, professor of weed science at Colorado State University and a principal author of the national weed bill being introduced by Democratic Sen. Kent Conrad, of North Dakota, says,

"Recognition of the problem and creation of a will to do something about it is the key to it all. We certainly aren't going to lick these weeds with chemicals alone. It's going to take everything in our arsenal, especially public consensus."

Beck's critics don't question his sincerity. But they note that if you ask him for information about his bill or the proposed Colorado weed law that he also drafted, the answer comes from the Dow Chemical Corporation Public Relations Department.

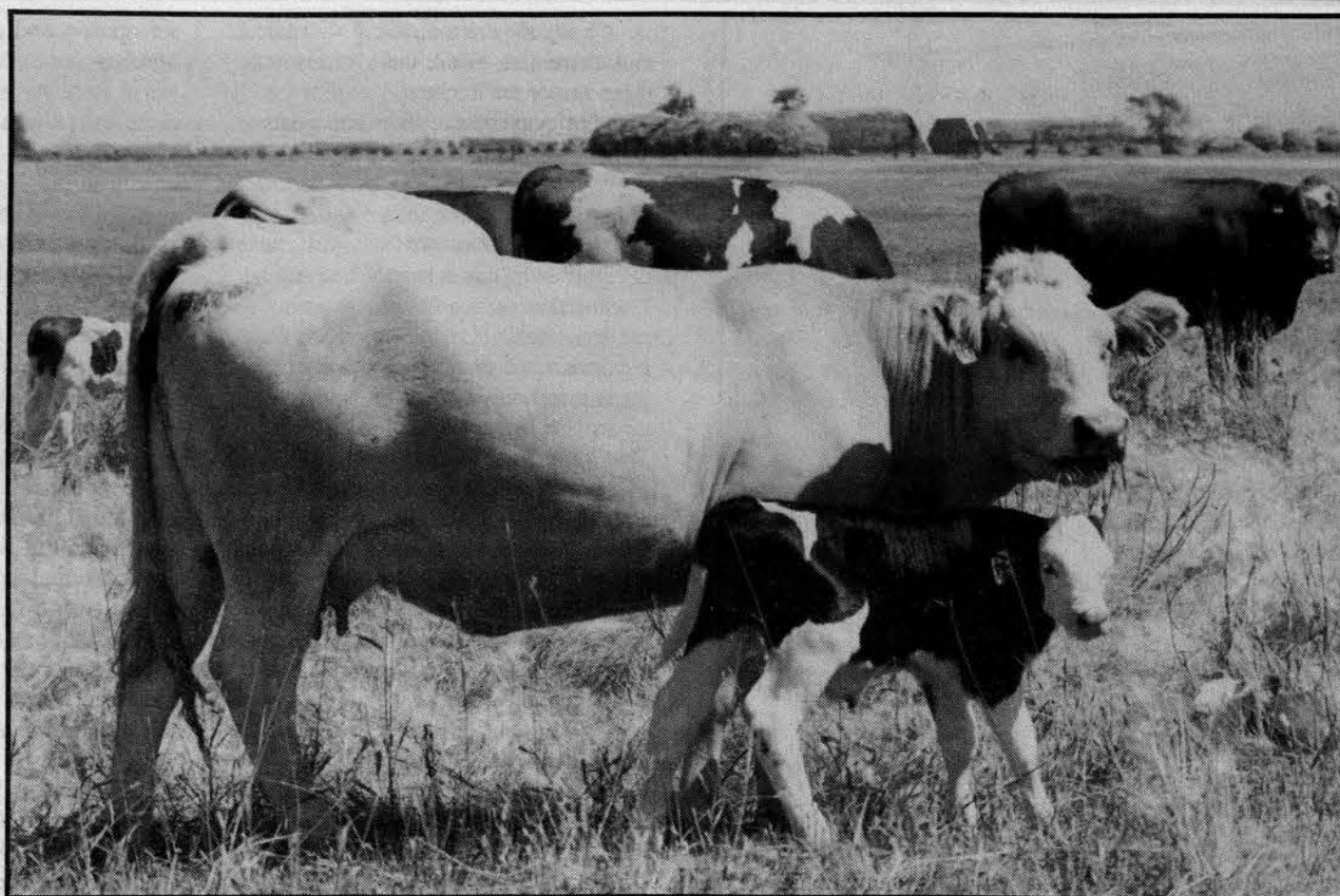
This, they fear, is evidence that someone expects most people to treat IPM as an excuse to use what's quickest and cheapest — usually chemicals.

The draft of the weed law headed for the Colorado Legislature's 1990 session defines integrated management as "the planning and implementation of a coordinated program utilizing a variety of methods for management of undesirable plants, which may include but are not limited to: education, preventive measures, good stewardship, and control methods." Most weed laws, if they define the term at all, are just as vague.

Steve Berlinger, wildlife biologist at the U.S. Fish and Wildlife Service Region 6 headquarters in Denver, fears the worst.

"George Beck knows more about killing weeds than anyone alive," he says. "But he's a specialist. He doesn't worry about how politicians, herbicide salesmen, and overworked county road crews view a spray rig. You never hear people like that talk about succession — only control and suppression."

"Education is a good idea, but the first thing we have to teach is that in the long run you're less likely to hurt a community by adding life than by exterminating it."



USDA - Soil Conservation Service

They share cows but wear different hats

Two ranchers in the North Park region of Colorado work the same range but stand poles apart in their politics.

by Jim Fergus

Nestled 8,000 feet above sea level and ringed by four distinct mountain ranges, Colorado's North Park is hard, austere, isolated country — not only geographically and climatologically, but psychologically as well.

Nowhere in the West are winters longer or more severe, with wind and drifting snow and temperatures routinely well below zero. The Ute and Arapahoe Indians who once hunted this land were wise enough only to summer here, following the game north in the fall through a natural pass to the lower elevations of Wyoming, where they wintered.

In the white settlers' scheme of things, this high mountain park is ranching country. What used to be waving fields of buffalo grass as far as the eye could see, is now, due to overgrazing before the turn of the century, largely BLM sagebrush land, dotted by private parcels of irrigated hay meadow.

Today, the seasons here are defined by calving in the spring, irrigating in the summer, haying in the fall, and feeding that hay to cattle throughout the seemingly endless winter.

What follows are conversations with two North Park ranchers, one 80 years old, the other 44; one a large rancher, the other small; one a conservative Republican, the other a liberal Democrat.

Both make their livelihood off the land on family ranches, and each, in his own way, has been molded by the climate and the landscape, and the economic necessities of a changing West.

Their differences are striking, but there may be as many similarities between them. They know and respect each other; the younger man buys cross-

bred heifers from the older. Still, in terms of how each views his relationship to the earth, it is difficult to imagine two more different people.

Twist Meyring

Eighty-year-old Oliver "Twist" Meyring has been ranching in North Park for 63 years. A blustery, gruff, crusty, stubborn, outspoken, opinionated, gravel-voiced cowboy, he is the kind of classic Westerner one expects in a novel or a movie. Staunchly Republican, God-fearing, patriotic, rabidly anti-environmentalist, and as tough as old saddle leather, he is at once smart and canny with the native intelligence and familial knowledge of the natural world that can only come from years of hard work on the land and close observation of it.

Yet in terms of proprietary attitudes and fierce defense of the system and of the status quo, he represents what the Western environmental movement is up against.

With his gracious wife, Ruth, a former schoolteacher whose great-grandparents were among the first white people to settle the Park, he has raised three sons, Jerry, David and Danny, all of whom went into the family ranching business.

Together, the Meyrings have built one of the largest — at one time over 25,000 acres — and most successful cattle operations in the state, becoming, by ranching standards at least, well off. Ruth and Twist have traveled extensively all over the world, most recently to China.

It is tempting to dismiss Twist Meyring as an anachronism on the West-

ern landscape — a crotchety old man whose time is past. But that would be a mistake.

A former county commissioner, Meyring and his cronies are still the ranching powers-that-be, both in North Park and statewide, and his attitude toward such things as wilderness designation and public lands grazing is more the rule in cattle country than the exception.

This fiercely insular system of cowboy capitalism, funded at least in part by the federal government, is deeply rooted in the community. It is staunchly defended by local politicians as well as by the local newspaper, which decries environmentalism as an elitist plot hatched by the Democrats to "steal" water and natural resources from their rightful owners — the ranching, mining and timber industries.

I visited the Meyrings on a Sunday afternoon. Ruth Meyring was entertaining women friends in their home, set on a wooded hill overlooking the ranch. Later, with time-honored Western hospitality, she would serve us iced tea and pie.

But first we retire to my car in the driveway to talk. It seems a natural enough place to visit; when not on horseback, or riding a piece of equipment, ranchers spend a fair amount of time sitting in parked vehicles. Below us cattle graze on a hillside and we can see the boundary of the national forest contiguous to his property.

Over the years, Meyring Livestock has greatly benefited from its access to federal lands, a subject about which Twist Meyring, like many ranchers, is increasingly sensitive.

"The Forest permits are real valuable to us," Meyring says. "They go with all the ranches except for the one. Now we're getting a lot of pressure from the environmentalists, and a lot of bad publicity. Oh, like this kid in Arizona who writes these nasty articles about we cowboys — what's his name?"

"Edward Abbey?"

"Maybe that's his name," Meyring growls. "He wrote an article in *Harper's* magazine — he says, get your dirty stinkin' cows offa my elk pasture! Cattleman's Association invited him up here to see for himself, but a course, he was too busy to come."

"Actually, he died recently."

Meyring brightens. "That's not too bad! He's real radical. That article was full of untruths! There are a lot of people saying we aren't paying a fair fee to use that land, that we're stealing it. I think the fee is a \$1.56 A.U.M. right now in Colorado." (An Animal Unit Month is equal to a cow and calf grazing on public land for one month.)

"When I was on the grazing board we got people at the University of Colorado to do this study on what it really costs us to run cattle on national forest. I believe it costs us in Colorado around \$15 to \$16 on top of that in additional non-fee operating expenses.

"Some of the things that enter into that non-fee cost: We maintain all of the fences, we do all the ridin' and transportin', we furnish all the salt, we stand all the loss. It's a point that people who write about it don't ever bring up. Also, here's another point you don't hear much about: We put cattle in there and we pay a fee; timber cuts trees and they pay stumpage; mining goes over there, they pay royalties. So does oil. Guides and outfitters, they pay to use it. We all pay a fee. Yet you as a recreationist don't pay anything."

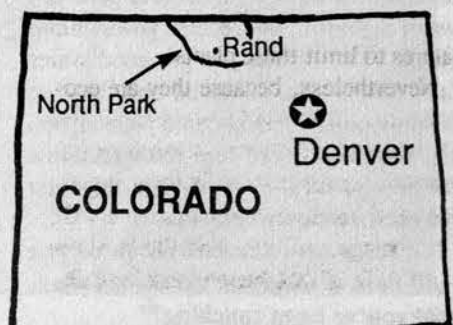
"But I'm not making money off it."

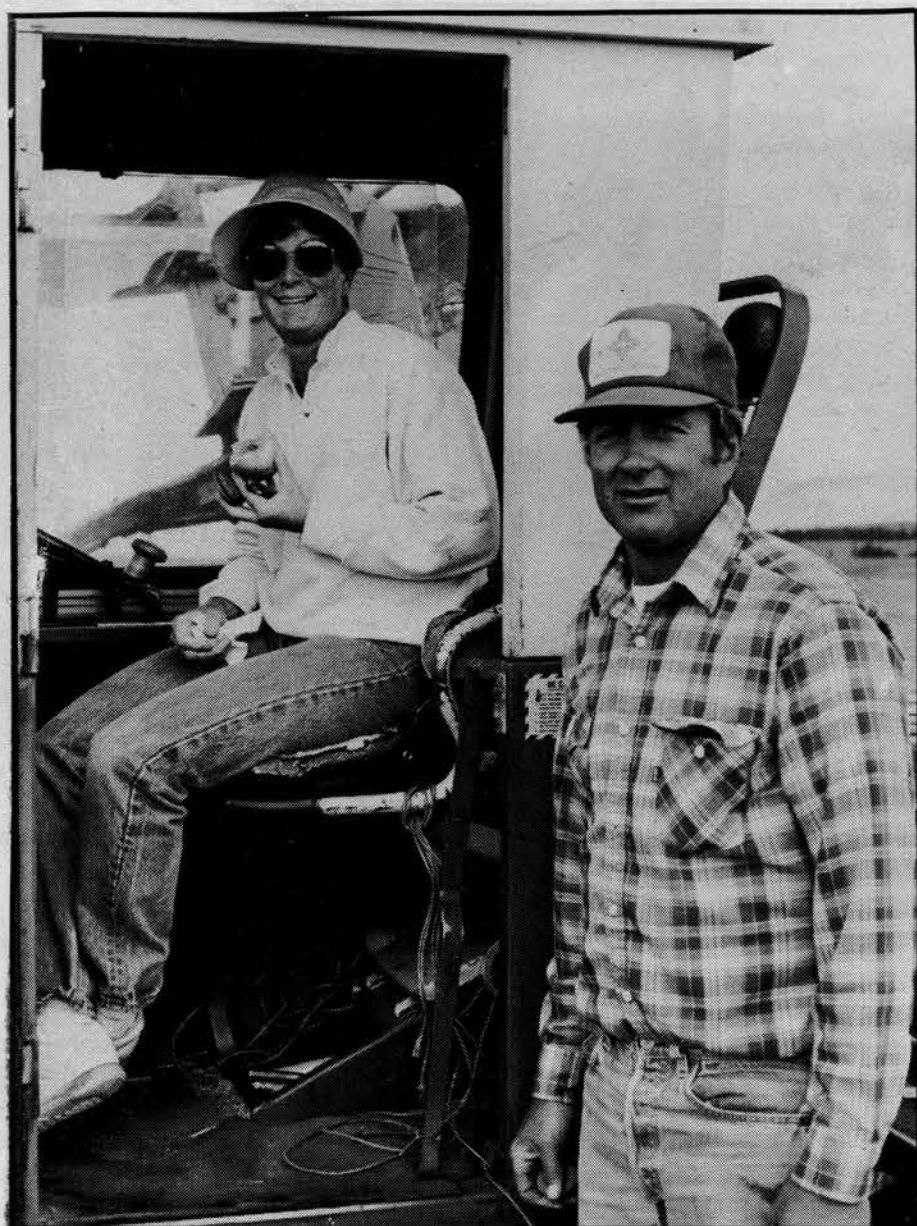
"That's true, but the recreation industry is big business. I'm not objecting, I'm just bringing out the points. We users all pay a fee. Not the recreationists."

"Do you think you're doing any damage to the public lands by running cattle on them?"

"If I am, I sure as hell wish somebody would tell me! We spend a lot of time and money to take care of this land. And we're real conscious about this right down here because this is where the gen-

(Continued on page 20)





Jim Ferguson

Ann and Verl Brown

Two ranchers . . .

(Continued from page 19)

eral public sees it. I got into this rotation business where we move the cattle around. I heard about it through CCA (Colorado Cattleman's Association) meetings, and I knew right away it was what I wanted — protection of the land, and also protect my interest in it. Long, long time ago I knew that if you abused this land somebody was going to get down your neck about it.

"Now they're getting ready to log this here, they're going to cut down all these quaker (aspen) trees. I think the logging companies are going to rape it. I'll probably cry when I see 'em cutting roads up on this national forest to log it where I run my cattle, but they're gonna do it. And if I believe in the concept of multiple use, like I've always said I do, I sure as hell can't object to another industry."

"What do you think about Sen. Wirth's new wilderness bill for Colorado?"

"We got enough wilderness! How much do we need? Wilderness deprives us old people and cripples from getting there; it discriminates against us."

"Environmentalists would say we've already got enough public lands with roads for the old and the handicapped to use."

"That's true, that's true, but maybe this wilderness is a little special. Wirth's bill is very extreme, very extreme. As I understand it, his bill would give the water rights to the federal government. No way! Colorado has got good water laws, well-administered and they've been working for a hundred years or better. We don't need 'em changed. How the hell would they administer our water out of Washington? No way!"

"How has the condition of the land here changed in the 60-odd years that you've been ranching?"

"It hasn't changed much. There's

been more land developed. More reservoirs built. You know how you develop land in North Park? Water. Period. You put water on a piece of sagebrush and in a year or two the sagebrush is gone.

"It's like the city guy asked the country guy what he did with his garbage, and the old country boy said, 'we kick it around until it gets lost.' Well, that's what seems to happen to the sagebrush, when you put water on it."

"Do you use fertilizer on your hay meadows?"

"No. We have tried fertilized hay but our cows didn't like it and that's good enough for me. I'm probably old-fashioned but I think a cow knows more than I do. You'll get more tonnage, but in my opinion we get more palatable hay without it. I must be wrong about this because God knows everybody else fertilizes."

"And how have your cattle breeding practices changed over the years?"

"Well, we're doing a lot more crossbreeding. We got black and black baldy cows all originally come from a good Hereford. We're crossing those mature cows on Charolais bulls. That's for increased production. We take those Charolais-cross calves off their mamas, put them in a feedlot, and this year their brothers and sisters are being born when they're being slaughtered. See, we only own 'em a year and they're ready for somebody's table. In the past it's always been about 13 months. Now they're being dead at one year old, and if there's anything that should work in the cattle business, that oughta be it."

"Do you use hormone implants (steroids) on your cattle?"

"We use 'em. It's a tool to increase production, increase weaning weight. In my opinion a man has got to use every tool available or he's missing the boat. We'll use 'em as long as they're legal, and I would probably continue to use 'em even if they weren't. I think the Europeans are using the steroid thing as a political tool."

"Why do you dislike environmentalists so much?"

"I say they're too radical — radical and extremist. What, there're eight of these major environmental outfits now? They're popular and they got a lot of money and a lot of power."

"More money and power than industry and big business?"

"Look, big business, we gotta have it, right? Now this is strictly hearsay but I heard that the reason they're going to cut these quakers right here on my lease is because the man who has controlling interest in Louisiana-Pacific is very high up in the Department of Agriculture. That's the way the system works. I cuss our political system and then I turn around and say it's the best in the world. But it gets rotten because of rotten politics, and I don't want it any other way."

"Maybe the environmental movement is becoming so popular because people are fed up with that kind of rotten politics."

"Okay, but in retaliation to that, I ask you, can we appease and go along with these environmentalists and still maintain a healthy economy in the United States?"

"Can we afford to destroy the planet in order to maintain a healthy economy?"

"Maybe that's the way it should be; maybe a million years from now we'll all be gone and the earth will be a ball of fire."

"Air pollution, ground water pollution, acid rain, toxic waste — all damage man has done in just the last hundred years. He lived on earth quite harmlessly for millions of years before the industrial revolution."

"That's because he didn't do anything! He reproduced and he lived for about 50 years. Or less. Look, if you're going to have the civilization today that we got, you're doin' it like you're doing' it. You're not going to ride a horse over here, you're going to drive an automobile."

"As your friend Ed Abbey said, I'd be happy to go back to the horse and buggy if everyone else will."

"But nobody else will."

"So you think there should be no environmental controls at all?"

"I'm not familiar enough with all the environmental laws. But the statements I read are extreme, and they're radical. Hell, of course man has to take care of his environment! I take care of it! Let me tell you what I've seen in the last 20 years. You used to go down to that forest there, and everybody just left their trash. Everybody. Not any more. The American people have done a 100 percent turn-around on what they leave on the national forest, what I see right here. Now that doesn't help global warming and things like that but it shows that people are conscious. And that comes through education. Now I'll take a piece of gum and throw the wrapper on the ground. My grandkids won't do that."

"Let's get some photographs of you now."

"Where do you want me?"

"Maybe over there, standing by your American flag."

"That's a good place. Next to Old Glory. Say, all that pollution stuff they put on the exhaust system of cars now? You know what I did with that in my Wagoneer?"

"Let me guess."

"Took it all out! That's what kind of mean bastard I am!"

Verl Brown

A graduate of theological seminary in Chicago, Verl Brown is as

soft-spoken and gentle-natured as Twist Meyring is blustery and tough. Born in North Park in 1945, his father bought their ranch the year after Meyring acquired his first place. A much smaller operation than Meyring Livestock, the Browns' ranch totals 3,400 acres, which includes 1,000 acres of hay meadow which Verl purchased last year from a neighbor.

Meyring's is strictly a cow-calf operation, in which all the hay they produce is fed to their own cattle. But the Browns have been forced to diversify. They not only raise cattle but also sell hay, keeping just enough to get their cattle through the winter. They own a small sawmill to cut timber for their use and for occasional sale. Because a large part of their ranch is on a mountain with private access to national forest, in recent years the Browns have become more and more involved in a hunting and outfitting business.

Verl Brown came back to work the family ranch in 1972, after years of rising land prices and easy credit had gotten his father, like so many ranchers of that era, into financial trouble. He may be representative of a new generation of small ranchers who recognize that economic survival is dependent upon diversification and flexibility, with recreation the wave of the future.

He and his wife, Ann, who recently became postmaster in Rand, Colo. (pop. 14), have two children, Amy, who just began a one-year stint as a nanny in Boston, and Chad, a freshman at Mesa State College in Grand Junction. Verl's parents, Johnnie and Neva, also live on the family ranch.

An anomaly in more ways than one in this largely conservative and insular ranching region, Verl and Ann Brown are registered Democrats. Even with the combined incomes from their various activities, they make only a modest living but still manage to travel every year to such places as the Caribbean, Mexico and Hawaii.

In appearance as well as in demeanor and interests — they drink white wine, like to ride mountain bikes, cook, and are concerned about environmental issues — they seem less like a traditional ranching couple than, say, a couple of Young Rural Professionals (Yrppies).

It is interesting to contrast Verl's reasons for not using fertilizer on their hay meadows, with Twist Meyring's — one a moral objection, the other a purely practical matter.

We met for dinner at Rand's only restaurant, the Liar's Lair. Verl and Ann Brown came directly from the hay fields, where they were just finishing putting up their hay in time for the fall hunting season. After a half-day in the post office, Ann dons her work clothes and spells her father-in-law on the hay rake. Verl's mother brings lunch to them in the hay field. Before their son, Chad, left for college the previous week, Ann operated the mower; during hunting season, she cooks for their customers.

"I can't tell you how many people around here laughed at me because of my hunting business," Verl Brown says.

"Ranchers tend to do everything out of habit, and they're resistant to change. You put the cattle in the same pasture every year on the same day, you turn the water on the same day, you turn it off the same day; you do everything exactly the same way, year after year."

"They'll say to me, well, what about your fall work? Granted, I may not get every ditch cleaned out exactly when I should, but you've got to make money when and where you can. My approach is very simple: Utilize everything avail-



USDA - Soil Conservation Service

able to make a living — with a deep concern for nature. I don't use any more medication than I have to."

"What's your objection to fertiliz-

er?"
"I think eventually it ruins the ground; we know that for a fact. It can also contaminate the ground water. I'm the top person on the mountain and nobody above me is going to use fertilizer. If I don't use it my well water will always be pure. Also, I don't use it because in most years over-production is our biggest enemy."

"Why put out more money for fertil-

izer to raise more hay, to lower hay prices? It just doesn't make any sense. And I realize that I'm probably hurting myself, because one person not using fertilizer is not going to affect the price, but it's a moral thing.

"It's the same way with steroids. When I sell my cattle, probably the first thing the guy that buys them will do is run them in and stick steroids in their ears, but still, I don't have to do it. And I may lose some money, but I can also say that I'll make it back up with hunting."

"Has the hunting business become more profitable for you than the ranching?"

Ann Brown laughs. "Verl says that the hunting supports the ranching."

"The more money I make from recreation, the more I have to sink into agriculture!" Verl admits. "There is money in cattle. This year especially. I bought 50 heifers from Meyring's two years ago for \$635 a head. Last year they had their first calves and they were kind of light and I probably got around \$400 a head for the calves. This year the calves are probably going to weigh 500 pounds, and I'm getting a dollar a pound. That's not bad."

"You have to figure you put a couple hundred dollars of hay into them, a hundred dollars worth of pasture. Still, it can be profitable, but it depends on the year. There are some years you can make money, and other years when you can't pay the interest. That's why you have to be able to utilize everything."

"How have cattle breeding practices changed over the years?"

"There are still ranchers who will only use Herefords," Verl says, "again because that's how they've always done it. Twist Meyring for years and years wouldn't use anything but Herefords but he finally realized that they weren't cutting it anymore. So now he's cross-breeding and I'm buying his cross-breeds, and then putting another cross on them. I use Gelbie bulls on any kind of first-cross Hereford/Angus. Last year my steers weighed 506 pounds. Straight Hereford steers might weigh somewhere in the low 300 pounds. So breeding really can increase your production."

"What about your timber and sawmill operation?"

"We haven't been doing a lot of that. In the past we've sold some house

logs but recently it's been mostly for our own use. And we've been selling a few trees for transplanting in Vail and Aspen, which doesn't do a whole lot for me. I would like to get into a program of selective thinning of our timber, but that would take a lot of time and energy."

"I just don't have it right now, and there's not a lot of money in it. But I bet I've had a half dozen people in the last year try to buy our timber, and we have quite a bit really, probably a thousand acres. We sold some about 10 years ago and I just didn't like the way it was done. They needed to spend more time seeing that it was cleaned up and replanted."

"I'm not against timber cutting if it's done properly; I think it needs to be cut, but right now I want to preserve all I can for the game. I've talked to Game and Fish about some sort of master plan on our place with the increase of game in mind, but we haven't gotten anything done yet. They keep saying they're going to come out and they don't. I would like to see what they come up with."

"Hunters get a fair amount of bad press. There was an incident up here last year in which outfitters and their customers surrounded a herd of elk and slaughtered them ..."

"We would never do that. I don't go out there with the idea in mind that everyone's got to get an elk. I go out with the approach that these guys are coming from the city, I'm going to give them a good trip, a good time, some

good food, a lot of fun, and a chance at an elk, but I'm not going to try to make sure everybody gets one. I'm going to let them experience what hunting is like, without improving the odds in their favor. And I could."

"There are times when I know where there's a herd of elk, and we could surround it, but I never would. We don't shoot a whole lot of elk, but we have a heck of a lot of fun."

"In the years you've been ranching, have you seen any change in the condition of the land?"

"As I said, I think there are some places where the ground has been damaged by fertilizer. If you really pour the fertilizer to it year after year, and then quit, you won't get much, the hay will just stop growing. That should tell you something. Also, this year, when we had so little moisture, our relatively new hay ground, developed in the last 15 to 20 years, was still pretty good. But ground that's been in production for 50 years was terrible. That also tells you something. Eventually hay meadow gets so sodded in, that unless it gets enough natural nitrogen from thunder showers, even if you irrigate it, it won't grow good hay."

"I have one field that I remember clearing when I was in high school, and this year it was probably within 5 percent of normal production. But some of the older ground that got just as much water was lucky to be 50 percent of normal."

"Also, every year we always mow

right up to the edge of the ditch, as close as we can to it, and the grass that we can't reach along the ditch bank is always higher. I understand that this time of year after it freezes, there's a certain nutrient in the tops of the grass that goes back into the ground, so the next year the hay will pick that up and use it, but where we've cut it off, it's gone — we've fed it to the cows."

"What do you think about federal grazing permits?"

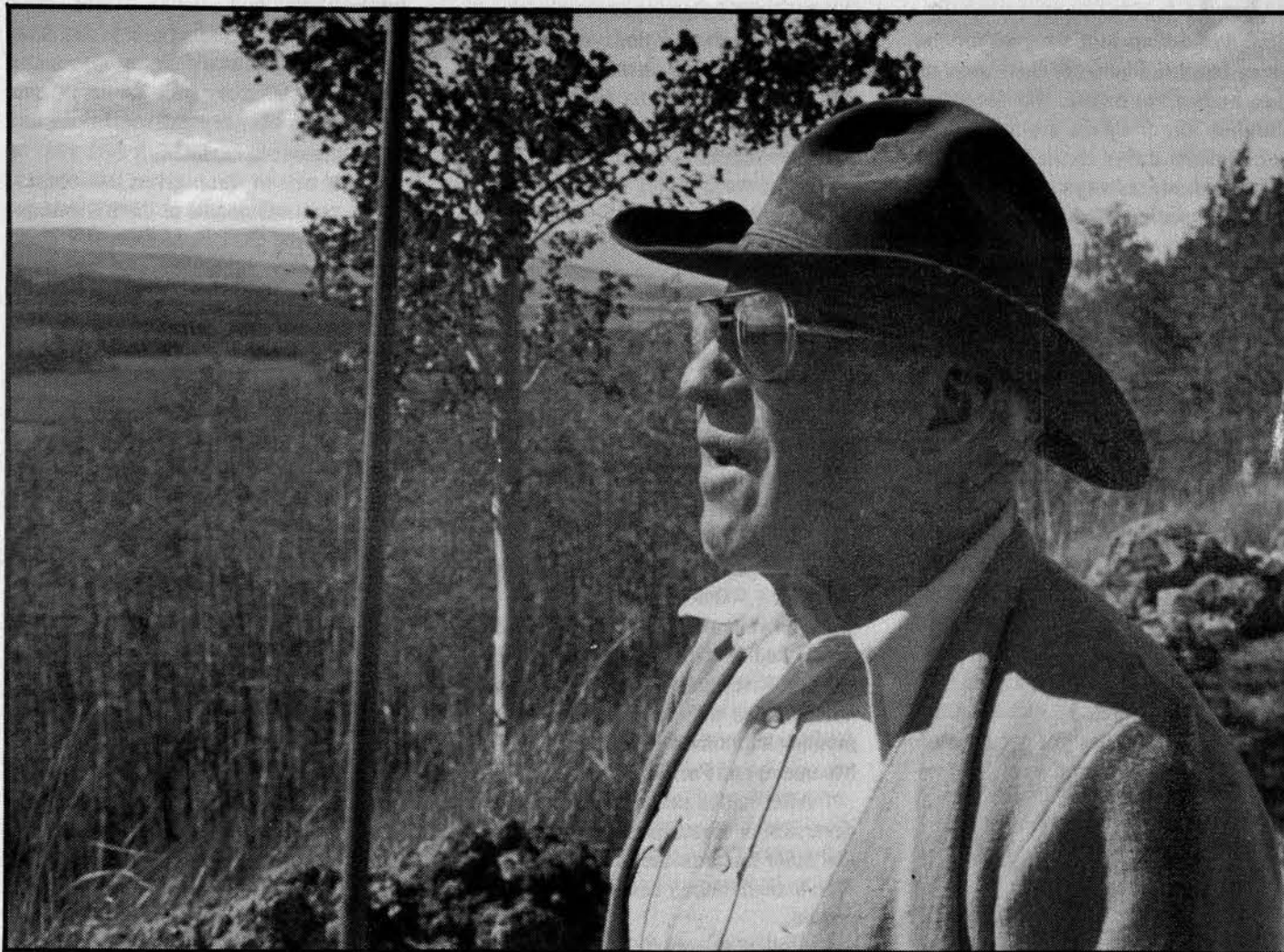
"I think they're more trouble than they're worth. We sold ours a few years ago. Some people like them because it's cheap pasture. Five years ago if you had a forest permit to sell with your land, it was a real plus, you could ask more for your land. Now you might as well not even mention it. People know that the government is going to take them away."

"You think so?"

"Yeah, I do, I think it's just a matter of time. And I think they should. Maybe I say that because I make money off the elk, but I'd rather see it for the wildlife."

"Do you think the cattle are doing any damage to the public lands in this area?"

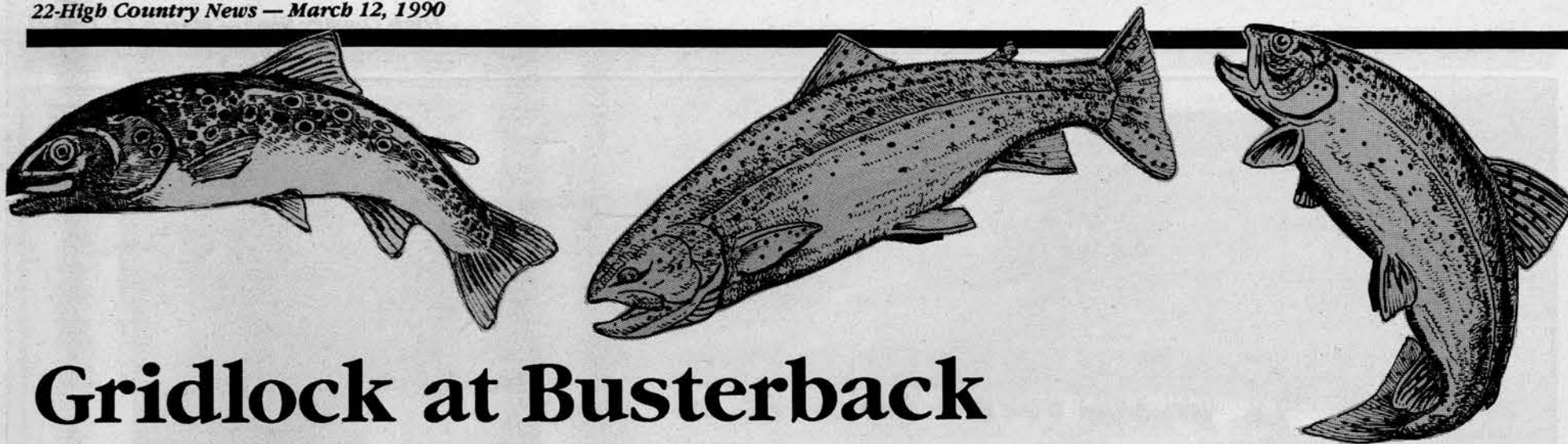
"No, I don't really think so. I'm sure there are ranchers who abuse it. There are areas where a guy will buy 40 acres and get permits for 100,000 acres that shouldn't even have cattle on it to begin with, but he can make money on it so he's just raping it. My position is that we just cannot rape this land. Anyplace, Period."



Jim Ferguson

Twist Meyring: "I'm a mean bastard"

22-High Country News — March 12, 1990



Gridlock at Busterback

Attempts to resolve a conflict over Idaho's migrating salmon and a high country cattle operation are mired in politics, tradition and good old animosity.

by Steve Bagwell

The Northwest's magnificent salmon and steelhead are classic indicator species. Roaming freshwater from the towering mountains of Idaho to the broad mouth of the Columbia River, and then from the West Coast saltwater of icy Alaska to sunny California, they test the intactness of an enormous ecosystem.

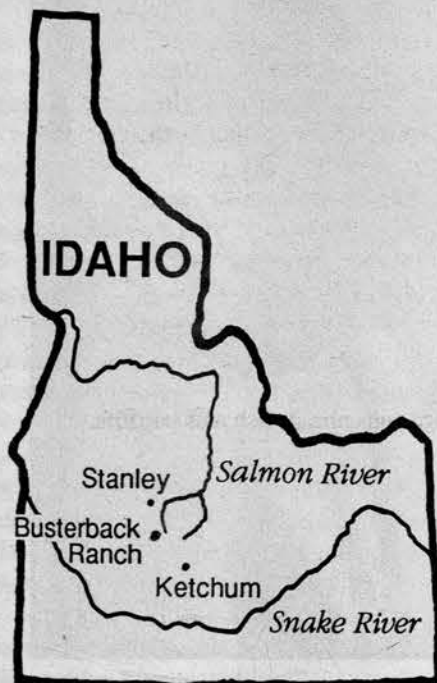
Over the years, factors ranging from river and ocean overfishing to pollution discharged by towns and cities to runoff from logging, farming and mining operations have combined to decimate this system.

If that weren't enough, a series of massive federal dams, churning out power for the Northwest's burgeoning population base and voracious industrial sector, stand as spectacular obstacles to all migrating fish.

Danger in the high country

Hidden in the rugged mountains of central Idaho are thousands of watersheds that eventually feed the Columbia River Basin via the Snake River. Before dams choked off major runs, these waterways teemed with unique subspecies of chinook, sockeye and steelhead.

Today, these high country creeks serve as vital spawning grounds for the native remnants still clinging to survival.



If they are not protected, no amount of new fishing restrictions, pollution cleanup campaigns and fish bypass projects will make the runs whole again.

The complexity of safeguarding anadromous fish at lower elevations is well known. But a seemingly intractable struggle in central Idaho's spectacular Sawtooth Valley, focusing on some of the world's farthest-ranging chinook, sockeye and steelhead, shows just how difficult it is to duplicate low-elevation progress up in headwaters territory.

In this case, the issue is dewatering and the culprit is a set of irrigation diversions at a major cattle ranch.

The Forest Service calls it "the single most important resolvable problem in restoring historic anadromous fish habitat in the state of Idaho."

Despite good intentions on both sides and determined attempts at third-party mediation, no resolution is in sight except years of fighting in the federal courts.

The fish, native species that include a unique strain of chinook salmon that spends a year in the deep blue water of Alturas Lake following spawning in the creek above, face a dam-studded 800-mile journey down the Salmon, Snake and Columbia rivers to the sea. Before returning, they swim from Northern California to Southern Alaska.

Ranch controls the water

The locus of controversy is the 2,400-acre Busterback Ranch, a former sheep spread converted to cattle ranch and resort. Forty miles north of the Ketchum-Sun Valley area on the road winding to the mountain resort town of Stanley, the ranch drains the entire creek and river in late summer and early fall to flood-irrigate porous but productive range for 1,500 head of beef cattle.

The runs of the Sawtooth Valley were once so rich that the lake, upper Salmon River and upper Salmon tributaries teemed with salmon and steelhead dividing their time between the Sawtooth Mountains and Pacific Ocean.

After half a century of late-season diversion at Busterback, coupled with the other hazards faced by the Northwest's anadromous fish, only remnants remain.

Adult fish returning to spawn are capable of surviving the wait for fish-

passage water in reasonable numbers. But mortality soars among juvenile fish bottled up in frigid fall water on the upper valley's 7,000-foot floor.

Some make it down; most do not. The sockeye runs that once turned creeks red with fish probably have been hit the hardest.

The key players in the struggle are Lee Enright, a San Francisco heart surgeon who bought Busterback in 1984; Carl Pence, chief of the Forest Service's Sawtooth National Recreation Area; and Ed Chaney, head of the Northwest Resource Information Center, a conservation think tank.

Enright started coming to Idaho 12 years ago to ski Sun Valley, one of the nation's premier winter resorts. First, he bought a residence, then the ranch and resort, and commuted from California to Idaho on weekends. Last fall he moved to Idaho with his family and began commuting the other way to continue his surgical practice.

The surgeon, whose family has an extensive farm and ranch background, says he was unaware of the fish issue when he bought the spread.

Enright is in the process of expanding and upgrading the resort operation. He thinks it may eventually become the larger fiscal contributor to the ranch, giving him a direct personal stake in the preservation of fishing opportunities and scenic qualities. But he is committed to continuing the cattle operation as well.

His holdings lie within the 756,000-acre Sawtooth National Recreation Area, created by Congress in 1972 with a three-part mandate: to protect anadromous fish habitat, promote scenic and recreational values, and preserve the western ranching heritage.

Breathtaking in its beauty, the Sawtooth recreation area features dozens of jagged 10,000-foot peaks towering over rushing creeks, crystalline lakes and dense stands of pine and fir.

But true to form, given the conservative political climate of the intermountain West and the lack of federally guaranteed water rights, the area's Forest Service managers have had more success saving cattle than saving fish or scenic vistas.

The Sawtooth recreation area bought scenic easements from ranching interests in the 1970s, but many of the poorly drafted early agreements afforded little protection. Managers are now trying to negotiate new, stronger agreements that promise to cost as much as the originals.

The Forest Service's Pence wants to negotiate a more restricted easement with Enright, acquiring water rights in the process as part of a package deal. Failing that, he wants to buy Enright out, either in part (the ranch) or in whole (the ranch and the resort). Pence is loath to deal with water rights separately, and the easement issue has bogged down in federal court. He sees condemnation as his ultimate weapon, squaring it with the Sawtooth recreation area's mixed mandate by vowing to find new operators for

acquired facilities, this time on a dryland basis.

Enright is willing to part with water in exchange for a sprinkler system, well system or other means to continue irrigating with less water. He says he has no plans to use the wide latitude allowed in his scenic easement, and so is open to a more restrictive agreement, provided he is compensated for lost market value.

One thing he is not willing to do is sell out, not for the \$2 million the Sawtooth recreation area has offered or the \$4.5 million he thinks his ranch and resort are worth.

Funds set aside to mitigate the devastation of fish runs by federal dam-building could be used to finance a \$1.5 million sprinkler system to free fish-passage water at Busterback. Enright is agreeable, but the recreation area rejects sprinklers as damaging the scenery along the ranch's extensive highway.

Enter Ed Chaney, a consultant whose Idaho-based outfit has produced a string of major federal studies on fish passage, range management and other conservation issues in the western states. (See accompanying story.)

Chaney approached Enright directly, winning voluntary commitment of emergency water and negotiating a compromise agreement for permanent water. The agreement calls for improvements in Enright's current irrigation and crop-management techniques to cut use by 30 percent, something preliminary studies show is feasible.

Chaney's low-tech plan, a compromise measure restoring only a portion of the natural flow, would cost substantially less than the high-tech plans federal authorities have been eyeing. But federal officials appear little interested in anything short of buying Busterback out, through condemnation if necessary.

Pence calls Chaney's proposal "partial" and "short-term." He says the Forest Service is committed to achieving "a comprehensive and permanent solution," requiring acquisition of full water and scenic easement rights. And he says purchase of the ranch appears to be the only way to achieve that end, as Enright is unwilling to operate on a totally dryland basis.

The Northwest Resource Information Center can probably raise the funds to draw up detailed plans for water conservation at Busterback. But implementation would require financial and political backing from federal authorities.

Chaney has convinced the Forest Service to consider his proposals for a middle-ground solution. But given the level of animosity and depth of disagreement, prospects for federal acquiescence appear dim.

If the odds seem poor here, with a sophisticated operator who recognizes the importance of preserving fish runs and a knowledgeable mediator, what must they be in other high mountain valleys with more traditional landowners and no mediation?



Ed Chaney

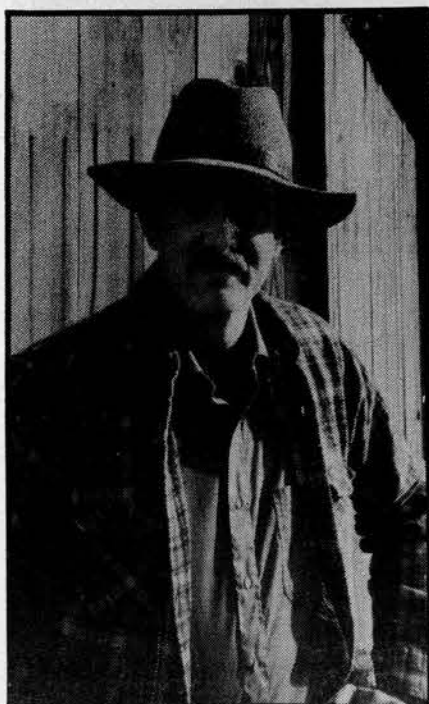
In overgrazed areas, young aspen trees cannot take root, and the parent trees die of old age

Wanted: A spirit of cooperation

Idahoan Ed Chaney believes that fish, wildlife and cattle can thrive together in riparian areas that overgrazing has turned into gullied moonscapes.

by Pat Ford

Ed Chaney is a good person to talk cows with. The Boise-area resident has made a living in Idaho for 15 years as a wide-ranging natural resources consultant and is best known as a premier authority and activist on the Columbia River Basin's salmon and steelhead trout runs.



Pat Ford

Ed Chaney

But Chaney also has a unique perspective on riparian management in the West. He is a hunter and knows how both healthy and degraded streamside zones affect fish and wildlife. He is an observant analyst who, when we talked, was just finishing a detailed report on grazing and riparian areas for the Environmental Protection Agency's Western regions. And for 10 years he has run a small business, designing grazing systems which mutually benefit fish, wildlife and livestock.

Chaney's interest in streams began in the 1970s while bird-hunting. As upland game declined in step with riparian habitat, he was among the first to notice and object.

The deterioration, Chaney says, has changed the West on a grand scale.

"The Western landscape has been transformed by livestock, especially in dry areas. Tall and short grasses that once held the soils and allowed moisture to infiltrate to the water tables were removed.

"That increased the rate of runoff, eroded stream channels, dropped water tables. Over vast areas, streams that used to be perennial are no longer. Places that by historical accounts were wet meadows, or riparian thickets you couldn't get through, are bare sagebrush flats now." Some 200 million acres in the western United States have undergone such desertification.

Streamside hold the soil

Though riparian areas make up only about one percent of a watershed, their unique functions make them key regulators of the whole.

"In a beat-out riparian area," Chaney explains, "typically the stream downcuts where the geology allows it, lowering the water table and drying up the area. If that migrates upstream — headcutting — the whole watershed can be disrupted. Or the stream sidecuts laterally, becomes wider and shallower (and) the riparian area erodes away or dries out. The damage can be long-lasting, even irreversible." Conversely, a healthy riparian area ameliorates the effect of upland erosion.

A riparian area can't be separated from the watershed, or uplands, that it drains. Even a healthy stream can be overwhelmed by the sediment flowing off badly eroded uplands. But a healthy riparian area can absorb some sediment and cushion the effect of moderate upland erosion.

Upland conditions have improved in many areas since the early decades of public domain grazing, when astounding numbers of sheep and cattle did enormous damage. But Chaney thinks riparian conditions in much of the West are worse now than ever.

"Since livestock will concentrate on those thin lines of green, if you don't manage riparian areas differently, for their different soils and vegetation, you can stabilize upland conditions while riparian conditions keep going downhill."

In the West, a healthy riparian area — a perennial stream, clear water, and associated vegetation — will provide water and habitat for fish and other wildlife.

For example, in the Great Basin of Oregon, 288 of 383 wildlife species are

dependent on riparian habitat, according to a Pacific Northwest Forest Service report. Eighty percent of all birds breeding in northern Colorado live in riparian areas. More than half the bird species in the Southwest are dependent on riparian vegetation. In many, many areas, that habitat is gone, Chaney says.

"Livestock transformed habitats: from grasses to shrubs on uplands, from thick riparian vegetation to little or none, from year-round to intermittent streamflows. So it's not surprising that mountain quail are nearly gone in the intermountain West," he says.

Sage grouse have declined sharply, as wet meadows critical to their life cycle dried out. Columbian sharp-tailed grouse, which depend on seed-bearing perennial grasses, are extinct in several states and now occupy about 10 percent of their former range. Chukars and songbirds have been affected. Fish are threatened as well, he adds.

"Given all this," he concludes, "the single most important thing we could do for fish and wildlife in the West is to restore riparian areas to reasonably productive conditions."

After years of complaining fruitlessly to the land managing agencies, Chaney chose another path. Convinced that he could prove good riparian management is good business — "a win-win deal, for livestock, fish and wildlife," he formed a small company, Chinook Northwest. He assembled a team of range and wildlife specialists, and marketed a service — designing grazing systems to produce both more livestock forage and enhance fish and wildlife.

There's no cookbook

While there are lands so vulnerable they shouldn't be grazed — high mountain cirques, for instance —
(Continued on page 24)

Ed Chaney...

(Continued from page 23)

Chaney thinks those are a fraction of the total. "I think on most rangeland we can have our cake and eat it: more livestock forage, more fish and wildlife, improved water quality, less erosion and sedimentation. Progressive operators with the understanding and economic ability to change management are proving it."

Chaney will cautiously generalize about the recuperation abilities of the riparian areas, but not about the path to cures. He says there is no cookbook.

Every situation has different soils, vegetation, stream character, climate, ownership, economics, history. And there's no magic. Most cases just require applying the known principles of forage management in riparian-specific ways.

He gave me a typical example: an eastern Idaho rancher using single pasture, continuous year-round grazing. Cattle naturally concentrated on riparian areas. The streambanks had broken down and were eroding, so he was losing pasture while adding sediment to the stream and to his and his neighbor's irrigation ditches. Forage production was low due to constant grazing; most desirable plants were low in vigor or had given way to less valuable plants.

The problem went beyond ranching. The stream was an important trout spawning and rearing stream. Sedimentation had drastically affected fish production. This affected the local economy, which depends on visiting anglers and summer residents who come for the good fishing.

Chaney fenced cattle out of the stream, except to allow watering, and designed a pasture station system so that the rancher could control livestock distribution and prevent over and undergrazing.

"He's seen a 25 percent increase in forage production, and we think that will go to 50 percent. He's reduced sediment in his irrigation system, and stopped losing land to erosion by re-establishing vegetation. And he's improved the trout stream and thus the value of his ranch."

In other cases, Chaney has made the riparian area a separate pasture, so that its unique soils and vegetation can be managed differently from the uplands: "Whether you use fencing, herding, stacking old cars end-to-end, whatever, the point is to be able to put the livestock where you want when you want — to control the amount and time of grazing in those areas."

The economics of such changes "vary all over the map." His group designed one very intensive system for 170 irrigated acres that cost \$20,000. But the extra forage earned it back the first year. Non-irrigated rangeland systems have much lower per-acre costs, but also take longer to pay back.

His most recent, and fruitful, experience involved cooperation among ranchers, land managers and sportsmen.

"Environmentalists versus the livestock industry is in my view a pitiful waste of energy and resources," he says. "Private and public interest are involved on both public and private land. The public pays for poor riparian conditions on private land and benefits from healthy conditions. There's a common interest in restoring these watersheds to productivity."

In the example referred to above, the capital investment for fencing was beyond the rancher's ability. But some anglers and owners of recreation property developed a partnership, raised the



Severe erosion, caused by overgrazing, characterizes many streams in eastern Oregon

money for the fencing, and helped install it. The rancher benefited, and the enhanced fish value flowed off his ranch to benefit the others.

"These partnerships are contagious," Chaney says, pointing to the Henrys Fork and Henrys Lake Foundations in Idaho, and to Trout Unlimited and the Izaak Walton League nationally. The Oregon Watershed Improvement Coalition joins fishing groups and ranchers who pool ideas and contribute money and manpower to implement them (HCN, 12/4/89).

"These people are proving that riparian management is not a zero-sum game," he says. "You can have riparian restoration without hurting the livestock industry."

He sympathizes with those who just want to get the cows off the range.

"If you know the impact grazing has had, if you've experienced the politics and stonewalling, it's easy to understand." But he argues against it as a primary strategy.

"In 20 years, maybe it would occur. But who does that make sense for — the public, the environment, the local economies? The either/or approach is what got us here," Chaney says.

"We have communities and people out there who are worth saving," he says. "It's not going to help local economies for all these small towns to dry up and these families to move out. They aren't the problem. They are us."

"The problem is that the way we manage these lands is adversely affecting everyone — including the livestock industry. The solution isn't getting rid of these people who have built these communities and this lifestyle. The answer is changing the way we do business."

Living on the edge

So what's holding up that change, at least on public lands? Chaney ticks off several factors — traditional resistance to change among ranchers, poor transmission of knowledge ("too often the universities and agencies have been status quo apologists, rather than transferring practices that would help the industry in the long-term"), and "layer

upon layer of political impediments" shielding ranchers from change.

But Chaney thinks the key problem is the perception that fixing the range is beyond an operator's economic horizon both on private land or as a public land permittee.

"I can tell a man, if you reduce your stocking rate by X amount, build these fences to control forage, install these water tanks, five years from now you'll have 100 percent more grass. He'll say, 'That's great, but I'm living on the edge. I've got truck and mortgage payments. I can't reduce immediate revenue or increase costs to capitalize on those benefits. I can't afford it.'"

"How do we fill that deadly gap between the time investments are required and the time of returns?" Chaney asks.

"People don't see how to get across that gap, so they resist change. We've seen that in every resource industry — the fishing industry, the timber industry. I have to pay now and benefit later? Forget it."

Chaney thinks the solution on public lands lies in heeding Deep Throat's advice in Watergate: Follow the money.

"Right now, we spend millions monitoring deteriorated range condi-

tions," he says. "That makes no sense at all; we know we have problems. And Congress just gave sizable new dollars to the Forest Service and Bureau of Land Management for riparian work. Typically they will go hire legions of fresh young faces to do more and more studies."

Instead, he says, use that old and new money to improve management: to cost-share partnerships between willing permittees and sports enthusiasts; to help fund public and private riparian projects; to offset impacts of livestock reductions when they are necessary; and to reward the BLM districts or national forests that bring forth the most cooperative proposals.

"Congress has passed anti-sod and swampbuster laws," he concludes. "We need anti-riparian buster laws."

"We need to revamp ag support programs to provide economic incentives for good management."

"We need some innovative rangeland enterprise zone projects to demonstrate conclusively, over a whole watershed, that improved riparian and upland management is good business," he says. "Put the existing money on the ground, and it's possible."



Bureau of Land Management

USDA - Soil Conservation Service



U.S. Department of Agriculture

The gospel according to Pete Tatschl

An environmentalist questions whether cows belong in the Southwest, and gets in response a healthy dose of Holistic Range Management.

by Tom Wolf

In the few moments it takes to sign a deed, the environmental community has gone from being a harsh, sideline critic of grazing practices in New Mexico to owning a big chunk of the problem.

The deed is to the Gray Ranch, a 500 square-mile piece of land in the southern boot heel of New Mexico. Its new owner is the Nature Conservancy, a nonprofit group whose mission is the preservation and restoration of natural areas. In the case of the Gray Ranch, the emphasis will be on restoration, for after a century of grazing as much as half the ranch is in poor range condition.

Moreover, the Nature Conservancy does not appear to have the luxury of a leisurely, best-management-practices approach to the land. Part of the complex deal, negotiated without any input from biologists, is a lease-back arrangement that maintains or even increases the ranch's 15,000-head cattle operation (HCN, 2/21/90).

Why did the Nature Conservancy agree to this arrangement? The reasons include pressures of counter offers as well as the need to generate cash to pay interest on the \$18 million purchase.

The conservancy's problem goes beyond dealing with nature. The area is largely Hispanic, and the legacy of the

last several centuries is of huge land grants falling into Anglo hands, creating great bitterness among local residents. That bitterness has resulted in violence, trespass, and other conflicts.

Any lasting solution, therefore, must not only restore the land but also involve the surrounding rural communities. Part of the solution will include continuation of firewood cutting and hunting. But the heart of any solution will be grazing: the activity that has pushed New Mexico generally, and the Gray Ranch particularly, toward desertification.

One effort to reverse that trend has been led for 15 years by Pete Tatschl, a range conservationist on the Santa Fe National Forest in northern New Mexico. Environmentalists disagree about a great deal in the state, including the Gray Ranch. But all respect Tatschl and his work.

If there is hope for the Gray Ranch and the communities that depend on it, then that hope should be visible on the land Pete Tatschl has been associated with — "running" implies more power than he has — for the last 15 years. Although Tatschl's national forest land is public and the Gray Ranch is private, the biology, the uses and many of the social and economic pressures are the same.

Tatschl, a bullish, energetic figure, enjoys showing off his work on the Pecos Ranger District, and challenging environmentalists on range issues. That is how he and I and a few other skeptics

came together recently for a "show me" tour of El Pueblo grazing allotment.

The life and hard times of a grassland

We drive from the town of Pecos east on I-25 (roughly the route of the Old Santa Fe Trail) through the Forked Lightning Ranch, the site of a proposed city of 100,000 that would displace the Hispanic community of Pecos. Pecos is gateway to the Pecos Wilderness and refuge for many from the highly buffed lycra of Santa Fe.

These private ranchlands we drive through appear to have been hit by a neutron bomb. Everything has been annihilated but pinyon and juniper, cactus snakeweed and, of course, cattle scattered throughout huge pastures. Rubble and bare soil compose the foreground; mesas glide by above us.

At the tiny village of Bernardo, we wait for the grazing permittee. After some time, we drive on without him.

In the West, moving vehicles often take the place of office and hotel conference rooms, and we get right down to business. Tatschl tells us about the history of the landscape we are driving through. The 27,000-acre El Pueblo land grant was once grassland habitat for elk, deer, antelope, bison and their predators. Someone shot New Mexico's last known jaguar near here in 1925. Bounded on the southeast by the Pecos River, and on the northwest by the Forked Lightning, this

transitional area was seasonal hunting range to Indians from the Rio Grande Valley and the Great Plains.

In 1822, just as the Mexican War of Independence commenced, a desperate King of Spain "created" this land grant, though hostile Comanches forced the grantees to wait 50 years for settlement. This means the area has been used by domestic livestock for a relatively short time; in New Mexico, grazing often dates from the arrival of the Spanish in the 16th century.

Despite the late start, the ecological history of the El Pueblo is a depressing one. Once the Comanches and wildlife left, sheep, cattle and horses grazed El Pueblo without restraint until 1929. Even after some controls were introduced, heavy grazing continued during the Depression, when 400 cattle, an unknown number of sheep, and many trespass livestock pastured in the area year round.

By 1939, a federal range examiner estimated that inferior grasses and bare ground had replaced a third of the native blue grama grasses. Livestock trails running between watering places and roads used by wood haulers had carved numerous arroyos, a new feature on the landscape. Reflecting the bottom line of land ethic failures, a considerable amount of sediment was finding its way into the Pecos River.

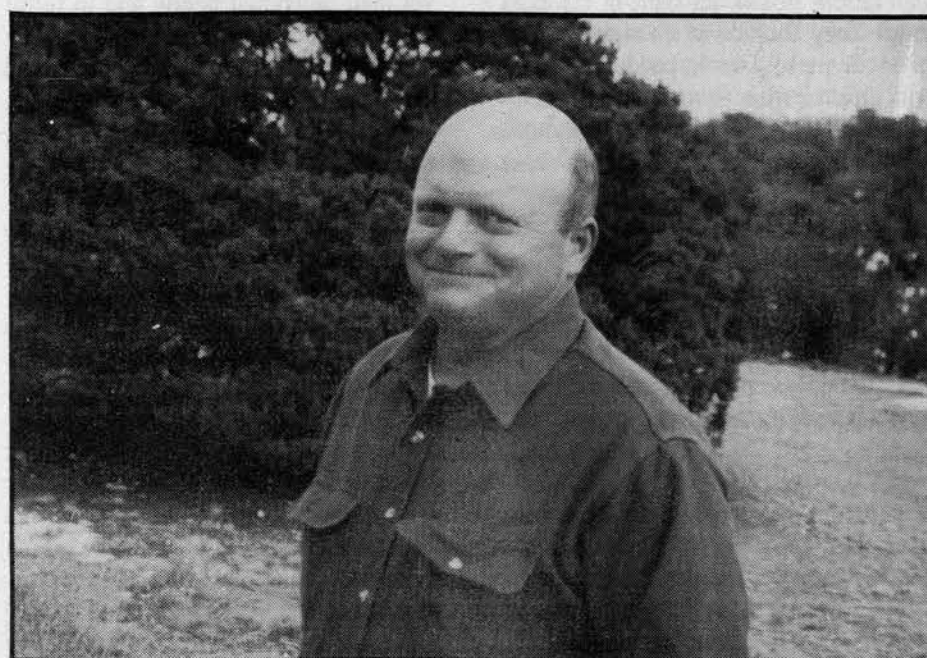
The land that range examiner saw in 1939 was no longer exclusively owned by the area's original settlers. Starting in the 1890s throughout northern New Mexico, the Hispanic land grantees had begun to sell their patrimony to Anglo fast-buck artists. According to historian William deBuys, the correct characterization of most such transactions is: "The Anglos stole the land from its Hispanic owners."

But the Anglos did not hold on to the land either. Starting with the Great Depression of the 1930s, the eventual chief buyer was the U.S. Forest Service, then in the business of acquiring abused lands to protect watersheds such as the Upper Pecos River Valley. If there is a hero to this story, it is the Forest Service, led by people like the young supervisor of the nearby Kit Carson National Forest, Aldo Leopold. Although the Forest Service had reclaimed cut-over forest lands, it did not then, and may not to this day, know how to restore grasslands.

Pete Tatschl's present charge, El Pueblo, took a circuitous path to the Forest Service, passing through the Farmers' Home Administration and surviving efforts after World War II to sell the land back to private interests.

But in 1952, thanks to the New Mexico delegation listening to the local El Pueblo Cooperative Livestock Associ-

(Continued on page 26)



Pete Tatschl

Cynthia Wolf

Pete Tatschl...

(Continued from page 25)

ation, Congress made El Pueblo a permanent part of Santa Fe National Forest.

Nevertheless, from the time the land entered federal hands 60 years ago, and despite, or perhaps because of, federal reclamation efforts, range conditions on El Pueblo continued to deteriorate. To make things worse, five consecutive drought years culminated in 1957 with 5.17 inches, 10 inches short of normal.

The Forest Service then set the carrying capacity of El Pueblo at 341 head, below the traditional level of 400. But political and economic forces were pushing in the opposite direction. New Mexico was wracked by near-revolution over land grant and grazing issues farther north, near Chama.

Pressure to increase grazing and other uses of the land was countered by demands from recreation users in the Pecos Wilderness. To resolve the conflict, the Forest Service reduced grazing in recreation areas and "created" new grazing in controversial areas, such as El Pueblo. These pressures and a series of wetter years led to a 1969 Forest Service range analysis that recommended an astonishing jump in carrying capacity to 800.

The scene was set for the arrival of Pete Tatschl.

A day on El Pueblo

W e head southeast through a piñon-juniper woodland with remnants of shortgrass understory. Along the Pecos River, we see extensive open grasslands. Also "open" but rapidly reverting are the 3500 acres of piñon-juniper woodland "treated" with the Forest Service's assault machine — the 80-ton crusher.

Pete Tatschl says the days of the crusher are long gone. The machine was even more expensive than chains, controlled burns or chemicals. Furthermore, residents objected to the decimation of their traditional source of free firewood. Together with seasonal jobs, free firewood and poaching are concessions the Forest Service has learned to make on this district.

Tatschl is a proponent of Allan Savory's Holistic Resource Management, which he describes as a way of managing people, not cattle. To put it differently, it is a way of motivating people to use certain tools and techniques so that the grazing can improve rather than degrade the land.

Tatschl points out some of the tools to us. They include an elaborate system of small enclosures or paddocks fenced with electric wire. Compared with enclosures where no grazing has been allowed for three years, Tatschl's paddocks show remarkable improvement.

We also see arroyo headwalls blocked with tons of river rock; eroding hillsides contoured by machine; water-holes or "dirt tanks" cross-fenced on the upslope side where there is cover for wildlife access; plantings of willow and cottonwood along the river; and salt blocks placed away from arroyos and from water sources.

Underlying the hardware is the idea the land must be grazed to be healthy. Savory's approach has been argued endlessly, with his opponents as fervent as his supporters. But he has changed the terms of the discussion. In the past, the only way to save the land was to take the

cattle off it. Now, Savory has introduced the idea that well-managed bursts of grazing pressure can restore abused land to health.

Is that happening here? Is what we see progress? Over lunch, we agree that much of the work of conservation should consist of reclamation — repairing past damage regardless of who did the exploitation and degradation.

Restoration is Pete Tatschl's strong point. His belief in grazing as a form of sustainable agriculture rests on a paradox: It is not extended rest but intensively managed grazing that is the best way to restore these grasslands. Says Tatschl:

"We have learned that range management must be an intensively applied art and science. In the past, we generally managed at too low a level. Intensity of management will be accepted by the permittees if they can see a benefit, and those benefits are beginning to show. We in the Forest Service have also evolved. What you see out here is progress."

Most of the four participants are skeptical; Randy Freeman of the Sierra Club says the range still looks overgrazed. Showing us one of his photopoint plots, Tatschl tells him that the health of the range is not expressed only in the height of the plants, "but also in the quality and composition of the vegetation, in the density of plants and in the height of plants during rest periods — which is when it counts."

But he also says that the range we are looking at "needs a greater diversity and abundance of plants. You see too much bare soil."

Tatschl also says that measurement of progress or further decline is tricky. "Researchers have time to produce statistically viable pictures of range conditions. I don't. I have Gonzalo, my range technician. Our work is intuitive, and our time is limited, so education and statistics-gathering don't mean much." This is the third year of Tatschl's system on the El Pueblo, and it may take 10 years to show improvements obvious to untrained eyes, he says.

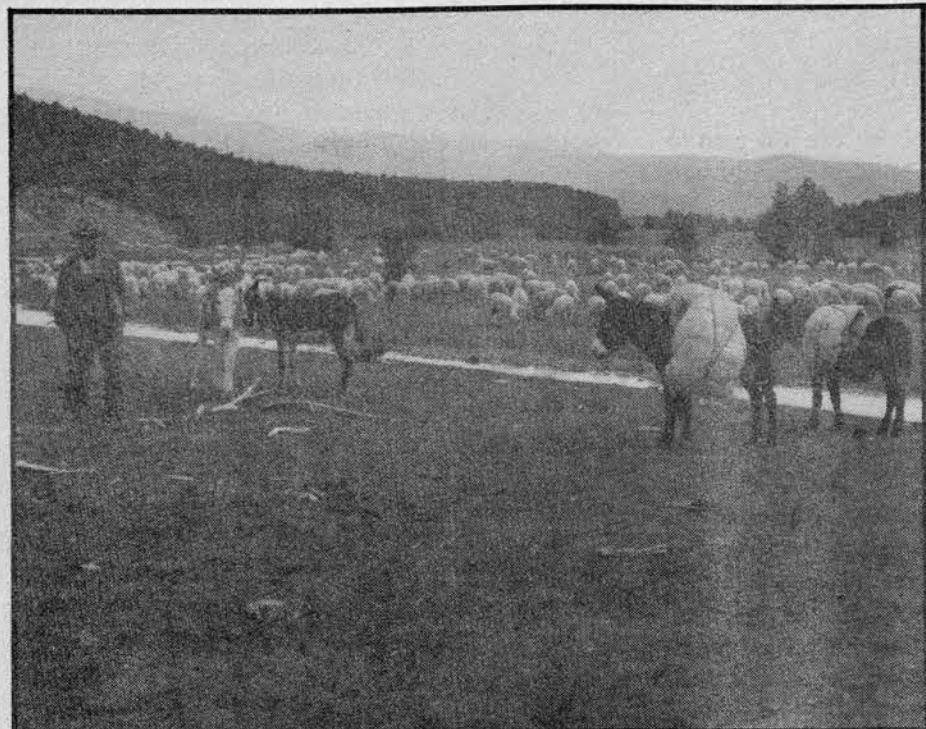
His preferred tool for measuring change is photopoints. His other approach is to take doubting Thomases out on tours. "That way, I can get your feedback about how good or bad it looks. Range is more art than science. You have to model the land with your hands. You have to be willing to make changes. You can't just keep hands off and expect things to improve on their own. They won't. Not in this brittle ecosystem."

We ask what the permit holders make of all this extra work and expense. Tatschl says, "I see people trying to stay in the ranching business who have borrowed a tremendous amount of money from a federal lending institution to fulfill their individual needs and to fulfill the Forest Service's increased capacity estimates. When we first got involved with intensive management, I saw a great debt load and no return. And I still see some sickness there, as far as managerial skills go."

"But the point is that we have to keep the rancher on the land! Holistically, livestock grazing is just that important to our brittle environments — those that need the many impacts of grazing herds to advance beyond stagnant stages like piñon-juniper."

Randy Freeman asks, "Wouldn't it be cheaper for us taxpayers and better for our land if we just let the deer and the antelope play out here? After all, no private lender would risk money on grazing land of this poor quality, would they?"

Tatschl explains, "That's why FmHA is in the business — to help the marginal rancher. Would it do any good



New Mexico, c. 1935

to require all this management intensity and not still keep the man on the land? Let me make it clear. One of our mission goals in the Forest Service is to keep the people on the land and to provide stability to that human community."

Given the twin threats of poaching and a politically potent beef industry, Tatschl says that no one could maintain appropriate wildlife populations here without tremendous expense.

We again question this subsidized grazing, and compare it to below-cost logging. Subsidized logging is also justified as a way to support communities and rejuvenate "degenerate" forests. It sounds suspiciously like the arguments we are hearing from Tatschl.

But he insists that the application of HRM is different, because it is literally the only way to repair the land — substituting cattle for wildlife.

"You have to bring hoof effects to the land, and that means you have to change the behavior of the cattle — or more to the point, you have to change the behavior of the people who run the cattle."

Yet mistakes still occur. For example, one area, the Tecolote pasture, got so much isolated local rain last July that Tatschl wanted to get cattle onto it. But the stock moved too slowly through the drier pastures on the way to the Tecolote.

Tatschl takes the blame, claiming he should have said, "You get behind those cows, and you kick them hard, so that they get down to the Tecolote in a minimum amount of time."

However, Tatschl's ties to the permittee would not let him do that. The calves had just been branded and castrated.

"The cattle are not going to travel well, and I can't afford for the permittee, who is deeply in debt, to lose anything. In my concept, three days was slow. In their concept, 10 days was slow. There you start getting into trouble, because you are overgrazing the pastures in between. We retarded the vigor of those pastures."

The passage through the dry pastures was not your Marlboro-type cattle drive. The herd was driven by the permittee himself — just one man on a horse.

Tatschl explains, "We are working with permittees who we have encouraged in the past to manufacture flint arrowheads as tools when the rest of the world was moving into the nuclear age. Now am I supposed to say to a permittee that I want him to move into the nuclear age tomorrow?"

Historically, in this area as in many public lands, cattle were lightly dispersed, grazing where they wanted to and seen by the permittee only rarely

until it was time for shipping or branding.

That minimum management pattern fits HRM's formula for desertification. "Livestock aren't to blame, people are. It always comes back to people," Tatschl adds that HRM's dependence on people opens it to its greatest criticism.

Management as an art

C ritics say people won't manage intensively. "So we have to educate the people. And that's what makes it an art."

He says he likes his role as long-term people manager, because he takes risks and sticks around to see whether they work. "Risk motivates me." He is out on the land nearly every day, but he realizes that the permittee has to develop his own initiative.

Tatschl's greatest fear is: "If you left the permittee on his own for five years, you might be back to flint arrowheads. The permittee's personal pride has to take over, and that may be a substitute for a land ethic, which takes a long time to develop. It is a one-way partnership right now."

Success will be evident not just in increased grass production but also in a greater abundance of mid-height browse species like winterfat, ribe and skunkbush. We can see that the browse is returning slowly, but Tatschl says it won't succeed unless he can control how long the animals graze an area.

The goal is to allow the shrub to build up sufficient root reserves so that it can produce an abundant annual top foliage, even though those tops are removed every year at some point. The same goal applies to perennial bunchgrasses. Plants treated this way will also produce seeds at the right time, and these will be pushed into the ground — planted — by livestock hooves.

We ask about the fences. Tatschl says you have to move animals from paddock to paddock so a grazed area can recover while another is getting intense, short-term chewing and trampling. These paddocks must be laid out so the cattle can be moved without stress. Electric fences are a cheap way to achieve this.

Toward the end of the day, we head down to the Pecos River, where I tell Tatschl that I have heard enough about the care and feeding of ranchers. This is supposed to be public land. What about the rights of other users, such as recreationists, who want healthy streams and riparian areas?

(Continued on page 27)

Pete Tatschl...

(Continued from page 26)

He says it is hard to convince permittees of the importance of riparian areas in re-establishing the total health of the area.

"You simply cannot graze in river bottoms in this country, though you can water cattle there. So sometimes my management style becomes authoritarian," he admits.

Our tour takes place after the great flood of the summer of 1989, and we see where beaver have moved in and devoured the downed trees and shrubs Tatschl had planted in the riparian area. He is resigned to trapping them out until the vegetation recovers.

"I hate to do that. The beaver have as much right there as the trees. But I need to get the trees re-established, and then we'll give the beaver some rights later."

The flood emphasized how hard it is to manage land intensively when your neighbors do not. The Forest Service controls the Upper Pecos but not the private land in between there and here. Last August, seven inches of rain fell in less than an hour. Water flowed over the land three to four inches deep.

With poorly distributed cattle having failed to break the crusty soil, and without enough vegetation to hold back overland flow, the private land above El Pueblo sent a wall of water down the Pecos that took a lot of Tatschl's work with it. Bum luck.

But it has not changed Tatschl's conviction that one day recreationists will be able to experience the beauty and tranquility of the Pecos River riparian areas. Today, however, they look as if they have been shaved with a blunt razor.

On the way back to Bernardo, I ask about wildlife. We didn't see any; nor did we see signs of wild animals. Tatschl agrees that the situation must change.

The cliff areas along the river have potential raptor value, but prey are missing. Moreover, "We really don't have a goal for wildlife."

Tatschl says deer live here, and the herd will improve as the browse improves. Obviously, denser riverine cover would improve the situation for all species.

Tatschl repeats that the local tradition of poaching is a significant problem in country where people feel that their land and their resources were stolen from them.

"I would like to see enough predators out there to where grazing animals would return to their old herding instincts. We don't have enough predators because some people feel about them the way I feel about my cottonwood and willow versus the beaver."

What does Tatschl see in the future? "We need to accept the fact that it is cheap to tear the land apart. And expensive to repair it. I see the necessity to

manage intensively. I am critical of conservationists who say we can somehow manage the land in less than an intensive manner. That is not Forest Service policy necessarily, but it is my personal opinion."

We pull into the Bernardo General Store for a soda pop and find the grazing permittee who we were supposed to meet earlier passing the time with his wife and the proprietor. The permittee explains that he missed our date because he had to get supplies for tomorrow's feast day and parade.

Later, Tatschl ponders over how involved the permittee is. "I gotta tell you," he says, "Not very." The feast day was more important than the tour. These are cultural matters.

But grazing will always be important here, Tatschl says. "There will always be local buyers for the grazing permits on the El Pueblo. People aren't going to stop grazing here, no matter what it costs."



Steve Collector © 1989

Haying with horses near Rand, Colorado

One team raking, five teams sweeping

by Jim Fergus

Sixty-nine-year-old Clarence Stephens has been working the same hay fields since he was seven. He and his brother, Ray, 72, are still ranching the place they were born on and which their parents homesteaded in 1910 in Colorado's North Park. They have enlarged their spread over the years, buying up several neighboring ranches. But some things haven't changed much, including their haying operation, most of which is still accomplished using teams of draft horses.

A refreshing and rare sight in this

age of mechanized agri-business, the Stephens' fall haying has become a favorite tourist attraction for passers-by on Highway 125, outside the tiny town of Rand. It is not unusual to see four or five vehicles pulled over to the side of the road, while their occupants take photos or just watch in fascination.

More than simply a quaint anachronism, however, the Stephens' traditional haying methods are also surprisingly efficient. With seven draft horse teams (two horses per team) working in the field at once, they are capable of putting up about 100 tons of hay a day. That's equivalent to the output of one good mechanical baler on a good day without breakdowns.

"We use more help," says Clarence Stephens, "but we don't have the repairs. A horse doesn't need new bearings, and you don't have to send away to St. Louis, Missouri, for a back-ordered part."

The operation does use some mechanical assistance. Stephens hires a swather to mow the hay, which is then raked into rows with a tractor. One team of horses in turn rakes the rows into individual piles, several of which are "swept" by another team and pushed to the stacker. There a third team pushes the pile with a "plunger" up the slide, where it falls onto the stack, and is evenly spread out with a hydrofork, a hydraulic device like a giant robot arm

which is mounted on the Stephens Brothers' 1940s vintage truck. One man is required to drive each of the seven teams (one team raking, five teams sweeping, one team pushing), and one man to run the hydrofork. With a draft horse string of 28 to 30 animals, mostly Belgians and some Percherons, the teams are spelled and rotated periodically.

Although clearly more labor intensive, the Stephens' haying procedures are less expensive than modern methods. They put up 3,000 to 4,000 tons of hay a season with their horses, and contract out another 2,000 tons to be mechanically baled and stacked.

"We figure it costs us about \$20 a ton, including the swathing, to put it up with the teams," says Clarence, "and we pay \$29 a ton to have it baled, so it's much cheaper."

The operation is especially cost effective when one factors in the price of draft horses. "A good solid young team now will cost you about \$2,500 to \$3,000," Stephens says, "but we've paid as high as \$6,000 for a team, and we bought one as cheap as \$800 last fall."

A new baler can cost from \$30,000 to \$60,000.

The Stephens brothers are among a handful of ranchers around the West who still use draft horses to put up their hay, which is too bad. Draft horse teams employ more people, it's less expensive, it's just as fast, and horses don't burn fossil fuels or pollute the air or make a lot of noise. Nor do they compact the earth nearly as much as modern haying equipment.

So why is this efficient and aesthetic old ranching practice nearly dead? For the same reason that shopping malls are replacing Main Street: convenience, mainly.

"Because you've got to find teams to buy," explains Clarence Stephens, "and then you've got to find somebody who can drive them, or you have to teach somebody how. And for most ranchers, it's a lot simpler to hire a guy to drive a tractor than a team." ■

28-High Country News — March 12, 1990

BULLETIN BOARD



SUNUNU

White House Chief of Staff John H. Sununu has a new following. But the groupies aren't oil and gas industry executives — they're environmentalists. The National Wildlife Federation published its first issue of *Sununu*, a three-page bulletin devoted to Sununu's influential suggestions that lead to lessened environmental protection. *Sununu* will be distributed every time the powerful cabinet member wins an anti-environmental round. To be fair, the Washington, D.C.-based federation says it will also include any news of Sununu's moving toward improved environmental protection. The first release highlights Sununu's recent environmental meddlings: efforts to weaken the Clean Air bill; resisting Environmental Protection Agency Director William Reilly's goal for the United States to take the international lead in combatting global warming; and successful weakening of the wetlands agreement between the Army Corps of Engineers and the EPA. For more information, contact the National Wildlife Federation, 1400 16th St. NW, Washington, DC 20036.

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KEEP COMMENTING

The proposed Thousand Springs Power Plant has aroused such controversy that the Nevada Bureau of Land Management has extended the date for public comment. The Thousand Springs Generating Company, a consortium of eight private investors, hopes to build eight 250-megawatt, steam-electric generating units. The plant would burn approximately 7.5 million tons of coal per year, delivered by railroad from mines in Utah and Wyoming. Construction would take place over a 16-year period, depending on market demand. Address written comments to the Bureau of Land Management, Elko District Office, attn: TSPP Coordinator, PO Box 831, Elko, NV 89801 (702/738-4071), by April 11. A limited number of copies of the draft EIS are available from the BLM.

SAFE FOOD ACTION

Have you ever wondered what chemicals lurk in the food you eat? Some answers can be found in an easy-to-read, four-page quarterly newsletter, *Safe Food Action*. Published by Americans for Safe Food, a project of the Washington, D.C.-based Center for Science in the Public Interest, the newsletter isn't all bad news about pesticides and herbicides. It also includes updates on food legislation and the national movement toward an accepted definition of the word "organic." The newsletter is available free to anyone interested, says project assistant Beth Kaufman. For more information contact: Safe Food Action, Center for Science in the Public Interest, 1501 16th St. NW, Washington, DC 20036 (202/332-9110).

SOUTHWEST TRAIL VIDEOS
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POSITION: PUBLIC ADVOCATE and organizer to design and carry out a campaign to protect Boulder Mountain, Dixie National Forest, Utah. Requires: working knowledge of NEPA, NFMA, Forest Service policies, communication skills, media, community organizing, ability to work independently at remote government offices, own transportation and willingness to travel by foot. Position is for 12 months. \$18,500 plus limited travel, office and legal budget. Send resume by March 26 to Utah Wilderness Coalition, 1851 East Garfield Ave., Salt Lake City, UT 84108. 801/467-9454

The **ENVIRONMENTAL LITIGATION FUND** is compiling a directory of small citizen groups throughout the West that are working on public land, wildlife or pollution-control issues. ELF, a nonprofit project of Earth Island Institute, helps organizations with legal work, networking and campaign development. Send address, name of a contact person, phone number and what efforts a group takes on, to Environmental Litigation Fund, PO Box 10836, Eugene, OR 97440. (1x5f)

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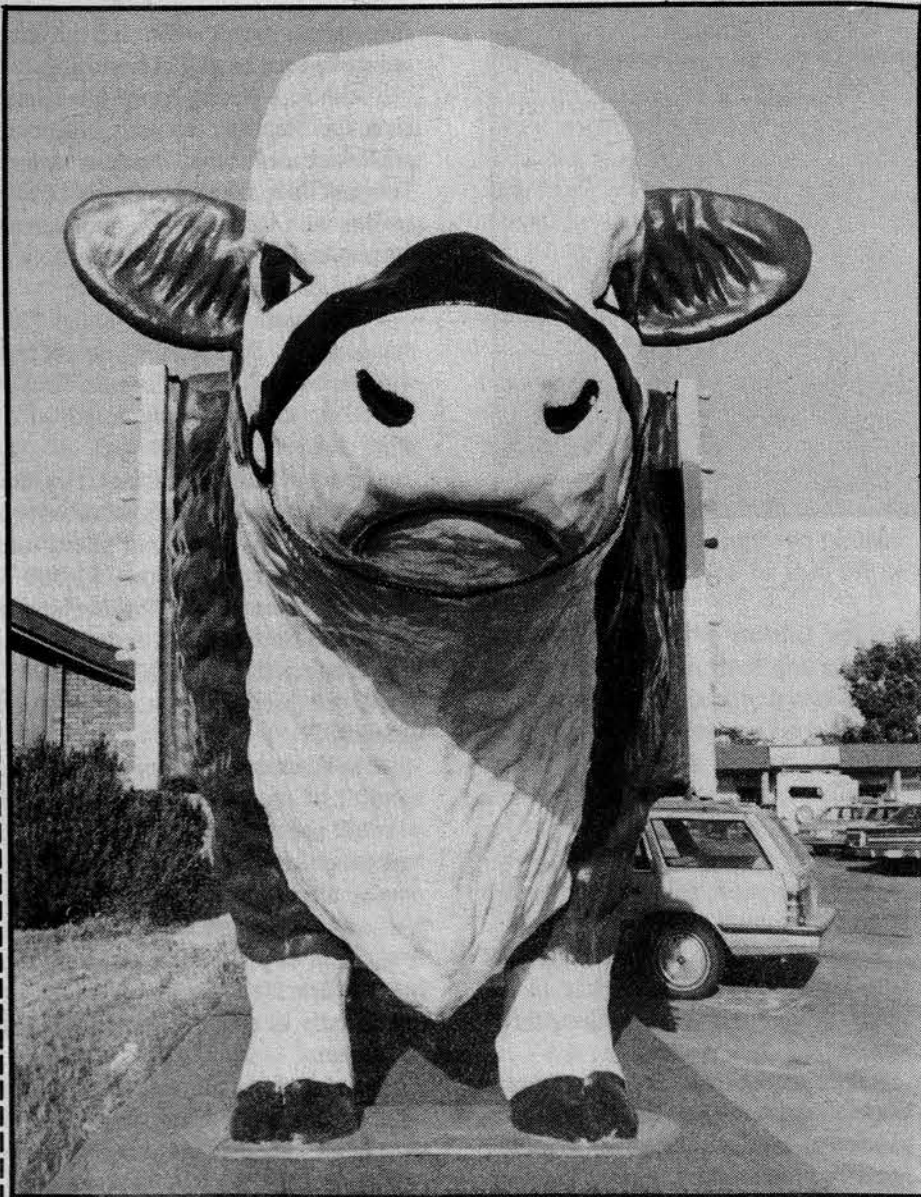
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