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High Country news

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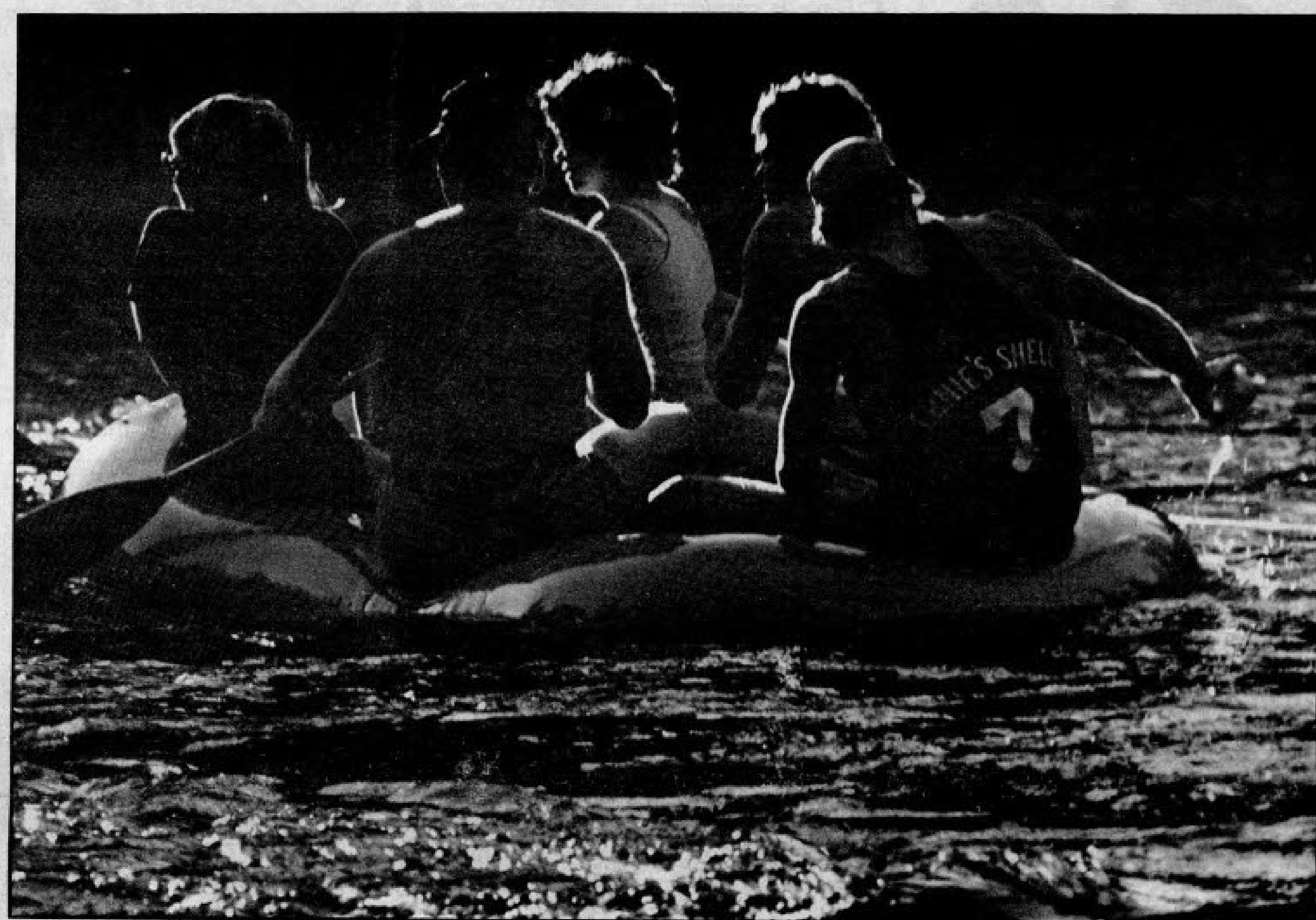
Colorado rivers II

Whitewater trespass

by Van Becay

(This is the second installment of a two-part feature on the future of whitewater sports in Colorado. Part one appeared in HCN, 11/12/82.)



Lyn Jensen

Whitewater enthusiasts who ignore the Colorado Supreme Court's ruling that prohibits floating across private land are guilty of third degree criminal trespass.

In the long run, arguments about regulating whitewater sports beg the question. At present, no one is sure there will be a future for Colorado whitewater.

With the exception of Dinosaur National Monument and a few other remote regions, almost all runnable sections of river at some point cross private land. River runners have traditionally ignored the question of who owned the banks of the stream they were floating.

In a landmark 1979 decision, the Colorado Supreme Court ruled that no one had a right to "float on a non-navigable stream as it flowed through, across or within privately-owned property without first obtaining consent of the property owner."

Since it is well-nigh impossible to secure permission from every landowner along a stretch of river, river runners have generally ignored this decision, too. However, enthusiasts who ignore the ruling, known as the Emmert decision, are guilty of third degree criminal trespass.

On July 3, 1976, David Emmert and a group of friends and relatives on a fishing trip, floated onto the Con Ritschard property east of Kremmling, Colorado. The property was posted to prohibit trespassers and Emmert had been warned previously to stay off. Ritschard and his foreman had strung barbed wire across the river to stop the trespassers and they summoned the deputy sheriff to arrest the Emmert party. When the local court found them guilty of third degree criminal trespass and fined them $50, Emmert appealed to the Colorado Supreme Court.

The battle lines were drawn. The Colorado chapter of the Western River Guides Association saw a chance to set Colorado river precedent and establish the legality of their sport. The Colorado Farm Bureau, the Colorado Cattlemen's Association and the Colorado Water Congress saw an opportunity for precedent, too — for prosecuting trespassing, vandalism, littering and invasion of privacy against the riparian property owners of the state. Both sides filed *amicus curiae* (friend of the court) opinions with the Supreme Court.

In his appeal, Emmert claimed the state constitution provides that "the water of every natural stream...is hereby declared to be the property of the public and the same is dedicated to the use of the people of the state."

The Supreme Court disagreed. Public access is granted only to navigable sections of water, not non-navigable. Only the Colorado River from Grand Junction to the state line and the Navajo Reservoir, because it lies in both Colorado and New Mexico, are deemed navigable. All other Colorado water is considered non-navigable and belongs to the adjacent property owner.

A navigable river is one which is defined as such by the federal government, usually by the Army Corps of Engineers. There are at least nine different definitions of a navigable river, depending upon the program which is regulating the river. A number of criteria go into the determination, including stream flow and the historical uses of the river. Basically, however, a navigable river is one which supports, has supported or is capable of supporting interstate commerce.

The Supreme Court stated, "He who owns the surface of the ground has exclusive right to everything which is above it," with the exception of aircraft passing overhead.

Furthermore, the state constitution, upon which Emmert based his appeal, was intended "to preserve the historical appropriation system of water rights upon which the irrigation economy of Colorado was founded rather than to assure public access to waters."

In conclusion, the court admonished Emmert and co-defendants that the "drafters of the state constitution did not intend to make every body of water a highway." The decision of the lower court was upheld.

This precedent has set Colorado at odds with many other western states, which do allow public use of water on privately-owned lands. California, Idaho, New Mexico, Oregon, Washington and Wyoming all give non-owners surface rights on water bounded by private lands.

The Emmert decision creates a legal limbo for river runners in Colorado. Nearly every rafting company in the state is well aware of the decision, as are river managers with the Bureau of Land Management, U.S. Forest Service and National Park Service. But very few riparian landowners have ever heard of it. Most assume river runners have an easement of some sort on their property. Rivers that saw whitewater sports prior to the Emmert decision — in July 1979 — are still being run. Many smaller streams not traditionally considered whitewater have been fenced for years. River runners are now reluctant to cross such barriers, realizing that any confrontation with property owners will not work in their favor. Most river running now takes place only because property owners are ignorant of the Emmert decision.

(continued on page 10)

WESTERN ROUNDUP

High Country News

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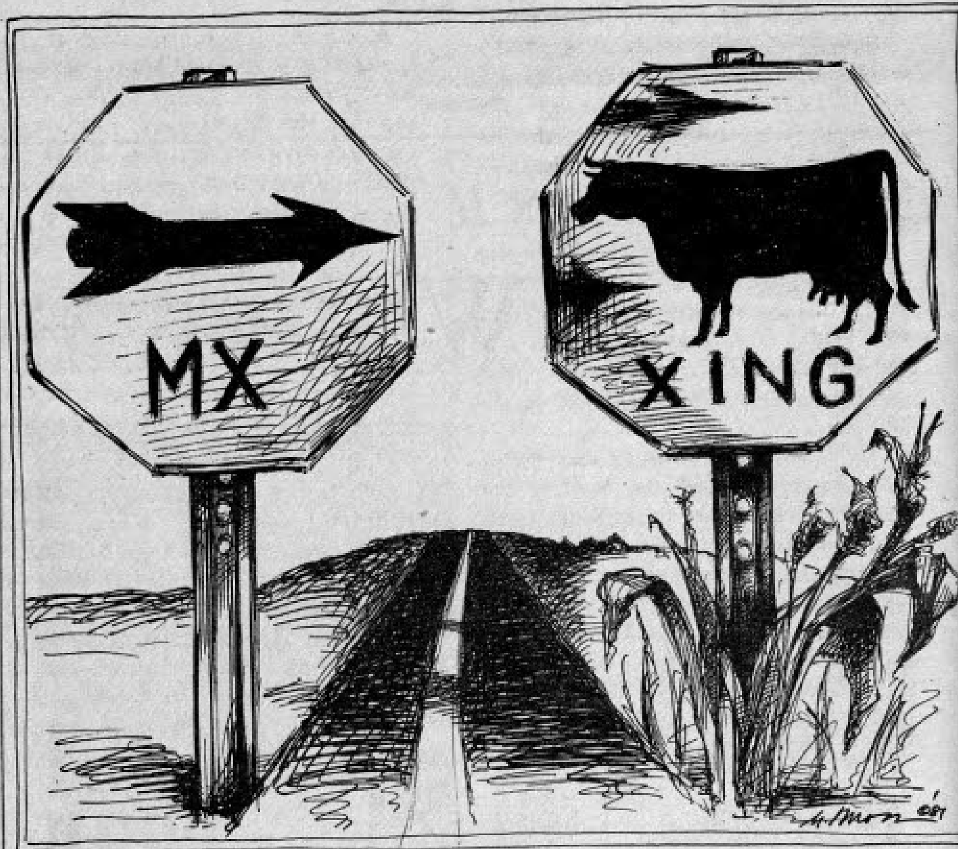
The MX finds its home in the West

President Reagan announced Monday night that the controversial MX missile would be deployed at Warren Air Force Base near Cheyenne, Wyoming. If approved by Congress, the missiles will be placed on about 20 square miles of land in the so-called "dense pack" basing mode.

The MX is a new missile (MX stands for "missile experimental" in Pentagonese) with at least 10 nuclear warheads per missile. It is more accurate and powerful than its predecessors. The Air Force is considering using .335 megaton warheads on the missiles, and is also looking at larger half-megaton warheads. A megaton is a force equivalent to a million tons of TNT.

The MX is intended to reduce the so-called "window of vulnerability" in the United States' strategic nuclear forces. The phrase refers to the belief that the Soviet Union is capable of knocking out U.S. land-based missiles before the U.S. could respond. Land-based missiles are one part of the U.S. defense "triad." The other two "legs" are the nuclear submarine fleet and the strategic bomber force.

As originally proposed several years ago, the MX would have been deployed on a vast area of the Utah desert in the "racetrack" basing mode. The missiles would have been moved by large trucks among shelters to confuse the enemy about their exact location in a sort of nuclear shell game. Current missile guidance systems are accurate, on average, up to .2 of a mile from the target. The racetrack system was designed to move the missiles so that an attacking enemy would not know which shelter the target was in, thereby decreasing the accuracy of the attack and allowing some of the MX missiles to survive for a retaliatory attack. The racetrack system was scrubbed primarily because of the enormous cost and stiff political opposition in Utah.



In the "dense pack" basing mode, all 100 missiles would be placed in hardened silos very close together. Because of the strength of the silos themselves, a virtual direct hit would be necessary to wipe out the missiles. Also, the missiles would hypothetically be protected by "warhead fratricide." This is the largely unproven theory that a large percentage of missiles launched simultaneously at a small target would destroy each other before reaching the target.

Sister Frances Russell, coordinator for the Tri-State MX Coalition in Cheyenne, said "We are very exasperated that we've been so handicapped. The reason the site is here is that the people representing us have been solidly behind the plan. We haven't been properly represented. In other states, the representatives and governors were better organized and informed so they could veto the MX. We have been under-represented and will continue to be." Russell said that she expects opposition in the state to grow.

Pro-MX reaction has been muted so far, but a number of Cheyenne political and business leaders are expected to come out in favor of the project.

Congress must still approve and fund the MX scheme.

— *Dan Whipple*

Fishy business studied in BLM ranks

A recent General Accounting Office study revealed that some 14 percent of Bureau of Land Management employees surveyed may have financial interests that could be conflicts of interest.

The GAO report concluded that the BLM's financial disclosure system is managed poorly, making it easier for conflicts of interest to escape attention. According to a United Press International report, the GAO found 141 "questionable" items reported by 92 of the 674 BLM employees surveyed. The majority of the potential conflicts of interest involved holding stock in companies that have federal mineral leases.

Ken Monroe, head of public affairs for the BLM in Washington, D.C., said the GAO study was most critical of the BLM's record-keeping practices. He added that it is not the GAO's responsibility to determine if conflicts have occurred, but the BLM's. Monroe said the BLM has investigated most of the cases and so far has found no actual conflicts of interest.

However, Rep. Edward Markey (D-Mass.), who requested the GAO study, said it was alarming that such a large percentage of the BLM employees surveyed had "questionable relationships with industry."

Wayne Dillehay, Markey's press secretary, said that a previous conflict of interest study on the U.S. Geological Survey had prompted Markey to request the BLM study.

"We hope there are no conflicts of interest discovered," Dillehay said. "But we felt that when 14 percent of the disclosure forms were found to have questionable conflicts of interests, it merited attention. Until this report, the BLM had no investigations."

— *Carol Jones*

Dear friends,

It's always pleasant when someone says something nice about you. It's also nice when it comes unexpectedly. In the December, 1982, issue of the Friends of the Earth publication, *Not Man Apart*, Editor Tom Turner gave *High Country News* a very nice plug. In urging his readers to subscribe to *HCN*, Turner wrote, "*HCN* has always been one of our favorite journals, and a year or so ago it got a face-lift and became one of the handsomest tabloids in the country."

Noting that our subscription rolls still hover around 4,000, Turner said, "Why *HCN*'s circulation isn't 10 times that is a mystery to us." To this we can only say "Amen."

Turnabout is fair play, and we'd like to take the opportunity to let our readers know about *Not Man Apart*. It offers a thorough, intelligent look at environmental issues in the nation and around the world. It has particularly good coverage of nuclear issues, running each month "The Nuclear Blowdown," which looks at the nuclear power industry in depth. *Not Man Apart* has also begun extensive coverage of the nuclear freeze movement.

To get *Not Man Apart*, you can either join Friends of the Earth for $25 or send $15 for the subscription only. The address is 1045 Sansome Street, San Francisco, California 94111. We're sure that you'll look forward to getting your copies as much as we look forward to getting ours.

■

We received notice here the other day that former *HCN* intern Jennifer Walford will graduate from Colorado State University early in December. This comes as a surprise to managing editor Dan Whipple, but the rest of the staff expected it. We'd all like to congratulate her on her graduation.

— *the staff*

CLARIFICATION

In the Montana section of our story on wild and scenic rivers in the last issue, we quoted a source identified only as "Shouse." He should have been identified as Joel Shouse, planning consultant for Madison County, Montana, and an active river preservationist.

No drilling in New Mexico's wilderness

What began as a bizarre test of Interior Secretary James Watt's wilderness policy, ended last week with environmentalists the clear winners and a New Mexico oil firm facing a $100,000 loss.

Ruling November 18 that Yates Petroleum Corporation violated federal rules, a U.S. District Court judge in Albuquerque, New Mexico, ordered the firm to stop drilling and prepare to dismantle its natural gas rig within the Salt Creek Wilderness.

The ruling capped three tumultuous weeks during which the firm built a road into the wilderness, ignored U.S. Fish and Wildlife Service pleas to stop drilling and bulldozed its way through an environmentalists blockade at the site.

The Interior Department asked Judge Juan Burciaga to halt the drilling nine days after it began. Environmentalists charged that the delay showed the government tacitly approved of Yates' action. The firm cut a boundary fence and moved into the wilderness near Roswell, New Mexico, on November 1, the day its state-issued 10-year lease to subsurface minerals was set to expire. The company's earlier efforts to obtain required federal surface access permits were stymied by a temporary congressional freeze on wilderness mineral exploration.

Company spokesman Peyton Yates insisted that the state lease guaranteed its right to enter the wilderness. Consequently the firm ignored a trespassing citation from officials of the Bitter Lakes National Wildlife Refuge that surrounds the wilderness. The Salt Creek Wilderness was created in 1970 when the federal government bought the surface rights but left the subsurface mineral rights under state control. Though Yates was issued its 640-acre lease two years later it made no effort to drill in the wildcat area until natural gas was found nearby three years ago.

Interior spokesman Harmon Kallman dismissed suggestions that the Interior Department supported the drilling and said its delayed response stems from the area's complex land status. Rep. John Seiberling (D-Ohio) was unconvinced and called a special congressional hearing on the Yates case. Seiberling said he was "astounded" at the delay in seeking a simple restraining order and called the drilling "a test of the will power of the administration to protect wilderness areas in the face of a clear violation of the law."

Prompted by the incident, a House appropriations subcommittee extended the freeze on processing any wilderness drilling permits until September, 1983. In ruling against the Yates firm, Burciaga showed little sympathy for the firm's actions, calling their predicament "self-induced." Yates attorneys said the firm would immediately file an appeal.

Under the terms of its lease, Yates will automatically lose its lease if there is no drilling for more than 20 days, according to the New Mexico State Lands Office. Acknowledging the firm's bind and the rush to appeal, company spokesman Yates said there may be no way to get around the 20-day limit to resume drilling. "Believe me, we've looked," Yates said. If the 20-day limit expires without the firm resuming drilling, Yates said the firm will have lost the approximately $100,000 it spent drilling the well.

— Nolan Hester

Bunker Hill sold, unemployed hopeful

Kellogg, Idaho, isn't a ghost town yet. On November 1, a group of four investors bought the 94-year-old Bunker Hill lead-zinc-silver mine and smelter, offering new hope to thousands of unemployed workers in the Silver Valley.

Approximately 2,100 Bunker Hill employees have been laid off since last fall when Gulf Resources and Chemical Corporation began shutting down its subsidiary. The closure dealt a crushing economic blow to northern Idaho.

Although the new owners have no plans to reopen the operation soon, the purchase has raised confidence in the area's future.

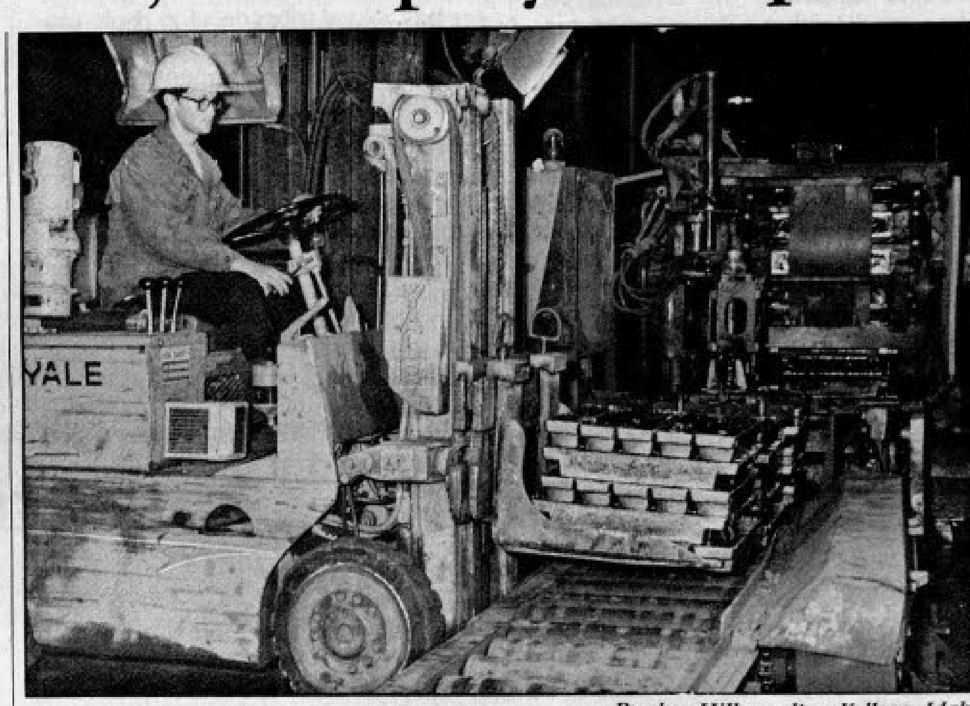
The new owners are the J.R. Simplot Company, Harry F. Magnuson, Duane B. Hagadone and Jack W. Kendrick. Simplot is known as the "spud king" of Idaho, having made a fortune with dried and frozen potato products. Magnuson owns several small silver mining companies in the West. Hagadone is the head of a publishing chain and construction company. Kendrick is president of Bunker Hill.

Kendrick holds a 15 percent interest in the new partnership, while the other three owners have divided the remaining 85 percent equally. Simplot, Magnuson, and Hagadone tried to buy Bunker Hill last winter, but were unable to finalize the deal at that time.

The purchase price was $15 million, although the Bunker Hill holdings have previously been valued at more than $50 million.

The purchase included two mines, an ore concentrator, lead smelter, zinc plant, fertilizer plant, Silverhorn Ski Area and about 35,000 acres of timberland. Although several buyers had expressed interest in buying salvage portions of the plant, nothing significant had been sold, said Gerald Turnbow, Bunker Hill's vice president for public and employee relations.

Silver and zinc prices must increase before the plant can be put back into operation, investor Duane Hagadone explained. "Until the economy makes a substantial improvement, there is no way that we can reopen these facilities, and there is no way that we can predict when that will happen," he said.



Bunker Hill Company

Bunker Hill smelter, Kellogg, Idaho

Falling silver and zinc prices were the major reason for the closure in late 1981, said Jan Gurley, Gulf Resources public relations director. Because other zinc concentrate suppliers had also cut back production, the Bunker Hill smelter could not operate at full capacity, she said. Nor did the company have sufficient earnings to replace old equipment and meet federal pollution control standards.

— Jeanette Germain

BLM advisory appointments criticized

Vern Ravenscroft, one of the leading sagebrush rebels in Idaho, was surprised when the Bureau of Land Management recently appointed him to represent environmentalists on one of the agency's advisory councils.

Environmentalists were more shocked than Ravenscroft, even after the agency retracted the appointment and asked the Tuttle, Idaho, rancher to represent the public instead. Ravenscroft has been an outspoken advocate of turning federal lands over to states and individuals.

"It was intially a mistake — an oversight on the part of some staff person," explained Trudi Olson, spokeswoman in the Idaho BLM office.

But there was no mistake about other appointments that have created as much controversy as Ravenscroft's new position in the Shoshone District.

Under federal laws, the BLM's advisory councils should consist of citizens who have expertise in a certain field and will advise federal officials on resource decisions.

In the Boise District, most of the appointees are connected with farming, industry or the Republican Party.

Among the more controversial nominations are Idaho Power Vice President Logan Lanham to represent the public at large, Boise Cascade Corporation Executive Glen Youngblood for the recreation position and rancher Rayola Jacobsen in the environmental position.

"They will certainly give the Boise District the kind of advice Interior Secretary James Watt wants them to," Idaho Conservation League Director Pat Ford said. "There won't be too many voices for sportsmen, conservationists or environmental protection."

BLM officials said the appointments do not indicate a lack of concern for environmental protections. Rather, the nominees were chosen in line with Watt's position that resources should be tapped for their commercial values — a function that does not conflict with environmental concerns, officials said.

Don Denton, chairman of the previous Boise District Council, said he does not think the new appointees meet the law's intent for an advisory council. "If the councils are used effectively and meet regularly, they are the best sounding board ever for the BLM," Denton told a Boise newspaper. "If you have a one-sided sounding board, you know how the sound comes out. And I feel that's the direction they've taken now."

— Ellen Marks

HOTLINE

Grey wolf comeback

The endangered grey wolf added seven new members to its population near Glacier National Park this year. Bob Ream, head of the University of Montana Wolf Ecology Project, said the seven cubs born this year may help the wolf population make a comeback without human intervention. However, Ream warned that there is only "limited room" for wolves and that they must be controlled if they interfere with livestock, the *Missoulian* reported.

Silver mine reopens

Sunshine Mining Company has announced it will reopen its Sunshine Mine in Kellogg, Idaho, in December. The mine, the nation's largest silver mine, was shut down on June 12, laying off 450 employees. The company said the recent increase in the price of silver has made it feasible to reopen the mine.

Moly mines stay closed

Climax Molybdenum Division of AMAX Inc. recently announced that the temporary closure of its Climax and Henderson mines in Colorado will be extended through April 4. The mines, which were closed because of soft markets, had planned to reopen January 3, 1983. Officials said demand is still too low to justify reopening. The shutdowns began September 18 at the Climax Mine and October 2 at the Henderson mine. The *Denver Post* reported that about 1,100 workers at each mine are laid off.

Anaconda water woes

The Environmental Protection Agency has discovered that water around the abandoned Anaconda Mineral Company smelter in Anaconda, Montana, is contaminated by heavy metals. Tests conducted by the EPA and the company found about 30 heavy metals, including arsenic, cadmium, copper and magnesium, according to an Associated Press report. One EPA official said the years of company air pollution may have carried metals to nearby hills and eventually washed them downstream in rivers. He said there is no evidence that wildlife has been harmed by contaminated water and there are no "glaring" problems with domestic wells. The water study is to continue for the next three and one-half years during demolition of the smelter.

Trouble in paradise

The National Park Service is considering alternatives for managing four problem areas in Glacier National Park in response to development pressures within and outside the park boundary. The wilderness character of the North Fork of the Flathead River is being threatened by timber, homesite, and oil and gas development west of the river. The NPS may limit visitor access to the North Fork. At Many Glacier-Swiftcurrent, St. Mary-Rising Sun and Lake McDonald Lodge the Park Service is hoping to solve problems with expanded visitor facilities. Management alternatives include consolidating trails and moving facilities from heavily used areas.

HOTLINE

Canada mining halted

Sage Creek Coal Company will postpone its decision on whether or not to start mining at a site near Fernie, British Columbia, just a few miles northwest of Glacier National Park. Poor world markets and delays in obtaining provincial government approval were reasons cited by the company for the postponement. The Canadian government and the state of Montana have been concerned about air quality, the effects of mining on the area's fish and wildlife and the effects on Glacier National Park.

Adding to the ranks

Donald P. Hodel, a friend of Interior Secretary James Watt and a proponent of nuclear energy, was appointed undersecretary of the Interior by President Ronald Reagan. Hodel, whose home state is Oregon, is a former head of the Bonneville Power Administration. While with the BPA, he pushed for construction of nuclear power plants and made enemies of environmentalists, whom he called "prophets of shortages" and "arrogant factions dedicated to bringing our society to a halt." Needless to say, environmental groups will oppose his nomination during Senate hearings. The *Denver Post* reported that one reason Reagan chose Hodel was that he is dedicated to Reagan's proposal to abolish the Department of Energy and transfer its duties to the Department of Commerce.

Denver water diverted

A Grand Junction (Colorado) District Judge recently ruled that the Denver Water Board will have to answer to the Public Utilities Commission and sell water to Denver suburbs as long as supplies last. The ruling is expected to be appealed. If upheld, the water board will have to supply Jefferson, Arapahoe and Adams counties with water on demand, and rates will be subject to PUC regulations. The ruling would also give the PUC a major say in growth patterns for the Denver metropolitan area, according to the *Denver Post*. The three counties filed the suit in 1973 because they were concerned over the water board's unregulated monopoly.

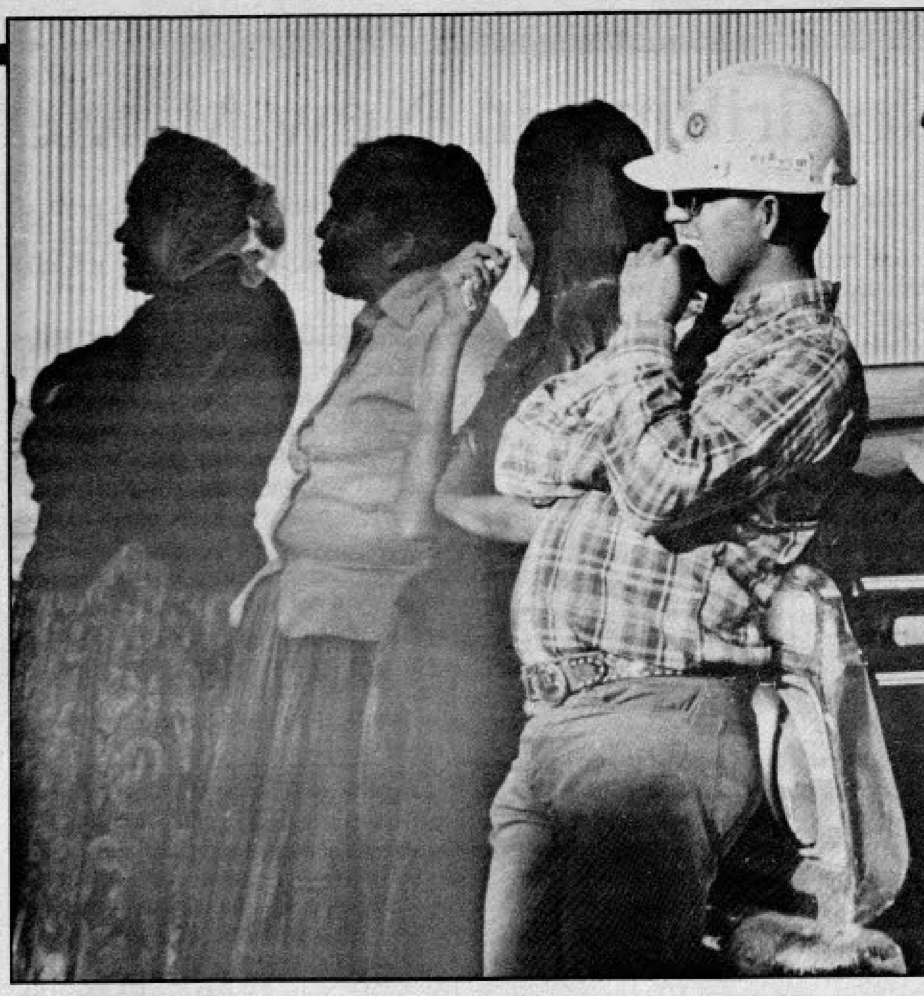
No waste here

Montana's Chamber of Commerce has launched an innovative program for recycling industrial waste. The Montana Industrial Waste Exchange gives businesses a way to search for needed materials or to advertise unwanted materials. The test is being financed with a $5,000 grant from the state's Department of Health and Environmental Sciences for one year. Officials hope the program will cut back on industrial waste dumping. According to the *Missoulian*, every three months the Chamber will publish a waste-exchange newsletter listing materials wanted by businesses. Names of the companies seeking materials will be kept confidential.

Leasing method rejected

The U.S. Forest Service has rejected its own idea for a new method of issuing oil and gas leases. The new method was to have been tried on three roadless areas in the Flathead National Forest in Montana. The method would have given the Forest Service contingency rights to veto or change plans for developing oil or gas after leases had already been granted. No work on the lease could begin until the Forest Service reviewed it. Both environmental groups and energy companies were opposed to the new method. The three areas will be leased through current Forest Service procedures.

CERT taking new direction



The Council of Energy Resource Tribes board has chosen as its new chairman the leader of a tribe that has opposed energy development. Wilfred Scott, chairman of the Nez Perce Tribe in Idaho, was selected at the group's recent annual meeting in Denver, Colorado. He replaces Peter MacDonald, who has been chairman of CERT since 1976 and chairman of the Navajo Tribe since 1970. Scott has been vice chairman of the CERT board.

The Nez Perce Tribe has coal and the potential for hydroelectric and geothermal development. However, after a feasibility study by the CERT staff, the tribe decided in 1980 not to develop hydropower. "We want to leave the Clearwater River free flowing. If we can help it, a dam will never be built across the river," said Scott. The tribe had hoped it could produce electricity by diverting the river into side channels or through tunnels, but CERT's analysis concluded that it was not feasible. The coal on the reservation is "insignificant," Scott said.

CERT has been criticized frequently as a pro-development organization run by non-Indians. However, at this year's annual meeting the board hired a Creek Indian, David Lester, for the organization's top staff position. Lester is considered more popular among Indian tribes than either the former director, Ed Gabriel, a non-Indian, or the former chairman, MacDonald.

Lester is currently head of the Administration for Native Americans under the Department of Health and Human Services. Appointed by President Carter and reappointed by President Reagan, Lester has helped tribes develop their management capacities through his Social and Economic Development Strategies (SEDS) program.

He believes SEDS helps tribes balance their social and economic development so they can endure after the oil, coal, and uranium are gone. "Energy development can be either a blessing or a bust, depending upon the tribal government. It has the right to say no — that's a very important right that needs to be exercised in some cases," he said. Lester said that development in eastern Oklahoma created social turmoil without helping the Indians at all, primarily because they had no way to manage the development.

CERT's membership grew to 37 last week with the addition of three tribes — Chemehuevi of California, Coeur d'Alene of Idaho and Ponca of Oklahoma.

In other business, the organization announced a $7 million oil and gas lease between the Ute Mountain Tribe of Colorado and Tricentrol Resources, Inc.; announced that the Crow Development Corporation had set up an office in CERT's Washington, D.C. headquarters; and called for passage of legislation that would give tribes the authority to regulate surface mining on their lands.

— Marjane Ambler

OSM revamp strips efficiency

It has been a year and a half since Interior Secretary James Watt ordered a reorganization of the Office of Surface Mining. The move brought considerable criticism from observers who claimed it was designed to undermine the agency's effectiveness. Rep. Pat Schroeder (D-Colo.) was particularly critical of the move because OSM's main office would be moved from its current headquarters in Denver to Casper, Wyoming.

While most of the critics retreated after the first assault, Schroeder has kept up with the issue. She recently wrote an "I-told-you-so" letter to Watt about the inefficiencies created by the reorganization.

In her letter, Schroeder said, "There has been a tremendous reduction both in the number of OSM operating personnel and in the number of experienced personnel." She said that by January, 1981, 470 of OSM's 948 highest ranking personnel had either terminated, or chosen to resign, retire or transfer out of the agency. Schroeder calculated that loss to be a 49 percent reduction of OSM's experience across the board.

Of the 565 field inspectors and technical and mine permitting experts employed in January, 1981, 228 had left by June, 1982. Schroeder said that represented a 40 percent reduction in OSM's most experienced and most essential personnel.

Schroeder also said that in an OSM evaluation recently presented to Congress, the agency admitted that "in many cases OSM failed to meet its required levels of oversight inspections, due to a lack of federal inspectors." The evaluation also reported that most states were unable to meet requirements to reissue permits to mining operations.

Schroeder quoted officials from the Colorado Mined Land Reclamation Board, the Montana Department of State Lands and the Wyoming Department of Environmental Quality, who have said they depend heavily on OSM's technical expertise. She questioned the agency's ability to provide assistance with such a reduction in staff.

She also criticized the increase in OSM's Washington, D.C. office at the expense of field and technical offices that assist the states.

Finally, Schroeder stated, "It's hard to understand how a reorganization of a federal agency which caused approximately half of its experienced employees to leave its service in just 18 months saved the taxpayers money and increased efficiency."

Andy Feinstein, counsel to the House subcommittee on civil service, which Schroeder chairs, said, "We are just looking for OSM to do its job — to keep experienced people working its programs."

A spokesman for the OSM said the agency has not yet replied to Schroeder's letter.

— Carol Jones

BARBED WIRE

High fashion notes. The U.S. Fish and Wildlife Service's wildlife product sale, which disposed of a 10 year backlog of confiscated wildlife products, included an armadillo guitar with broken strings (sale price $357.99), 36 elephant hide beer mugs ($552.60), an elephant foot stand ($500), four elephant foot ice buckets ($688), 44 hollow ostrich eggs ($220) and 72 pairs of ladies python shoes ($310). The sale raised about $250,000.

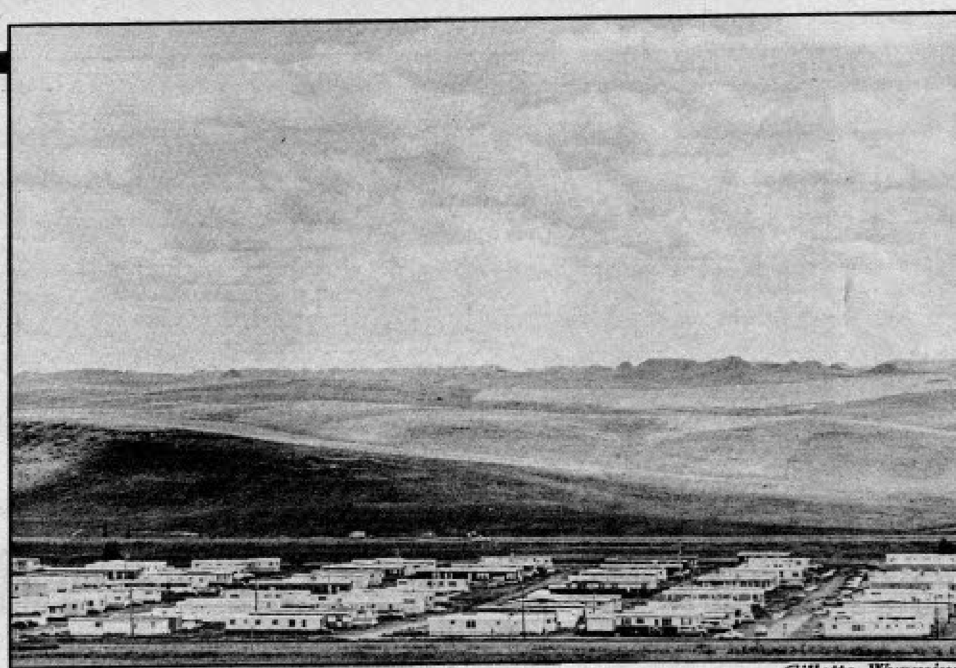
It's about time. A headline in the *Casper* (Wyo.) *Star-Tribune* read, "Nuke industry worries about image."

Questionable recommendations department. Convicted Watergate conspirator John Ehrlichman told the *Good Morning America* television show, "It is one of the great regrets of my life that I could have fired James Watt back in the early '70s and I didn't know it." Ehrlichman, who was President Richard Nixon's chief domestic adviser, called Watt the "worst thing that has happened to the cause of land use in the United States."

Wildlife news. The mayor of Richwood, Louisiana, was arrested when she shot and critically injured two pigs that were illegally on a neighbor's property. "We cannot have pigs in Richwood," said Mayor Verdiacee Hampton-Goston. In his complaint, the pigs' owner said the mayor caused the pigs "unjustifiable physical pain and suffering."

Adam and Eve had the same problem. A trade representative from Wyoming's Department of Economic Planning and Development found on a tour of the South Pacific that the area was not a good potential market for Wyoming products. Cynthia Ogburn told United Press International, "It's a difficult market to penetrate. The needs are so little and the wants are so little. There's no great desire to have a Beta-Max."

Hampshire awarded siting permit



A. Held

Gillette, Wyoming

Wyoming's Industrial Siting Council has paved the way for Hampshire Energy's proposed $2 billion coal gasification plant near Gillette, Wyoming. On November 20, the Siting Council awarded Hampshire a siting permit, the first and most important of several state permits the company must obtain.

During 15 days of hearings, Hampshire agreed to meet about 100 environmental protection standards recommended by the state's Industrial Siting Administration staff. It was after Hampshire agreed to those conditions, including specifics of solid waste disposal, groundwater and waste water treatment, that the council decided unanimously to grant the permit. The council will meet again in two months to set other requirements for plant construction and operation, as well as other environmental and social conditions.

Hampshire officials are confident that the permit will just about guarantee U.S. Synthetic Fuels Corporation loan and price guarantees. The Hampshire project is one of two projects in the country considered eligible to receive SFC subsidies (*HCN*, 6/25/82) when the SFC board meets on December 2.

However, the company isn't certain the plant will be built. In mid-October, one of the project's major backers, Standard Oil Company of Ohio, bowed out, leaving the other four backers with a tremendous financial burden (*HCN*, 10/29/82). Even with the SFC loans, construction could be delayed by soft markets, rising costs and technological problems. Hampshire has suggested building the project in stages.

Even though the Siting Council voted unanimously to award the permit, one member, John Fanos of Uinta County, told the *Casper Star-Tribune* he had mixed emotions about issung the permit because many questions involving health and safety were not answered. He said it was Hampshire's agreement to the 100 conditions and to further study that changed his mind.

Conservation groups are expected to follow closely the final permitting and conditions.

— *Carol Jones*

Timber sale under fire again

A decision by the U.S. Forest Service to go ahead with a controversial timber cut in the Upper Green River area of Wyoming's Bridger-Teton National Forest has sparked vociferous objections from wildlife groups, the Wyoming Wilderness Association, and members of a "consensus" group of Pinedale area residents.

The Wyoming Wilderness Association had appealed the first decision by Reid Jackson, Forest Supervisor at Bridger-Teton, to sell 3.6 million board feet of timber in the Klondike Hill area, only to have Regional Forester Stan Tixier turn the group down. The Wyoming Wilderness Association is now appealing to U.S. Forest Service chief Max Peterson to overturn the Klondike Hill sale.

Complaints about the sale were also sounded by the Sweetwater Wildlife Association, the Sublette County Wildlife Association, and a "consensus" group of local residents put together by the Forest Service to advise it on timber policy in the area.

Those objecting to the sale said more roads will further damage the watershed, which has suffered heavy siltation as a result of previous sales, and drive away elk and other wildlife. The "consensus" group was touted as a mechanism to improve local input on Forest Service management of the Upper Green area, but some members were angry at the outcome. "We worked for months on it," said Ric Samulski, a member of the group and editor of the *Pinedale Roundup*, "and when the smoke cleared nothing had changed. We were used."

Bridger-Teton spokesman Fred Kingwill said the Klondike sale will be "a model sale, a showplace to demonstrate that we can responsibly manage timber in that kind of environment." He said critics were judging the sale on the basis of poorly managed cuts of 10 or 15 years ago, but that techniques had greatly improved.

"If they know so much more than they used to, why don't they go back and fix the previous cuts?" said Floyd Schneider, a Pinedale resident and member of the Sublette County Wildlife Association. His group intends to join in the appeal of the decision.

Supervisor Jackson has been under fire for both the Klondike sale and an earlier decision in favor of another larger timber cut on Jack Creek in the same area. Jackson has delayed the Jack Creek sale, which would have cut 7.3 million board feet.

But opponents think they have lost out on both counts. They see the Klondike sale as an indication that the Forest Service will do whatever it pleases, including, eventually, the Jack Creek sale.

Bart Koehler, who filed the second appeal on the Klondike sale for the Wyoming Wilderness Association, said the decision was made improperly, before a final road plan or final forest management guidelines were completed. Bridger-Teton officials acknowledge that changes in the Klondike cut are still possible, but claim such actions are not improper.

Kingwill listed three possible changes: a change in the planned road access to the timber area; variations in the shape of the cutting areas, which range from 10 to 25 acres per unit over a 250-acre area; and other changes due to an updated evaluation of forest management practices in Wyoming, due in January.

The highest bid for the Klondike Hill sale came from Louisiana-Pacific, but the sale will not be finalized until the appeals are resolved. Louisiana-Pacific operates a lumber mill in Dubois, Wyoming, on the other side of the mountains. L-P bid $40.50 per thousand board-feet of live timber, barely above the minimum bid required by the Forest Service.

Kingwill indicated that there would be "a few small sales around that area" in addition to Klondike Hill, but he said there is no plan at this time to revive the Jack Creek sale. "We've improved a great deal," said Kingwill, "but we have to gain the public trust."

That may not be easy. "Whenever these people penetrate and put in a road," said Schneider, "it just adds to the silt load. By the time you get down to the Hoback, it's too thin to plow and too thick to drink."

— *Geoffrey O'Gara*

HOTLINE

Oil shale interest

Cathedral Bluffs Shale Oil Company is trying to get things rolling again in western Colorado's oil shale country. The company, a partnership of Occidental Petroleum Corporation and Tenneco Inc., will go ahead with plans to develop its federal C-b shale project, which was stopped in December, 1981. The company will also submit an application to the Synthetic Fuels Corporation for federal loan guarantees in January, 1983, when the agency will consider its third round of applicants. The original C-b project was estimated to cost $5.9 billion and produce 94,000 barrels of oil a day, according to the *Denver Post*. However, the company wants to change its mining process from the in-situ underground extraction originally planned to a surface retorting operation. The surface process is cheaper to operate.

Kootenai plan released

A 35,900-acre wilderness study area in Kootenai National Forest in Montana was not recommended for wilderness designation in the forest's 50-year management plan. Instead, the Forest Service recommended adding 2,000 acres to the existing 16,000-acre Ten Lakes Scenic Area. The plan also calls for increased timber and wildlife production. Annual timber sales offered by the forest would increase throughout the 50-year time period.

Fish plan criticized

The Bonneville Power Administration and Sen. James McClure (R-Idaho) are unhappy with the recently released fish and wildlife plan of the Northwest Power Planning Council. The plan that the council decided upon, which was required by law, calls for the release of substantial amounts of water in certain rivers to help fish populations (*HCN*, 11/12/82). According to an Associated Press report, $160 million in revenues could be lost because that water would not be available for generating electricity. The BPA and McClure feel the council has exceeded its authority by making the recommendations. They feel the recommendations represent implementation of the plan rather than simple planning.

Concern aids caribou

Concern from conservation groups over the fate of the Selkirk Mountain caribou herd in northern Idaho has prompted the U.S. Forest Service to reduce the proposed Red Spruce timber sale in the Panhandle National Forest in Idaho. Biologists think a smaller sale will have less impact on the caribou and other wildlife. The 20 or so caribou are the last remaining herd in the lower 48 states. The sale area is a travel corridor for the caribou (*HCN*, 10/29/82). Shortly before the Forest Service decision to reduce the sale, the Idaho Department of Fish and Game announced that it will conduct a three-year study of caribou to determine the animal's habits and movements.

Urban run-off: Pollution

by Dyan Zaslowsky

During spring and summer rainstorms John Doerfer used to stand for hours on a bridge over the South Platte River downstream from Denver, collecting samples of river water for lab analysis. Oil slicks, clouds of sediment, old tires and an occasional greasy telephone pole sped by as the river rose.

"When I first started going out to sample the river during storms, I was sure there had to be a serious problem," said Doerfer, water quality planner for the Denver Regional Council of Governments. "The river," he said, "looked so trashed out."

Indeed, many water quality experts share those thoughts about urban rivers during downpours. Concern about what sort of city grime was being washed into these rivers was so great that in 1979 the Environmental Protection Agency coordinated and partially funded a study to investigate what hazards might be associated with what has been termed urban run-off. Researchers in 28 cities, including Denver, spent two years testing the waters as part of the National Urban Run-off Program.

The NURP report, which will be submitted to Congress next spring, leaves unanswered the question of whether city waterways are as bad as they look during storms. What is somewhat defined is that the issue of urban run-off — once viewed with great concern — will be relegated to "not urgent" status.

While acknowledging that urban run-off may be a problem in some places at some times, an EPA summary of NURP's preliminary results stated that "It does not appear desirable to adopt a universal requirement for urban run-off control or treatment." Meanwhile, the Denver Regional Urban Run-off Program (DRURP) report, to be released by the end of 1982, includes only a few mild recommendations on how to minimize possible problems with urban run-off.

Urban run-off is a form of erosion in which numerous components of city and suburban living are swept by rain and snow from streets, parking lots and buildings. Since these surfaces are impervious, the water falling on them gathers debris and carries it along until it enters streams, lakes and rivers. During times of heavy rain and snowmelt, these substances may enter rivers too quickly and in concentrations that could be harmful to plants, fish and, perhaps, people.

By contrast, much of the rain and snow that pelts undeveloped land seeps into soil to nourish plant life. That water enters waterways more slowly, without the excess baggage of hazardous chemicals. A few of the substances evident in urban run-off are lead from automobile exhaust, zinc from tires, sediments loosened from the ground by extensive construction, and fecal matter from domestic pets. In the growing Denver area, where storm water is flushed untreated through storm sewers and then into the South Platte, river pollution levels could rise significantly.

"During the 1960s and 1970s the dangers of industrial and municipal sewage in rivers were so obvious, that they received all the attention," said Doerfer. Federal, state and local government efforts were dedicated to making the nation's waterways "fishable and swimmable" by 1983. And the industrial, municipal and manufacturing sectors shouldered much of the blame.

But even as these operations cleaned up their act, something was still wrong with the water, Doerfer said. Traces of lead, zinc and other toxic metals could be found. These could not be traced to the big polluters. Suspicions about their source focused on urban areas, where so much of the natural ground cover had been paved over that these metals and others could not be absorbed.

The sources of urban run-off are so diffuse that they can't be monitored as easily as can individual large polluters. Until the NURP study was completed this year there was very little information on the differences between "point source" pollution — such as effluent from a factory — and "non-point source" pollution — pollution from numerous places at once.

In Denver, data on the kinds of urban runoff were gathered from 10 locations in the South Platte drainage system. Each site represented a different land use. Single-family residential neighborhoods, multi-family residential neighborhoods, commercial centers and native grasslands were analyzed.

Among the 28 cities involved in the NURP study, Denver and Salt Lake City were the only cities located in the arid west. Infrequent rainfall in these cities allows more sediment to build up between storms, Doerfer explained. Therefore, while Denver may not have a problem with run-off very often, the debris carried with each rain possibly overtaxes the river's cleansing ability, each time it does rain. As was predicted out of all 28 cities, Denver registered the largest amount of suspended sediment, or dirt per acre washed away in one inch of run-off. Suspended sediment run-off concentrations were highest in single-family residential neighborhoods, DRURP researchers discovered. For one thing, home construction loosens the soil and makes it erode more easily. But one major theory, according to Doerfer, is that dirt washes off slanted rooftops more easily than it does off flat parking lots and shopping center rooftops. For every inch of run-off, the DRURP report stated that 370 pounds of dirt from each acre of single-family housing developments makes its way into the waterways. The sampling sites in commercial areas, however, produced only 46 pounds of sediment per acre, for every inch of run-off.

Of all the cities studied, Denver also reported the highest concentrations of lead during storms, Doerfer said. In some instances the amount of lead in the South Platte was up to 10 times higher than what is permitted by state water quality standards.

Yet, neither DRURP nor NURP concluded that this is hazardous enough to recommend removal of metals from run-off. The technology to do this is "fancy," said Doerfer, and the cost might be prohibitive. "I never saw any fish go belly up during a storm," said Doerfer. "We just don't know what levels they can tolerate." According to the NURP preliminary report, "The degree of any impairment" to aquatic life "does not appear to be of sufficient magnitude to generate serious local concern." The report further stated that in an EPA examination of over 10,000 fish kills between 1970 and 1979, only 265 were attributed to run-off of any kind. Less than half this number were associated with urban run-off, the report stated.

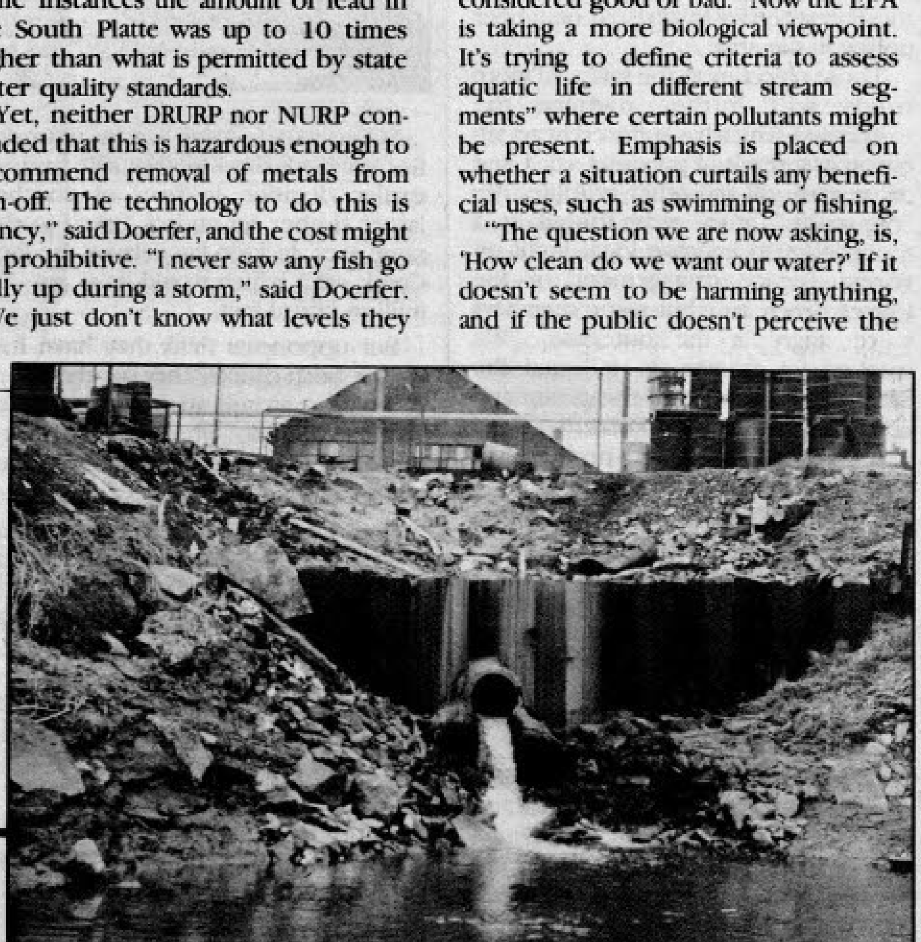
Criticism of the EPA study has come from some academic quarters, because the agency still hasn't conducted on-site studies linking elevated levels of toxic metals from urban run-off to fish and plant life. Nor have there been any laboratory experiments on their effect. While much data has shown that stream standards are being violated during heavy rainfall, there has been no testing to see how well various species exist at higher levels of pollutants, critics have said.

Doerfer explained that an attempt to relate various concentrations of pollutants "is a more grandiose program" and was beyond the scope of the NURP study.

While that may be the case, interpretations of the seriousness of urban run-off may also reflect current EPA philosophy, with its emphasis on cost cutting and standard reduction. Doerfer said that water quality goals have been "re-evaluated because they were probably too idealistic." This re-evaluation had begun under the Carter administration, Doerfer said, and has been "heightened" during the Reagan adminstration.

"Water quality used to be thought of only in a chemical sense," Doerfer said. The presence of certain elements was considered good or bad. "Now the EPA is taking a more biological viewpoint. It's trying to define criteria to assess aquatic life in different stream segments" where certain pollutants might be present. Emphasis is placed on whether a situation curtails any beneficial uses, such as swimming or fishing.

"The question we are now asking, is, 'How clean do we want our water?' If it doesn't seem to be harming anything, and if the public doesn't perceive the



storms into Denver rivers

water as a problem, then is it one? Aesthetically speaking, the river might look terrible during rainstorms. But does the public want to spend any money to improve it? Communities first have to be convinced that it's worth spending the money on urban run-off before they should do it," said Doerfer.

"As to whether rivers during times of heavy rains are a health hazard because of their increased pollution — well, they could be if you went swimming at that time and took a mouth full of water," he added. "If nobody does that is the run-off hurting anybody?"

At any rate, the numbers in the NURP report are open to interpretation. But the outstanding find is that urban run-off isn't critical. At least, not yet.

Nevertheless, Doerfer said that it shouldn't be "an all or nothing situation." There are lots of fairly inexpensive control measures that can be instituted, and it would make sense to use them. One of the simplest ways to decrease petroleum products that find their way into the river, according to Doerfer, would be to encourage motorists not to park or change their oil over a storm sewer. When too much oil gets into rivers, oxygen is reduced, making it difficult for aquatic animals to breathe.

"Some of the controls relating to reducing pollution of any kind depend on some behavior modification," said Doerfer. "Individual awareness of the problem helps."

More costly measures include better erosion control in subdivisions, and drainage ordinances that would not allow area pollutants to directly enter waterways. The DRURP report also emphasized the use of detention ponds and "percolation pits," which would hold water from run-off for a while until some of the pollutants have dissipated. Doerfer noted that the Adams County Planning Department, which includes Littleton, a Denver suburb, has been studying how to use percolation pits in housing developments. Other methods of controlling non-point pollution at its source include additional street sweeping and built-in structures that allow run-off from roofs to seep into the soil before entering the storm sewers.

In the report that comes out at the end of the year, Doerfer said that DRURP will recommend that:

— Existing detention ponds throughout the region be improved and maintained more effectively;

— Urban run-off quality control be coordinated with urban flooding control;

— Local governments pursue implementation of drainage ordinances that include detention pond design, percolation pits and erosion control. The DRURP report estimated that for a community of about 30,000, such as Littleton, it would cost $12,000 to start up a water quality maintenance program, and an additional $150,000 for detention pond maintenance.

"It should be clearly stated that not all the questions about urban run-off have been answered," Doerfer wrote in a summary of DRURP recommendations. "In fact, the answers presented have often led to new questions."

Many of the questions relate to the impact of urban run-off on beneficial uses — can fish live over long periods of exposure to toxic metals? Can people swim? Questions such as these need to be dealt with before major implementation costs are incurred, the DRURP summary stated.

Another aspect that bears more investigation is whether non-point source control is a suitable replacement for more advanced waste treatment at municipal or industrial plants. Finally, the presence of constant daily trickle flows adds pollutants to streams in urban areas, the DRURP summary pointed out.

"It became obvious during preparation of this report that stormwater is not the only source of urban run-off," the report stated. "The daily flows into the region's streams from urban areas in some cases are the biggest contributors of pollutants." This could mean that control of industrial effluents, along with stormwater detention measures still wouldn't achieve the water quality goals established by the EPA, DRURP warned.

Meanwhile, every time it rains water quality standards are probably violated. The issue to be decided is which is more reasonable — these standards, or the amounts of toxic chemicals that actually do end up in the nation's waterways.

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Dyan Zaslowsky is a freelance writer living in Evergreen, Colorado. This article was paid for by the HCN Research Fund.

In some instances, after a storm, the amount of lead in the South Platte was up to 10 times higher than state water standards permit.

The Sale Barn

Our local livestock auction closed its doors for the final time a few weeks ago. Seems the slow farm market and the increasingly urban character of La Plata County here in southwestern Colorado were too much for the local owners to overcome. Most of the folks around here will never miss it. But for a lot of the old-timers, farmers and ranchers for generations in this part of the West, it marks the end of an era. Things have changed. Though most of the money anymore comes from tourism and population growth, the agricultural roots run deep. To paraphrase the popular song, "Durango was Country, before Country was cool."

When I was growing up, farmers and ranchers were the backbone of the community. Every day at noon, the local radio station would broadcast the farm report. Deciphering the jargon was hard for a kid, but once you got the hang of it you felt a grown-up secret had been unlocked to you. "...Kansas City Choice steers 32 to 33, up a dollar, canners and cutters weak to one-fifty lower. For the hogs, barrows and gilts steady at 22.50. U.S. No. 1 and 2, 215 to 240 pounds steady to slightly lower."

It was always surprising to hear our local auction lumped in with the big-time markets. "...Locally, the Basin Livestock Commission reports 35 slaughter cows traded, mostly Good to Choice, slightly up from last week. Heifers and feeders 30 to 31 and a half, slightly lower."

The name "Basin Livestock Commission" was heard only on the radio. Anyone using the official name probably thought it was just a livestock auction, and undoubtedly had never been there. To those who frequented the big wooden building with all the corrals in the back, it was known as "the Sale Barn." For every farmer and rancher in the county — and a few in other counties as well — the Sale Barn was a community center, business exchange and men's club all rolled into one.

Grampa was a farmer. A big red-faced Dutchman with a wad of chewing tobacco always in his cheek, he scraped out a living on 80 acres of cleared pine and scrub oak. Time I spent out on the farm with him and Gramma was special, and no memories are brighter than visits to the Sale Barn. Thursday was sale day and Thursday was the day chores got done early. Grampa would load the pickup with Mother (as he called Gramma) and any stray grandkids around the place (me, my sister and a cousin or two), and come to town.

Rural suburbia commuting to work is a relatively new phenomenon. The farm was 25 miles from Durango and Grampa and Gramma only got to town once or twice a week. If the weather was bad, not that often. So Thursday was a big day. Since the Sale Barn was close to Durango, Grampa would drop Mother off to do some shopping. It was years later before I realized sale day was just as important to her. That was the afternoon Gramma could have to herself, away from the farm. After dropping her off, Grampa headed straight for the Sale Barn. The sale started at one o'clock sharp, and no one was ever late.

Though the auction was important, there was way more than that going on at the Sale Barn. Grampa lived on one side of the county, some of his friends lived on the other. But every Thursday they could get together. It wasn't necessary to be buying or selling either. Rubbing Levi-covered shoulders with others who did what he did for a living was reason enough for Grampa. "Seein' how the market's doin'," was the excuse he used most often.

In its 40 years of operation whole stockyards of meat passed under the auctioneer's gavel at the Sale Barn. A lot of trade never saw the livestock ring, though. Every farmer and rancher there had something he was willing to deal on, whether or not it was slated for auction, and Grampa was forever trading for stock he could ill afford.

But private deals were Grampa's favorite pastime. "You save on commission for the barn," he explained. "They can't run up the price on you, neither," he added, referring to the dubious practice of farmers bidding on their own livestock to drive the price up. Of course private traders didn't benefit from the brand or health inspection, but they were usually dealing with someone they'd see next Thursday. One ironclad rule was never broken. No matter what your profit on a trade, never admit to making any money.

It was best to get to the Sale Barn early because someone was always selling something. Saddles or apples or axe handles, no telling what bargains were drifting around the edge of the crowd. Peddlers offered Indian blankets or cheap tools, and on occasion there'd be household goods from some hard luck family — dishes and clothing and junk — done up in cardboard boxes and yours for 50 cents the box. Grampa could never resist such bargains and was always dragging home the tag ends of someone else's misfortune.

Sometimes, if a family was moving or had gone busted, there would be a mini-auction before the scheduled sale. Plows and harrows, farm tools, tack and used furniture littered the parking lot. Grampa usually bid on that stuff, too. Pretty good bet there'd be a litter of just-weaned puppies in the back of a pickup, and you could get a good farm dog cheap, if you needed one. Farmers' kids had a hard time walking away from a six week old puppy. For anyone short of cash, the Sale Barn just about guaranteed you could unload something.

The other reason to get there early was the lunch room. As soon as we arrived, Grampa would give us a dollar and we'd race each other to the lunch counter. Way before noon the lunch room was crowded with half-grown gawky kids, looking just like the yearling stock out in the pens, cornering hamburgers and hotdogs and mopping up plates of ketchup with French fries. Grown-ups ordered the lunch special — meatloaf or stew, nothing more exotic — but they sold out early. "If you can't make up your mind," Grampa would say, "the chili's always safe," as he crumbled a handful of Saltines into thick red hamburger and beans.

While we had another Coke, Grampa would dawdle over his second cup of coffee ("Yes, I believe I *will* have a slice of the blueberry"), and discuss hard times with his cronies. I can't remember them ever claiming things were okay. No matter what the prices, Chicken Little was always right — the market was continually falling. It seemed everyone was constantly on the edge of diaster.

Before long it was time to crowd into the stands, built indoors, for the auction. Sometimes it was a squeeze if it was a big sale. Sweat-rimmed Stetsons, bib overalls and irrigation boots added to the familiar barnyard smell. In winter, the two Warm Mornings at either end of the first tier of seats billowed out heat. We all perched on the wood bleachers while Grampa loaded his jaw with Beechnut, centering over his boots so he could spit between the 2 x 12s. At precisely one o'clock, the auctioneer climbed into his stand facing the crowd and the sale was underway.

Below the tiers of farmers, the stock was let onto the sawdust floor of the ring. A couple of hands with long poles kept the wide-eyed steers and skittish horses working back and forth before the audience instead of climbing the wooden walls of the arena. Occasionally an animal twirled, lashing out, sending the ring men scurrying up ladders and jumping behind gates. Perhaps as a child your empathy is greater. My chief memory of the actual sale is how scared the animals were. No one else seemed to notice. No matter, each animal was in the ring for only a few minutes before it was herded through an exit chute that led back to the corrals outside. At that age I refused to consider the fate of those animals, especially the ones bought by the meat packing companies.

The auctioneer gave a little background. "Ol' Cy calved these heifers — you can see he took care of 'em — he just can't afford hay this winter," and then started his spiel. In a soft moment Grampa would admit the smooth cadence of a good auctioneer was all the music he'd ever need.

The bidding was as subtle as that of legend. It was all in the eyes. A flick of a pencil or barely perceptible nod, coupled with the look, would lodge a bid, and the autioneer would try for a higher price. Even if they weren't buying, all the people there liked to see who was bidding and how much stock they bought or sold. Only after I was grown did I realize they were keeping score on their neighbor's prosperity, or foolhardiness.

Sometimes the auctioneer couldn't get the bottom price. Grampa's practiced eye was seldom fooled. "Cow's too old, ought to be a canner," or "That steer's got the bloat." But if ol' Cy had a normal run of luck and healthy stock, he'd usually get another rancher or maybe the buyer for a packing house to take them off his hands.

Before long, we kids would get bored and slip off to play around the corrals in back or wander into the lunch room for another Coke. Sometimes if the sale wore on too long we'd go back to the pickup and take a nap. Cattle, sheep, horses and hogs ran through the ring all afternoon. The bidding was brisk, but usually toward supper they were pretty well through. Grampa would round us up — "C'mon, c'mon, time to get home, gotta milk and feed yet." Sometimes there was a calf or hog to load first, and we would hang on the corrals watching the men curse and prod the animal into the pickup. And sometimes, if Grampa had sold stock, there'd be a check and he'd buy supper in town before heading home.

by Van Becay

The bidding was as subtle as that of legend. It was all in the eyes. A flick of a pencil or barely perceptible nod, coupled with the look, would lodge a bid, and the auctioneer would try for a higher price.

We single-filed out of the Sale Barn with the rest of the farmers and ranchers. All over the parking lot headlights came on. As we crowded into the cab, a line of pickup trucks with stock racks queued onto the highway. Grampa took a fresh handful of Beechnut and felt for the coffee can he kept on the floorboard for a spittoon. He turned toward town to pick up Mother for the long drive home.

Grampa and Gramma are both long since gone. The farm was sold to the manager of a ski resort who wanted to raise horses for his wife. The Sale Barn is closed, too. They were all part of a way of life that can no longer hold its own. When you're growing up, things can only be the way they are. You never think of your childhood as being quaint or old-fashioned.

They're all gone now — "history," as the kids say — but I have the memories and I'm fond of them.

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Van Becay is a freelance writer in Durango, Colorado.

River runners...

(continued from page 1)

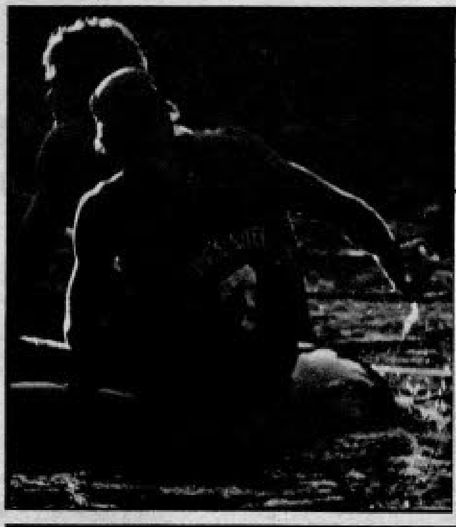
Carl Weston, a long-time resident of the Durango area, owns 43 acres along the Animas River. His land is on the lower stretch used by boaters. He doesn't see many, but those he does see, anger him.

Several years ago, a 10-year-old boy drowned on his property. The memories still bother him. "They got sucked into this big hole and couldn't get out." According to Weston, the biggest problem with rafters is "they don't have to have intelligence tests to get on the river."

The invasion of his privacy bothered Weston so much that when the Emmert decision came down he decided to stop river running across his property. But when he confronted a couple of boaters, he pressed his trespassing case too hard. The boaters in turn filed harassment charges against Weston. By mutual agreement, both suits were dropped.

"I bought this place precisely because it was on the river and it was private," Weston said. "With rafters there's no way to limit who comes down the river, or how many, or what time of day. The dog barks and you can hear them yell and scream a half mile away." Since his confrontation, commercial companies respect Weston's rights and pull out upstream of his property. Weston now acknowledges an uneasy peace with boaters.

Weston is also concerned about the boaters' ecological impact on the delicate riparian environment. "There's been wild geese trying to establish a nest here for several years. Soon as those rafts came through, they left."



According to landowner Carl Weston, the biggest problem with rafters is "they don't have to have intelligence tests to get on the river."

It's hard on deer, too, Weston said. In quieter times, does and fawns lived along the river bottom in the overgrown willow and cottonwood. Day after day of noisy rafts drove them out of their hideaway up onto the mesa. There, he said, many were poached, hit on the highway, or run by dogs.

There has been very little formal work done on the impact of boating on wildlife. Most big game biologists believe that game animals like deer are reasonably tolerant of occasional boaters, particularly if the riverside habitat is rich. Studies on bighorn sheep in Wyoming indicate that, despite disturbances, the sheep will remain in a preferred area, although their heartbeat may speed up, indicating some stress.

Preston Ellsworth, who owns four Colorado float companies and carries 50 percent of the traffic on the Animas, said the biggest impact is on bald eagles. A lot of river traffic makes it difficult for the birds to fish. However, according to Bob Oakleaf, non-game biologist for the Wyoming Game and Fish Department, eagles on Wyoming's Snake River are quite tolerant of boaters, as long as they don't get too close to the nests. But Oakleaf agreed that extremely heavy traffic can make it difficult for the eagles to fish.

Carl Weston feels the state should secure easements from property owners or condemn outright the river bottoms to allow river traffic. "It should be done in a legal manner, however, such as the right of public domain whereby the property owner is recompensed for his loss. The present system of adverse possession is not fair to the property owner."

Weston would prefer no river traffic. "If the alternative is limited access for rafters, that is preferable to the total inundation of private property by uncontrolled, unregulated rafters." His vision of the future is gloomy. "Privacy is becoming more and more a privilege of the rich."

Foy and Redell Cogburn own 80 acres along the Animas. They have different problems with rafters. An irrigation ditch comes out of the Animas on the Cogburns' place. A small waterfall occurs there because of the diversion. Rafters beach on the Cogburns' property to investigate the falls. The biggest problem, said Mrs. Cogburn, "...is those people who climb over the fences and mash 'em down. The cows go over then, and turn themselves out on someone else's property."

Mr. Cogburn has other problems. "On the south end of the place is the diversion. You can see where they stop. I've had some wrenches from the pump gone. Had a trap for a skunk and it went missing. And a rope, it's gone missing, too."

The Cogburns believe landowners should get fair return on their investment. As it now stands, everyone uses the property and the landowner pays the damages. Mr. Cogburn said, "I know there's people who say the river belongs to the state. If that's so, then let the state keep care of it. It's their responsibility."

Easements paid to the landowner would be a good place to start, said Mr. Cogburn. "There's more rafters all the time. You'll be out working and look up — 'Who's that?' — and stare somebody right in the face.

"They say your last years are your best, but it ain't so. We don't enjoy summers as much as we used to when we first come here because we can't get out. We have to stay here and protect the place."

The Emmert decision has put the Forest Service and BLM in the curious legal position of contributing to violations of the state criminal code. Both agencies take great pains to inform river runners which portions of river are bordered by land under their control and which portions are private. Neither of the agencies officially sanctions the use of private sections of river. And yet both permit entry and exit on their land and turn a blind eye to incidents of trespass when the river trip crosses onto private property. The BLM's position is the most schizophrenic.

Along the Arkansas and Colorado rivers, BLM owns alternate sections, checkerboarded with private and state land. Along with the permits required for commercial use, the BLM supplies a brochure on the upper Colorado and Arkansas rivers. The first paragraph informs the reader of the Emmert decision and states that the permit authorizes use of BLM land bordering the river, but not the river itself. The BLM collects land use fees for its portion of the river bank. After describing what constitutes a violation of the law, the rest of the 20-page brochure details BLM requirements for each permit holder running the river.

What would the BLM do if a private landowner fenced the Arkansas? "There's nothing the BLM could do about it," according to Dennis Zachman of BLM's Canon City, Colorado, office.

After the Emmert decision, Colorado commercial rafters saw their economic lives flash before their eyes. In response, the Colorado River Outfitters Association (CROA), Western River Guides Association and the American Wilderness Alliance commissioned *The 1980 Colorado Whitewater Boating Use and Economic Impact Study*. Statistics ran both for and against river use.

In 1980, direct expenditures for whitewater boating, both private and commercial, totaled $13.2 million. In addition, there was an indirect economic impact of $9.5 million for a grand total of $22.7 million.

While the nearly $23 million spent on state whitewater boating is a considerable sum, the figure pales in comparison with the $1.7 billion spent by Colorado tourists in 1980. Even subtracting the $382 million spent at winter ski areas, whitewater recreation is still only two percent of non-skiing recreation in Colorado. The figure is nearer one percent if only the expenditures of commercial whitewater passengers are considered.

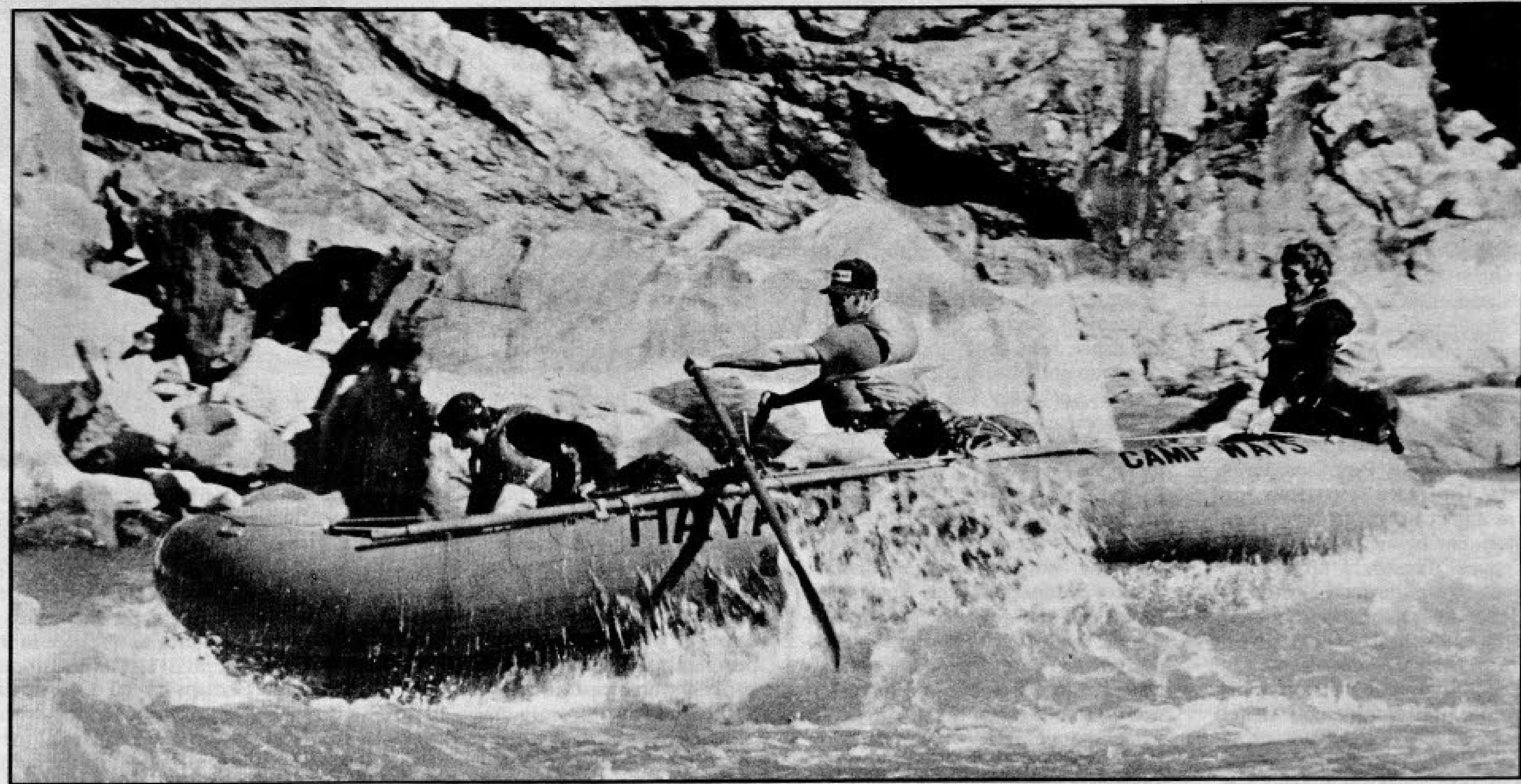
On the eight most popular drainages in Colorado in 1980, commercial use-days were estimated at about 146,500 compared with 78,500 private use-days.

Commercial rafting companies along the Arkansas are gearing up to secure their interests. Mark Brown and three other members of CROA on the Arkansas have worked with landowners for some time. Each year they clean up private river frontage, rent two miles of river access for commercial use and obtain permission from landowners across whose land they run their trips.

Preston Ellsworth also rents land for lunch and take-out spots for his all-day trips. What would he do if someone blocked the Animas? "I'd try to work with the man, find out his problems and try to negotiate," he said.

The future for river running in Colorado is uncertain. No doubt the popular trips through Dinosaur National Monument will continue since that land is federally owned and intensive management protects the resource from waves of boaters. Where river trips cross private land, the fate of whitewater recreation rests on the magnanimity of local landowners and the willingness of local law enforcement to pursue cases of trespass.

While Colorado sheriff's departments allow whitewater sports to continue, subject to complaints, they are not unaware of their jurisdiction on the state's rivers. When a rash of drownings occurred on the Colorado River near



Montana Department of Highways

The Emmert decision has put the Forest Service and the BLM in the curious position of contributing to violations of the state criminal code.

Grand Junction this spring from overzealous and ill-prepared river enthusiasts, the Mesa County sheriff's department closed the river to all who couldn't meet the state's boating statutes and regulations.

Many kayakers and canoeists resent being lumped in with rafters. The sports are different, they say, attract different people and have different impacts on rivers. Almost all kayakers and canoeists are private individuals. Kayakers' interests run to the skills and thrills of running whitewater. Canoeists run moderate whitewater, too, but also enjoy lazing down a slow river on a summer afternoon. Because of the considerable skill required of kayakers and canoeists, their numbers are, and probably will remain, small.

Both craft contrast sharply with the often noisy group adventure promoted by inflatable boats. Rafters also camp, hike, look at the sights and often stay out for several days, all of which present potential conflicts with property owners. In short, canoeists and kayakers believe that their impact is small, while the impact of rafters is large and growing.

The biggest impact on Colorado rivers is from commercial outfitters selling thrills or a "wilderness experience" to the public. The lack of state controls has attracted to the water many dubious companies whose main goals are large profits at low economic risk. Unfortunately, other risks are not low, and every year people are drowned by commercial companies that take inadequate safety precautions or lack the skills required to run the river. Most riparian landowners do not begrudge swift, silent passage on rivers across their land by small groups of kayakers and canoeists. They do object, however, to big, slow "baloney boats" with passengers engaged in water fights, shouting epithets and screaming as they drift down the river. Landowners become incensed when parties of rafters land on their banks, vandalizing, littering, scaring wildlife and using the shore for a toilet. Most commercial companies do not condone these abuses. Some do, however, and there are always assorted private groups who impinge on the property and privacy of others.

As a result of the Emmert decision, the Supreme Court has implied that any solution must come through the legislature. The state legislature is loath to open such a can of worms. If legislators were to allow public passage across heretofore private property, they would have to face many angry, vote-wielding landowners. Laws protecting the landowner and the boater while allowing passage would be complex. At present, the legislature seems content to await further developments.

Economic arguments are not strong. Four rivers — the Green, Yampa, Colorado and Arkansas — account for 73 percent of the total use in the state. The same four rivers ring up 83 percent of whitewater revenues. Closing all rivers but those four would alleviate many of the statewide problems without doing appreciable damage to the total number of river trips. Problems along those rivers, of course, would be exacerbated. Punishing all whitewater enthusiasts for the sins of a few seems unfair.

The best solution would seem to be granting one agency statewide jurisdiction over all whitewater sports, except within Dinosaur National Monument. At present, the Colorado Division of Parks and Recreation would probably make the best parent organization. Supported by permit fees and a tax on commercial rafting, the new whitewater agency would supercede the hodgepodge of state and federal control and apply equal standards across the state. Realistic, enforceable regulations would ensure a safer river trip with less adverse impact.

Statewide statistics for future management could be compiled. An effective licensing procedure could be implemented to weed out the incompetent or unethical outfitters. Most important, the whitewater agency could buffer the Emmert decision and protect the sport itself by administering a riparian fund to rent easements from landowners, clean up waterways and help alleviate impact on delicate river environments. Funding would come from whitewater enthusiasts through fees and taxes.

While bureaucratic control has a bitter taste to most Coloradans, especially free-spirited river runners, it seems the best way. The alternative is to continue an unregulated, dangerous sport whose best practitioners suffer for the transgressions of the worst. And, of course, the day may come when riparian landowners, finally conscious of their rights, arise en masse and completely shut down whitewater sports across the state.

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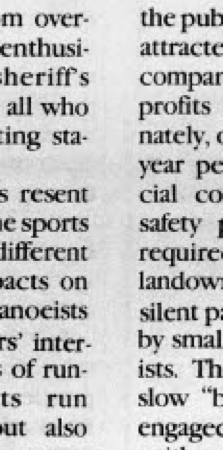
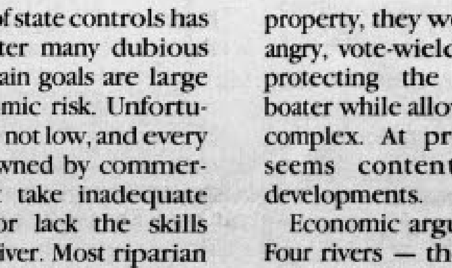
Van Becay is a freelance writer in Durango, Colorado. This article was paid for by the HCN Research Fund.

HCN RUG AUCTION # 2

Just in time for Christmas, thanks to the generosity of Steve and Connirae Andreas!



CHILEAN PONCHO
Size: 54" x 60"
Colors: Black and white stripes in a field of greys and browns
Dyes: Natural
Remarks: A beautiful, heavy-duty poncho that could also serve as a rug or chair throw. Purchased in Chile two years ago. Handspun.
Minimum bid: $100



NAVAJO RUG
Size: 46" x 70"
Colors: Geometric pattern in brown, grey and a faded red; field of white; border in varied browns
Dyes: Analine red; natural grey and brown
Remarks: A genuine Navajo rug handwoven between 1915 and 1925. Authenticity verified and value appraised at $450 three years ago.
Minimum bid: $500

1. To place a bid, complete the form below (or print the required information on a separate sheet of paper) and mail it to *High Country News*, Box K, Lander, Wyo. 82520.
2. The highest bids in the possession of *High Country News* on Monday, December 20, will be awarded the rugs. Rugs will be shipped on that date in an effort to assure their arrival in time for Christmas.
3. In the event of a tie, the bid with the earliest postmark will get the rug.
4. In the next issue of *High Country News* (December 10), we will publish the high bids received to date (as of December 8) along with the initials of the high bidder.
5. Minimum bids are based on the wholesale value of the rugs, the cost if you were to purchase them directly from a trader in the village. We have arranged with the donor to consider this value the "actual value" of the rugs for tax purposes. On that basis, we have been advised that the amount of the bid over and above the minimum may be tax-deductible to you, the purchaser. (Bid high!)

AUCTION BID

Name ____________________

Address ____________________

City, State, Zip ____________________

$____ Chilean Poncho $____ Navajo Rug

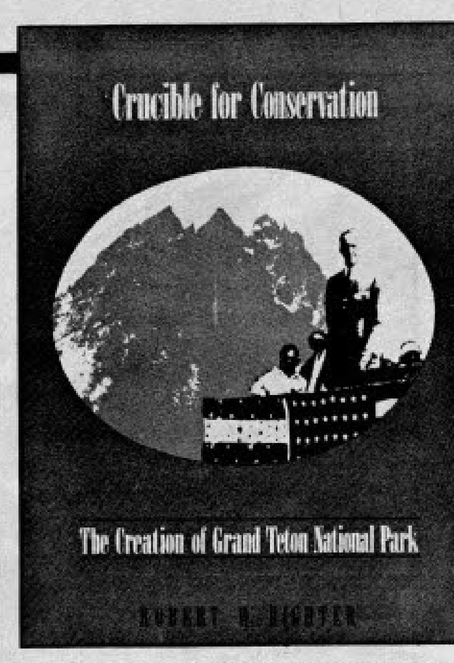
Signature ____________________

Date ____________________

Mail to *High Country News*, Box K, Lander, Wyoming 82520.

BOOKS

Cliff-hanger of a park story



Crucible for Conservation: The Creation of Grand Teton al National Park.
Robert W. Righter. Boulder, Colorado Associated University Press, 1982. $12.50, cloth; $5.95, paper. 192 pages.

Review by Peter Wild

Few encounters with nature are as likely to cause such a prolonged pitter-patter in the breast as the first sight of Grand Teton National Park. Shouldering their snow, the jagged Tetons leap from a valley as if specially created to astound the visitor. Far below them the Snake River curves through a broad plain where elk graze through clusters of pines. Here, one can imagine, the lucky inhabitants of the nearby villages live in a state of perpetual astonishment.

The placidity belies the stormy history behind one of our most visited parks. Severe winters and a short growing season discouraged settlement, and the few people who built their log cabins in the Jackson Hole area tended to be of the don't-tread-on-me sort, maintaining nineteenth-century notions of independence into the twentieth century. For years all but the most forward-looking of them catcalled at the idea of establishing a national park to preserve the beauty of their back yards. They didn't want the government meddling with what they perceived as their God-given usufruct of nature.

Then, Mr. John D. Rockefeller, Jr., the millionaire, appeared on the scene. Since boyhood, he had enjoyed the wonders of the area, but by the 1920s the dance halls, hot dog stands, and other unsightly but typically American evidences of laissez-faire enthusiasm for development were becoming motes in his appreciative eye. So, in characteristic Rockefeller fashion, he decided that he would, all by himself, save the place for future generations of all Americans.

Now, we need to remember, whatever our sentiments about the distribution of wealth, that the Rockefellers have been the nation's most philanthropic family when it comes to supporting the national park idea. And we also need to remember that John D., Jr. was no slouch when it came to getting what he wanted. He wanted an "ideal" park, a vast place preserving the entire ecosystem of mountains and valley. And he set his jaws to get it, come hell or high water, or kicking and screaming in Jackson Hole.

How he brought it off is the subject of this book. The story involves great and wise figures of American conservation — Horace Albright, Stephen Mather, Olaus Murie. More than that, it shows how one of our precious parks emerged out of a welter of idealism, subterfuge, bombast, high finances and irony. Most American parks have their discordant histories, but this one is near tumultuous, a lesson in *Realpolitik*. Otto von Bismarck would have raised an eyebrow over it.

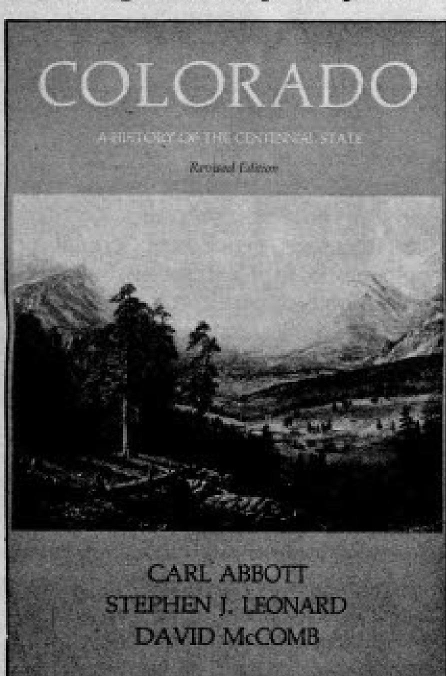
For, simply put, Rockefeller decided that he'd buy up the Jackson Hole area, then give it to the Park Service. But, shrewdly sizing up the opposition, he founded a front organization. Working out of an office in Salt Lake City, the Snake River Land Company, with no announced connection to the wealthy Easterner, quietly began purchasing the valley. Added to that, Rockefeller had the dash, the daring, the steely-cored sense of purpose, to hire as his chief purchasing agent a respected local banker, who happened to be a staunch park opponent.

What transpired when, after years of this humming little real estate venture, the true nature of the Snake River Land Company leaked to the press and residents realized that they had been hoodwinked, is a drama terrible to behold. Wyoming's governor fell, politicians shilly-shallied, and even the White House quivered a bit. The rest of the story, how this all ended happily both for pro and con factions with creation of the Grand Teton National Park in 1950, is something of a marvel.

So the history of another park is nailed down. Robert W. Righter, a professor of history of the University of Wyoming, has done us a service in this well-documented and dispassionate account. Perhaps it's too dispassionate. He rarely enlivens the writing with a figure of speech or a delighting turn of phrase. And someone, either the author or some scurrilous copy editor, needs to review the basics of punctuation.

Still, we needn't be overly schoolmarmish. The history is there, for the most part clearly stated. *Crucible For Conservation* should be a pleasure for people who like elements of the cliff-hanger in their environmental reading.

Colorado history: expensive choices



Colorado: A History of the Centennial State. rev. ed.
Carl Abbott, Stephen J. Leonard, and David McComb. Boulder, Colorado Associated University Press, 1982. $17.50, cloth; $11.95, paper trade; $8.95, paper text. 394 pages.

Review by Peter Wild

In 1892, Major Stephen Long, who left his name on a now famous Colorado peak, wrote "Great Desert" across his map of the western plains. Sixty years later, boosters contradicted Long by advertising eastern Colorado as a "flowery meadow of great fertility."

In a couple of generations, Sahara-like storms were driving settlers out of their "Continental Wheat Garden." Coloradoans, observe the authors, traditionally have tried to impose their fantasies on the environment. As a result, they have "used their land hard." In the somewhat more enlightened present, the situation is changing. Recognizing its natural setting as its greatest asset, the city of Boulder is buying thousands of rural acres for a greenbelt. Denver is struggling with pollution and water problems, trying to make order out of the chaos created by years of uncontrolled growth. In general, the state is realizing that the wishful thinking of the past is a poor springboard into the future.

Properly speaking, this is not a book about conservation. Its writers are professional historians, not environmentalists. Yet they rightly see that the "state's natural environment has been the foundation on which settlers over the last century and a half have built a superstructure of human activities." Abuses to the land by early boosters "closed off possibilities" and narrowed opportunities for people who followed. Time and again throughout the book — in regard to water, city planning, and agriculture — the authors show Coloradoans making the most immediately profitable but, in the long run, the most expensive choices.

In this sense, the book should be of value to conservationists, for it lends perspective to present issues. The Dust Bowl of the 1930s had origins in the 1880s, when cattlemen overstocked their ranges. Unguided growth was a thorn in Denver's tenderloin side as far back as 1867, when the sprawling town "looked as if someone had dropped it

STATE OF WYOMING PUBLIC NOTICE

PURPOSE OF PUBLIC NOTICE

THE PURPOSE OF THIS PUBLIC NOTICE IS TO STATE THE STATE OF WYOMING'S INTENTION TO ISSUE WASTEWATER DISCHARGE PERMITS UNDER THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972 (FWPCAA), P.L. 92-500 AND THE WYOMING ENVIRONMENTAL QUALITY ACT (35-11-101 et seq., WYOMING STATUTES 1957, CUMULATIVE SUPPLEMENT 1973).

IT IS THE STATE OF WYOMING'S INTENTION TO ISSUE WASTEWATER DISCHARGE PERMITS TO (1) COMMERCIAL FACILITY, (2) OIL TREATER FACILITIES, AND (1) MUNICIPAL FACILITY, TO MODIFY AND (2) OIL TREATER PERMIT, AND TO RENEW AND (11) OIL TREATER PERMITS.

APPLICANT INFORMATION

(1)	APPLICANT NAME:	Hoback Ranches, Inc., Duane E. Thomas
	MAILING ADDRESS:	P.O. Box 1045 Evanston, WY 82930
	FACILITY LOCATION:	Uinta County, Wyoming
	PERMIT NUMBER:	Wy-0031712

Hoback Ranches, Inc. is the developer of the El Caballo Ranch Subdivision, the Whitney Meadows Subdivision, and properties located approximately seven miles north of the City of Evanston, Wyoming. A single aerated lagoon system will provide wastewater treatment for these developments. The discharge will be to the Bear River (Class II Water).

The proposed permit requires compliance with National Secondary Treatment Standards and Wyoming's In-Stream Water Quality Standards effective immediately. Due to uncertainties concerning the effect of the planned City of Evanston discharge to Yellow Creek it is not possible to precisely calculate limitations for ammonia, total residual chlorine, and fecal coliform bacteria. If it is found that the proposed limitations are not adequate to protect to quality of the Bear River, the permit will be modified to include more stringent limitations.

Monitoring of effluent quality and quantity is required on a regular basis with reporting of results quarterly. The permit is scheduled to expire November 30, 1987.

(2)	APPLICANT NAME:	Chevron U.S.A., Inc.
	MAILING ADDRESS:	P.O. Box 599 Denver, CO 80201
	FACILITY LOCATION:	Neiber Dome Well #8 Tank Battery, NW¼, NE¼, Section 30, T45N, R91W, Washakie County, Wyoming
	PERMIT NUMBER:	Wy-0031704

Facility is a typical oil treater located in Washakie County, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharge is to Nowater Creek (Class IV) via an unnamed drainage.

The discharge must meet Wyoming's Produced Water Criteria effective immediately. Chapter VII of the Wyoming Water Quality Rules and Regulations infers that as long as the Produced Water Criteria is met, the water is suitable for beneficial use. There is no evidence to indicate that limitations more stringent than the Produced Water Criteria are needed to meet Wyoming's Water Quality standards. The Department will continue to evaluate the discharge and, if necessary, will modify the permit if evidence indicates that more stringent limitations are needed.

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease, which must be monitored quarterly. The proposed expiration date for the permit is December 31, 1984.

(3)	APPLICANT NAME:	Conoco, Inc.
	MAILING ADDRESS:	907 Rancho Road Casper, WY 82601
	FACILITY LOCATION:	North Danker 9-4, NW¼, Section 9, T57N, R98W, Park County, Wyoming
	PERMIT NUMBER:	Wy-0031739

Facility is a typical oil treater located in Park County, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharge is to the Sage Creek (Class II) via an unnamed drainage.

The discharge must meet Wyoming's Produced Water Criteria effective immediately. Chapter VII of the Wyoming Water Quality Rules and Regulations infers that as long as the Produced Water Criteria is met, the water is suitable for beneficial use. There is no evidence to indicate that limitations more stringent than the Produced Water Criteria are needed to meet Wyoming's Water Quality standards. The Department will continue to evaluate the discharge and, if necessary, will modify the permit if evidence indicates that more stringent limitations are needed.

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease, which must be monitored quarterly. The proposed expiration date for the permit is December 31, 1983.

(4)	APPLICANT NAME:	Cheyenne Board of Public Utilities
	MAILING ADDRESS:	2100 Pioneer Avenue Cheyenne, WY 82001
	FACILITY LOCATION:	Laramie County, Wyoming
	PERMIT NUMBER:	Wy-0031721

The Cheyenne Board of Public Utilities operates two water treatment plants which serve the City of Cheyenne. The Round Top Plant is located on the northwest edge of the City and has been in operation for approximately 70 years. Filter backwash water and waste sludges from this plant enter Round Top Lake (Class IV Water). This lake is used for irrigation purposes and consists entirely of plant wastewaters.

The Happy Jack Plant is located west of the city and is a relatively new facility (built in the mid 1970's). Backwash water and sludges from this plant are routed through two pairs of sedimentation ponds prior to discharge to an unnamed drainage (Class IV Water) which flows into Crow Creek (Class II Water).

The proposed permit does not set effluent limitations or require effluent monitoring for the Round Top Plant since the receiving water has traditionally consisted only of the plant's effluent. At the Happy Jack Plant the two discharge points must meet effluent limitations which are considered by the State of Wyoming to represent "Best Available Treatment," and periodic monitoring of effluent quality and quantity is required. Reporting of results is required quarterly and the permit is scheduled to expire November 30, 1987.

(5)	APPLICANT NAME:	Amoco Production Company
	MAILING ADDRESS:	P.O. Box 1400 Riverton, WY 82501
	FACILITY LOCATION:	Tribal "A" Tensleep Battery #1, SW¼, Section 18, T2N, R1W, Fremont County, Wyoming
	PERMIT NUMBER:	Wy-0025232

Facility is a typical oil treater located in Fremont County, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharge is to the Big Horn Draw (Class IV).

The permit is being modified to reflect a change of receiving waters from Big Sand to Big Horn Draw.

The discharge must meet Wyoming's Produced Water Criteria effective immediately. Chapter VII of the Wyoming Water Quality Rules and Regulations infers that as long as the Produced Water Criteria is met, the water is suitable for beneficial use. There is no evidence to indicate that limitations more stringent than the Produced Water Criteria are needed to meet Wyoming's Water Quality Standards. The Department will continue to evaluate the discharge and, if necessary, will modify the permit if evidence indicates that more stringent limitations are needed.

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease, which must be monitored quarterly. The proposed expiration date for the permit is December 31, 1983.

(6)	APPLICANT NAME:	Conoco, Inc.
	MAILING ADDRESS:	907 Rancho Road Casper, WY 82601
	FACILITY LOCATION:	Winkleman Dome Field, W¼, Section 20, T2N, R1W, Fremont County, Wyoming
	PERMIT NUMBER:	Wy-0024872

Facility is a typical oil treater located in Fremont County, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharge is to Big Horn Draw (Class IV).

The permit is being modified to reflect a change of receiving waters from Sage Creek to Big Horn Draw.

The discharge must meet Wyoming's Produced Water Criteria effective immediately. Chapter VII of the Wyoming Water Quality Rules and from a balloon and forgotten to pick it up."

There is much more of course. An unsettling revelation of Colorado's Ku Klux Klan, a powerful public force in the 1920s. An excursion through the politics of opium dens, tippling houses and dram shops. A look at vigilantes battling strikers at the Leadville mines. Insights into the Hungarians, Lithuanians, Irish and Italians who clung to their old ways during the bustle of development. A solid final chapter, "The Recognition of Limits: Colorado in the 1970s," appropriately opens with a rerun of the Big Thompson flood of 1976.

Winter is fast approaching, and conservationists who enjoy reading through the nights while the snow swirls and the fire crackles may find themselves excited in the midst of contentment with this recently updated history of Colorado in their hands.

Organic foods and glacial dust

The Survival of Civilization
John D. Hamaker. Burlingame, California: Hamaker-Weaver Publishers. $8.00, paper. 218 pages.

Review by Peter Wild

Cocktail-party patter about "organic" and "natural" foods is not especially rousing. Neither are our socks blown off when John D. Hamaker attributes society's ills — from crime to why Johnny can't read — to poor nutrition.

Hamaker, though, has some news for devotees who self-righteously reach for the home-grown tomatoes in their garden while the rest of us settle for the supermarket's tasteless fare. Neither group is getting proper nutrition. Consequently, almost all of us are slowly starving, atrophying in body and mind. True nourishment, the author contends, comes to us only through plants grown in pulverized glacial dust. Since stones come cheap, the remedy is simple; spread ground rocks on the garden.

That's not all that glaciers have to do with our futures. In a few years the pollutants that the industrial nations are pouring into the air will start melting the ice at the Poles, wreaking havoc with the world's weather, inundating the coastlines. Denver may well become the nation's new capital. Hamaker's

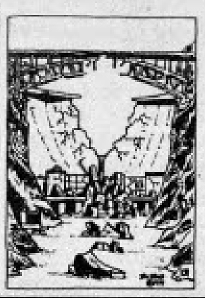
(continued on page 15)

CLASSIFIED

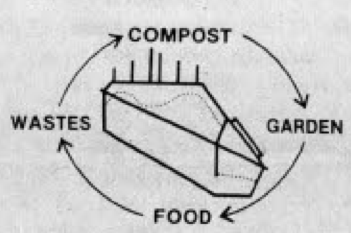
CLASSIFIED ADS cost 20¢ per word, prepaid, $5 minimum. Rates vary for display advertising; write *HCN*, Box K, Lander, Wyoming 82520 or call(307) 332-6970 for further information.

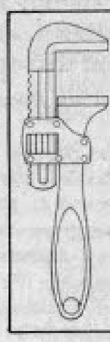
YELLOWSTONE IN WINTER. February and March courses in winter ecology, winter photography and history. Write for more information to: The Yellowstone Institute, P.O. Box 515, Yellowstone National Park, WY 82190.

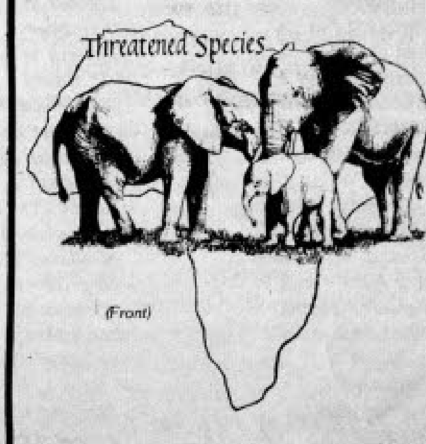
APPLICATIONS FOR the winter *High Country News* internship will be accepted through December 1. This non-paid position would begin sometime in January and last at least three months. Interns have both editorial and production responsibilities. Interest in natural resource issues is a plus (so is a sense of humor). Send expressions of interest, resume and clips to *HCN*, Box K, Lander, WY 82520.



COLORADO OUTWARD BOUND SCHOOL offers college credit 9 week course on land use issues. Send for free catalog: 945 Pennsylvania, Dept. WWP-3, Denver, CO 80203.







Regulations infers that as long as the Produced Water Criteria is met, the water is suitable for beneficial use. There is no evidence to indicate that limitations more stringent than the Produced Water Criteria are needed to meet Wyoming's Water Quality Standards. The Department will continue to evaluate the discharge and, if necessary, will modify the permit if evidence indicates that more stringent limitations are needed.

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease, which must be monitored quarterly. The proposed expiration date for the permit is December 31, 1983.

(7) APPLICANT NAME: Amoco Production Company
MAILING ADDRESS: P.O. Box 2520, Casper, WY 82602
FACILITY LOCATION: Lost Soldier Plant #3, Section 11, T26N, R90W, Sweetwater County, Wyoming
PERMIT NUMBER: Wy-0025771
FACILITY LOCATION: Mahoney Unit, Section 34, T26N, R88W, Carbon County, Wyoming
PERMIT NUMBER: Wy-0025780
FACILITY LOCATION: Bailey Dome, NE¼, NE¼, Section 21, T26N, R89W, Carbon County, Wyoming
PERMIT NUMBER: Wy-0027316
FACILITY LOCATION: Wertz ABC Unit #1, SW¼, Section 1, T26N, R90W, Sweetwater County, Wyoming
PERMIT NUMBER: Wy-0030520
FACILITY LOCATION: Wertz ABC Unit #2, SE¼, Section 1, T26N, R90W, Sweetwater County, Wyoming
PERMIT NUMBER: Wy-0030538
FACILITY LOCATION: Wertz ABC Unit #3, SW¼, Section 7, T26N, R89W, Carbon County, Wyoming
PERMIT NUMBER: Wy-0030546
FACILITY LOCATION: Lost Soldier Unit Facility, NE¼, Section 10, T26N, R90W, Sweetwater County, Wyoming
PERMIT NUMBER: Wy-0030562

Facilities are typical oil treaters located in Sweetwater and Carbon Counties, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharges are to Laundry Draw (Class IV), Sandy Spring Creek (Class IV), Unnammed draw in the Great Divide Basin, Able Creek (Class IV) via an unnamed drainage, Camp Creek (Class IV) via an unnamed drainage and Lost Soldier Creek (Class IV) via an unnamed draw.

The discharges must meet Wyoming's Produced Water Criteria effective immediately. Chapter VII of the Wyoming Water Quality Rules and Regulations infers that as long as the Produced Water Criteria is met, the water is suitable for beneficial use. There is no evidence to indicate that limitations more stringent than the Produced Water Criteria are needed to meet Wyoming's Water Quality Standards. The Department will continue to evaluate the discharge and, if necessary, will modify the permits if evidence indicates that more stringent limitations are needed.

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease, which must be monitored quarterly. The proposed expiration date for the permits is December 31, 1987.

(8) APPLICANT NAME: Buttes Resources
MAILING ADDRESS: 5151 Beltline Drive, Suite 1200, Dallas, TX 75240
FACILITY LOCATION: Ranger Government Lease, NE¼, Section 13, T37N, R63W, Niobrara County, Wyoming
PERMIT NUMBER: Wy-0026972
FACILITY LOCATION: Roth Lease, SW¼, Section 25, T35N, R66W, Niobrara County, Wyoming
PERMIT NUMBER: Wy-0027766
FACILITY LOCATION: State Lease, NE¼, NW¼, Section 36, T35N, R66W, Niobrara County, Wyoming
PERMIT NUMBER: Wy-0027944

Facilities are typical oil treaters located in Niobrara County, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharges are to Spring Creek (Class IV) via an unnamed drainage and Little Lightning Creek (Class IV).

The discharges must meet Wyoming's Produced Water Criteria effective immediately. Chapter VII of the Wyoming Water Quality Rules and Regulations infers that as long as the Produced Water Criteria is met, the water is suitable for beneficial use. There is no evidence to indicate that limitations more stringent than the Produced Water Criteria are needed to meet Wyoming's Water Quality standards. The Department will continue to evaluate the discharge and, if necessary, will modify the permits if evidence indicates that more stringent limitations are needed.

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease, which must be monitored quarterly. The proposed expiration date for the permits is December 31, 1987.

(9) APPLICANT NAME: Pheasant Oil Company
MAILING ADDRESS: P.O. Box 2811, Casper, WY 82602
FACILITY LOCATION: Lease C-048864A, NE¼, Section 23, T35N, R79W, Natrona County, Wyoming
PERMIT NUMBER: Wy-0031305

Facility is a typical oil treater located in Natrona County, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharge is to Ninemile Lake (Class IV) via an unnamed stock pond.

The discharge must meet Wyoming's Produced Water Criteria effective immediately. Chapter VII of the Wyoming Water Quality Rules and Regulations infers that as long as the Produced Water Criteria is met, the water is suitable for beneficial use. There is no evidence to indicate that limitations more stringent than the Produced Water Criteria are needed to meet Wyoming's Water Quality Standards. The Department will continue to evaluate the discharge and, if necessary, will modify the permit if evidence indicates that more stringent limitations are needed.

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease, which must be monitored quarterly. The proposed expiration date for the permit is December 31, 1987.

STATE/EPA TENTATIVE DETERMINATIONS

Tentative determinations have been made by the State of Wyoming in cooperation with the EPA staff relative to effluent limitations and conditions to be imposed on the permits. These limitations and conditions will assure that State water quality standards and applicable provisions of the FWPCAA will be protected.

PUBLIC COMMENTS

Public comments are invited any time prior to December 27, 1982. Comments may be directed to the Wyoming Department of Environmental Quality, Water Quality Division, Permits Section, 1111 East Lincolnway, Cheyenne, Wyoming 82002, or the U.S. Environmental Protection Agency, Region VIII, Enforcement Division, Permits Administration and Compliance Branch, 1860 Lincoln Street, Denver, Colorado 80295. All comments received prior to December 27, 1982 will be considered in the formulation of final determinations to be imposed on the permits.

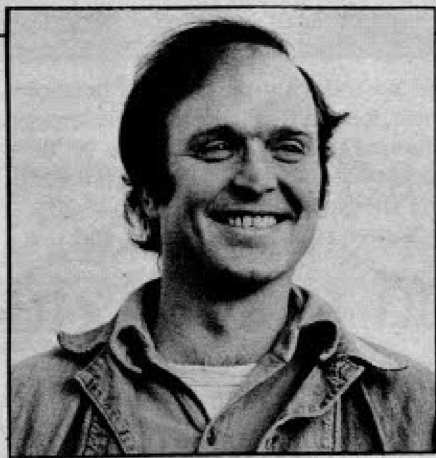
ADDITIONAL INFORMATION

Additional information may be obtained upon request by calling the State of Wyoming, (307) 777-7781, or EPA (303) 327-3874, or by writing to the aforementioned addresses.

The complete applications, draft permits and related documents are available for review and reproduction at the aforementioned addresses.

Public Notice No: Wy-82-012

WHY IS THIS MAN SMILING?



Managing editor Dan Whipple is hardly known for his smiles or good humor. Most of the time he's a grump, in fact.

But he's smiling this month because the letter he sent you a couple of weeks ago has already brought in $3,858 for the High Country News Research Fund.

And that means he'll have money for next year's special issue on national defense and the northern Rockies...and the story on grizzly bears...and a travel budget for the piece on toxics and pesticides.

Our thanks this issue to the following Research Fund contributors:

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Make checks payable to High Country News Research Fund. Send to HCNRF, Box K, Lander, Wyoming 82520.

BULLETIN BOARD

MOPPING-UP SPILLS

Handling hazardous chemical spills can be tricky business. The *Hazardous Materials Spills Handbook* discusses the latest procedures for preventing, controlling and cleaning up chemical spills. The book looks at some of the worst spills in recent history and analyzes what went right and wrong in their handling. The 704-page book with over 200 illustrations costs $49.50 and may be ordered from McGraw-Hill Book Company, P.O. Box 400, Hightstown, N.J. 08520.

INDIAN BUSINESS DEVELOPMENT

The American Indian Business Development Conference will be held Feb. 10-11, 1983, in Las Vegas, Nev. Sponsored by a coalition of corporations, individual businesses and technical service groups, the conference will consist of 12 workshops to increase business skills among tribal leaders and decision makers. Registration is $125 prior to Jan. 1; $150 after that date. For more information contact Conference Coordinator, American Indian Business Development Conference, Denver Technological Center, 7901 E. Belleview Ave., Suite 3, Englewood, Colo. 80111 or call (303) 756-3642.

TRANSFORMING COMMUNITIES

The E.F. Schumacher Society is planning two seminars on "Tools for Community Economic Transformation" in 1983. The first seminar will be held Jan. 9-15, in the San Francisco Bay Area and the second will take place June 12-18, in the Midwest. The week-long courses will focus on developing skills for use in community economic revitalization. Further information is available from Susan Witt, Schumacher Society, Box 76, RD 3, Great Barrington, Mass. 01230 (413) 528-1737; or Robert Leder, Intermediate Technology Development Group, 777 United Nations Plaza, New York, N.Y. 10017, (212) 972-9877.

FOSSIL RIDGE COMMENTS

The U.S. Forest Service has recommended the Fossil Ridge Wilderness Study Area north of Gunnison, Colo. as unsuitable for wilderness designation. In its Fossil Ridge Wilderness Report, the Forest Service cited low recreation capacity and availability of other wilderness areas in Gunnison County as reasons for its decision. Comments on the report should be sent to Forest Supervisor, Grand Mesa, Uncompahgre and Gunnison National Forests, 2250 Hwy. 50, Delta, Colo. 81416. Comments must be received no later than Feb. 19, 1983 to be considered in the final environmental impact statement.

NATURE EXPEDITIONS

Nature Expeditions International's 1983 schedule of wildlife and cultural expeditions features trips of varying difficulty to every continent on earth, including trips to Nepal, Ecuador and California's Channel Islands. NEI leaders are trained in anthropology and natural history for specific expeditions. For more information contact NEI, 599 College Ave. Dept. 218, Palo Alto, Calif. 94306 or call (415) 494-6572.

ENERGY AROUND THE WORLD

The *International Directory of New and Renewable Energy Information Sources and Research Centers* is a 470-page book listing organizations involved in oil shale, solar, biomass, conservation and geothermal power. Compiled by the Solar Energy Research Institute, the book lists government agencies, research and trade organizations working in new and renewable energy production in the 138 member countries of the United Nations. Copies cost $20 and may be ordered from SERI, Document Distribution Service, 1617 Cole Blvd., Golden, Colo. 80401.

COAL BOARD MEETING

The Department of the Interior's Federal-State Coal Advisory Board will meet Dec. 3, in Denver, Colo., to discuss various aspects of managing federally-owned coal. The board will review new federal coal policies and make recommendations on procedures to set regional coal leasing standards. A public comment period is scheduled as part of the agenda. For more information contact Stan McKee, Bureau of Land Management, 2515 Warren Ave., Cheyenne, Wyoming 82001 or call (307) 772-2413.

WATER EXAMS

The Wyoming Department of Environmental Quality will hold certification exams for operators of water and wastewater treatment, distribution and collection systems in the state at the following locations: Dec. 13, Cheyenne; Dec. 14, Rock Springs; Dec. 15, Thermopolis; Dec. 16, Buffalo; Dec. 17, Casper. Exam applications for all levels of certification are available from DEQ, Water Quality Division, 1111 E. Lincolnway, Cheyenne, Wyo. 82002 or call (307) 777-7781. Applications submitted to DEQ must be postmarked no later than Dec. 1.

SNOW KING EXPANSION

The U.S. Forest Service is accepting comments on a proposal to expand the Snow King Ski Area on the Bridger-Teton National Forest in Jackson, Wyo. The operators of the ski area have proposed building two or three additional chairlifts. The Forest Service will consider the proposed plans as part of the forest planning process for the Bridger-Teton. Comments should be sent to Forest Supervisor, Bridger-Teton National Forest, P.O. Box 1888, Jackson, Wyo. 83001.

CALLING ALL DESERT RATS

The Tucson Audubon Society's 13th annual Institute of Desert Ecology will be held April 29-May 1, 1983, in Catalina State Park, 25 miles north of Tucson, Ariz. During the first 3 days participants will explore animal and plant life of the desert through a series of short field sessions led by faculty from Arizona universities. Longer hikes will be offered on the optional fourth day. Registration is limited to 60 people and costs $165 for the 3-day program and $195 for the 4-day program. For more information contact Mrs. June Hirsch, Director, Institute of Desert Ecology, 30-A N. Tucson Blvd., Tucson, Ariz. 85716 or call (602) 745-2721.

OIL SHALE BOOKS

Two books published by the Colorado School of Mines, *Oil Shale: the Environmental Challenges II* and the *15th Oil Shale Symposium Proceedings*, offer insights into oil shale development in Colorado. *Oil Shale*, which costs $20, is a comprehensive report on an August, 1981 oil shale symposium and discusses water and air quality, occupational safety and socioeconomic aspects of oil shale development. The proceedings book costs $23 and contains 46 papers presented at the oil shale symposium held in April, 1982. The books may be ordered from the Colorado School of Mines Press, Golden, Colo. 80401 or by calling (303) 273-3607.

BLOWING IN THE WIND

The American Solar Energy Society will sponsor its 6th biennial Wind Energy Conference and Workshop June 1-3, 1983, in Minneapolis, Minn. The conference will present overviews on current wind energy research and include a display of the latest marketable wind generation equipment. For more information contact Dr. Irwin E. Vas, Flo-Wind Corp., 21414 68th Ave. S., Kent, Wash. 98031 or call (206) 872-8500.

EXPORTING SOLAR

Financial Issues for International Renewable Energy Opportunities, a 164-page book that discusses international financing for renewable energy programs, will be available from the American Solar Energy Society, Inc., in the spring, 1983. The book focuses on the transfer of U.S. solar technology to developing countries and contains numerous tables, maps, figures and references. Copies will cost $15. For more information contact Albert Henderson, Director of Publications, American Solar Energy Society, Inc., 110 W. 34th St., New York, N.Y. 10001 or call (212) 736-8727.

HABITAT EVALUATION COURSES

Courses in habitat evaluation procedures and instream flows will be offered by Colorado State University at several locations in Colorado during the next few months. The courses have been designed for local, state and federal employees as well as interested private individuals. For more information contact Charles Solomon, Office of Conferences and Institutes, Rockwell Hall, Colorado State Univ., Ft. Collins, Colo. 80523.

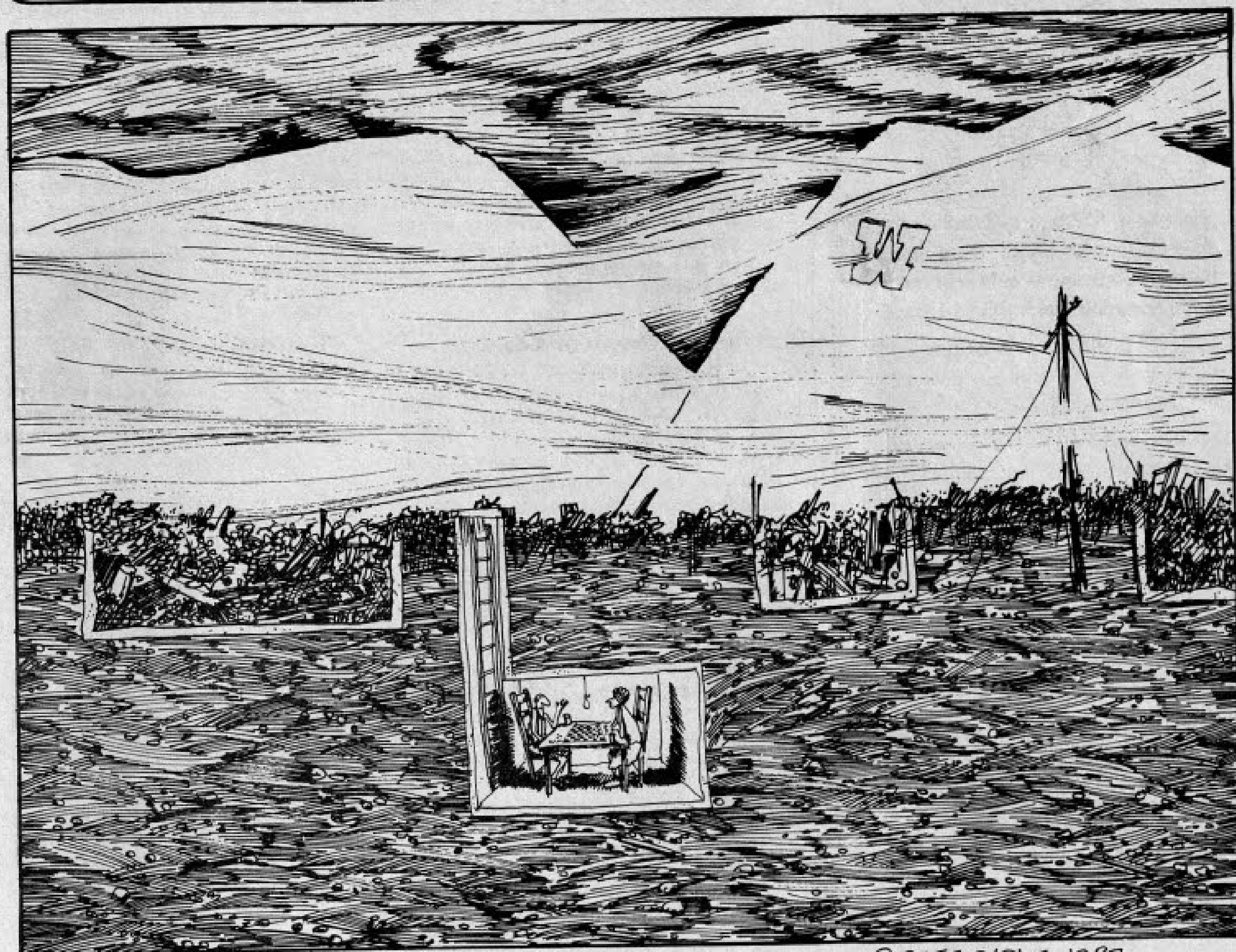
GOLDEN EAGLE BOOKLET

The U.S. Fish and Wildlife Service has published a 16-page booklet on the ecology and management of the golden eagle. "The Golden Eagle" is designed to help people understand and identify the bird as well as explain conflicts between eagles and human activities. Copies are available from the Publications Unit, USFWS, Department of the Interior, Washington, D.C. 20240.

WYOMING GEOLOGY REPORTS

The Geological Survey of Wyoming has published reports on three of the state's unique geological features. The complex geology of a southeastern Wyoming greenstone belt is discussed in "Geology of the Elmers Rock Greenstone Belt, Laramie Range, Wyoming" (Report 14). Of volcanic origin, greenstone belts are among the oldest rock formations on earth. The extensive recharge system for the Thermopolis hot springs has been studied and mapped in Preliminary Report 20, "The Thermopolis Hydrothermal System with an Analysis of Hot Springs State Park." And in Report 15, "The Geology of the Headwater Area of the North Fork of Owl Creek," a little-known area of the Absaroka mountains has been described. The reports may be purchased from The Geological Survey of Wyoming, Box 3008, University Station, Laramie, Wyo. 82071 or call (307) 766-2286.

OPINION



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"THEY SHOULD SOUND THE ALL-CLEAR SOON. THE WAR STARTED 45 MINUTES AGO!"

LETTERS

BOOSTING BAUCUS

Dear *HCN*,

Having just returned home from a highly successful meeting between Montana and British Columbia officials concerning the future of the Flathead River Basin and in particular, the North Fork Flathead River, I would like to call attention to an article concerning the performance of the Montana congressional delegation on conservation issues (*HCN*, 10/15/82). As chairman of the steering committee for the Flathead River Basin Environmental Impact Study, I would like to set the record straight concerning Sen. Max Baucus (D-Mont.). The tremendous progress which the Flathead River Basin study has made in insuring that Flathead Lake and River are protected from pollution caused by open-pit coal mining in British Columbia can be directly attributed to the efforts of Sen. Baucus.

In the early 1970s, when we first learned about the possibility of an open pit coal mine being developed in the British Columbia portion of the Flathead Basin, a great hue and cry arose from the people throughout the basin. It was apparent that without good data, we were extremely vulnerable. Max was instrumental in initiating the Flathead River Basin study, one of the first comprehensive attempts to develop baseline ecological data for a specific region. As the study winds down and the results begin to be published, it is becoming increasingly apparent that this information will guide and modify resource management in the years to come insuring that Flathead Lake is protected for the enjoyment of future generations of Montanans. I can say unequivocally that task would not have been accomplished without the constant help and assistance we received from Baucus to insure that the funds were available to complete the study.

Senator Baucus' concern for the Flathead Basin did not stop by merely obtaining funding for the study — it was and is much broader. Recognizing that the three forks of the Flathead River were worthy of protection for future generations, Baucus introduced the bill which finally insured the protection of this great river through its inclusion in the National Wild, Scenic and Recreational River System. More recently, Senator Baucus has won agreement from John Roberts, Canadian federal environmental minister, that the proposed Cabin Creek coal mine would not go forward if it would cause damage to Montana's waters. Senator Baucus cares about the Flathead Basin and his actions in Congress show it.

I could go on and expand this letter, discussing Max's concern for all the natural resources of Montana. I could talk about his efforts to halt further damming of the Kootenai River by the Corps of Engineers, his sponsorship of the Montana Wilderness Study Bill, or his efforts to insure that the cleaner air found in Montana stays that way, but rather than do that, I think his roll call voting record, the true test of any senator's priorities, as compiled by the League of Conservation Voters, rating him the senator with the second best voting record of any western senator, sums it up. Max is concerned about Montana's natural resources.

Thurman Trosper, Chairman
Steering Committee
Flathead River Basin Environmental Impact Study
Ronan, Montana

BOOKS

(continued from page 13)

urgent prescription is twofold: stop the use of fossil fuels by 1985 and remineralize the soil with ground gravel, which will lock up the nefarious CO2 in lush plant growth.

In other words, unless we get off our duffs quickly, converting Congress, the President, and the fertilizer companies into avid ecologists, we will have had it by around 1990. *The Survival of Civilization* plows a wide furrow. As to the public's voting habits: "Every four years of failure to solve problems, by weak and corrupt politicians, elicits a 'throw the bums out' election response and we get a new set of bums." On the other hand, the book offers an explanation for why ships and planes disappear over the ragged edge of reality in the Bermuda Triangle.

Are these speculations from the author's cloudland? Tending toward repetition, the book nevertheless reasons its points well and backs them up with documentation. It may not yet be sackcloth-and-ashes time, but, then, twenty-five years ago who would have questioned that DDT and nuclear power weren't the blessings the corporations and governments told us they were? We need to be jarred once in a while, and Hamaker's arguments, whatever their ultimate validity, deserve airing.

Fashion tints and wildlife hints

The Wildlife Observers Guidebook *Charles E. Roth. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. $15.99, cloth; $7.95, paper. 239 pages.*

Review by Peter Wild

"Avoid fashion tints," the chief naturalist for the Massachusetts Audubon Society warns in his rundown on selecting sunglasses. He follows this up with detailed advice on what to look for in exit pupils, angles of view, and magnification when buying binoculars.

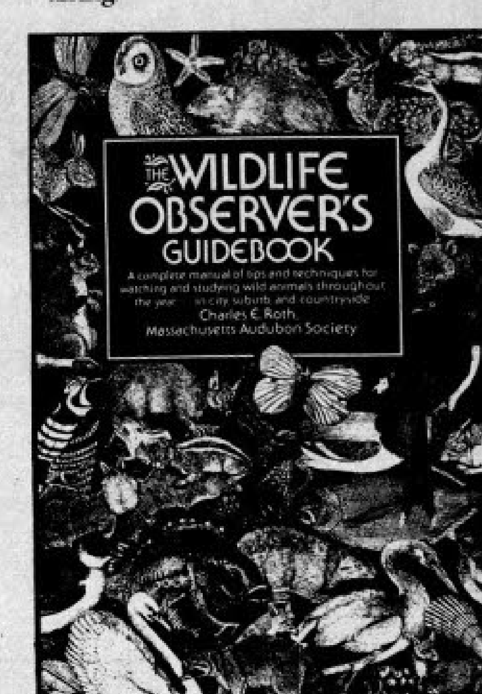
This is not the kind of reading that promises a rip-snortin' response. Still, it will prove valuable to anyone interested in the outdoors. Most of us short-change ourselves in nature. We go out hiking but see little of the wildlife that in fact is hiding all around us.

John Muir once complained about tourists with red umbrellas frightening the animals in Yosemite Valley. Mr. Roth does not mention leaving our umbrellas at home and neither does he suggest burying our clothes in manure piles as the old-time naturalists did before tiptoeing forth, in order to rid ourselves of the fearsome human odor that sends wildlife galloping off far ahead of our approach. Yet, it followed, his hints should bring us closer to the intimate lives of insects, fish, birds and mammals.

His clues to this discovery are many and practical. Appropriately, he opens with a chapter on the art of seeing. Not only does he chide us a bit for not seeing all there is to observe around us; he offers a number of specific eye exercises to improve our vision. These are designed to help us perceive and make ecological sense of the blue wing flitting through the tall grass, the antler spotted in the bushes.

Other sections cover pointers on tracking, constructing observation posts, interpreting animal behavior and taking notes. I like the way that Charles Roth keeps the little things in mind, passing along fatherly counsel on what to do with stale beer left over from Saturday night, on how to avoid going stir crazy while waiting in a blind. Realizing that no one book can cover all aspects of observing, he fortifies his chapters with bibliographies, with addresses of useful outdoor organizations and equipment suppliers.

Quite possibly, all this can lead us to more than increased weekend pleasures. "Only a few very large predators, such as the wolf and the lion, have been studied in detail," notes Roth. "Much remains to be learned, particularly about predation in smaller species such as weasels, raptors and predacious insects." Dozens of creatures are fairly begging for intensive study, and this,



coupled with recent cuts in government funding for field projects, puts the amateur naturalist in a position to make enduring contributions to wildlife science.

OLAUS J. MURIE

A Naturalist's Portfolio Of Field Sketches

Eight 9x12 sheets of pencil and watercolor sketches beautifully reproduced as black and gray duotones and four-color prints on a fine textured ivory paper. Published by the Grand Teton Natural History Association as a benefit for the Teton Science School.

$12 plus $2 postage

Please send me ______ copies of "Field Sketches of a Naturalist." Enclosed is $______ ($14 per order).

Name ______

Address ______

City, State, Zip ______

Make checks payable to High Country News and send to Murie Portfolio, HCN, Box K, Lander, Wyoming 82520.

A Notecard Gallery

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by Sylvia Long

10 card set; five cards green ink on white paper; five cards red on white. $6.00 plus 75¢ postage and handling.

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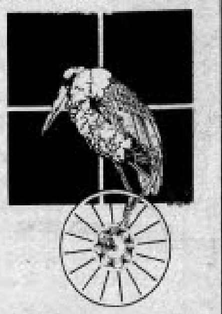
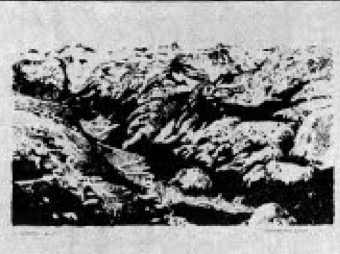
by Sylvia Long

10 card set; black ink on white paper. $6.00 plus 75¢ postage and handling.





DINWOODY CANYON
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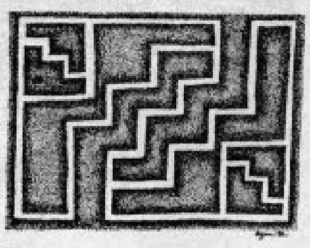

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HCN T-SHIRTS

A FEW SIZES LEFT

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□ LIGHT BLUE (small only)
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'Twas just before Christmas

... and all through the West,
Myriad creatures were stirring, they were cold and distressed.
The grizzlies and mule deer and ferrets black-footed
Looked in wonder at plunder and asked: How'd they stood it?

James Watt in his fervor and Big Oil in its zeal
Were increasingly leasing the great commonweal.
The rigs and the draglines arose such a clatter,
We sprang to our typewriters and started to batter.

Out of their beds jump your friends in a panic,
Tear open their mailboxes in a state nearly manic,
When what to their wondering eyes should appear
But a sixteen-page paper with prose fair and clear

On Utah, Wyoming, Montana, New Mex,
On endrin, on Exxon, on shale and BuRec;
On cows, Colorado and overthrust belts;
On ecotage, wetlands, on land trusts and pelts;

On Idaho, tailings, on solar and peat;
On things that you plant and things that you eat;
On smelters, on elk bugles, on gas and more such;
On BLM, EPA, Burford and Gorsuch.

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