High Country News

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A Paper for People who Care about the West

One dollar

Missouri: a river basin at war

by Peter Carrels and Lawrence Mosher

hey call it the Big Muddy because of the mountains of silt it moves. It is the country's longest river and usually carries four times the flow of the mighty Colorado. But a four-year drought has humbled the Missouri River and plunged its 10 basin states into a sour quarrel with one another and the Army Corps of Engineers, the river's federal boss.

On popular river reservoirs in the Dakotas, record low-water levels have marooned boat access ramps and threatened fish spawns, jeopardizing a burgeoning recreation industry. Several communities in different reaches of the river have suffered shortages of drinking water. Irrigators and domestic water users have watched their intake pumps suck mud, then air. Navigation seasons have been cut and hydropower production slowed.

Never before have the river's operations and water allocations so divided the basin's diverse interests. The lightning rod of dissatisfaction, unsurprisingly, is the Corps of Engineers. But the basic issue is economic and social equity. How *should* the river be managed, and by whom?

"The current system is basically unmanaged," asserts a retired Bureau of Reclamation engineer Michael Clinton, who worked in the basin for years. "There is no forum, no vehicle, no procedure for the varied interests in the basin to reach a consensus on what their resource strategies ought to be."

Not so, replies the Corps' Ed Dickey, acting deputy assistant Army secretary for civil works. "I find no merit in this approach." But in an interview, Dickey nevertheless acknowledged that the 1944 Flood Control Act — the Corps' marching orders — is an anachronism that badly needs updating.

"Here's a system that was authorized for one mix of outputs, and one of those outputs — irrigation — never developed," Dickey explained. "In fact, we're getting a lot more hydropower than was ever envisioned. And now we have recreation as a new and unforeseen player. So any substantive changes are

going to require new legislation by Congress. It's as simple as that."

he politics of the Missouri River basin, however, seem anything but simple. Three of the upper basin states — Montana, North Dakota and South Dakota — filed suit against the Corps once again last month over the Corps' management of the river's six dams and reservoirs. Their complaint is that the Corps has favored the navigation interests of the lower basin states over the recreation interests of the upper basin.

"I don't intend to back down to federal bureaucrats who prefer to protect navigation over meeting the needs of our citizens," declared South Dakota's Gov. George S. Mickelson.

"The Corps is slavishly tied to the barge industry," says William Janklow, a former governor of South Dakota who now heads the upper basin legal team. "But there's no place left to turn. The Corps throws us crumbs and operates the river the way the downstream states want it operated."

Janklow's brash, aggressive style has made him a popular figure in South Dakota. Following a one-term stint as attorney general, he was twice elected governor. He views the federal control of the Missouri River as both unfair and unwieldy.

Janklow also represented the upper basin states in another lawsuit last year, when they unsuccessfully sued the Corps to stop water releases from the Oahe reservoir. Janklow argued that the releases hurt the state's recreation and sport fishing industries. He contrasted the upper basin recreation industry's annual income of \$67 million to the navigation industry's \$14 million in the lower basin.

The upper basin states won a temporary order stopping the Corps from releasing water, but it was overturned just three days later by the 8th U.S. Circuit Court of Appeals. During those three days the hamstrung barge industry caused quick reactions.

"Following that injunction," recalls John Madgett, general manager of Mid-

Continued on page 10



Missouri River at Judith Landing, Montana



HIGH COUNTRY NEWS

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Printed on recycled paper: 45 percent de-inked, 9 percent post-consumer.

Dear friends,

For the first time in the 21-year history of *High Country News*, the paper you are holding is made from recycled stock.

Well, mostly.

This paper — the best deal we have found so far — is made from 54 percent recycled fiber by weight. It's an offset paper instead of newsprint, costs more than twice what our old paper did, and took two frustrating years to find.

HCN prides itself on its appearance. For the past decade we have printed on "MandoBrite," a premium stock manufactured by Boise Cascade. At 72 percent brightness, it is whiter and smoother than most newsprints. Unfortunately, it is also made of 100 percent virgin pulpwood and is bleached by a process that releases dioxins — a deadly toxin (HCN, 2/12/90).

The result is a beautiful but glaring inconsistency, very much at odds with the paper's mission and the beliefs of its staff and readers. Many readers have questioned us about it, in letters that invariably made our collective conscience squirm. In late 1988 we launched a search for a recycled alternative, and that's when we found out what a tiny paper we really are.

The New York Times, which owns a majority share of three large paper mills, recently ordered its mills to at least partially convert to recycled pulp. HCN is printed at the Glenwood Post, which buys its newsprint in block orders for a dozen or so weeklies and shoppers. The Post is locked into a multi-year contract with Boise Cascade, which has no recycled paper operations. Louie Miller, manager of newsprint marketing for Boise Cascade, thanked us for our call, but said that even if his company expands into recycled newsprint, production couldn't begin until late 1992 at the earliest.

We continued to look on our own, finding little until we came across a California company called Conservatree. The company was formed in 1976 by Alan Davis, an environmental lawyer who had searched in vain the year before for recycled stock for an annual report. Conservatree deals solely in recycled and/or dioxin-free papers and is now the nation's largest wholesaler of recycled papers. The company has almost single-

handedly developed the recycled paper market in the United States. By collecting and combining purchase orders from erratic and far-flung markets, it has persuaded mills to experiment with and expand their lines of recycled papers.

Conservatree sales rep Gerard Gleason immediately redirected our search from newsprint to offset paper (used for office supplies and book printing). Of the several options he came up with, one light-weight paper best fit our printer's requirements for folding and cutting machines.

That paper, Conservatree's "Eco-Offset," carries the company's second best environmental rating. It is made (by weight) from 45 percent de-inked paper (recycled from printer overruns or spoils); 9 percent post-consumer waste (returned through home or office recycling programs); 10 percent filler (minerals and clays); and 36 percent virgin pulpwood.

It has 78 percent brightness, making it whiter than our old paper. The 36 percent virgin pulp is bleached in the traditional chlorine bleach process, which produces dioxins. The 54 percent recycled fiber is bleached by a new sodium hypochloride process, which produces no measurable dioxins, but still gives off some toxins such as chloroform gas.

According to Conservatree's calculations, our five-ton test batch of recycled paper, compared to 100 percent virgin paper, will result in a savings of 46.5 standard-size trees; 11,234 kilowatthours of electricity; 19,180 gallons of water; 164.4 pounds of air pollution and 8.22 cubic yards of landfill space.

Perhaps more important is the impact our order will have on the supply and demand of recycled paper. There are basically two types of paper waste that can be recycled.

First is mill scraps and what the industry calls pulp substitutes: unmarked printer scraps and trimmings from factories that make other paper products, such as envelopes, paper plates or time cards. This category contains no inks, glues or waxes. Most of it never leaves the paper mill and traditionally it has been recycled as a matter of good business sense.

Second is the "used paper" category: printer overruns, spoils and post-consumer waste. This is the paper that is piling up in landfills across the nation because there is no market to recycle it. Reclaiming used paper requires a de-inking plant, which costs between \$20 million and \$50 million — an investment corporations are reluctant to make until they are sure of the demand.

To promote recycling, the federal government now only buys paper that contains at least 50 percent recycled fiber. However, the new EPA standards for labelling recycled paper count mill scraps and pulp substitutes, which means mills can still qualify for government contracts and maintain business as usual.

Conservatree says the EPA's new standards allow "phony recycled products that do nothing to address the nation's environmental problems." The company has developed an alternative labelling system that rates paper by its impact on landfills and recycling efforts. Those categories are post-mill material, de-inked material and post-consumer material.

Our new paper fits the last two categories, and our order, though small, should help push the industry towards building de-inking plants to handle used paper.

The cost of becoming environmentally correct is substantial. The new paper comes in at more than two times the cost of the old, which raises our total printing bill by 60 percent. Its heavier weight increases postage costs by 1.6 percent. Combined, the move to recycled paper has increased the cost of printing and mailing an average issue of *HCN* (11,000 copies) from \$1,926.23 to \$2,463.87, for a total of \$537.64 — a whopping 28 percent!

Over the course of a year that will raise the cost of supplying our more than 10,000 subscriptions by \$1,29 each. Our hope is that it will not stay that high, but drop as we and other publications buy larger orders.

Lastly, we admit the move is not without some risk. We had to buy a minimum test sample of five tons, which is enough paper for six or seven issues. And we did it blind. You are looking at this first sample at the same time as we are. So while we judge how it looks and feels, its opacity, text and photo reproduction quality, etc., we invite your comments and suggestions as well.

- Steve Hinchman for the staff

HOTLINE



Wyoming toad makes a comeback

The Wyoming Nature Conservancy in January purchased the habitat of the endangered Wyoming toad from a cattle rancher near Laramie. The 1,800-acre tract on Mortensen Lake is also home to

bald eagles, trout and thousands of waterfowl. Once common in the Laramie Basin, the Wyoming toad was considered extinct by the mid-1980s. In 1987, the discovery of the healthy Mortensen population in a livestock watering area sparked efforts to protect it. The Nature Conservancy will manage the property for preservation of the toad and other sensitive species, as well as for scientific study. To prevent the loss of the species in the event of a disease outbreak or severe weather at Mortensen Lake, the U.S. Fish and Wildlife Service hopes to reintroduce the Wyoming toad to its former range.

To see or not to see

To reduce air pollution over the Grand Canyon and seven other national parks in the Southwest, the Environmental Protection Agency has proposed a 70-percent reduction of sulfur dioxide emissions for the Navajo Generating Station. The EPA's ruling marks the first time the Clean Air Act has been invoked to solve a visibility problem. But Park Service officials, who linked poor wintertime visibility in the Grand Canyon to

pollutants emitted from the nearby coalfired power plant, remain unsatisfied with the EPA's requirements. "Ine National Park Service recommended 90 percent cleanup, not 70 percent," said Jack Davis, superintendent of Grand Canyon National Park. "All of the analyses I've seen of the scenic and economic benefits point to the 90-percent cleanup as the most beneficial." But John McNamara, an official for the Salt River Project, which operates the plant, says evidence from a \$13.5 million study "suggests that we are being blamed for a large part of the haze problem in the Grand Canyon that we are not responsible for." According to The New York Times, the study commissioned by Salt River concluded that the haze resulted from Los Angeles pollutants but was primarily a "natural phenomenon." The EPA proposal would require the plant's owners, one of which is the Bureau of Reclamation, to spend \$400 million on pollution-control equipment. A public hearing on the proposal will be held on March 18 in Phoenix, and the EPA is accepting comments on the proposal until April 19. Write to EPA, attention John Rudd, 401 M St. SW, Washington, DC 20460.

WESTERN ROUNDUP

How Montana cares for its orphaned black bears

CHOTEAU, Mont. - Like the legendary Rip Van Winkle, three black bears will wake to a new world this spring when they come out of hibernation.

Last fall, the bears curled up to hibernate in wooden boxes at the Montana Department of Fish, Wildlife and Parks' animal shelter in Helena. When they wake up, they will be in dens within the Rocky Mountains west of Choteau.

Over the last three years, 15 orphaned or wounded black bears have awakened in the wild after entering hibernation at the shelter. Such bears can't be given to zoos, since zoos have all the black bears they want. State law prevents them from being given to private individuals. The shelter can't keep the more than 200 bears it has raised over the past two decades.

"They're Montana bears," said Vince Yannone, the assistant administrator of the department's conservation education division. "They're part of the ecosystem."

Reintroducing orphaned bears to the wild is no easy task. Yannone doesn't know of any other cases where black bears have been released successfully using this technique, first tried by a researcher in Idaho.

Each fall, biologists prepare dens for the bears on relatively remote public lands in either the Kalispell-Libby area of northwestern Montana, the Absaroka-Beartooth area of southwestern Montana, or the Rocky Mountain Front area of north-central Montana.

Steve McMorran, the animal shel-

ter's caretaker, prepares the bears for hibernation by fattening them on scrap produce donated by Helena grocery stores. Wild bears have mothers to help them find food; orphaned bears don't. By fattening the orphaned bears, McMorran helps them survive until they learn how to live in the wild.

Bears won't hibernate if it's warm or if they continue to find food. Once it turned cold in November, McMorran stopped feeding the bears, and 10 days later they began hibernating.

In mid-January, three bears were placed in dens west of Choteau. Two males bears that had been kept together at the shelter were placed in one den, and a lone female bear in another.

Yannone brought the bears from the animal shelter in cages in the back of a covered pickup truck.

In the parking lot at Rocky Mountain Hi Ski Area, biologists made the final preparations before moving the two male bears, which had woken up during the trip. One of them came to the front of the cage and put his nose near the bars. Meanwhile, the female bear bawled like a baby, sometimes slapping her cage so hard it rocked.

Mike Madel, Montana's bear-management specialist in Choteau, used an air pistol to shoot the bears with tranquilizer darts. While the tranquilizer took effect, Yannone sang a lullaby. Once the bear was asleep, Yannone pulled it onto the tailgate of the pickup where it could be worked on. A bonnet on the bear's head protected it from



Bear in bonnet

Bert Lindler

bright light and helped keep it calm.

Madel fitted each bear's ear with a numbered plastic tag and put a radio collar around the bear's neck. The collar has a canvas spacer that will rot in about a year, allowing the collar to fall off.

The bears were weighed and settled into a sled. After they were covered with canvas for the ride, Madel towed the sled behind his snowmobile.

The den had been dug beneath the roots of a tree on a wooded hillside facing north. Winter weather will linger there, helping to deter the bears from leaving the den prematurely. Snow was deep on the steep hillside, and the crew of five struggled up the hill, pulling a tarp with one of the bears wrapped inside.

Logs covering the den were tossed aside. Madel slid the bear through the narrow entrance tunnel to the sleeping chamber, four feet wide and two and a half feet high. The second bear was tucked in with the first on straw brought from their hibernation box at the animal shelter. The familiar smell would reassure them so they could go back to sleep when they recovered from the tranquilizer. Finally, logs were placed over the den, boughs were spread on top and snow was shoveled on for insulation.

The following morning the lone female bear was put in a den in a drainage several miles away. When Madel checked her two days later, the radio signal indicated she was still in the den as he had hoped.

If the black bear program continues to be successful, the technique could be considered for orphaned grizzly bears, Madel said. Given public acceptance, it could be used to introduce grizzlies into areas where they are becoming scarce or are no longer found.

The other two orphan bears raised at the animal shelter last year, a male and a female, were placed in dens in the Absaroka-Beartooth.

-Bert Lindler Bert Lindler reports for the Great Falls Tribune in Montana.



Mike Madel, left, and Vince Yannone slide an orphaned black bear into a den

Four Corners states richer than believed

The Wilderness Society has published a brief study of the Four Corners states (Arizona, Colorado, New Mexico and Utah) showing that they are neither as poor nor as dependent on natural resources or the federal government as is usually thought.

"Economic and Demographic Overview of the Four Corners States," by W. Thomas Goerold, states that the region's 10 million residents, 75 percent of whom live in 13 urban areas, have a per-capita income of 85 to 90 percent of the national average. The regional economy is now dominated by services, which grew from 15 percent to 25 percent over the last 23 years. Since 1969, government's contribution has shrunk

from 25 percent of the total to 18 percent today (the U.S. average is 15 percent). Natural resource industries - agriculture, forestry, fisheries, farming, energy and minerals - ranked sixth, dropping from 8 to 4 percent.

The most striking figure in this booklet is a map showing the region's richest counties: Pitkin County, Colo. (Aspen), followed by several of eastern Colorado's Great Plains counties and some of Denver's suburbs. The other three states lack the splashes of blue that indicate counties with average per-capita incomes greater than \$19,332.

Although shifts in the region's economy may soften the boom-and-bust cycles associated with typical commodi-

ty extraction in the West, Goerold says, many changes will cause additional pressure on local resources and public lands.

He notes that many of the newcomers hold environmental values at odds with those of old-line mining and ranching interests, and support protection of public lands. But "demands for water, land, and energy by a larger, increasingly urbanized population threatens the very quality of life that attracts newcomers in the first place."

The 28-page report was produced by The Wilderness Society, Four Corners Ecoregion Project, 777 Grant St., Suite 605, Denver, CO 80203; 303/839-1623.

- Ed Marston, HCN publisher and Michael Bencic, HCN intern

HOTLINE

'Endangered' status for pine tree

A Montana conservation group has petitioned the U.S. Fish and Wildlife Service to list the whitebark pine tree as endangered in the Pacific Northwest. The seed of the whitebark is an important food source for many animals, including grizzly and black bears. The Great Bear Foundation's Dan Connor says the loss of the whitebark could have devastating effects on northern Rockies bears which depend on its seeds in preparation for winter. Sixty years of active fire suppression has allowed competing species to drive the once-common tree out of much of the Northwest. Disease, insect infestations and warming climates have not helped. The whitebark is a victim not of logging or direct habitat destruction but of long-term mismanagement, not easily corrected. "Even if the tree is listed, we may not be able to save significant stands," says Connor. "But at the very least it will cause federal fire policies to be rethought."

New drilling regulations on BLM lands?

The Interior Board of Land Appeals recently ruled in favor of an appeal calling for more stringent environmental regulations for oil and gas developments on Bureau of Land Management land. The board validated concerns expressed in the appeal by Michael Gold, operator of a wilderness camp for children. Gold charged that the permit for a drilling operation in the San Juan Basin had been issued without adequate consideration of cumulative environmental impacts. The Four Corners region now has over 9,000 wells and 10,000 miles of roads and pipelines. Oil and gas drilling in the Rocky Mountain region rose 39 percent in 1990, while permits to drill increased by 50 percent. According to Phil Hocker of the Mineral Policy Center, the ruling is significant because "it would require all existing operations on BLM land to look back and see if they comply with the National Environmental Policy Act." BLM officials and industry representatives have opposed the ruling vehemently, claiming it would require full Environmental Impact Statements for every well. Although the board's ruling would mandate an EIS in the Gold case, it specifically does not require an EIS on every permit to drill. Most oil and gas wells on public lands operate with few or no environmental restrictions, meaning many existing operations would be fully assessed for the first time. Interior Secretary Manuel Lujan will decide on the appeal within the next few months.

Deal revives N.M. defense research

Faced with shrinking budgets, New Mexico's three largest defense research labs have agreed to work together more closely. Los Alamos and Sandia national laboratories and the Air Force's Phillips Laboratory signed the deal on Jan. 24. They say the agreement should help New Mexico's economy, heavily dependent on defense-related research, by luring big projects to the state. The laboratories' first major collaboration will be a \$100 million, four-year study of a nuclear-powered Soviet space system. New Mexico has been criticized for clinging stubbornly to its waning defense economy instead of looking to new industries (HCN, 2/26/90). The cooperative move should save some research jobs and, for now, encourage the state's private defense-technology industry.

BLM to get 'riparian showcase' in Nevada land swap

DEETH, Nev. - Cattlemen, corporate developers and conservationists have come to a compromise on the fate of the Mary's River in northeastern Nevada. After all sides agreed that they could put together a swap in which everyone would win, the Bureau of Land Management approved a once hotly contested land exchange that will allow the agency to manage much of the river.

Northeastern Nevada's Sagebrush Rebels succeeded in holding up the original exchange proposal (HCN, 7/2/90) until they won an apparently unprecedented concession: a "reverse exchange" of equivalent acreage.

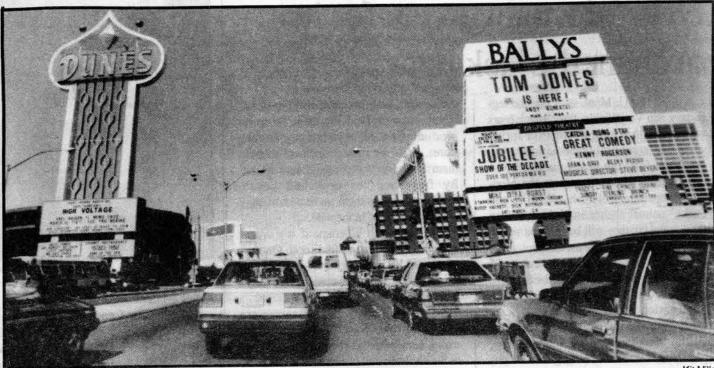
The revised deal has two parts. First is the original exchange. Roughly 47,000 acres of private ranchland in Elko County, including choice stretches of the Mary's River and its tributaries, will go to the BLM to be managed as a riparian "showcase." The land is the remnants of the huge Rafter Diamond Ranch, which is now owned by Olympic Land Management, an Arizona land development company. In exchange, the BLM will give Olympic Management some 500 to 700 acres of public land slated for "disposal" within the Las Vegas city limits.

When the deal was first proposed, the conservative ranchers and politicians who hold sway hereabouts vigorously objected to the federal government's gaining control over even more land in Elko County, 70 percent of which is owned by the government. Elko County officials also complained about the loss of agricultural revenue and property taxes from the Rafter Diamond.

To quell the opposition, Olympic Management and the BLM offered to put together a second, "reverse" exchange. Olympic agreed to buy some 500 to 700 acres of "environmentally sensitive" private lands in the Las Vegas area for the BLM. In exchange, the BLM will give roughly 47,000 acres of public lands in Elko County to Olympic Management. The company, in turn, has signed contracts to sell the lands to many of the same ranchers who initially opposed the trade.

Norman Glaser, a former Nevada state senator and one of the original Sagebrush Rebels, said, "The double exchange made the deal mutually advantageous to the ranchers, the public, the BLM and Olympic."

At first, Glaser joined a fellow rebel, state Sen. Dean Rhoads, in leading the opposition to the trade. By putting politi-



How much more growth can the Las Vegas Valley take?

son, the rebels were able to hold up the Environmental Assessment of the initial exchange proposal while they "whittled it down," said Glaser. The Mary's River acreage that the BLM sought to acquire was cut by some 25 percent, including almost half of the riverfront meadows and wetlands, which were or soon will be sold to adjacent ranchers.

Norman Glaser and his brother, who own a ranch just downriver from the Rafter Diamond, were able to pick up 1,000 acres of meadowlands along the Humboldt River below its confluence with the Mary's River. A 7,690-acre chunk of meadows was sold to the Wright Ranch, which straddles the middle section of the Mary's River.

The sales whittled away at the riparian "showcase" but at the same time brought some key opponents in on the deal. However, the real deal-maker was the "reverse exchange."

"That's the only way this thing could be consummated," said Merlin McColm of the Elko County Conservation Association, which lobbied long and hard to see the Rafter Diamond turned over to the public. "We told Olympic the only way to win is to get them on our side. Our feeling was, 'We'll have to offer them something.'

When the Glaser brothers and some 39 other ranchers were cut in on the "reverse exchange," it virtually eliminated opposition to the deal. The Glasers, for of public land - 2,560 acres - that lie amidst their 25,000-acre ranch. Most of the public lands that will be sold to ranchers like the Glasers consist of checkerboard public sections interspersed with private holdings, vestiges of the Central Pacific Railroad land grants.

Dave Vandenberg, the BLM real estate specialist who helped put the deal together, said the double exchange will help "consolidate management" by the BLM and will also strengthen existing ranching operations.

"We're getting a lot of problems and longstanding conflicts resolved with this deal," said Vandenberg.

Conservationists are happy, too. Merlin McColm called the deal a "good model for compromise, almost a storybook example of what can be accomplished." He said, "The Mary's River was our original concern, and now almost the entire system will be in a riparian management program."

The Environmental Assessment of the land exchange promised restoration of more than 70 miles of riparian habitat, from the point where the Mary's River tumbles out of the Jarbidge Wilderness to its confluence with the Humboldt River. Habitat improvements will increase the population of Lahontan cutthroat trout from an average of 340 to 2,500 fish per mile within 10 years, the document said, possibly allowing the "delisting" of the threatened species.

The deal also appears to be good for

the threatened desert tortoise and for recreation lands near Las Vegas. Private properties targeted by the BLM in the southland include tortoise habitat as well as additions to Red Rock Canyon and recreation areas adjoining Lake Mead.

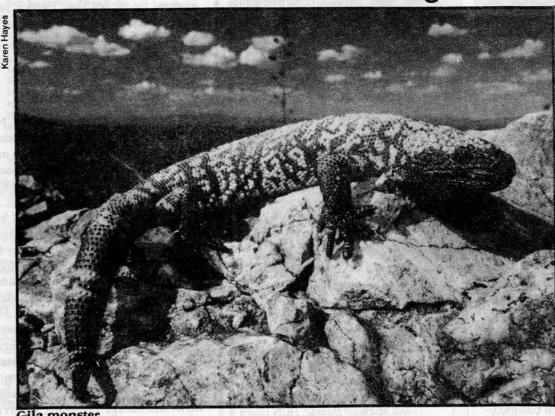
Dean Rhoads and the Nevada Cattlemen's Association remain opposed to the exchange in principle. But everyone else, including the Elko County Commission, has come on board. Both parts of the double exchange appear on track; the first exchange could be put in motion early this spring.

Some big questions remain. Another Environmental Assessment will be required before any part of the exchange goes through. Full "resource inventories" will be conducted, at the expense of the private parties, before any lands are included in the "reverse exchange." The BLM already has rejected some of the ranchers' applications.

And it will be at least five years, said Guy Inzalaco of Olympic Management, before any building begins on the land the company will acquire in Las Vegas. By that time, the city's Colorado River water supply could be overtapped. To continue growing, Las Vegas will have to seek more water from the Colorado River and, ironically, from rural Nevada, which is already putting up a separate fight to stop the city's expansion.

— Jon Christensen Jon Christensen is a free-lance writ-Carson City Nevada

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When preservation tears at Hispanic and Indian roots

MOUNTAINAIR, N.M. — After 50 years of living in the central New Mexico hills, Abenicio "Bennie" Sisneros decided it was time to move when he saw a map showing boundaries for a new national monument coming right up to his property line. Figuring that "you can't fight the government," Sisneros moved to Belen, a town about a half-hour's drive west of Mountainair. That was in 1988, after he had started building a brick house for his son just north of his own in Mountainair.

Today, what was to be a house is a shell, with a wooden door and a wooden window frame jutting into the air. The scene symbolizes a ceaseless dispute between the Sisneros family and the federal government over land, money and history.

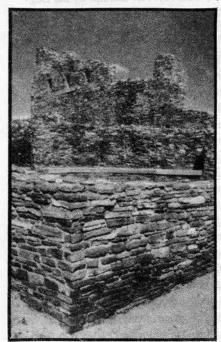
Bennie Sisneros's problem was that his brick shell stands on a hillside overlooking the reddish sandstone walls of a 350-year-old Spanish mission. The Park Service is buying 430 acres of land for the Salinas Pueblo Missions National Monument to protect these and other ruins, which date as far back as the 12th century.

As Sisneros tells it, the National Park Service was planning to buy land for the monument from him and others in his family and cut off access to his house via an old dirt road he'd used for years. Although the Park Service was also planning to build a new road he could use, Sisneros recalled that the Park Service had recently locked yet another old dirt road nearby that his brother Ray had used for years to get to his land to run cattle. Ray Sisneros was allowed to use that road only to remove his belongings, while he and the government fought in court over the government's purchase price for condemning his land.

Bennie Sisneros and other Sisneros and Gonzalez family members say the government's privately appraised price of about \$1,000 an acre is too low. Family members also say they don't want to cut their ties to land that has been in their names since the Civil War.

"You have these roots on the land and they want to wipe them out like you never existed, like your parents never existed, like your grandparents never existed," said Beatrice Lucero, a member of the Gonzales family. Lucero now lives in Albuquerque, where she owns a convenience store. But, she said, "I was born there, near the ruins. I was married there. We go for Easter, Christmas and New Year's there. Our parents are buried there."

After selling all but 130 acres, landowners in the Sisneros and Gonzales families say they don't want to sell any



The ruins of a Spanish mission



Abenicio Sisneros walks through the house he started building for his son

more and that they had previously sold land only out of fear of condemnation.

'Preserve and Protect' vs. land rights

In a state where history is part of the landscape, preserving the past is an article of faith among many planners, environmentalists and even some business owners. New Mexico already has at least 15 parks and monuments devoted to protecting Anasazi ruins, Spanish colonial settlements and Civil War battlefields, among others.

But there are three separate conflicts going on in the state — the one at the Salinas Pueblo and two others. All pit the federal government's mission to "preserve and protect" against Hispanic and Indian groups waving the banner of land rights.

In the second dispute, a group of descendants holding an old rural land grant west of Albuquerque are fighting federal plans to buy 2,000 acres of cliffs holding thousands of Indian rock art petroglyphs for the new Petroglyph National Monument.

The third pits religious and traditional leaders of the Zuni Indian Pueblo south of Gallup against the federal government and tribal government leaders over plans to create a new Zuni-Cibola National Historical Park. It would be the first national historic park on Indianowned land.

All three disputes pose unusually knotty questions in a state where Hispanics, Anglos and Indians have lived in uneasy coexistence for 150 years. For there is also money to be made in historic preservation. A recent random survey of nearly 700 tourists found that New Mexico's history ranks second only to its scenery as a tourist attraction. Local developers and chambers of commerce are often big backers and beneficiaries of historic preservation because they think it means more business.

At the planned Petroglyph monument, one of the biggest federal government payouts for land acquisition will go to Westland Development Co. Westland is a private landowner that will sell 2,000 acres of prime petroglyph country for preservation. It also plans to build a golf course and hotel on some neighboring land that it won't sell to the government.

Park Service officials such as Diane Souder in Albuquerque say studies show that the Petroglyph monument, which Congress approved last year, could draw as many as 400,000 people a year. Those tourists could pour up to \$1.6 million a year into Albuquerque's currently slumping economy.

But to the Park Service, attracting tourists is only an afterthought, Souder said. The agency's first priority is to protect "the resource" — ruins that, on some of the new monuments, go back before 1000 A.D.

Some people's roots on the land, however, are as old as the ruins.

The Sisneros family, for instance, says its research has found that its ancestors had lived near what is now Mountainair in the 1650s. That was a few decades after the Spanish had colonized the area and started building missions to Christianize the native Pueblo Indians. The Spanish and Indians abandoned the area around 1680 because of drought, famine and Apache raids. But the Spanish — including Sisneros family members — were back by the middle 1800s.

At the petroglyph park, Indians had carved most of the rock art long before the white man arrived. But Spanish colonists did carve 100 crosses on the rocks, and descendants of the land grant are asking that any government land-purchase deed include a guarantee that they will have a legal right of access to the land for religious ceremonies. So far, the Park Service has refused, saying it needs to buy and control the land to manage it properly. It will, however, recognize the land grant heirs in its monument programs and put them on the monument's governing board.

South of Gallup on the Zuni Indian Pueblo, tribal religious leaders have turned the tables on the Park Service by defeating plans for a Zuni-Cibola National Historic Park.

In the late 1980s, Congress had approved this park to preserve the Zunis' ruins, some going back to the 12th- and 13th-century days of the Anasazis or even before. But in early 1990, tribe members voted by a nearly 8-to-1 margin against the idea, fearing that the park would bring a flood of tourists and damage the pueblo's spiritual life. Since then, Congress has voted to give the Park Service until 1994 to negotiate an acceptable agreement with the pueblo. The Park Service says there will be no park without the Zunis' approval.

Another 'Beanfield War'

The outcome of the Salinas dispute seems inevitable. Congress authorized creation of the monument a decade ago, and the Park Service has the ultimate weapon: the power to condemn land. That hasn't stopped the fight from sometimes seeming like a scaled-down version of John Nichols' novel *The Milagro Beanfield War*, about northern New Mexico Hispanics fighting the government over land and water.

Twice, defiant Salinas-area landowners near Mountainair have barred Park Service appraisers from entering their property. Three times, the Park Service has started condemnation against landowners who didn't want to sell or didn't like the government's price. Landowners have blasted the Park Service for tearing down the home of Bennie Sisneros's late Uncle Fred, a short, thin, gruff man who was the nation's oldest park ranger when he died in 1988 at the age of 93. He lived in a converted Works Progress Administration-era schoolhouse just east of one of the Salinas missions, and interpreted the ruins for visitors. The Park Service said his 50-year-old house had been altered too much to be historic.

The Park Service says it will present the family's century-old history on the land in its exhibits. But it needs some of the families' land for a new main monument road, it says, because the old road passes right over ruins. And, the Park Service says, the landowners' 20th-century houses, stores and RV parks must go, because they are "intrusive" and threaten the ruins' integrity. The landowners, however, note that they have donated small pieces of their property to the government for roads or to protect ruins; some have even stood on scaffolds to do stabilization work to keep the mission ruins from crumbling. Only six 17th-century Spanish missions remain in the United States.

The Salinas monument also includes units at the old settlements of Gran Quivira, Abo and Quarai, outside the town of Mountainair. White, blue, red and green pictographs — ancient Indian religious paintings — dot the red-flagstone-laden hillsides surrounding the Abo ruins. Quarai has dams, irrigation ditches, walls, foundations, and other remains of War of 1812-era Spanish ranching settlements.

Ranching ruins are uncommon in the United States. "In most places where they settled this way and succeeded, it became a town, and the settlers' construction just disappeared," said Park Service historian Jake Ivey in Santa Fe.

"The reason this park exists today is that my ancestors took care of the land for hundreds of years," Bennie Sisneros said. "Now, they're going to kick us out of here at their price whether we like it or not."

— Tony Davis

Tony Davis is a reporter for the Albuquerque Tribune.

BARBS

If you would just stand still, this would work.

After two years of frustration, the Montana Department of Fish, Wildlife and Parks has decided to abandon an attempt to track grizzlies by satellite. Trackers said satellites' effectiveness was diminished by rugged terrain as well as by the bears' tendency to chew off their collar transmitters.

Easter Jeep Safari gears up for 'high noon' in Moab

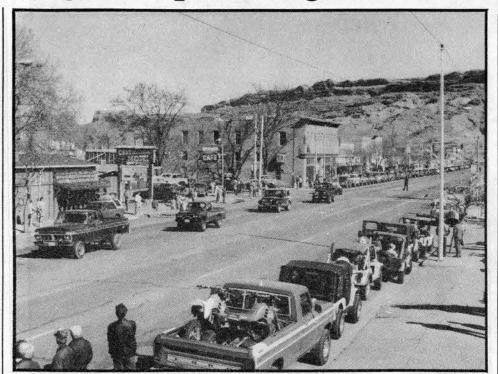
As the scheduled date of Moab, Utah's annual Jeep Safari approaches, Grand County officials continue to battle conservationists over the fate of the week-long event. If it is allowed to take place, the 2,000-vehicle convoy will cross proposed wilderness areas and enter bighorn sheep and peregrine falcon habitat during lambing and hatching sea-

In November, a coalition of environmental groups filed an appeal to stay the Bureau of Land Management's five-year permit issued to the Moab Red Rock 4-Wheelers for the annual Easter Jeep Safari. The BLM had issued the permit without completing an Environmental Impact Statement for the event.

Angry Grand County officials have asked Interior Secretary Manuel Lujan and other federal and state officials to deny the stay. They argue that the measure and others like it threaten the economies of rural and remote Utah communities.

Grand County voters in 1989 chose an economy based on tourism over an industrial one propelled by a toxic waste incinerator (HCN, 1/2/89). Disgruntled officials say it was an environmentally sound decision that conservationists should support. "First it was industry; now they don't want tourism either," says County Commissioner David Knutson, whose own business renting fourwheel vehicles profits from the safari. "We're being shut down on all fronts."

But Ken Rait of the Southern Utah Wilderness Alliance says the appeal and stay would not affect Moab's economy. "We are not trying to close the event



The 1989 Easter Jeep Safari in Moab, Utah

Becky Kelly

down - just regulate it," he says. The appeal for a stay came only after both the BLM and the Red Rock 4-Wheelers rejected the idea of a compromise restricting the event to non-critical areas.

The stay on the 4-Wheelers' permit would prevent the group from holding this year's Jeep Safari and suspend all four-wheel access to the 28 trails in question. It would reaffirm the position held by the Sierra Club, the Wilderness Society and the Southern Utah Wilderness Alliance, which hope to push the BLM to complete an Environmental Impact Statement and limit the event in future years.

But even if the stay is granted in time to block the event, four-wheel enthusiasts already in Moab for the Safari could invade the canyon country. "There will be four-wheel activity here on Easter week," says Knutson. "The question is whether it will be organized and controlled or not."

Knutson, other county officials and the BLM call environmentalists "irresponsible" for trying to shut down the "protective" regulation of four-wheel activity by the Red Rock group.

Jane Leeson of the Wilderness Society agrees that the stay alone will not prevent four-wheelers from entering the

critical areas. It is the BLM's responsibility to enforce the stay, she says. "Only if the BLM decides to abdicate their responsibility for that land could there be damage."

But the BLM insists it would not be able to keep four-wheelers off the trails. "I don't know how to stop them," says Regional BLM Director Gene Nodine. "We'll do the best we can, but the environmental groups created the problem, so they can take all the credit for any damage. I'm not sending my people out there to be shot."

The Interior Department Board of Land Appeals' decision on the stay remains to be issued, despite a request by the Southern Utah Wilderness Alliance for an expedited review. Unless the decision comes before this year's safari, the vehicles will enter the critical areas with the Red Rock 4-Wheelers as planned. If the stay is issued, the fate of the critical areas will lie in the BLM's hands. And the BLM insists that the Red Rock 4-Wheelers, in this case, are better equipped than the BLM to protect those areas.

"Should the Bureau fail to act, we will pursue it at a state and federal level," says Leeson. "It would be a conscious decision not to carry out their responsibilities."

As March 23 approaches, bighorn lambs and peregrine hatchlings are appearing in the canyon country, and the jeeps are lining up in Moab. "We're waiting for the word," says Knutson, "but everything's go."

- Erika Zavaleta, HCN intern

Nevada clamps down on importing hazardous wastes

In what one environmental group has hailed as a landmark decision, the Nevada Division of Environmental Protection in December denied a request by U.S. Ecology to bring eight types of hazardous wastes into the state.

The company has operated in Nevada since the mid-1960s and brings outof-state wastes to its disposal site, near Beatty. But its recent request concerned several types of toxic material - includ-

ing solvents, chemical wastewater, and sludges with heavy metals — that are not covered under U.S. Ecology's existing permit. No wastes of these kinds are generated by Nevada firms.

Bob Fulkerson, director of Citizen Alert, a group that monitors hazardous waste issues in the state, said the decision is important because it shows that the division will not easily be coerced into changing its environmental regulations to suit business interests. "We commend the Nevada Division of Environmental Protection for rolling up the welcome mat on toxic waste dumping in the state. Any new hazardous waste facility must be used for waste generated within Nevada."

NDEP Administrator Lew Dodgion said the denial represents the first time Nevada has formally cited its 1987 hazardous waste management plan in refusing an application from a business already operating a dump site in the state. The current regulations "discourage the inflow of out-of-state wastes," he said, adding that when companies learn about the required procedures "that's about as far as they usually get." The Reno Gazette-Journal reports that U.S. Ecology did not appeal the NDEP ruling to the Nevada Environmental Commission by the Jan. 25 deadline.

Until 1987, 23 companies had been expressing interest in bringing out-ofstate waste materials into Nevada for disposal or incineration. This was part of Democratic Gov. Richard Bryan's impetus for directing the Environmental Protection Division to draft an updated management plan. After the new standards were adopted, all the companies but one withdrew their requests. The plan requires much stricter tests for evaluating new waste disposal facilities or expansions to existing facilities, and an applicant must show that the operation will not damage the environment or threaten public health.

Dodgion emphasized that the existing program does not provide a total prohibition against waste disposal in Nevada. It addresses hazardous materials normally generated by factories and industrial processes, but it does not cover nuclear wastes or non-toxic items destined for a typical solid-waste landfill. Requests to bring material into the state are reviewed on a case-by-case basis.

In 1990 approximately 95 percent of the 147,000 tons of hazardous waste material disposed of in Nevada came from other states, according to Dodgion. He observed that it can be economically attractive for a waste producer to ship hazardous materials to less regulated sites, but that often there is little benefit to the receiving state.

The decision to deny U.S. Ecology represents something of a turn-around on the out-of-state waste issue for Nevada. In 1989 Elko County offered to build a large new landfill and import solid wastes, including asbestos. That same year the state Legislature passed a bill allowing 50,000 tons of hazardous waste per year to be burned in Lincoln County. Gov. Bob Miller, D, vetoed the bill (HCN, 2/26/90). An attempt by the Legislature to override his veto this session is considered unlikely to succeed.

In a related situation, the NDEP has been sued by the U.S. Department of Energy for refusing to issue environmental permits for the proposed high-level nuclear waste disposal site at Yucca Mountain. Dodgion emphasized that the state remains vehemently opposed to the DOE on this matter, and that the stand of his division is consistent with positions expressed by the Nevada Legislature and the state attorney general's office.

Dodgion cautions other Western states "to be on guard against becoming viewed as dumping grounds" (HCN, 9/10/90). He feels that states and businesses that generate hazardous waste materials must accept more responsibility for disposing of them properly at the source.

Reno company convicted in toxic waste trial

Reno jurors in December convicted the now-defunct Aerolite Chrome Corporation in Nevada's first criminal prosecution for violation of the Clean Water Act. Officials shut down the operation in February 1988 after investigation showed the company was flushing toxic materials into the Reno sewer system, the Reno Gazette-Journal reported. Aerolite had installed a required pretreatment system in 1986 to purify waste water from the rinsing of electroplated parts, but the system "never worked just quite right," according to a prosecutor in the case. When pools of contaminated water formed on the operation's shop floor, the company began to pump it into a toilet late at night and on weekends to avoid detection. A former Aerolite employee who confessed to hatching the idea now faces up to six months in jail under a plea-bargain agreement. He acted as key government witness in the trial of former Aerolite Chrome President Arthur Thomas, who allegedly sanctioned the disposal plot. Thomas faced up to 33 years in prison and millions of dollars in fines for 11 counts of discharging pollutants into the city sewer system. However, the government failed to prove Thomas's guilt conclusively, and he was acquitted. Thomas' attorney, Pete Gibson, says he will file a motion to set aside the verdict against the company on grounds that a corporation is responsible only for the actions of its officers. "If an officer is acquitted," said Gibson, "it's my belief that the corporation cannot be held responsible."

Arizona town resists railroad oil dump

Residents of Red Lake, Ariz., are fighting to keep an industrial dump out of their back yards. The Atchison, Topeka & Santa Fe Railway wants to bury 17,000 cubic yards of dirt saturated with old steam-engine bunker oil on 15 acres of piñon pine stands near Red Lake. The proposed site, which would be clearcut to accommodate the dump, adjoins a federally designated scenic corridor to the Grand Canyon. Locals fear the oil-drenched dump could leak toxics and create flashflood runoffs in heavy rains. The Coconino County Planning and Zoning Commission rejected a permit request for the project in late January, but the Santa Fe Railway is appealing the decision. A final hearing scheduled for April 1 will determine the dump's fate.

- Michael Bencic, HCN intern

Preservation or development for Idaho's Oregon Trail?

BOISE, Idaho — What would the pioneers think? The Oregon Trail is almost gone. More than 85 percent of the trail already has been lost to development, reports the National Park Service. Now preservationists and developers are wrangling over a segment of the trail here that still contains visible wagon ruts.

Boise developer Al Marsden and potato magnate J.R. Simplot want to build a subdivision called Columbia Village that would straddle the western end of what is called the North Trail, southeast of Boise.

"I would hope that the developer would see the national significance of this and preserve [the trail]," said historican Larry Jones of the Idaho State Historical Society. "One of the reasons Boise came to be is because of this trail."

Jones believes that about 250 miles of Idaho's portion of the Oregon Trail is still visible. Approximately 160 miles of that is in the Boise area. The trail comes into Boise from the southeast, splitting into several branches that have become the capital city's main arteries.

But Marsden and Simplot are less than enthusiastic about preserving the trail. At a County Planning and Zoning meeting in January, Marsden said, "There are probably nine or 10 placements of the Oregon Trail through this area. This developer and this landowner are not about to preserve all these different route locations. Boise city has destroyed all of them in relation to development [and it is] not a policy that I know of where it's required to preserve them."

Upon further questioning from the Planning and Zoning Commission, however, Marsden said he "would cooperate in some form if it makes sense to do so."

A visit to the land Marsden wants to

develop reveals a sagebrush flat, crisscrossed with jeep tracks, and many undulating swales covered with highdesert vegetation. To the uninitiated, these brushy hills reveal no sign that more than 53,000 emigrants rolled their wagons through the Snake River Plain nearly 150 years ago.

Even residents of the adjacent subdivision, Oregon Trail Heights, who came to the public hearing to object to traffic patterns Columbia Village might create, did not know that their subdivision was situated on Oregon Trail ruts. When Oregon Trail Heights was built in 1978, Ada County planners recommended that the trail be preserved as a greenbelt. But the recommendation had been deleted by the time the county commissioners approved the project. All that remains of the trail now is a cut where wagon trains notched the earth as they headed toward the Boise River.

Sheri Freemuth, an Ada County planner, admits that trail preservation in Oregon Trail Heights slipped through the cracks. "The Ada County zoning ordinance has no specific provisions or regulations to protect historic property," Freemuth said. The county planners can only make non-binding recommendations to the Planning and Zoning Commission and the Board of County Commissioners.

The planners are recommending that the developer of Columbia Village submit a plan that incorporates the trail into the subdivision. If the commission agrees that preservation is needed, a permit to develop the land can be denied if the developer does not comply with the commission's directions.

The controversy has prompted Ada County planners to pursue the adoption of a specific zoning ordinance that would prohibit construction on the trail. As an incentive for preserving the trail, county planners now offer developers a "density bonus" that transfers the density of one area of the subdivision to another, allowing the developer to maintain the same land value. Other incentives include tax credits, land exchanges and compensation.

"There is too much historical impact for us to ignore the possibilities that we have in front of us," Oregon Trail Heights resident Mildred Hall told planners at the January meeting. She is the great-granddaughter of Asa Abbott and Anna Marie Shelby Abbott Spooner, who crossed the Oregon Trail in the early 1850s.

The sesquicentennial of the Oregon Trail is in 1993, and historical research and preparations for the celebration have been in the works for years. Oregon will spend \$63 million developing four interpretive sites in Baker, Pendleton, The Dalles and Oregon City, and another \$2 million promoting the event.

Idaho, too, is promoting cultural and historical tourism. "It is our desire ... to educate people about the trail," said John Bertram, president of Planmakers of Boise, a planning development firm that has been hired by the state of Idaho to help bring off the sesquicentennial celebration. "The Oregon Trail has been around so long we've forgotten about it. It was the settlement of the West. It is time to revive it."

Jill Thorne, executive director of the Oregon Trail Coordinator Council, feels that the success of the sesquicentennial depends on coordinated efforts to involve all of the trail states — Missouri,

Kansas, Nebraska and Wyoming as well as Oregon and Idaho. The primary route of the Oregon Trail stretches 2,170 miles from Independence, Mo., to Oregon City, Ore. It cuts 18 miles through Missouri, 173 miles through Kansas, 427 miles through Nebraska, 495 miles through Wyoming, 510 miles through Idaho and 547 miles through Oregon. More than half the trail — 1,092 miles — is in private ownership.

In 1978, seven trail segments totaling 318 miles were placed on the National Historic Trail Register. The trail segments were chosen because of their outstanding historic and scenic values, visible wagon ruts and cross-country route. Idaho and Wyoming each have two segments; Oregon has three. All of the segments contain some private land. While the trail is protected on public land, development on private land is subject to local laws of the counties or cities in which segments lie.

Students recently wrote letters to protest the building of Columbia Village on trail remnants. "I'm just appalled," said Gail Sant, an eighth grade history teacher in Boise. "Oregon is setting aside \$63 million for the Oregon Trail, and here we are going to put subdivisions on ours. There has to be some sort of ethics — if not enforced, at least encouraged — so that developers are looked at in terms of edifying a community."

For more information, write the Oregon-California Trail Association at 524 S. Osage St., Independence, MO 54051-0519.

— Deb Rose

Deb Rose lives in Boise and writes for the Northern Rockies News Service.



Dean Miller

Oregon Trail Heights subdivision sits above a cut in the earth made by the thousands of covered wagons that traveled the Oregon Trail

HOTLINE

M.L. King, Chief Joseph clash in Montana

In an attempt to undermine support for a statewide Martin Luther King Jr. holiday, Montana state senator Jerry Noble, R, introduced a bill to honor instead the famous Nez Perce leader, Chief Joseph. Officials of the Nez Perce tribe, however, opposed Noble's bill, calling it a political ploy. The bill honoring King has since been approved by the state congress, leaving Arizona and New Hampshire as the only states that do not honor King with a holiday. In the meantime, officials of the Confederated Salish and Kootenai Tribes of Montana called for a holiday honoring all of Montana's Native

Americans, not just Chief Joseph, according to the *Char-Koosta News*. But rather than conflict with the King holiday, they said, the new holiday should fall on the second Monday in October — Columbus Day. The tribes' vice chairman, Laurence Kenmile, explained that Columbus Day is a day of mourning for many tribes.

Native American legislators are few

Last November Dan Jerome became the first Native American elected state senator in North Dakota. "It's really sad that I happen to be the first," he said. "There are many, many [Indian] people better qualified than me who could have been in the Legislature." Jerome, part Chippewa, is one of 28,000 Indians in the state, reports the

KMHA/Native American News. The 1990 U.S. census counted approximately 2 million Indians in the country. According to the National Conference of State Legislators, only 20 Native Americans currently serve in Western state legislatures, and fewer than two dozen in legislatures nationwide. Colorado Rep. Ben Nighthorse Campbell is the sole Native American in the U.S. Congress. The only other Indian ever elected in North Dakota was Art Raymond, a Lakota Sioux, who served three terms in the state House of Representatives during the 1970s. Raymond notes that Native American culture and spiritual beliefs make it difficult for most Indians to run for elected office. But tribal councils are gaining influence and working more with the states. "We need our people there," Raymond said. "It would help for

more to try and get elected to influence policies that affect us."

Second owl found nailed to sign

A dead owl was discovered nailed to a state forest sign on Washington's Olympic Peninsula on Feb. 7. It was the second such incident this year. In January, a spotted owl was found nailed to a sign in the Olympic National Park, along with a note that read, "The match has yet to be struck." Over the next several weeks, a ranger station was burned and a park restroom was vandalized with a sledgehammer. The more recent finding turned out to be a barred owl, a slightly larger bird than the spotted owl. The U.S. Fish and Wildlife Service is investigning whether the incidents are linked.

The ups and downs of shifting to recycled newsprint

Recycled-content laws are obliging newspapers in some states to use old newspapers to make new ones. But some newspapers in the West are missing out on the party because the demand for recycled newsprint far outsteps the supply.

Nearly 21 years after Earth Day, 1970, the newsprint industry has announced over one billion dollars' worth of investments in de-inking and repulping plants and equipment, changing the manufacturing practices of a century. Two years ago there were nine recycled-newsprint mills in North America. Today there are 10, with 16 more under construction and 22 more under consideration, says American Newspaper Publishers' Association spokesperson Joseph Lorfano.

Facing an acute lack of space in landfills in the 1980s, many cities had set up recycling programs for newspapers but found few takers for the end product. About two years ago, recognizing that they had overlooked the demand side of the equation and in urgent need of relief from the newspaper glut, state legislatures began requiring that newspaper stock include some recycled content.

So far, Arizona, California, Missouri, Wisconsin, Maryland and Connecticut require some recycled content. In seven more states in the East and Midwest, newspaper publishers have agreed to include recycled content in their stock on a voluntary basis. Legislatures in seven additional states are currently considering mandatory content laws, according to the American Paper Institute (API). Opposition from the Pacific Northwest Newspaper Publishers Association killed a mandatory content bill in the Washington Legislature in 1990

To qualify as recycled, newsprint stock must contain at least 40 percent recycled fiber. The California bill, passed in 1989, required publishers to include recycled content in 25 percent of the newsprint they use by Jan. 1, 1991. The percentage will rise to 30 percent in 1994 and 50 percent by the year 2000. California by itself represents 10 percent of the U.S. newspaper market.

Following California's lead, Arizona's Legislature last year passed the Solid Waste Recycling Act, requiring consumers of newsprint to use at least 25



Smurfit Recycling Co.

Smurfit's mills in Oregon use 325,000 tons of waste paper a year

percent recycled stock in their papers by July 1, 1991. The percentages climb to 50 percent by the year 2000.

Terrific and dirty papers

Newspaper publishers and the pulp and paper industry have been coming under increasing public scrutiny on the recycling issue.

Congressman Dick Schulze, R-Pa., last summer announced a "Terrific Ten" among newspapers that use recycled newsprint, and a "Dirty Dozen" for newspapers using very little.

The Denver Post placed fourth in the Terrific Ten, the Portland Oregonian fifth, and the Tacoma Morning News Tribune ninth. The Wall Street Journal, USA Today, The New York Times, The Washington Post, The Los Angeles Times and The San Francisco Chronicle placed among the Dirty Dozen.

Schultze cites the Worldwatch Institute figure that one Sunday edition of *The New York Times* can use as many as 75,000 trees.

"The most disturbing fact," he says, "is that most U.S. newspapers use little if any recycled newsprint. This has contributed to a solid-waste crisis, the needless loss of millions of acres of forest lands, increased air pollution, increased global warming and demand for imported newsprint — 58 percent — to meet our needs."

But the demand created by the mandatory-content laws and voluntary agreements is causing new, though temporary, problems: shortages of recycledcontent newsprint and even of old newspapers.

In Oregon, where citizens recycle a remarkable 68 percent of their newspapers, most of the old newspapers end up at the Jefferson Smurfit mills. With two plants in Oregon and one in California, Jefferson Smurfit is the only recycled newsprint manufacturer currently operating in the Northwest. Lissa West of the Oregon Department of Environmental Quality says, "Right now we could only supply about one-third of what they [the company] can use."

Jim Tisdale, vice president of sales and marketing at Jefferson Smurfit, says, "We rely heavily on going down to the Bay area, sweeping over to the Salt Lake City area and into Vancouver, British Columbia. We keep pipelines open as far as the Twin Cities, southern California and Denver."

Smurfit finds its product in strong demand. "We're running flat out," says Tisdale. He says Smurfit's inspiration to switch to recycled content was the oil shortage caused by the Arab oil embargo.

Supplied by Smurfit, The Denver Post, the Salt Lake City Tribune and Deseret News, The Los Angeles Times, The Oregonian, Tacoma's Morning News Tribune and The Idaho Statesman had been able to claim some recycled content in the past, when demand was not so high.

One Terrific Ten member, The Denver Post, has seen its percentage of recycled stock shrink from a maximum of over 80 percent to less than 20, according to creative manager Rick Soulen.

"Denver's awful hard to ship to," explains Tom Cooke, the *Post*'s newsprint manager. "There's just not enough recycled to go around. There aren't enough mills on line."

The *Post* used to get its recycled stock from Stone Container, in Snowflake, Ariz., and Smurfit in Newberg, Ore. The *Post's* corporate owner, Media News Group, is channeling what recycled stock it can purchase to papers it owns in California, where recycled content is required by law.

"This year, we'll be lucky if we hit 15 percent. There's a definite lag between legislation and the ability to produce recycled newsprint," says Soulen. "I would like to say that the *Post* is committed to using recycled newsprint, but that commitment is subject to the availability." He added that newspapers that are located far away from recycled mills, or that have no partnership interest in a mill, are shut out.

Meanwhile, at *The Arizona Republic* and *The Phoenix Gazette*, the percentage of recycled content is running at 37, and has been for "five to eight years at least," according to production director Bob Kotwasinski, though by law the *Republic* and *Gazette* only have to reach 25 percent by July 1 of this year. The two papers have had long-standing contracts with Stone Container, whose mill is located 300 miles from Phoenix by truck.

Despite the shortage, the *Post's* Cooke is optimistic about the future. "I would say that by 1995 we'll have enough recycled mills up so that some of us can be, maybe not 100 percent recycled, but a good portion, he says. We'd all like to be above 50 percent before legislation comes in and makes us do it."

Playing catch-up

Around the Northwest, other paper manufacturers are working to catch up with Smurfit. The new plants promise to turn the Northwest into a major importer of old newspapers and an exporter of recycled-content newsprint. The North Pacific Paper Company, a joint venture of a Japanese paper manufacturer and Weyerhaeuser, will open in April, the first of a series of new recycling facilities in the Northwest. It is already taking orders for recycled paper.

"We would use all the old newsprint in Washington and Oregon combined if the doors opened tomorrow. We expect to have a significant impact on the old newsprint recycling situation," says Roger Higle, of Weyerhaeuser's corporate communications office.

Idaho-based Boise Cascade will be building a \$55 million de-inking facility west of Tacoma, to be completed in 1992. Paper from the West Tacoma plant goes to "the Pacific Northwest, Northern California, and Western Montana," says Louis Miller at company headquarters in Boise

In Spokane, Inland Empire Paper Company has announced it will have a de-inking plant in operation by the end of 1991. It will consume about 40,000 tons of newspapers a year. Inland Empire, owned by the Spokane Chronicle, supplies newspapers in Spokane, Utah, California, Seattle and Montana.

Diashowa America Company Ltd., on the Olympic Peninsula at Port Angeles, Wash., will use recycled newsprint, magazines and old telephone directory paper to make new telephone directory paper. Diashowa supplies directory paper to phone companies from Washington state to New York.

Even the Canadians, termed "reluctant" by the publisher of *The Seattle Times*, have come around. MacMillan Bloedel Ltd. and Fletcher Challenge, both of Vancouver, B.C., have made a deal with a third company, Newstech, to collect old newspapers from urban areas of the province, de-ink and repulp them near Vancouver, and then barge the pulp to the mills on Vancouver Island, all to satisfy the American market. According to spokesperson Bob Barker, the company supplies Montana, Idaho, Oregon, British Columbia and California papers as well as *The Seattle Times*.

Bill Reed, a program coordinator for the solid waste department in King County, Wash., says, "The general feeling is that for the newspaper problem, a solution is close at hand."

- Sarah McCoy

Sarah McCoy is a free-lance writer in Seattle, Washington.

HOTLINE

Less reclamation for Wyoming mines

The Wyoming state Legislature has passed a bill eliminating a proposal calling for more stringent mining reclamation standards. It now awaits final approval by Gov. Mike Sullivan. The bill, which also removes the Wyoming Game and Fish Department from mining reclamation oversight, overrules a proposal put forth by the state's Environmental Quality Council. That proposal, the result of extensive research, would require mining companies to plant sagebrush as a part of the reclamation process. While the ruling will save mining companies millions of dollars, it will also make lands less suitable for wildlife habitat, though they would be adequate for grazing cattle. Proponents of the bill say the coal industry, the state's largest industry, already operates with too many costly environmental regulations. But state Rep. Keith Goodenough, D, says the decision is a hasty one. "You're making biological decisions without knowledge ... [and] based on a little opinion," he told The

Casper Star-Tribune. The Game and Fish Department officials say the sagebrush standard already represented a significant weakening of federal standards.

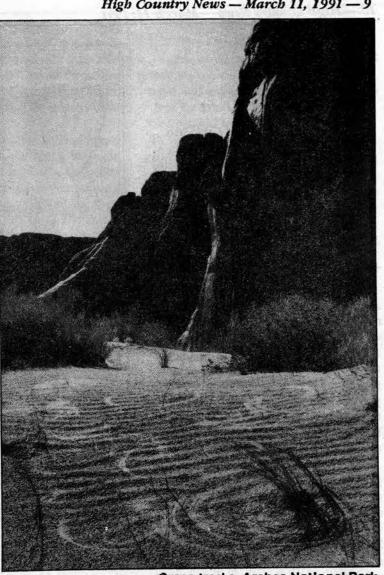
Arizona proposes state environmental policy

Arizona legislators have introduced a state environmental policy act under which projects requiring state funding or approval would have to undergo environmental-impact reports. "The main goal is to protect the environment of Arizona when major projects are contemplated," Rep. Bill Mundell, R-Chandler, a cosponsor of the bill and chairman of the House Environment Committee, told The Arizona Republic. Despite criticism from the oil and gas and mining industries, Mundell says he expects overwhelming bipartisan support for the bill. Although Arizona's growth has slowed down in the past few years, some observers predict the population could double within the next two decades. Jack De Bolske, executive director of the League of Arizona Cities and Towns, says the current lull is a good time to enact more stringent environmental laws before such a boom occurs.

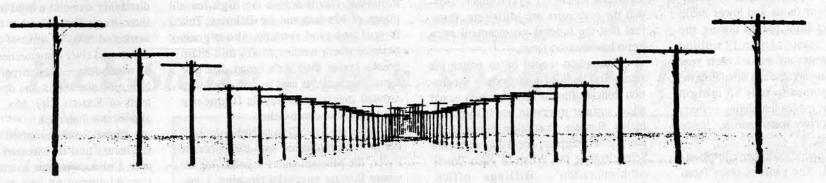
THE PATTERNED WORLD



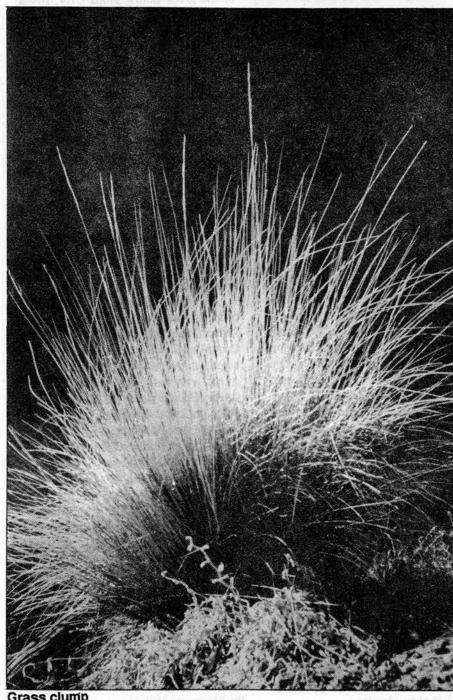
Star tracks near Kebler Pass, Colorado

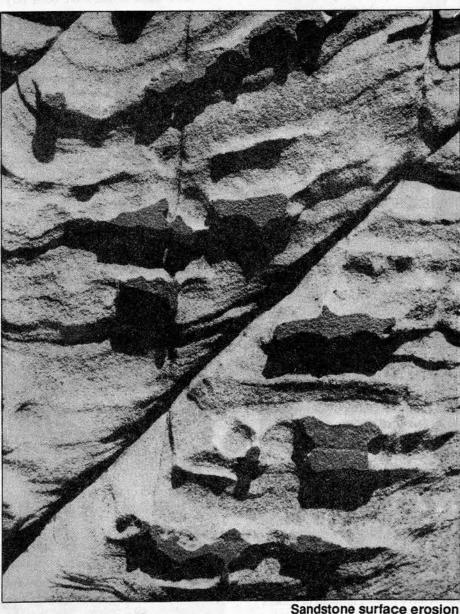


Grass tracks, Arches National Park



Telephone pole composite





Sandstone surface erosion

Photographs by Stephen R. Wenger

Missouri ...

(Continued from page 1)

west Terminal in Kansas City, Mo., "grain prices dropped 15 to 16 cents a bushel and rail rates for alfalfa pellets went up by \$10 a ton." Some grain elevators "lowered their bids to farmers immediately," said Don Huffman, executive vice president of the St. Louis-based Phoenix Towing Co.

issouri barges principally carry agricultural chemicals, fertilizers, grains and chemicals. But navigation, a traditional Corps mainstay on rivers across the country, has never materialized on the Missouri as the Corps once predicted. Commercial tonnage peaked in 1977 at 3.3 million tons. Eleven years later barges carried only 2.1 million tons. In contrast, the Mississippi River transported around 590 million tons in those years.

To facilitate and maintain navigation, the Corps has spent hundreds of millions of dollars to install and repair levees and dikes along 732 miles between Sioux City and St. Louis. No locks or slackwater dams are used on the Missouri, unlike other harnessed navigation rivers.

Instead, the system relies on releases from upriver dams and lower basin tributaries to float barges during the eight-month season. Up to 17 million acre-feet of water are needed each year to do this. But the average runoff above Sioux City comes to only 25 million acre-feet. This means that during periods of drought, upriver water users are liable to get hurt first.

Navigation poses other complications as well. The swift releases from upriver dams scour and deepen the navigation channels. This lowers the area's water table and dries up wetlands and lakes adjacent to the river.

The Missouri River also is harder to navigate than other rivers, according to Skip Magoun, manager of Sioux City's Big Soo terminal. This is because of the river's swift current — about seven miles an hour — and its many curves. "Towboat captains from the Mississippi only last a day or two on the Missouri," he said.

If the Corps overestimated the Missouri's navigational needs, it failed to appreciate the growth in hydropower production and recreational development. Mainstem dam power production spurted to an average of 10 billion kilowatts a year, double the 1944 forecast. The current drought, however, has cut production 30 percent.

South Dakota's Gov. Mickelson, in announcing the upper basin lawsuit against the Corps last month, also criticized the Corps for cutting hydropower production last year "so a couple of barges could run down the river." Mickelson said "all the basin states lost 29 percent of their hydropower last year alone because of poor management of the river. That forced us to seek coalfired power as an alternative and at a collective cost of \$40 million.

Mickelson, however, did not explain how sustaining hydro production, which calls for water releases, could keep reservoir levels higher to help the upper basin states' faltering recreation industry. The upper basin states, seemingly oblivious to the risks posed by prolonged droughts, have poured millions of dollars into fish stocking and boating facilities to attract tourists and anglers.

The reservoirs have become prime vacation destinations. The surprising growth of recreation is viewed by many in the upper basin as an economic

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replacement for the irrigation development that has never taken place. Now that the reservoirs are shrinking, many feel that the federal government once again has betrayed them.

One option would be to switch the reservoirs' heaviest hydropower production from summer to winter, which would allow summer reservoir levels to remain higher. Summer production currently creates a power surplus, according to Steven Schweitzer of the Western Area Power Administration's Billings office. Schweitzer said reversing the heaviest production to winter was feasible.

"Low water levels have been very harmful to recreation at the two state parks on Fort Peck Reservoir," says Don Hyyppa of Montana's Fish, Wildlife and Parks Department. "Recreation at Fort Peck Reservoir has been so long neglected by the Corps that use is discouraged. All the upstream reservoirs are suffering. We're quibbling over tenths of feet when the problem is in terms of tens of feet. Water is now more than one mile away from the marina at Crooked Creek, a county park on Fort Peck."

South Dakota's Tourism Department reports that its Missouri River reservoirs were experiencing a dramatic growth in recreational business until the drought, particularly at the Oahe Reservoir. River tourism income reached \$41.4 million in 1989, reports Dee Dee Raap, the department's operations manager. But last year it fell to \$37.9 million, and is expected to fall more this year because of the continuing drop in reservoir levels.

Missouri

River drains an

immense

watershed covering

592,000 square miles.

roughly one-sixth of the con-

he

source in the northern Rockies, it carries mountain runoff across the high loess plains of Montana and the Dakotas. This is soil and sand country, short-grass prairie, where treeless bluffs and sharp breaks border the river's broad, flat bottoms. Much of this land is semi-arid, with annual precipitation levels frequently falling below a dozen inches.

Near the South Dakota-Nebraska border and the confluence with the Niobrara River, the Missouri enters a lusher region where farming supersedes ranching. Larger cities and industries begin to crowd the river here. Three million people in the lower basin tap the river for their drinking water, and 21 coal-fired and nuclear plants use its waters in the generation of thermal power. Some 2,500 miles from its source, the Missouri meets the Mississippi at St. Louis, where the annual rainfall can reach 42 inches.

The Missouri River is unusual for the disparate regions it passes through. From rugged mountains to high, dry plains to fertile prairies to hardwood-forested hill country, it touches an incredible variety of landscapes and a wide range of climates. The river's neighbors between Kansas City and St. Louis wouldn't recognize the Missouri if they traveled upstream to Fort Benton, Mont.

Lewis and Clark used the Missouri to penetrate the Northwestern frontier. Steamboats attempted to probe north as far as Fort Benton. But from the beginning the river frustrated the white man's

commerce. Its rapidly changing channel and varying flows made steamboat navigation risky. Farmers and town builders were lured to the river bottoms during dry years, only to be run off when a snowpack thawed 1,500 miles upstream.



Low water levels at Fort Peck Reservoir made this sign obsolete

Frustrations over the river's unpredictability came to a head in 1943 when three huge floods within four months inundated 600,000 acres of cropland and devastated river communities. Seven feet of water covered the airport at Omaha, Neb., for six weeks; the downtown districts of Kansas City, Mo., and Omaha also were submerged.

Those floods prompted the Corps of Engineers and its Missouri River engineer, Col. Lewis Pick, to crank out a 10page blueprint on how to shackle the unruly river. The Pick Plan, as it was called, proposed to channelize 800 miles of the river below Sioux City, Iowa, where the most serious flooding took place. Colonel Pick also sought to build five large flood-control dams in the Dakotas to complement the Fort Peck Dam in Montana, erected in 1940. Nearly four miles across and 250 feet high, the dam created a sprawling reservoir that stretches 140 miles into the state's most remote area.

Two of Pick's proposed dams, Garrison in North Dakota and Oahe in South Dakota, rivaled Fort Peck in size. Their reservoirs, along with Fort Peck, would rank as the Corps' three largest among more than 600 in the nation. They would control 90 percent of the river's 73 million acre-feet of storage created by the six mainstem dams.

Panicked at the prospect of losing control of the Missouri, the Bureau of Reclamation submitted its own plan to Congress. The Sloan Plan, named after bureau engineer W. Glenn Sloan, disagreed with the Corps' proposal in several significant ways. The bureau considered the Corps' navigation plans wasteful, and opposed the Garrison Dam because it would flood promising irrigated farmland and premium winter cattle range. Sloan testified that the Pick Plan amounted to gross overkill, and that impounding only an additional 2 million acre-feet of water would protect the lower basin from another series of 1943size floods.

After much debate the two plans were combined into one of the most ambitious river-breaking schemes ever devised. Nearly all the features of the two plans survived.

The 1944 Flood Control Act pegged the cost at \$1.9 billion, which proved to be ridiculously low. Even with much of the blueprint still unexecuted, the two agencies spent more than \$7 billion.

Even more haunting now are the bureau's initial concerns that the river could not support both the bureau's irrigation plans and the Corps' navigation needs. Foreseeing the potential conflict between the upper and lower basins, Congress included language in the 1944 act to protect upper basin flows for domestic, municipal, livestock, irrigation, mining and industrial uses.

By 1967 all six mainstem dams were in place: Fort Peck in Montana, Garrison in North Dakota, and Gavins Point, Fort Randall, Big Bend and Oahe in South Dakota. But the environmental era had begun, and grassroots opposition to the bureau's irrigation projects grew to defeat most of them.

The upper basin states had been promised irrigation development as compensation for the 1.7 million acres of lush bottomland lost to the reservoirs. But their expectations have never been realized. South Dakota had been promised water for nearly 1 million acres, but by 1982 was irrigating only 24,000 acres. Montana, promised water for 1.3 million acres, was irrigating 76,000. And for North Dakota the drop was from 1.2 million acres to only 9,000.

oday the Missouri's upper basin states have no federal advocate. The Bureau of Reclamation has receded in power and influence, a victim of the environmental movement and its own lack of vision. This imbalance in the

federal arena continues to hurt the region. Recreational use of the river is not protected in the federal laws that empower the Corps as the river's manager.

"As long as there was a balance in the Pick-Sloan plan of responsibilities and missions between the bureau and the Corps," says retired bureau engineer Michael Clinton, "that balance served the basin well. But the bureau, in its myopic approach to the world, could see nothing other than irrigation for developing the upper basin. It could not focus on the recreational opportunities and rural domestic water systems, and couldn't even stomach the thought of working on Indian reservations. There are 23 reservations in the basin, and none of them have significant water development.

"So the lower basin states, with their navigation and flood-control interests, have a very capable federal advocate in the Corps," Clinton continues. "The environmental and conservation community has the Fish and Wildlife Service and the Environmental Protection Agency. But the upper basin states, which sorely need economic development, have no one. The Bureau of Reclamation has been taken out, and the Bureau of Indian Affairs never was a player. This unbalance has left the rural communities of the upper basin, which are now hurting from outmigration, without a friend in court."

Corps of Engineers officials do not like to admit that their river management favors the lower basin states. They point to the 1944 Flood Control Act and subsequent court decisions that have provided the authority and established the criteria for their actions. They also note that their flood control efforts have prevented more than \$4.5 billion in property damage in the basin.

The drought and the political uproar from the upper basin states, however, have pushed the Corps to take another look at its master operation manual, which hasn't been reviewed for more than a decade. The manual, the Corps' river-management bible, lists six river-use priorities. In descending order, they are: flood control, irrigation, municipal and industrial supply, navigation, hydropower, and on the bottom, recreation, fish and wildlife.

The review, which will not be completed until next year, will no doubt require the Corps to prepare an Environmental Impact Statement. And an EIS, according to Kent Keenlyne, the Fish and Wildlife Service's Missouri River coordinator, could provide the key to reform.

"The master manual review only opens the door," says Keenlyne. "The nuts and bolts of this will be the EIS, because it is a disclosure document that is subject to litigation."

Conservation groups, for example, could use the EIS to challenge the Corps over decisions that impact endangered species — the least tern, the piping plover and the pallid sturgeon. Other issues could include wildlife protection, the emerging value of recreation and the worsening problem of silt buildup in the reservoirs.

The Corps' Ed Dickey says the review of the manual will entail costbenefit analysis of competing river uses that will provide the basis for changes. But he said he would be surprised if recreational uses won a higher priority, despite the comparative economic lift that use of the river has given the upper basin states. This, Dickey explained, is because of the way the Corps conducts its analysis.

"The issue is not what the total benefits are, but what you have to give up to get an increase somewhere else. It's the marginal adjustments that we are looking at," he said.

"Take the hydropower benefit. This is the savings that the users enjoy as a result of having hydropower instead of another, more costly source of electricity. We look at these benefits from the national perspective," Dickey said. "And the same thing is true for navigation. We are looking at the savings to shippers wherever they are. It's true that certain uses generate more indirect benefits, like recreation. But the notion of impacts on a regional economy is not the way we look at the tradeoffs."

The Missouri's upper basin states, therefore, can expect little help from the Corps' operational review. If recreation on the mainstem reservoirs is to take a front seat to the river's barge industry, that shift will have to be authorized by Congress.

Continued on page 12

The Pick-Sloan Plan's 'shameful legacy'

ndian tribes in the Missouri River basin could one day lay claim to up to 8 million acre-feet of water a year. But even if the tribes along the upper Missouri River are awarded all water rights due them, they would still remain undercompensated for the productive farmland they lost to the dams and reservoirs built on the mainstem of the river.

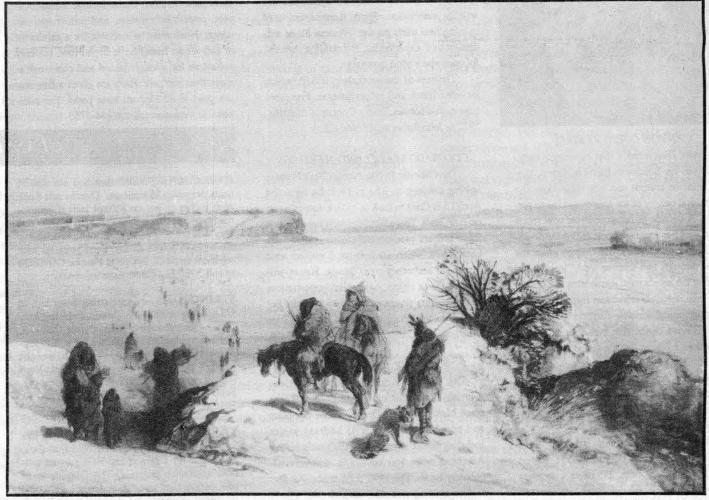
The federal government's treatment of Missouri River Indians during and after the development of its Pick-Sloan Plan to control the river is a shameful legacy. The Army Corps of Engineers trampled on Indian rights to secure the bottomlands it needed to build its series of dams. Condemnation proceedings were used liberally, despite a 1920 Supreme Court ruling that mandated congressional approval before such action could be taken. The Corps never received authorization to oust the Indians.

All told, over 350,000 acres, or about 550 square miles, were taken from the tribes for the six mainstem dams in Montana and the Dakotas. Clearly, no other public works project in our nation's history caused more damage to Indian land. Many whites still have no idea how much the tribes sacrificed to the Pick-Sloan Plan.

Three of the four Pick-Sloan mainstem dams in South Dakota flooded over 202,000 acres of Sioux land. North Dakota's Three Affiliated Tribes (Mandan, Hidatsa and Arikara) lost 155,000 acres to the Garrison Dam's Lake Sacajawea. But more than the best tribal land disappeared. The Three Affiliated Tribes' prosperous Fort Berthold Reservation slipped into poverty. Successful ranching operations and a viable way of life disappeared, and 350 families were forced to abandon their homes.

Before there was a Garrison Dam, unemployment had been near zero on the reservation. After the dam, up to 70 percent had no work. The social ills of joblessness followed.

The Three Tribes were paid \$33 an



Maximilian-Bodmer Collection, Joslyn Art Museum, Omaha, Nebraska

Mih-Tutta-Hangkush, a Mandan village, by Karl Bodmer (1809-1893)

acre for their sacrifice to Pick-Sloan. Tribal members reluctantly accepted the meager settlement as Garrison backed water up to their ankles. The dam was closed before negotiations had concluded, so confident was the Corps that the

Indians would be evicted.

The Corps was just as confident from the outset of Pick-Sloan that the Sioux could be uprooted, as the Fort Berthold tribes had been. Construction of Fort Randall, Big Bend and Oahe dams, which all posed threats to Sioux holdings, were started before Sioux leaders had been formally approached about compensation.

Indian families on the Crow Creek

Reservation were relocated upriver from Fort Randall's proposed reservoir. When the Corps later announced plans to build Big Bend Dam, above Fort Randall, these same Indian people were forced to move again, since they had been resettled in what would soon be another reservoir.

Settlement negotiations between the Sioux and the Corps were a rocky process. The Indians eventually received \$34 million, half of what they wanted.

The tribes also were humiliated by the Corps in other ways. The displaced Indians were denied cheap hydropower. Grazing opportunities along the reservoirs were severely limited. Access in general was difficult. The tribes were not allowed to cut standing timber in the future reservoirs; the Corps preferred, it seemed, to waste the trees.

Years after the reservoirs filled, when it was apparent that the Corps had taken more land than the reservoirs required, conflicts ensued about returning these lands to the reservations. When asked about his reservation's relationship with the Corps regarding a 6,000-acre excess-land dispute along Lake Sacajawea, Edward Lone Fight, tribal chairman of the Three Affiliated Tribes, replied: "The Corps thinks this is a war. That's their mentality."

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Missouri ...

(Continued from page 11)

orth Dakota's sole congressman, Democrat Byron Dorgan, has introduced legislation to create a Missouri River Governing Council, which would be made up of one member from each basin state, a Native American, and a representative from the Corps. The proposal would shift river authority to the council. "It is time," Dorgan said, "to draw a rein on the Corps." But the bill is opposed by the lower basin states and the Corps, and its chances for passage are slight.

"We have no chance to beat the lower basin in the Congress," admits the upper basin's lawyer, William Janklow. "We have no political clout in Washington. It's simple arithmetic: three states, four congressmen."

The newly reorganized Missouri

Basin States Association is pursuing a less radical approach than Dorgan's. Richard Opper, the association's executive director, says the group "is developing a council that the Corps will be mandated to work with, but won't usurp the Corps' authority."

But there is one political wild card that has yet to be played. This is the gathering impact of the basin's 23 Indian reservations on more than 12 million acres. The tribes are beginning to quantify their potential water rights, which could end up diverting as much as one-third of the river's flow above Sioux City. Michael Clinton calls this possibility "the biggest bombshell the Missouri River basin will experience in the next 20 years."

The Bureau of Reclamation wrote off the Indian lands because their glacial soils were too tight to farm. But the bureau had assumed that the land would be irrigated by the old flood-and-furrow method, which indeed would waterlog

the soils. Modern sprinkler systems, however, would solve the tight-soil problem, as the Indians are now learning from agricultural experts.

"Using current state-of-the-art water management strategies, those Indian tribes can not only perfect their rights to that water, but also develop irrigation on much of their land," says Clinton. "And what this will do is start to develop diversions of significant blocks of water which will make it much more difficult to meet the navigation objectives of the lower basin states. There also is the possiblity that more of the river's fishery could be placed on the endangered species list. It could turn into the same kind of conflict we are now seeing in Colorado and New Mexico with the Animas-La Plata project."

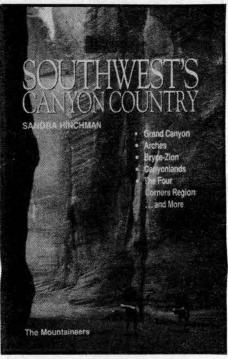
The Fort Peck Reservation already has negotiated rights to Missouri River flows. The reservation borders the river east of the Fort Peck Dam, and is now entitled to a million acre-feet of water a year.

If there is one theme that is finding a fair measure of acceptance all over the Missouri River basin, however, it is the notion that the Army Corps of Engineers has ruled the river too long without adequate input from the basin's political constituencies. But whether the basin can find the political will to devise a workable system and agree on what it wants is not yet clear.

"Their common interest is directly entwined with the Indians and the recreation economy of the upper basin, and wraps right into the outmigration issue," says Clinton. "Do they want to abandon that part of the country and let it become the Buffalo Commons? It's just that serious for these people."

Peter Carrels is a free-lance writer in Aberdeen, South Dakota. Lawrence Mosher is HCN's editor.

BULLETIN BOARD



CANYON COUNTRY HIKES

Sandra Hinchman's first experience backpacking in the Southwest ended in blisters, sunburn, muscle cramps and heat exhaustion. But the unusual beauty of the area caused her to persevere. A decade of her experiences now forms the basis of her excellent book, Hiking the Southwest's Canyon Country. Six chapters guide the visitor through two-to-three-week "loop" tours covering the area's most scenic hikes and drives. Each hike description includes maps and details on topographical features, distances and difficulty. Each drive description includes an itinerary for exploring places like the Grand Canyon and Zion National Park, and tips on camping and provisioning. An introductory chapter contains information about the region's history, geology, archaeology, flora and fauna, along with a helpful pre-trip planning section.

The Mountaineers, 306 2nd Ave. West, Seattle, WA 98119. (800/553-4453). Paper: \$12.95 plus \$2 shipping. 255 pages with maps and photos.

ACHIEVING A WILDLIFE BALANCE

A biennial symposium called "Issues and Technology in the Management of Impacted Wildlife" will take place April 8-10 in Snowmass, Colo. The symposium will use a broad range of case studies to look at the conflicts between wildlife and human activity. Topics will include creative solutions to the impacts of industry and recreation, insights into how development affects the patterns and behavior of wildlife, and ideas for incorporating animals and their habitat into planning projects. Reservations must be received by March 23. The \$165 registration fee includes a banquet dinner; students can attend the discussions for \$60. For more information, write the Thorne Ecological Institute, 5398 Manhattan Circle, Boulder, CO 80303 or call 303/499-3647.

WESTERN SLOPE LAND TRUST CONVOCATION

The Trust for Public Land and the Mesa County Land Conservancy will co-host a workshop for Western Slope citizens interested in forming land trusts on March 16 in Grand Junction, Colo. The workshop will include a presentation on the land trust movement nationwide and the methods used by land trusts to preserve open space in their community. Participants can learn about ways in which land trusts can help implement the GO Colorado initiative, the San Juan Skyway program, and the Division of Wildlife's agriculture and wildlife preservation efforts. Representatives of existing land trusts on the Western Slope will discuss their experiences, including a successful open-space bond campaign.

The cost of the workshop is \$10, which includes lunch and refreshments. For more information contact Tracy Conner at 505/988-5922 or John Butler at 303/464-7214.

COLORADO STATE LAND MEETINGS

The Colorado Public Access Task Force is holding meetings on March 19 in La Junta and April 16 in Craig to look at public-access issues on state lands. These hearings will help the task force prepare recommendations to the State Land Board, which administers 3 million acres of school and other trust lands. Issues will include lessee rights, recreation opportunities and increasing revenues for state schools. For more information contact the Colorado State Board of Land Commissioners at 303/866-3454.

NATIVE JOURNALISM

The Seventh Annual Native American Journalists Association Conference will take place March 13-16 in Denver, Colo. Speakers and panel discussions will address topics including media coverage of the year's Native American news, war coverage, and culturaldiversity issues. The 1991 conference will also feature training and education workshops in journalism, broadcasting and public relations; a photography show and competition; and presentations of awards for excellent journalism. Registration for the conference, which coincides with the Denver March Powwow, is \$100 for NAJA members and \$150 for non-members. The Native American Journalists Association is also accepting applications through May 31 for three \$1,000 scholarships, to be awarded to Native American students pursuing media-related professions. For more information, call 303/492-7397.



The 14th Annual International Wildlife Film Festival will take place April 2-7 in Missoula, Mont. Workshops on filming in and about wildemess occur every day of the festival week, with prize-winning wildlife movies each evening. Nightly admission is \$5. For more information about the festival call Lori Hudak at 406/728-9380.

CAMPGROUND HOSTS IN MONTANA

The Parks Division of the Montana Department of Fish, Wildlife and Parks is seeking volunteer hosts to help staff some of Montana's state parks in 1991. Duties include visitor contact, public information, and minor maintenance. Hosts must be available for a minimum of two weeks from May to September, but may volunteer for a longer period and can work at more than one park. Hosts are given a free season pass to all Montana state parks. For additional information call 406/444-3750.

EDUCATION IN THE DESERT

A conference on the natural history of the Great Basin Desert and the threats to it will be held at the Malheur Field Station near Burns, Ore., from April 25-28. This year's conference will focus on bringing the natural values and the plight of the desert wildlands to a broader audience. Methods of protecting the desert from abusive uses such as mining and grazing will be discussed. Participants can enjoy a variety of field trips, workshops and presentations offered by a faculty of scientists, artists, historians and others devoted to the desert.

Participants must register by April 8. For a registration form or more information, write to Desert Conference XIII, P.O. Box 15115, Portland, OR 97215, or call 503/245-3658.



CLASSIFIEDS

HIGH COUNTRY NEWS classified ads cost 30 cents per word, \$5 minimum. Display ads 4 column inches or less are \$10/col inch if cameraready; \$15/col. inch if we make up. Larger display ads are \$30 or \$35/col. inch. We reserve the right to screen all ads. Send your ad with payment to: HCN, Box 1090, Paonia, CO 81428 or call 303/527-4898 for more information.

STRING BAGS — Large string bags knit in USA using seine twine. Cotton webbing handles — long enough to fit over your shoulder. Take shopping, on boat cruises, or use to separate things in your pack. Lightweight enough to be shoved in your pocket. Very strong when filled. \$12 includes shipping. Send orders to: 117 E. Louisa Street #140, Seattle, WA 98102.(6x25p)

STUDENT INTERNSHIPS: Would you like to live on the edge of Glacier National Park, Montana, for a season and help run an outdoor education program? The Glacier Institute offers outdoor classes for all ages and interests, including 1-5 day residential environmental programs for 1st-9th grade students. 3 interns Spring, 2 Summer, 2 Fall. Write: Glacier Institute, Box 1457, Kalispell, MT 59903. (4x1p)

"OUTDOOR PEOPLE" lists 50-word descriptions of active, outdoor-oriented Singles and Trip companions nationwide. \$2/copy, \$10/ad. OUTDOOR PEOPLE-HCN, PO Box 600, Glaston, SC 29053. (12x15p)

DISCOVER COLORADO. 1980 Liberty 2-bedroom mobile home, completely furnished, on approximately 6500 sq. ft. lot with water, sewer, electricity. In foothills of beautiful Sangre de Cristo mountains. Less than two hours from major ski areas, adjacent to golf, tennis, backpacking trails, horseback riding, stream fishing. Hot springs bathing and swimming in area. \$14,000. Richard Johnston, P.O. Box 128, Crestone, CO 81131, 719/256-4960. (2x3p)

THE AH-HAA SCHOOL FOR BOOK AND STORY ARTS, Telluride, Colo., announces its first season of summer courses and events. Ah-Haa will offer over 40 courses, ranging from weekend to week-long classes. A sample of courses includes: book-making; water gilding; experimental printmaking; Japanese dye techniques; chain storytelling; and many more. For more information and a summer brochure/course descriptions, please write or call the Ah-Haa School, P.O. Box 1854, Telluride, CO 81435. Phone 303/728-3886. (1x4b)

EXPERIENCED, MULTI-TALENTED, responsible, bondable single man seeks position as caretaker; or as employee with ecominded or organic farm, ranch, or business. Interested in working with alternate crops or methods of farming, teams of horses, or business in eco-minded setting or community. Dennis, 307/742-0213 evenings. (1x4p)

OUTDOOR SINGLES NETWORK, bimonthly newsletter, ages 19-90, \$18/1-year, \$4/trial issue-information. OSN-HCN, 1611 Cooper #7, Glenwood Springs, CO 81601. (8x2p)

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WESTERN COLORADO 630 acres next to National Forest, river, aspen, meadows, spruce, lake, cabin, lodge. \$400,000. TREECE LAND, 303/243-4170. (3x3b)

SEASONED DEVELOPMENT PROFES-SIONAL seeks affiliation with environmental/conservation group in Northwest or Rockies. 15 years record of accomplishment in annual funds, membership drives, major gifts and capital campaigns. Quality educational background. M.B.A. Write or call: Henry Duckham, 291 Oak St., Oberlin, OH 44074. 216/775-8249 (office), 216/774-1096 (home). (1x4p)

ESSAY

Dakota dust: denial, delusion, dishonesty



by Michael M. Melius



his is an essay about farming, at least the types practiced in the northern Great Plains, which is what I know best: dryland farming of small grains, some row crops, and livestock. While parts of what I say may

apply to farming anywhere in the world, I don't pretend to be so all-embracing. I keep a focus just north of the 45th Parallel, 99 degrees West: Faulk County, South Dakota.

This essay takes as its starting point the blowing dust of March 1988, a virtual dust bowl over the eastern half of the Dakotas. The dust continued through the summer, each time a cold front blew through and lifted the dust off everything to the north. Some rain had fallen throughout the region by mid-May. Why did the dust keep coming?

Just one year earlier, USDA payments to farmers had reached all-time high levels. A taxpaying citizen having to breathe the dust might have wondered, "Is this the thanks I get? Is this the return on my investment? If this occurred under the watch of the 1985 Farm Bill, what might the next one allow?"

Do farmers care about soil, about its loss or preservation? The airborne dust would suggest otherwise, and its reappearance throughout the summer suggests that embarrassment didn't improve the situation: The first little rains sent farmers back into the field, business-as-usual. Years of government farm programs haven't helped, either. How else could there be blowing dust when over 85 percent of the region's farms were enrolled in the prior year's program?

Could the marketplace, via higher or lower commodity prices, produce a respect for soil? Or at least an evaluation of soil that encourages its preservation and increase? History indicates otherwise, as high and low prices both are used by farmers as reasons to grow more of the commodity. Low prices should communicate that it would pay better to grow soil, while high prices should tell farmers that now they can afford to.

What would beget a soil-first point of view in farmers? Has tying farm subsidies to soil conservation failed, expensively, and do taxpayers care? Or is cheap and care-free food more important to us? How should we as citizens go about the business of preserving soil and overseeing its increase?



rom inside the dust bowl it's hard to see the edges, not only because the dust obscures but also because it's hard to imagine any place without it. At the peak of a blowing day it looks like rain, with the sky a uniform gray.

The dust is awful, grinding at the eyes, clogging nostrils, sifting down our backs and into our homes—
I won't belabor the sensations, all imaginably bleak. A person could have experienced 35 full days of blowing dust in South Dakota from March through May.

We knew it was worse to the north. But south winds, too, brought dust. Doubtless some of our dust went south and settled in, only to return with the next south wind. Viewed this way, the bowl seems to be swirling, enlarging by abrasion at the edges, the wind and dust grinding away at everything, creating more dust.

Every morning we'd wake up hoping the wind wouldn't blow, and dreading those moments when we'd first hear it rise. As a farmer you walk around a little bit lost, with nothing growing. There is nothing you can think of that will make it better. Rain; but that you can barely remember or believe possible.

The fact that it's other farmers' soil, or that there may even be income for you in the fallout, is no consolation for sharing in the general failure. You can't ignore it, time seems not to heal it, and there's little you can do about it, once the topsoil degrades to six or eight inches of powder.

If our neighbors in the towns and cities shared in our distress and disgust, they had difficulty in expressing it. There was no public uproar or outrage, no movement to expose the causes or culprits. Perhaps it was too painful and embarrassing to face squarely. Perhaps there was some feeling of helplessness. Or was it acquiescence, accepting the dust as the price of doing business? The way factory towns were said to look benignly on their belching smokestacks.

Acquiescence might explain, although it hardly

excuses, the lack of media coverage or analysis of the dust storms. After the first major storm of March 25, there were stories of closed roads and dust-caused accidents, comparisons with the Dirty Thirties and interviews with old-timers and soil scientists. But after the novelty wore off, the dust-storm stories moved off the front page and back from the nightly lead story on the TV news. The Aberdeen American News, at the heart of the dust bowl, gave less and less space to stories about erosion until they were relegated to summaries of yesterday's weather. The National Weather Service, however, began to include the blowing dust in its forecasts, and South Dakota Public Radio regularly reported it in hourly updates from across the state.

Yet the longer the dust bowl went on, the more it should have become *news*. The silence of citizens and local media suggests that something more ominous than wearied resignation was at work, something more like denial, delusion or dishonesty. Or not wanting to draw the attention of the world to our apparent failure as tenants of the land and our more obvious exploitation of its soil.

Consider the comparisons with the Dust Bowl of the 1930s. The comparisons seemed always to be aimed at downplaying the current erosion, because nothing could be as bad as the Dust Bowl. As if we measured success or progress in negative terms — "This isn't as bad as it once was; we're not at our worst." In doing so we avoid responsibility for our own actions, and for setting our own standards of excellence and progress.

The essential lesson of the Dust Bowl, as I remember it, was that it was not to be repeated. That sad, stupid, shameful time in our history was supposed to be behind us. So, logically and justly, the first day of this dust bowl connects directly to the last day of that one — with sidings in the '50s and '70s — as if no learning or progress had come between. As if we hadn't learned that droughts happen, that wind is a given, and the wind often comes before the rain.



n this region it's not unknown for a dusty dry winter to turn into a flowing wet spring. One late blizzard and a couple of inches of rain can do it. Preparing for both puts us somewhat at cross-purposes in our work and

planning: needing to keep a protective vegetative cover on the land through winter, yet not so much that it shades the wet ground late into spring, delaying our entry into the fields. Then the late-planted grains are burned up by summer heat. That is, if the fields are too wet in the spring they'll be too dry in July. Late-planted row crops are also at risk from early fall frosts.

So we drain wet places in our fields to hasten their drying, which aggravates streambed erosion and downstream flooding. We work fields after harvest to kill weeds that would rob moisture, and to bury straw that would conserve it - too well - by catching snow and shading the ground. The result is land left exposed to winter winds. We have adapted, of course. We have winter annual crops that survive winters wet or dry and are ripe by July. Yet these have their own complications, besides not being erosion-proof. And we have perennials from native prairie to alfalfa, that can thrive through any weather or season with minimal soil loss. But we've hardly exhausted our ingenuity in designing an agriculture that can squeeze a crop from our short season without losing the land during the longer dormant period.

To talk about continued or increased soil erosion is to talk about increased cropland, converted from pasture, hayland and other perennial cover such as woods and wetlands. It suggests trends that are contrary to ones we are more familiar with, such as that abandoned farms go back to some perennial cover. Think of the Eastern deciduous forest re-establishing itself in the Yankees' hard-won fields. But the less-wild, less-diverse, even industrial landscape that we are creating here is usually associated with *increased* population density. It suggests that our land is becoming unlivable as it becomes unlived-in, in that one would like some wild companions, and something of a natural setting in which to work.

The old adage just gets worse: Who will want to stay down on such farms? Who will want to do the work? For certainly some of the exodus from farms has been people choosing to leave, not all forced out by economics, banks, crop prices, interest rates, taxes, land prices, debt — all the usual reasons/excuses. The work. Dirty, greasy, noisy, hot, cold, dangerous, long,

monotonous, the endless rounds alone — what drives us to do it? What drives us away?

As these farms become virtual one-man factories, the landscape is becoming one only a "dirt farmer" could love, with little life but what the farmer allows. Dormant or dead (stubble) eight months of the year, it's planted to a monoculture of grains for the growing season. "Fencerow to fencerow" is passé; fences gone, it's now road ditch to road ditch. An industrial landscape, field after farmless field.

It seems unfair that the depopulation of the plains has been accompanied not by the return of the prairie, but by its decrease. Sometimes it seems so dead out here, in terms of social life and natural history, especially when compared to the stories my older relatives tell. Thinking back only on my 30 years here, I realize that growing up here has also meant knowing so many people who are gone, and so many places. Whether for farmsteads razed and plowed under or the pastures around that I played in, there have been too many times I've been forced to leap almost bodily past grief into acceptance, for the places and times in my memory that were erased one morning and now are irrevocable.



ow do we turn our system around, from valuing the extractive, capitalizing and urbanizing uses of land to valuing conservation at least as much? Saving land for later. Growing soil. Leaving land to its own growth

and decay, without harvest. Where in our laws should we look for the best ways to encourage such treatment of land?

We shouldn't have to look to laws and taxes. Farmers as landowners should know without thinking to hold onto their land. Imagine an owner of a factory letting one of its walls crumble. The fact that non-farmers have to watch over farmers' soil loss implies that farmers are not willing partners. Under such circumstances, the 1985 farm program, by offering handsome payments for participation in a weak-willed conservation program, was asking for trouble. But would we rather treat farming like some smokestack industry and force farmers to stop eroding?

I believe we should first seek to work with willing farmers, by tying program benefits to conservation measures so strict that only the most rigorous and practiced conservationists will qualify. A program that favored such farmers might help them proliferate in a market-place that otherwise hinders them. While most farmers may be removed from the regulatory reach of the program, the results can't be much worse than the near-record erosion levels we attained within the last program.

With our tax laws we need to distinguish between annually cropped land and land in perennial cover, and decide to what extent we wish to tax the relative soil loss of the two. We need some means to balance the antithetic requirements for growing food and growing soil. Perennial land could be further differentiated to reward land left wholly unharvested, each year's growth passively allowed to fall back to earth.

The 1990 Farm Bill did create a program for a longer-term set-aside of farmland. Called Integrated Farm Management, it has the potential to conserve and enrich soils, but we haven't seen the fine print or the program put into practice. I'm not optimistic, since my experience tells me farmers will do the minimum to comply. The politicians will be trumpeting that they've made more progress in putting conservation first. And the dust will keep coming, sifting into our homes and our lungs. And we'll still be paying for the privilege.

The suggestions I've made here, for rewarding land left in perennials, unharvested, would increase organic matter in the soil and produce the benefits described. What other consequences there might be need to be examined. Higher food prices, more need for imports, and farming more wild land around the world are all possibilities. We might see the economics of farming change as farmers are able to produce as much value as before, from fewer acres — especially if those acres are more fertile. Then we may find more smaller farms making it, and even more people able to farm. More farmers farming fewer acres: That is what I'd like to see.



A farmer, writer, naturalist and environmental activist, Michael Melius lives near Hermosa, South Dakota.

LETTERS

PREDATOR SLAUGHTER

Dear HCN.

My compliments for an excellent article (HCN, 1/28/91) on the continuing tragedy of predator slaughter in the West. The mindless killing of coyotes, cougars, bears and everything else that doesn't produce wool or beef on the public lands by the ADC is a sickening example of a government agency out of control. While this slaughter is presumably undertaken to protect the heavily subsidized stock industry, I suspect an equally compelling motive is the preservation of the jobs of the government's hired guns, the federal trappers.

I would also like to add something to your inset, "How Sy Keeps the Coyotes Away." The trial program referred to on the Naomi Wilderness allotments in the Wasatch-Cache National Forest in northern Utah was not instituted by the Forest Service. It came about, in fact, as the result of several appeals filed by the Utah Wilderness Association against the decision of the local ranger and the regional forester to permit aerial gunning in the wilderness area. After two years of negotiation between the Forest Service, UWA and the permittee, the trial plan to use guard dogs was agreed upon, and, happily, it appears to be working. Much credit for this plan must be given to the forest supervisor, Dale Bosworth (now in Washington, D.C.), and the permittee. The plan was adopted in the face of opposition from both the local ranger and the stockmen's organizations, and it points out what can be accomplished when everyone approaches a problem in good faith.

We had hoped this plan would serve as a model for other predator control plans, but I am afraid most of the forests (and the BLM districts) in Utah are still pursuing business as usual, as described in your excellent article. The stockmen are still calling the shots, and there is little evidence this will change. As an example, the Dixie Forest Supervisor, Hugh Thompson, recently decided to permit an extensive aerial killing program in most of the forest (the Dixie extends over much of southern Utah) during this winter, in spite of lack of evidence for a need for the program and considerable opposition by environmental organizations. While such decisions are appealed, the appeals are never decided until the question is moot, and the killing proceeds during this period. Attempts to obtain stays have been uniformly unsuccessful.

> Jack T. Spence Condon, Montana

GORY PHOTOS

Dear HCN.

The photo of the "skinned and dumped" coyotes by Dick Randall which graced the front page of the Jan. 28 edition of *HCN* made quite a strong impression.

I've never particularly endorsed the publication of gory photos or illustrations as a way of "heightening the impact" of a news story. I believe it is a technique which is both overused and used for the wrong reasons by today's media. After all, sensationalism does seem to raise circulation rates for many newspapers and magazines, at least in the eyes of publishers who are bound and tied by their daily profit margins.

I do not wish to suggest that HCN falls within those ranks, for I have nothing but the greatest respect for your

work. Indeed, in the case of this photo, I must say it certainly is a fitting reflection of our government's so-called Animal Damage Control program, and I believe it will help dismantle their carefully crafted image as our benevolent protector from the dangerous and destructive wildlife here on the frontier.

Karen E. Duke Phoenix, Arizona

TOO MANY PEOPLE

Dear HCN,

I would like to praise Tracy Stone-Manning for getting to the heart of the problem, the first cause, in her article "On grizzlies, babies and a shrinking land" (HCN, 2/11/91). Thank you.

> Tobi Van Dyck Goshen, Indiana

FUNDING FOR WILDLIFE PROGRAMS

Dear HCN,

Your article on wildlife management in the West (HCN, 11/5/90) was of particular interest to me as a federal wildlife professional, and I sympathize with the states' efforts to fund their programs.

If wildlife agencies are to obtain secure funding, they had best take a very close look at the successes of states like Wyoming and Missouri. As a resident of both areas when the programs were proposed, I can assure you that Washington state's sales-tax proposal could not hold a candle to Missouri's. While Washington asked for money to fund the Department of Game's general programs (at least that was the message delivered to the voters), Missouri defined specific, measurable goals in terms of acres of

land acquired, numbers of animals transplanted, etc., before the election.

The Department of Conservation then proceeded to meet or exceed its goals, and followed through with news releases, yearly reports to the taxpayers, and five-year revisions to the program and its goals. No wonder that when the state Farm Bureau led the way in trying to repeal the measure twice, they were thwarted by successively larger "yes" votes, at which point they quietly packed their bags and went home.

I don't believe that the recent environmental setbacks are due as much to a change in voter attitude as they are a demand for accountability and performance on the part of the government.

> Albert F. Sutlick, Jr. Walla Walla, Washington



GUNS AND THE HUMAN ENVIRONMENT

Dear HCN,

I am responding to the views held by Linda Hasselstrom and Valerie Cohen regarding guns and women, and the comments made about that subject by reader Lawrence Williamson. Williamson writes to *HCN* that the subject "has little to do with the West and nothing to do with conservation." I disagree.

Line Reference

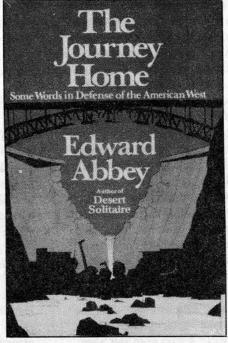
Hasselstrom describes experiences and fears many of us can appreciate. Her reasons for carrying a gun indicate she is a clear-headed and responsible person who appreciates the freedom and openness of living in the West. In response, Valerie Cohen acknowledges that it is hard and scary to live in the West, but she reminds us how serious are the consequences of carrying guns and the likelihood that we will use them to escalate violence.

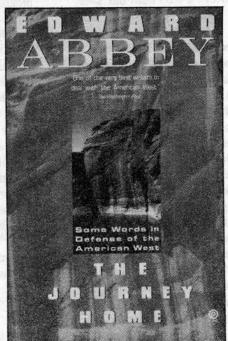
While there are fundamental philosophical differences here, one thing HCN recognizes that Williamson does not is that the "human environment" in the West is as important as the physical and biological environment. Conservation is a broader concept than he seems to recognize. Both Hasselstrom and Cohen sense a conflicting relationship between the kind of values and attitudes regarding appropriate behavior toward the earth and other human beings and those which foster violence, aggression, and exploitation.

Perhaps it is time for people who care about the West to more closely examine the nature of violence which seems to be so much a part of our lives. I, for one, do not believe guns are the answer. But unlike Williamson, I think this topic is appropriate to your publication. I predict more letters to the editor and encourage the staff to respond with special articles, if not an entire issue, on the full range of activities which constitute "Violence in the West."

I enjoy and appreciate the responsible reporting of *HCN*. You face unpleasant realities.

> Barbara Jane Dilly Huntington Beach, California





VULTURES, ARISE

Dear HCN,

Readers of Edward Abbey will be finding four new, glamorous covers on Cactus Ed's familiar backlist titles. The familiar icon of Jim Stiles' drawing that showed a ruptured Glen Canyon Dam has graced the cover to Abbey's The Journey Home for the past 13 years. Now it's gone. In its place is an image that will lead discerning Western bibliophiles to conclude that James Watt has infiltrated the graphics department of one of Abbey's publishers.

What has replaced the dream-fulfilling image of the dam upon which Abbey heaped volumes of humorous contempt (most notably in The Monkey Wrench Gang) is a photograph of "Lake Foul's" dead water and bathtub ring. It would be difficult to intentionally devise anything more insulting to the memory of this great Western author, or to encounter a single act more revealing of an Eastern publisher's outright ignorance of one of its authors. To a Western environmental activist, the new cover is roughly akin to a picture of Hitler erroneously applied to a book about Gandhi.

Abbey's widow, Clarke, was sent sample covers "for approval" only after the new editions were in production. To her horror, she found that the travesty applied not only to *The Journey Home*, but also to *Down the River*. From the new cover of that book, an aerial view of some other impounded Western river (probably the Green behind the Flaming Gorge Dam) stared back at her with the glazed eyes of a corpse.

It's appalling to find Abbey's intent monkeywrenched by his own publisher, especially when he's not around to defend himself. Abbey's longtime friend Dave Foreman has suggested selling these retread editions in plain brown wrappers.

Fortunately the contents of Abbey's books, his "vitriolic ruminations," remain unmolested. And rather than imagine him spinning in his grave somewhere in the expanse of the Cabeza Prieta, I prefer to envision the silhouette of a vulture (his reincarnation of choice) patiently wheeling in the sky, waiting to shred the choicest morsels from the carcass of Melissa Jacoby, who is credited with designing these covers.

José Knighton Back of Beyond Bookstore Moab, Utah



Edward Abbey's self-portrait

afield

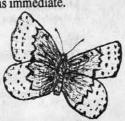
Collectors threaten rare butterfly in San Juans

_by Steve Boyle

Above 13,000 feet in Colorado's San Juan Mountains, the tundra seems frozen and lifeless in winter. Bitter winds scour the ridges and heap snow in enormous sculptured drifts. But in a few small colonies under the snow, eggs and larvae of North America's rarest butterfly wait for summer.

Verified at only two major sites in the San Juans, the Uncompahgre fritillary seems to be declining from a population estimated in 1989 at less than 1,000. Research studies and habitat protection efforts by federal land agencies are under way, and the U.S. Fish and Wildlife Service has proposed to list the fritillary as an endangered species. But questions remain: Is the fritillary a distinct species? Why is it so rare? Do other colonies exist? And most importantly: Will listing as an endangered species destroy the butterfly, as one authority claims?

Larry Gall, as a graduate student working at the Rocky Mountain Biological Laboratory at Gothic, Colo., found a colony of unusual butterflies in 1978. After detailed studies, he and Felix Sperling published a paper naming the Uncompander fritillary (Boloria acrocnema) as a new species. This caused a sensation in the tight world of lepidopterists. Gall's find was only the second new butterfly species discovered in North America this century. Commercial demand was immediate.



According to Dr. Peter Brussard, who studied the small, inconspicuous butterfly, the Uncompangre fritillary represents the southern end of a series of isolated populations of cold-adapted butterflies related to the dingy Arctic fritillary, Boloria improba, a widespread Arctic species. Scattered populations occur in the high mountains of Alberta and Wyoming; moving south, each population shows increasing differences from the large Arctic population. But while the Alberta and Wyoming populations are considered races of the dingy Arctic, the San Juan butterflies are different enough to be named a separate species. Since the point at which an isolated population becomes a separate species is not sharply defined, there are technical arguments about the species status of the Uncompangre fritillary. The fact remains that the San Juan population of this little butterfly is reproductively isolated, measurably different from any other known populations, and apparently in great danger of extinction.

The butterfly exists in a harsh environment. The two "verified" colonies are each above 13,200 feet, on steep, northeast-facing slopes, the coolest and wettest possible habitat in the San Juans. The caterpillars feed only on snow willow, a common plant about an inch tall at this elevation. The adults hatch, sip nectar from alpine wildflowers, and mate during a few-week-long flight season during the short alpine summer. Since the butterfly has a two-year life cycle (one summer as a caterpillar, the next as an adult) there can be two reproductively distinct populations at each colony: the odd-years (adults hatching in odd years)



William Henry Jackson/USG:

Uncompangre Peak in Colorado's San Juan Range (photo circa 1875)

and the even-years. Either population could become extinct while the other persisted.

Brussard considers the Uncompahgre/dingy Arctic species complex a relic of the Pleistocene, with southern populations confined to increasingly patchy habitats as North America grew warmer and drier. The San Juan colonies represent pieces of what sociobiologist E.O. Wilson calls a metapopulation: "a nexus of patches, each patch winking into life as a population colonizes it and winking out again as extinction occurs. At equilibrium the rate of winking and the number of occupied sites are constant, despite the fact that the pattern of occupancy is constantly shifting."

There are large doubts about the existence of any such equilibrium for the Uncompander fritillary. Its low genetic variability, as measured by Brussard at one of the colonies, increases the risk of extinction. Because the adults fly weakly and suitable habitats are often miles apart, natural colonization of new sites is probably infrequent.

The Uncompangre fritillary's known colonies are in federal wilderness, where habitats are relatively safe from human disturbance. The unknown factor, and perhaps the greatest threat to the fritillary, is private collecting. In 1981, for example, more than 100 adults - 20 percent of the estimated population were taken from one colony, some by scientists for study, most by commercial collectors. The Forest Service has prohibited collecting at one colony; the other, on BLM land, is unprotected. Yet collecting bans are unlikely to be enforced at remote sites, and specimens still bring \$50 to \$150 apiece in what some scientists scornfully call the "stamp collecting" business.

If commercial sale of the butterflies is the problem, isn't the obvious solution to halt collecting? Yes, says Dr. Paul Opler of the U.S. Fish and Wildlife Service, author of a proposal to list the Uncompanger fritillary as endangered. Nothing can be done about short-term climate variations that may be reducing fritillary numbers, Opler says, but

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trolled by listing. Joe Capodice, a BLM wildlife biologist involved with the fritillary for several years, agrees.

But one lepidopterist believes

human-caused mortality can be con-

But one lepidopterist believes endangered-species listing is the worst thing that could happen. Dr. Jim Scott and Opler were Ph.D. students together. Scott, the author of a respected field guide to butterflies, is also a commercial butterfly collector who has taken and sold specimens of the Uncompange fritillary.

"The only human-caused problem with the fritillary is excessive collecting, which has resulted from Gall's publishing the type locality," Scott said. (Following long-established scientific rules, Gall described the exact location of the colony he discovered). Scott has spent a lot of time in the San Juans looking for the Uncompander fritillary, and he says he knows of 11 colonies, including one in another mountain range. But he's not telling anyone where they are.

"Why should I?" he asks. "The federal government doesn't do anything for conservation. If anyone in the Fish and Wildlife Service knew the locations of these other colonies, they would blab it and the colonies would be wiped out by collectors." Scott cites an incident from when the second colony was discovered: Researchers and government managers agreed to keep the location secret, but Scott says he received a conservation-organization mailing that described the exact location.

Practically everyone else involved

had "specimens from the Uncompanding colony AVAILABLE FOR PURCHASE ON THE COMMERCIAL MARKET," and that Scott desired to "influence conservationist decisions with still unverified ... colony rumors, and simultaneously deflect ... focus by conservational groups on HIM as a tangible threat to the welfare of B. acrocnema." Among those who believe Scott really found additional colonies, Opler says, the feeling is that he prefers to keep them for his "own private hunting grounds."

The rift between Scott and the tradi-

supports listing, and many question

Scott's motives. In a 1981 letter to the Forest Service, Gall charged that Scott

The rift between Scott and the traditional scientific community is deep and many-sided. From the start he challenged separate species status for the Uncompander fritillary, as well as Gall's population estimates and field techniques. But Scott is not affiliated with a university or established research body, and his challenges came in testy, roughly typed letters with scribbled graphs, not in peer-reviewed journal articles. Scientists writing letters to the Fish and Wildlife Service to rebut Scott's challenges bristled at his refusal to play by the rules as much as at his unverified claims and haughty manner.

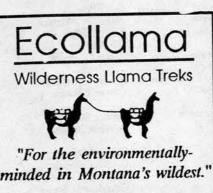
"Benign neglect is the last resort for nature," Scott told me. "Government efforts to save endangered species are a joke. Look what happened to the blackfooted ferrets in Wyoming." Scott's disenchantment with the system makes sense when we read about the case of the Mount Graham red squirrel, in which politics overrule biology for a population the Endangered Species Act is supposed to protect, or when we stop to wonder why the Fish and Wildlife Service took 11 years to propose listing for the Uncompange fritillary.

Perhaps the fritillary will persist, despite our clumsy efforts to understand and save it. Perhaps the Pleistocene relic is doomed by the natural warming of the West, now accelerated by humans. In the high San Juans, under a brittle cold sky filled with winking stars, eggs and larvae of the Uncompahgre fritillary are sleeping now, waiting for another short harsh summer, waiting for the winking out.



Steve Boyle lives in Montrose, Colorado, and works as a consultant in wildlife biology.





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