

High Country

Friday, April 30, 1982

Vol. 14, No. 9

news

\$1.00



Colstrip, Montana

Western reclamation

USING THE BEST GUESS

by Carol Jones

It has been five years since Congress passed the Surface Mining Control and Reclamation Act requiring coal companies to reclaim the land they strip for coal. It will be at least another five years before any of those companies can officially claim success by applying for returns of the performance bonds they had to post to guarantee their reclamation work.

Reclamation is a restoration of the land to a pre-determined, post-mining use. That does not mean the land will look the way it did originally; it will not. But that is not necessarily a bad outcome in the minds of experts.

Accepting the premise that surface coal mining will be done, reclamation becomes a matter of degree. In the early to mid-1970s, when state and federal reclamation laws were first instituted, the question was, "Can reclamation be done?" Enough time has passed for experts to say, "Yes, in the short run." Now the questions are: How will reclamation be done? How will it be judged successful? Will it hold up in the future?

One thing experts have learned in almost a decade of reclaiming is that all reclamation methods and technologies are trial and error. Research and studies are conducted to reveal the secrets of vegetation survival, wildlife needs, water problems and much more. But studies take time and there is no way to be certain of the complete and long-

lasting effects of reclamation efforts.

Coal companies have come a long way since the first reclamation laws were passed. The consensus of agencies and conservationists is that companies put honest, sincere efforts into reclamation, work closely with regulatory agencies and, for the most part, do a good job. Plants have taken root, drainages and other contours have been similarly reconstructed, water quality is being monitored, topsoil has been salvaged and irrigation is being used to help seedlings get started.

But as soon as companies solve a problem, another crops up, endlessly challenging their methods and efforts. They complain of regulations that are not applicable to the West, regulations meant for eastern coal mining only.

Shifts in interpretation of rules result in shifts in reclamation goals. Battles with climates and soils are on-going frustrations and are as variable for coal companies as they are for farmers.

In 1977 Congress passed the Surface Mining Control and Reclamation Act (SMCRA), designed to "establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations." It was passed at the height of the environmental decade as an attempt to prevent repetition of the environmental abuses of Appalachian coal mining.

A further stated purpose of SMCRA was to "assure that surface coal mining operations are not conducted where reclamation is not feasible."

(continued on page 12)

WESTERN ROUNDUP

Federal coal sale brings \$54 million

The Powder River Basin federal coal lease sale — the largest such sale in history — resulted in the sale of all but two of the 13 tracts offered. There were 14 bids received totalling \$54.7 million. The sale included acreage in both Wyoming and Montana. A total of 21,406 acres of coal lands were leased.

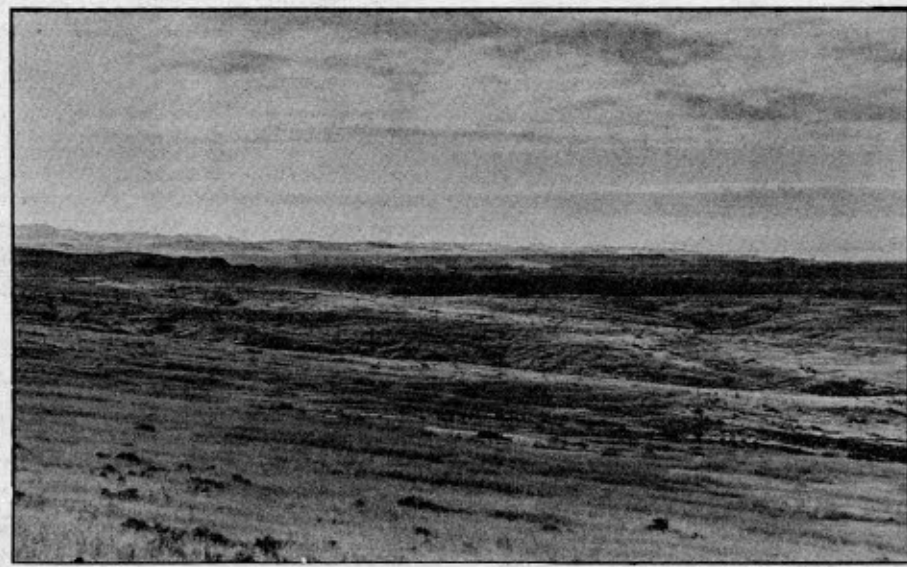
The only two tracts not sold were the 658-acre Spring Creek tract, containing 35 million tons of coal and the 1,420-acre North Decker tract, containing 66 million tons of coal. Both tracts are in Montana. Minimum acceptable bids on the tracts ranged from \$25 an acre to \$13,600 and acre.

Conservationists and some industry representatives had questioned whether the government should offer such a large sale — 1.6 billion tons of federal coal — now during a soft coal market and a recession.

The Northern Plains Resource Council, a Montana rancher group, said 9.2 billion tons of coal have already been leased in the Powder River Basin.

Three conservation groups and a Montana Indian tribe filed lawsuits to block the leasing. The NPRC, the National Wildlife Federation and the Montana Wildlife Federation filed their suits in federal district court in Washington, D.C. on April 27, the day before the sale. They are seeking an injunction to block issuance of the leases because of the inadequacies of land use plans and consideration of wildlife and agricultural resources.

The Northern Cheyenne tribe tried in a separate suit to block the sale itself, because the environmental impact statement did not consider effects on tribal members. The judge did not grant the tribe a temporary restraining order,



Powder River County, Montana



High Country News

Published biweekly by the High Country Foundation, 331 Main, Lander, Wyoming 82520. Telephone (307) 332-6970. Printed by the *Jackson Hole News*, Jackson, Wyoming. Second class postage paid at Jackson (USPS No. 087480). All rights to publication of articles herein are reserved.

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Articles appearing in *High Country News* are indexed in *Environmental Periodicals Bibliography*, Environmental Studies Institute, 2074 Alameda Padre Serra, Santa Barbara, California 93103.

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Advertising information is available upon request. To have a sample copy sent to a friend, send us his or her address. Write to Box K, Lander, Wyoming 82520. ISSN: 0191-5657.

Subscriptions cost \$15 per year. Single copies \$1.00.

but tribal attorneys still hope to have their case considered before the leases are issued.

The tribe's efforts to force the Interior Department to consider effects of nearby coal leasing on Indian reservations could affect not only the Powder River sale but future sales in the West. The Northern Cheyenne have been in the vanguard of past environmental actions that have subsequently been tried by other tribes, including their 1973 challenge of coal leases on their own reservation and their 1976 success in winning the highest federal protection for their air quality.

The U.S. Justice Department argued that the government had consciously decided to deal with Indians and their land as they do with other estates in the area. "The environmental analysis was therefore continued without regard to the tribe but as potentially affected citizens in the sale area," the government said. They also argued that the tribe had not participated fully in the environmental impact study process.

However, tribal attorney Steve Chestnut said tribal representatives had been asking for consideration during environmental analysis since 1978 when a prior impact statement was prepared,

but admitted no written comments had been made on the draft of the current environmental impact statement.

Chestnut said tribal members do not face the same benefits and problems from coal development that other residents face, and that the government has an obligation to deal with their special situation. While the environmental statement included a social economic analysis for every non-Indian community in the vicinity, none was done for Northern Cheyenne communities. Unlike the non-Indian towns, they will get no money from federal royalties or state severance taxes.

In two letters to Interior Secretary James Watt, the tribe said it would not oppose the sale if the department would address four areas of concern: impact mitigation money, reservation law enforcement, reservation traffic regulations and employment preference. Under current law, the tribe has no criminal jurisdiction over non-Indians, and Chestnut said its civil jurisdiction is questionable.

Chestnut said the tribe tried to avoid litigation but could not acquiesce without setting a bad precedent for future sales in the areas.

— Marjane Ambler

Dear friends,

In the pages of this issue, you'll notice an anomaly: two real, honest-to-goodness display ads. We've gotta commend the Natural Resources Defense Council and Majestic Log Homes for their superior business judgements.

Actually, there's as much truth as there is self-aggrandizement (well, almost as much...) in that statement, and we probably don't talk to you or our other advertising prospects as often or as effectively as we should.

There's no good reason for that — and there's every reason in the world to change it. From our point of view, the biggest reason to tout advertising this time of year is that we can begin to see the day — sometime in June — when the good cushion afforded us by last year's successful HCN Research Fund campaign will be exhausted. We're exploring some short-order options for raising dollars and cutting costs, but our best hopes lie elsewhere, in the same places more conventional publications have always looked: circulation and advertising.

From your point of view (oh, you hard-nosed business types), we had better offer something a bit more tangible than the opportunity to sustain the only independent environmental biweekly in the West.

Fortunately, we do.

Our circulation presently hovers around 4,000. Based on our last reader survey (1978), the average copy of HCN has four readers, giving us an average audience of 16,000 people. That hardly makes us a serious competitor with, say

National Geographic, but it's a respectable figure.

About half of our readers live in the five-state region we cover, with the balance scattered across the nation in every state except Mississippi.

As you might expect, our readers are quite well educated: 80 percent of those responding to our last survey had not only completed college, but had done some graduate work, as well. Income levels last time we checked were quite varied, reflecting our mental image of the diversity of our readers — from students to drifters to family-oriented professionals and high-powered business executives.

All told, over a quarter of our readers made more than \$20,000 a year — the largest sum our poverty-stricken staff could imagine asking about when we composed the survey. (For what its worth, even at the lower salary levels there appeared to be some discretionary income: 95 percent of those responding said they traveled, 61 percent traveled by air, and 25 percent traveled more than once a month.)

As for interests, they were every bit as heavily outdoor-oriented as you would imagine: hiking (62%), backpacking (35%), fishing (23%), photography (30%), gardening (10%) — just to name a few. The only indoor sport that showed up at all was reading (15%), and HCN was an important part of that activity: the average reader spent a whole hour with each issue of *High Country News* and 57 percent of those surveyed spent over an hour.

We'll be able to tell you quite a bit more about our current audience come this fall, when we intend to do another reader survey. In the meantime, though, we'd be happy to tell you more about HCN advertising. Give us a call or drop us a note and we'll send you our rate card.

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The issue of the paper you hold in your hands is the work — in part, at least — of Ellen Ditzler. Ellen is substituting for our regular design and production chief Kathy Bogan, who took these two weeks off to hike around the canyon country in Utah. Ellen is from Helena, Montana, where she works as a freelance writer and artist. She has done freelance work for HCN in the past, most recently a centerspread on her own canyon country travels. After her two weeks here are up, she, too, will be heading south. "I'm not going back to Helena until it's warm up there," she said.

She's done a fine job for us here under some trying conditions, including late feature stories and an exploding waxing machine. We thank her for her help and patience in the face of adversity.

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Former HCN staff writer Michael Moss, a five-time marathoner, ran in his first Boston Marathon recently. He won't disclose his time for the race, but he *did* finish. Michael is now a reporter for the *Grand Junction Sentinel* in Colorado

— the staff

Borax gets drilling okay in Cabinets

ASARCO's exploratory drilling project in Montana's Cabinet Mountains Wilderness may have a neighbor next year. Kootenai National Forest officials have recommended that the U.S. Borax Company be allowed to drill for copper and silver deposits on a claim adjacent to ASARCO's.

Borax wants to drill nine holes at eight sites; the Forest Service alternative would allow eight holes only, in an attempt to protect a sensitive area near Rock Peak.

The decision has angered sportsmen, who feel road closure associated with the drilling would make hunting more difficult, and environmentalists, who are worried about a small population of grizzlies in the Cabinets.

"ASARCO left us with less space than the bears need," said Hank Fischer of Defenders of Wildlife in Missoula, Montana. "Putting Borax on top of it diminishes it even more."

The U.S. Fish and Wildlife Service could still block the drilling. FWS officials must review the plan and issue a biological opinion, since the grizzly is a threatened species. FWS could approve the Forest Service plan, or declare that drilling would jeopardize bear habitat and require adjustments in managing the area, or declare that there is no way to diminish the jeopardy. The Forest Service could either accept the FWS suggestions or file for an exemption.

A team of Kootenai National Forest researchers recently released a study of bear habitat in the Cabinets designed to aid forest officials in managing the forest. The team studied over half a million acres and divided it into "bear units" which could theoretically support grizzlies. The Borax plan was approved, according to Kootenai's Sandy Matheny, because it was within the "zone of influence" already disturbed by ASARCO.

The environmental statement on the Borax plan acknowledged that grizzlies in the area would be further cramped by the increased exploration. The statement recommended that additional room be created for the bears by closing roads into various drainages in the area between April and November.

Borax apparently wants to begin drilling this summer. However, the FWS has 90 days to draft its biological opinion — a process which could hold up any drilling activity until at least July.

— Geoffrey O'Gara

Park Service gets lessons in oil leasing

The U.S. Bureau of Land Management and Minerals Management Service gave 17 National Park Service employees lessons in oil and gas leasing and development on April 14 in Casper, Wyoming, spurring speculation that additional units under Park Service jurisdiction would be opened for the petroleum search. A Park Service spokesman said, however, that the workshop was designed to aid leasing in four national recreation areas that were opened for development last January.

The Park Service published regulations in January opening parts of Glen Canyon NRA in Utah, Lake Mead NRA on the California-Arizona border, the Whiskeytown unit of the Trinity Shasta NRA in California and the Ross Lake NRA in Washington to oil and gas leasing. According to Jim Harpster, public infor-

mation officer for Park Service's Denver office, "The purpose of the workshop was to acquaint these folks with procedural guidelines and agency requirements with particular emphasis on protection of surface resources."

Harpster said, "Units of the National Park Service are being subjected to impacts from oil and gas exploration and development activities. Production companies may need access across park land to get to a site," in addition to the authorized work in the NRAs, which are units of the National Park Service.

Attendees at the meeting included resource management specialists from Glen Canyon and the Western and Rocky Mountain regional offices. In addition, there was a specialist from Canyonlands National Park. The presence of a Canyonlands representative does not mean that there will be leasing in that park, however, according to park superintendent Pete Parry. Parry said, "Our Maze District ranger station is within the Glen Canyon NRA. A lot of our ranger's time has been taken up with oil and gas matters within the NRA in a cooperative agreement we have with them."

Altex Oil Corporation of Denver has indicated an interest in drilling oil wells in and near the Glen Canyon NRA. According to Parry, there have been oil leases within Canyonlands in the past, but they have never been developed and are now expired.



AMAX mine, Leadville, Colorado

AMAX plans more layoffs in Colorado

Beginning May 1, production at AMAX, Inc.'s Climax and Henderson mines in Colorado will be down by 45 percent due to another in a series of worker layoffs and operating hour reductions.

AMAX succeeded in preventing layoffs until the first of this year by instituting a hiring freeze in August, 1980, and by using normal terminations and voluntary outplacements. Starting in January, however, 588 workers were laid off at Leadville's Climax mine. Another 380 worker layoffs and reduction from seven day work weeks to five day weeks will follow May 1. Henderson Mine, near Berthoud Pass, will lose 250 workers in May also. In all, the spring layoffs represent a 20 percent reduction of the January workforce and a 33 percent reduction from fall, 1980 numbers.

At capacity, Climax mine produces 48,000 tons of molybdenum a day and Henderson mine about 26,000 tons. Both mines will reduce production to nearly 45 percent of annual capacity in May.

Terry Fitzsimmons, spokesman for AMAX, Inc., explained that the layoffs involve both underground and surface employees and some management personnel. AMAX headquarters in Golden has cut back forty employee positions since the fall of 1980. Fitzsimmons said production in the steel industry, the

prime user of molybdenum, is down worldwide almost 50 percent. He cited worldwide economy recession and high inventories among producers of molybdenum as reasons for the layoffs. No more layoffs are planned in the future by AMAX, however.

A *Denver Post* editorial described the Climax mine as "the economic umbilical cord sustaining Lake County and Leadville." While some two income families were able to subsist this winter by commuting to jobs in nearby Breckenridge, Copper Mountain or Vail resorts, the end of ski season means the end of these jobs also. Mayor Fred Parlin said it may be fall when unemployment benefits are exhausted before Leadville really knows what the effects of the massive mine layoffs are. Still, he expects that most people will stick it out and hope for a turn-around in the market. "After all," he said, "The economy is bad all over. What's the use of moving just to be laid off again someplace else?"

— Deidre Duncan

Tribes hit FWS office closings

Twenty Indian tribe representatives, a few Bureau of Indian Affairs representatives and two U.S. Fish and Wildlife representatives met in Denver in mid-April to discuss the consequences of closing 12 U.S. Fish and Wildlife field stations and 31 national fish hatcheries.

In response to federal spending cutbacks, the Fish and Wildlife Service has proposed closing 12 field stations that provided Indian tribes with technical expertise on their fisheries and, in some cases, wildlife programs. Tribes have no access to monies from a federally-imposed 10 percent tax on all fishing and hunting equipment that is distributed to states for wildlife management.

Offices to be closed include: Lander, Wyoming; Vernal, Utah; Gallup, New Mexico; Kalispell, Montana; Bismarck,

North Dakota; and two offices in Arizona. An office in Hardin, Montana, has already closed.

In a letter, composed at the gathering and sent to representatives and senators of affected states and to officials in the BIA and Fish and Wildlife Service, the tribes said the Indian Fisheries Program is clearly the responsibility of the federal government. Dick Whitesell, BIA superintendent of the Wind River Indian Reservation in Wyoming, explained that the federal government committed itself in a trust agreement at the creation of the BIA "to make sure renewable resources are managed in a way that makes that resource available forever." The tribes consider fisheries and wildlife renewable resources.

If the offices are closed, said Wes Martel, registered Shoshone and chairman of the Shoshone Fish and Game Department on the Wind River reservation, tribes will be forced to turn to the BIA, which does not have the expertise, staff or money to handle fishery and wildlife programs. "There are some tribes that have gotten involved in fish and wildlife programs on their own," Martel said. "But if these offices go, there will be a major setback for tribes which depend solely upon the fish and wildlife offices." The Wind River reservation depends on the Lander field station (*HCN*, 2/5/82).

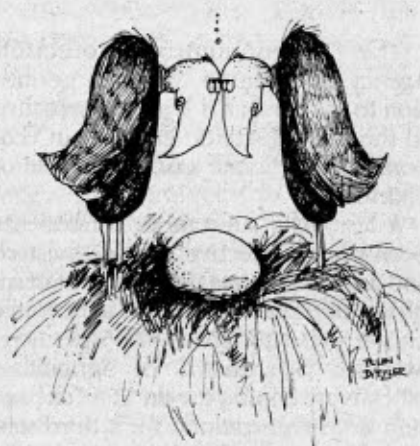
Dick Baldes, a Shoshone and project leader of the Lander Fish and Wildlife office, explained that reservations depend upon the field office biologists to manage their waters, to determine what fish species and how many are needed, and to order the fish, usually three years in advance. Baldes said the remaining federal hatcheries cannot take orders without technical, biological data on the waters to be stocked.

Martel said, "We've put money into studies, research and experiments for habitat here. If we have no one here to help us continue that, then all the work will go by the wayside."

Baldes said with the closure of so many hatcheries there probably won't be enough fish available for everyone's needs. Not only will tribe waters — which are fished primarily by non-Indians — be affected, but local

(continued next page)

BARBED WIRE



The biggest one-egg omelette in the country. A pair of California condors, among the world's rarest birds, living northeast of Ventura, California, have laid another egg. Biologists from the U.S. Fish and Wildlife Service are watching fretfully. Last year, the couple laid an egg and then started fighting over who got to sit on it — the egg rolled off a cliff. The year before, the fun couple fought over who would feed that year's chick. To date, the unfortunate pair have refused all offers of counselling.

Snowbody's business. Park City, Utah's *The Newspaper* reported that the city council has passed an ordinance prohibiting snow in the city without the permission of the planning commission, the historic and district commissions and a "favorable recommendation from the Golf Course Committee." The coun-

cil passed an ordinance requiring snow in December and the paper said since then, "It has snowed almost without stopping."

Appropriate acronym of the week. The Defense Department is considering a plan that would deploy nuclear missiles deep underground to be invulnerable to an enemy strike. Several weeks — or even a year — after the war, missile crews would use boring machines to clear away debris and the missiles would be launched at the last vestiges of civilization. The system is called deep underground missile basing (DUMB).

A foolish consistency is the hobgoblin of small minds. On page one of the recent issue of the Environmental Policy Center's newsletter, the group took credit for "convincing the Congress to block the repeal of a dozen energy conservation programs." On page 14 of the same issue, an EPC staffer lamented that a synthetic fuel plant "is being funded 98 percent by the federal government at the same time we are cutting a whole slew of energy conservation programs."

Well, he's easily amazed. The *Chicago Tribune* reported that Interior Secretary James Watt, visiting Gary, Indiana, "expressed amazement that local air and rivers are heavily polluted and that beaches are sometimes covered with oil." Watt said, "Does anyone live under those conditions? Let's move out. I didn't know those existed."

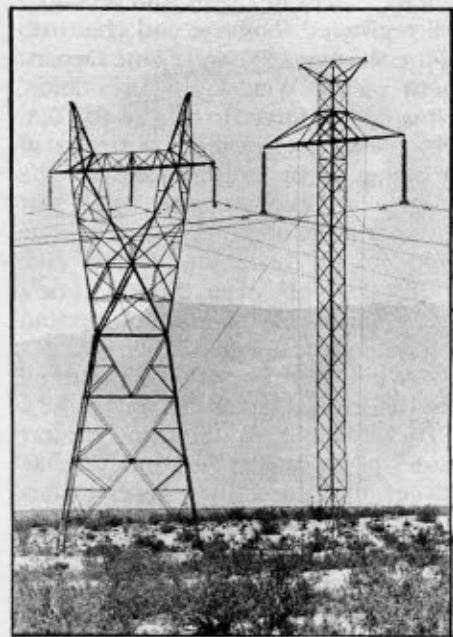
WESTERN ROUNDUP

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economies dependent on recreation fishing incomes will also feel the loss.

Martel is worried about keeping the wide diversity of fish species on the Wind River reservation, which has 265 lakes and 1,100 miles of stream. "It will jeopardize our strains," he said. "We're one of the few places with golden trout."

Martel said the tribes will probably form a group to stay abreast of the fish and wildlife problems and to discuss strategies.



Powerline routes alarm Montanans

Western Montanans recently expressed their disapproval of the Bonneville Power Administration's three route proposals for its Garrison, Montana-Spokane, Washington link of the twin 500 kilovolt powerline from Colstrip, Montana.

BPA barnstormed western Montana during April, holding 11 hearings on its draft environmental impact statement issued in late March for the Garrison-west link. The seven volume EIS is an addendum to the Colstrip EIS, a 1975 document describing Montana Power Company's proposal for a mine-mouth electrical generating plant at eastern Montana coal mines and westward transmission of that power. The plants have since been built.

BPA entered the scene when Montana Power asked the agency to construct the western Montana portion of the line. Colstrip electricity will feed into BPA's Pacific Northwest grid, servicing western Montana, Idaho, Washington and Oregon.

BPA claims without the extra electricity the region will soon experience a shortage. Citizens, county and state officials, and environmental groups challenged that contention during the 11 hearings, pointing to BPA's own figures indicating electricity demand is up only 1.7 percent, not the seven percent regional utilities previously forecast.

Route proposals include alternative A: from the Garrison substation through Hot Springs, Montana; B: Garrison through Plains, Montana, the central route; and C: Garrison through Taft, Montana, the southernmost route. BPA's EIS found the Taft plan most environmentally compatible. BPA spokesmen said public pressure to move the route off private and onto public land was a major force in the decision. The Taft route is 63 percent federal land, mostly national forest.

Rancher Raymond O. Jensen, who lives near BPA's "preferred" route, testified that BPA's administrator "has said the region will be in a surplus in the

next few years," and that "BPA can't market what it has now." He said BPA is committed to building the line regardless of need.

Citizens of tiny Maxville, Montana, located within a half mile of the preferred route, feel they've become the sacrificial lambs for the powerline. Concerns include health hazards of long-term exposure to high voltage lines. Scientific reports suggest "electromagnetic radiation" from the lines may be linked to central nervous system disorders, reduced fertility and increased cancer.

Other concerns expressed at hearings included visual blight from the 175-foot towers, timber loss, grazing disturbances and disturbance of wildlife habitat.

The line is scheduled for completion by October, 1983. But a consortium including the Northern Plains Resource Council, and Missoula, Granite, Mineral and Jefferson Counties has asked for an injunction against construction pending appeal of the consortium's lawsuit against BPA. The suit, now in the 9th Circuit Court of Appeals, claims BPA violated parts of the National Environmental Policy Act in its EIS process. The appeal is scheduled for hearing this summer.

A spokesman for the group said by BPA's estimates, the powerline will cost Montana counties \$780,000 per mile, or \$6,316,000 each year over the 37-year life of the project in lost taxes. BPA is not required to pay local taxes, as Montana Power would have been had the utility constructed the powerline.

A hearing held before Montana's Board of Natural Resources and Department of Health April 30-May 1 will determine whether BPA has met the substantive portions of Montana's Major Facility Siting Act, as ordered by federal court.

— Sanna Porte

Alternative considered for endrin

The Environmental Protection Agency has granted Montana permission to use Lorsban 4-E as an alternative to the toxic pesticide endrin, but economics may dictate continuing use of endrin.

A less toxic substance, Lorsban has been proven effective on pale western and army cutworms. But the cost of applying Lorsban is \$9.98 per acre, while endrin presently costs \$2.35 per acre. Montana Department of Agriculture officials are hoping for an EPA "exemption from registration" for a third substance, permethrin, which costs \$5.56 to \$5.90 an acre.

Gary Gingery, the pesticide control officer for the Department of Agriculture said that many farmers will continue to use endrin. But he said as "confidence in alternatives is achieved" and prices of the alternatives decrease, they will become more popular.

Gingery also said that cost per acre is not the only consideration in determining whether a pesticide is more economical than others.

"If you want to graze (wheat) stubble or bundle straw that has been sprayed, you can do it sooner with Lorsban," he said. He also said concern over personal health is a factor to some applicators.

To get permission to use Lorsban the state has agreed to restrict sales to a maximum of 25,000 gallons for use on no more than 100,000 acres.

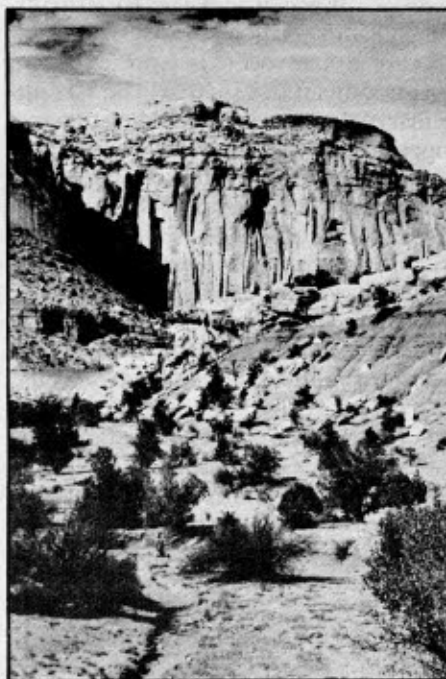
The EPA originally set a condition upon the approval of Lorsban whereby the state would inspect every field prior

to spraying. But Montana claimed, with only ten inspectors, the task would be overwhelming. Dealers will keep a record of sales and the state will spot check users.

The spraying of nearly 200,000 acres of winter wheat with endrin in eastern Montana last year contaminated wildfowl and threatened to close waterfowl hunting in as many as 17 states (HCN, 4/1/82).

Endrin is a chlorinated hydrocarbon like DDT, but is much more toxic.

— Jim Robbins



Canyonlands National Park

Garn hits nuke dump planning

Sen. Jake Garn (R-Utah) is planning to introduce an amendment to the Nuclear Waste Storage Act that would delay until at least 1986, the final selection of the three sites for nuclear waste repositories. Garn's amendment would require the preparation of a full-blown environmental impact statement on the entire project before any of the three sites are finalized.

The Department of Energy is currently examining five sites for the permanent disposal of high-level, commercially-generated nuclear wastes (HCN, 2/19/82). The sites are Hanford, Washington, the Nevada Test Site, the Permian salt beds near Amarillo, Texas, the Gulf Coast salt domes in Louisiana and Mississippi, and the Paradox salt beds near Canyonlands National Park in Utah. DOE's current deadline for narrowing the selection to three sites is 1984.

The agency's handling of the site selection process has been coming under increasing criticism from Utah officials. Gov. Scott Matheson (D) has called for a full EIS from DOE before any extensive on-site work is done. One of DOE's first steps after narrowing the selection to one of the three salt sites will be to sink a \$50 million test shaft. Matheson wants an EIS done before the shaft is sunk. DOE says an EIS is not required until after the shaft is in.

The Utah site has also been criticized because of its proximity to Canyonlands. The site is less than two miles from the park boundary. The National Parks and Conservation Association said recently at a Salt Lake City press conference that it would attempt to get the park's boundaries enlarged to try to stop the repository.

Meanwhile, the congressional Office of Technology Assessment said there appear to be no insurmountable technological problems to developing a permanent deep geologic repository. The problem, said OTA, is public relations:

"The biggest single obstacle that successful nuclear waste management programs must overcome is the severe erosion of public confidence that the federal government — in light of its past performance — actually can and will do the job."

Because of the extreme dangers of high-level nuclear waste, it must be isolated from the biosphere for 10,000 years or longer before it breaks down into more or less harmless substances.

Watt upholds Jackson Hole airport board

In the continuing saga of the controversial Jackson Hole Airport in Grand Teton National Park, Interior Secretary James Watt has had the latest, if not the last, word on the central issue of "proprietorship."

In the past, both the Interior Department and the Jackson Hole Airport Board, the local operators of the facility, have claimed authority in squabbles over airport expansion, commercial jet service and the airport's continued existence in the park.

But in an April 15 letter to Jackson Hole Airport Board President Roy Jensen, Watt reversed the Interior Department's previous position and recognized the Airport Board as the "sole proprietor" of the airport. It is abundantly clear," the secretary wrote, "that the operation, management, utilization and maintenance of the airport is the sole responsibility and privilege of the board. The department retains only the barest authority to approve or disapprove those actions proposed by the board. There is no basis for an assertion of the power to initiate or propose specific actions which the board must adopt."

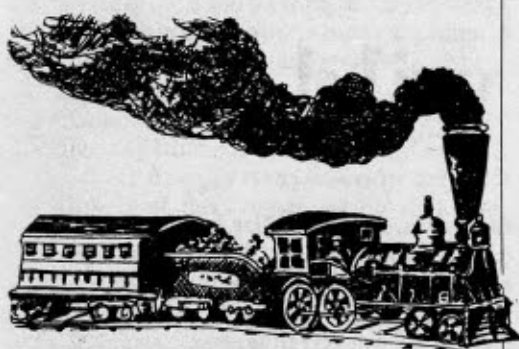
While Watt's letter came as no surprise to the Wyoming congressional delegation, which has been lobbying the secretary on the airport issue, it "completely stunned" some Park Service officials. At the local level, Grand Teton Park Superintendent Jack Stark said that he was not "completely surprised" by the decision but that he had not been consulted on it.

Stark described the decision as part of Watt's "good neighbor" policy and said, that he does not see "where in the immediate future it changes much of anything. The secretary didn't really reverse any of the terms of the (special use) permit, which is what we've been operating under."

The special use permit gives the Airport Board authority to construct improvements deemed "necessary or desirable" to the airport's operation subject to the Park Service approval of the "location, plans (and) specifications." One of the key questions has been whether or not the Park Service also had authority to make a determination of whether improvements were in fact "necessary or desirable." Said Stark, "I've always thought that the permit intimated, at least, that we would approve those things that are necessary to the operation of an airport and disapprove those things that are not — and each individual request we look at on an individual basis."

The airport's special use permit comes up for renewal in 1995, and Watt's predecessor, Cecil Andrus, had recommended that it not be renewed. But in a separate letter to Wyoming Senator Alan Simpson (R) last week, Watt said that he would be reviewing that decision and had directed National Park Service Director Russ Dickenson and Assistant Secretary for Fish, Wildlife and Parks Ray Arnett to examine the administrative record and any additional information relevant to the airport's operation. "My decision on this

question (lease extension) will be based upon the results of this review," Watt wrote.



C&NW holds rail spur to coal fields

Plans to run a new rail line into the coal-rich Powder River Basin have been postponed until April, 1983 according to the company that planned to build the line, Chicago & Northwestern Railroad. Company officials blamed postponement of the line, which was supposed to be under construction this spring, on various legal and regulatory delays and a longstanding dispute with Burlington-Northern Railroad.

Burlington-Northern is currently the only railroad hauling coal from the Powder River Basin, and it has fought the C&NW proposal since it was first introduced in 1973. BN officials say they have plenty of capacity to handle foreseeable coal production from the region, and they argue that they have

taken all the front-end risks to develop rail lines to the coal.

C&NW would reach the Powder River Basin by rejuvenating old track, building a new 42-mile connecting line to existing track in Nebraska, and sharing BN's tracks from Douglas, Wyoming to Gillette, Wyoming which were built in 1979. An agreement between the two railroads approved by the Interstate Commerce Commission in 1980 in which C&NW would pay BN roughly \$50 million for a share of the track is now being challenged by Burlington Northern. A decision is expected this summer.

Originally, C&NW sought low-interest federal loans to finance the over-\$400 million project. But last year company officials put together a package of bank loans and a \$60 million investment by Union Pacific Railroad, which would ultimately transport some of the C&NW coal, to pay the freight. Revenues from the new route are expected to reach \$500 million annually in the 1990s.

C&NW's long struggle to enter the Powder River Basin has been complicated by the company's financial difficulties, which prevented it from arranging financing for the route in previous years. However, company attorney Chris Mills said 1981 was a year of record earnings, and, while the company has suffered "the same contracting as the rest of the industry," he said it was "in better shape than in years."

The new rail line may also be subject to the jurisdiction of the Wyoming Industrial Siting Act. State siting hearings are expected next month. C&NW believes the state siting council does not legally have jurisdiction over the federally approved project, but it is cooperating with the process.

— Geoffrey O'Gara



Negro Bill Canyon

Utah area added to BLM wilderness

The Interior Board of Land Appeals has reversed a Bureau of Land Management decision that excluded Utah's Negro Bill Canyon from consideration as a wilderness area. The IBLA decision could set a significant precedent for an appeal covering 925,000 acres of other potential wilderness lands in Utah that BLM eliminated from its inventory.

Negro Bill Canyon is a 9,420-acre area in southeastern Utah near the town of Moab. The area received a lot of atten-

tion when the BLM wilderness inventory first got underway because local officials went out and deliberately bulldozed some of the area to protest the procedure.

The appeal was brought by the Sierra Club's Utah chapter and was prepared by Jim Catlin, a computer electronics expert, "and a non-lawyer who personally did all the work against the combined armed legal might of the U.S. government," according to one source.

In the 43 cases decided so far by the IBLA nationwide the Negro Bill appeal was the first to reverse a BLM decision and result in more wilderness being added to the inventory. George Pring is the lawyer representing a coalition of groups, headed by the Utah Wilderness Association, that is appealing 30 other Utah units covering 925,000 acres BLM also dropped from wilderness consideration. Pring said the decision may set a favorable precedent for the larger appeal, which probably won't be heard until early this summer.

"The Utah BLM, more than any other in the nation, followed a philosophy of 'when in doubt, throw it out,'" Pring said. "They tried to exclude as much land as possible, but with this decision, the IBLA slapped their wrists for it."

According to Pring, "The BLM staff finding was that Negro Bill was excellent wilderness, but this was later suppressed. They eliminated it because they said it was too small and because they followed a 'claustrophobia theory' — if the area is not so densely vegetated that you feel claustrophobic, it can't be wilderness. They were reversed on all of these grounds."

Nationwide, 117 appeals were filed on BLM wilderness inventory decisions. So far, 43 have been heard and the BLM decision has been reversed only four times — three of which deleted wilderness lands from the inventory.

HOTLINE

MORE NORTHERN TIER

In response to Washington Gov. John Spellman's recent rejection of the Northern Tier pipeline (HCN, 4/16/82), Rep. Arlan Stangeland (R-Minn.) said he will introduce legislation to allow the federal government to override that decision. The bill would allow for 120 days of negotiations between Washington and the pipeline backers to work out environmental problems. If the disputes are not solved, the bill would allow President Ronald Reagan to override Spellman's rejection.

WATT? COMPLAINING AGAIN

Interior Secretary James Watt has threatened to lease wilderness areas for mining and drilling next year if Congress refuses to pass his proposed bill to give the president power to reopen wilderness areas. In a Newhouse News Service article, Watt said, "It's their problem. They know where I am. I've given them moratoriums. I've given them a recommendation, and it's their move." Watt also said Sens. James McClure (R-Idaho) and Malcolm Wallop (R-Wyo.) would introduce the bill in the Senate. However, aides for both McClure and Wallop said they had heard nothing about the idea. Watt's temper tantrum is expected to have little effect on either the House or Senate.

LAYING OFF NUKE PLANTS

The Nuclear Regulatory Commission predicted as many as 19 nuclear plants currently under construction will be canceled or delayed indefinitely by the utilities that own them. Rising construction costs, high interest rates and lowered projections of electric power demand are the reasons for the projected cancellations.

HERBICIDES FOR MONTANA

Montana's Flathead National Forest may use the herbicide Roundup to prepare some 1,925 previously logged acres that haven't been producing new tree growth for planting. The proposal may be protected by local citizens who protested two years ago when farmers used the herbicide 2,4-D in the area. Many women claimed the chemical was responsible for a high percentage of miscarriages. Public comment on the idea is being heard until May 15.

NONGAME LOSING IN COLORADO

Colorado will probably lose 40 percent of its nongame programs due to federal cutbacks this year. Colorado Division of Wildlife nongame chief John Torres said the state did not receive federal matching funds for its nongame income tax checkoff program, resulting in a loss of approximately \$42,000. Torres said the division will evaluate the entire nongame program to determine where cuts will be made, but he expects some threatened and endangered species recovery projects may have to be cut back, while other programs may be eliminated completely.

SKI AREA PROPOSED

A large ski resort on the Great Northern Mountain in the Kootenai National Forest in Montana, has been proposed by a group of Libby, Montana area investors. A Libby Forest District spokesman said the proposal involves as much as 1,000 acres. The Forest Service will prepare an environmental impact statement, predicted to take one and one-half years, to determine the fate of the project. Great Northern Mountain is 23 miles south of Libby and six miles east of the Cabinet Wilderness Area. The area is known grizzly habitat.

POTENTIAL CANDIDATE

Sen. Gary Hart (D-Colo.) may have his hopes set on the White House. He recently named a personal representative to a national Democratic candidate's committee, a move that the *Denver Post* reported protects his option of being a 1984 presidential candidate. The representative is John M. Quinn, a Washington lawyer, who worked on both Rep. Morris Udall's (D-Ariz.) and former South Dakota Sen. George McGovern's presidential campaigns.

ADOPT-A-PARK

The Boise, Idaho Parks Department's budget is so strained that the city has offered its parks up for adoption. Mountain Bell and the Communications Workers of America responded by donating \$1,200 to cover the cost of replacing trees in one of the city's parks, the *Idaho Statesman* reported. The two groups have also volunteered to do maintenance work around the park this summer. Even though it won't solve all their problems, the Parks Department feels it is a step in the right direction.

EPA GIVING FAVORS

Anne Gorsuch, administrator of the Environmental Protection Agency, has been accused of favoritism, by promising a New Mexico refinery official she would not prosecute the company for violating the Clean Air Act. Thriftway Company of Farmington pled financial hardship and said they would be forced out of business if required to remove certain levels of toxic leads from gasoline. The *Denver Post* reported a spokesman for Gorsuch said the regulations covering those requirements are expected to be loosened soon and it seemed unreasonable to put the company out of business in the meantime.



TOO MANY BUFFALO ON RANGE

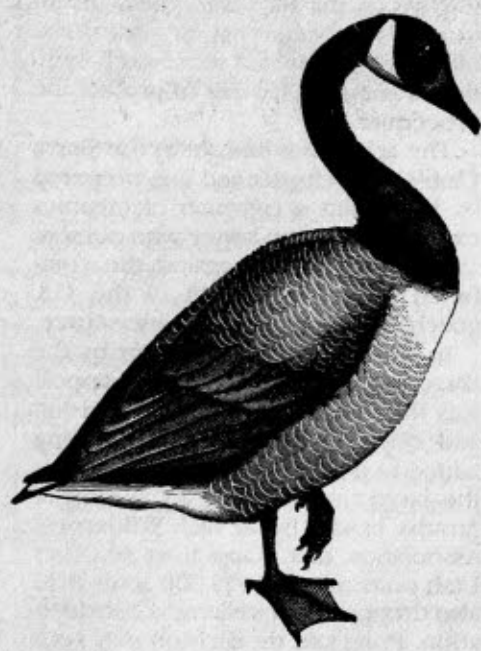
The wild bison of Yellowstone National Park have increased to such numbers that they are roaming out of the park and onto adjacent lands, worrying ranchers who view them as potential carriers of brucellosis, a disease that causes abortions in cattle. The herd has grown from 22 in 1900 to 2,000 today. The Montana Department of Fish, Wildlife and Parks has suggested a hunting season to control the herd's size. Yellowstone is the only place in the U.S. where a wild buffalo herd survives.

ELECTRIC SURCHARGE REJECTED

The Idaho Supreme Court has ruled the state's Public Utility Commission's \$50-per-kilowatt surcharge on new electrical space heating installations by customers of Washington Water Power Company is illegal. The PUC feels the ruling has eliminated one of their chief electricity conservation programs. A similar surcharge was established in 1980, to encourage homeowners to use natural gas whenever possible.

BUDWORM EATING UP FORESTS

The western spruce budworm, which feeds on needle-bearing trees, particularly fir trees, defoliated 1.4 million acres of trees in Idaho, Wyoming, Utah and Nevada in 1981. Forest Service spokesman said the budworm infestations showed little change over 1980 in Wyoming and Idaho, but significantly increased in Utah. After four or five years of budworm infestation, trees can be entirely defoliated, have their growth reduced and die.



by George Wallace

It's a late March morning and I'm on my way to work. Going around City Park Lake, the driver in front of me slams on his brakes and swerves, and so do I. We narrowly miss running over two city geese, a mating pair strolling nonchalantly across West Mulberry headed for brunch at the greenest lawn on the block. No federal dole for these indigents, just local grassroots support. Fort Collins, the fourth fastest growing National Wildlife Refuge in the United States. The geese must have seen the "Choice City" brochures distributed by our Chamber of Commerce. They've lost none of their ecological wisdom, however. They know it's silly to live in the country and commute to work when you can live in town and walk to work. Saves energy, and it's a lot safer.

Lacking the wisdom of these more contemporary geese, I try to make a living in the country, and so I end up commuting to town where I study and work in order to pay for the farm. Though it uses more energy, it's a lot safer.

On the farm we awaken to goose music shortly after daylight. I relish this, being partially deaf. Low-flying or nearby geese are still easier for me to hear than most birds. What would be a racket of sound for most people is for me a delightful perception. It evokes pre-artillery memories of sound which I can combine with the goose music I actually hear into an imagined cacophony befitting the occasion. In the spring, they sing all day.

These less enlightened but still local honkers are country geese. They were born near the bright lights and easy gleanings, but their hearts are still in the wild. Trapped in between, they choose the pastoral as the middle path.

On a walk before breakfast, we had watched the geese playing tag on the big lake. We had also approached an old goose who had been sitting for five days on a nesting box we had erected near our lower pond. The old sieve-winged gander who was positioned faithfully nearby sounded off and waddled away, trying to decoy us from the nursery. Later, on my way out to the gate and to work, I observed two other families of geese, each of whom have their own territory on and off the lake, feeding in separate groups on our winter wheat. They hardly ever eat the stuff I plant or leave for them.

Going toward town on County Road 19, one passes several ponds and gravel pits, all of which have geese on them. Geese nesting, preening, chasing and playing coy. "Lakes Sterling" are replete with elevated nesting boxes, floating boxes and graduate students kneeling in their rowboats, furiously penning notes about some heretofore undiscovered aspect of goose behavior.

For most people in Fort Collins the geese provide much pleasure. At their sight senior citizens flash back to autumn days on the farm. Middle-aged men double-take as what first appeared to be a squadron of B-26s coming out of the fog turns out to be a wedge of geese.

Children are lilyingly blessed by their passing. The recently arrived couple from New Jersey confirm in their letter home that the West is still wild, and the Suburban teenager looks up and wonders to himself why his schoolbooks always speak of geese migrating north and south, when they seem to be permanent fixtures.

Actually, Fort Collins had no geese until 1957. Geese flew over or stopped on nearby irrigation reservoirs on their way from the arctic to Texas and Mexico or Central America. Gurney Crawford loved geese. Many know the story of Gurney's successful effort to lure these wild beauties down out of the flyways and onto our byways. Gurney is a marvelous senior game warden of the old mold who began raising geese under banty hens, building nesting structures, reserving sanctuaries, and working tirelessly for the last 20 years to establish resident geese in this area. The rest is history. The geese are here in numbers and they hardly, if ever, rejoin their migrating cousins.

The reverse is not true, however. Having created this resort for geese — the area being ideal with hundreds of man-made lakes, intensive irrigated agriculture, a moderate climate and a managing agency — migrating geese frequently stop and decide to stay (just like everybody else).

How long can this love affair last, one wonders? This past year there have been a series of what might be called the "goose nuisance" stories appearing. A shattered picture window, and instantly you're in bed with a strange goose; irate golfers demanding either punt guns or more ball washers; more animals to brake for; and a rash of bad jokes like, "No, if they honk it does *not* mean they love Jesus."

These geese have become common, adopted, semi-domesticated — thriving on the welfare state. Fortunately, they have not yet become clumsy. That will take another 100 years, even if grace is no longer selected for. If I concentrate I can still see them as semi-wild and beautiful, and I don't doubt they could still make a 10,000-mile trip if they had to. Best of all, thousands can feast on that beauty. People in wheelchairs, parking lots and condominiums. The "wilderness" is not hours away, but 80 feet overhead. On the other hand, it is disquieting to me that these geese have made such an adjustment, and you wonder if it can ultimately be to their advantage.

The domestication of nature is a dilemma typical of our time. Some of us were raised so that the sighting of geese was close to a religious experience. They came from and went to mysterious and faraway places, carrying the aura of

the truly wild yet familiar, harbingers of cyclic change that we all deeply understand in our genes. They were free — traversing continents on a pocketful of grain. You wanted to go too.

My brother-in-law Rich hunts geese and, I think, loves them at the same time. He hunts, as I do, partly because it forces us to see the world from a different angle — usually from the viewpoint of a gopher or muskrat. He digs his pit in the great grain fields of southeastern Colorado in the middle of the night and sits our 200-300 decoys in patterns that only he, the geese, and the wind understand. The pit is always flush with the ground, perfectly camouflaged, and he locates it where the geese were feeding the preceding afternoon. He can talk to geese too, not with a goose call, but with his voice, and they talk back to him. You see, the geese he hunts are northern geese, migratory and very wild — wild as the wind and wary. There are only a handful of people who can fool them as well as Rich can.

When you first see the lines of geese, they may be five or six miles away. If you are of a certain generation, it's kind of like being in the infantry in your trench watching waves of bombers approach. That all changes soon, when they get closer. They're alive! Rich hears them before anyone and starts to talk to them. Those of use less experienced in the pit must crouch low and watch the geese by watching his eye movements and listening to his long, sharp honks. We could tell they were coming closer. Our head gander talks to theirs. His calling becomes more intense as they come within one-half to one-fourth mile. They are deciding whether to come by for a look. They are very high at this point and may (but usually don't) begin to circle if nothing alarms them.

If they do circle, Rich's call changes to a more rapid, somewhat softer and self-assured calling, as if to say, "Come on down! The eating's good." Geese land into the wind and the decoys, if properly arranged, resemble a flock that is distributed in such a post-landing pattern. If they decide to land, their final approach is the moment of high experience. There is a riot of goose music as they come gliding in, wings set. Rich's calls are quick now, and we are permitted to mix in feeding sounds. With a great flapping and braking and one of the most incredible sounds witnessed by people in nature, 300 to 500 geese come milling down from heaven to cover us up.

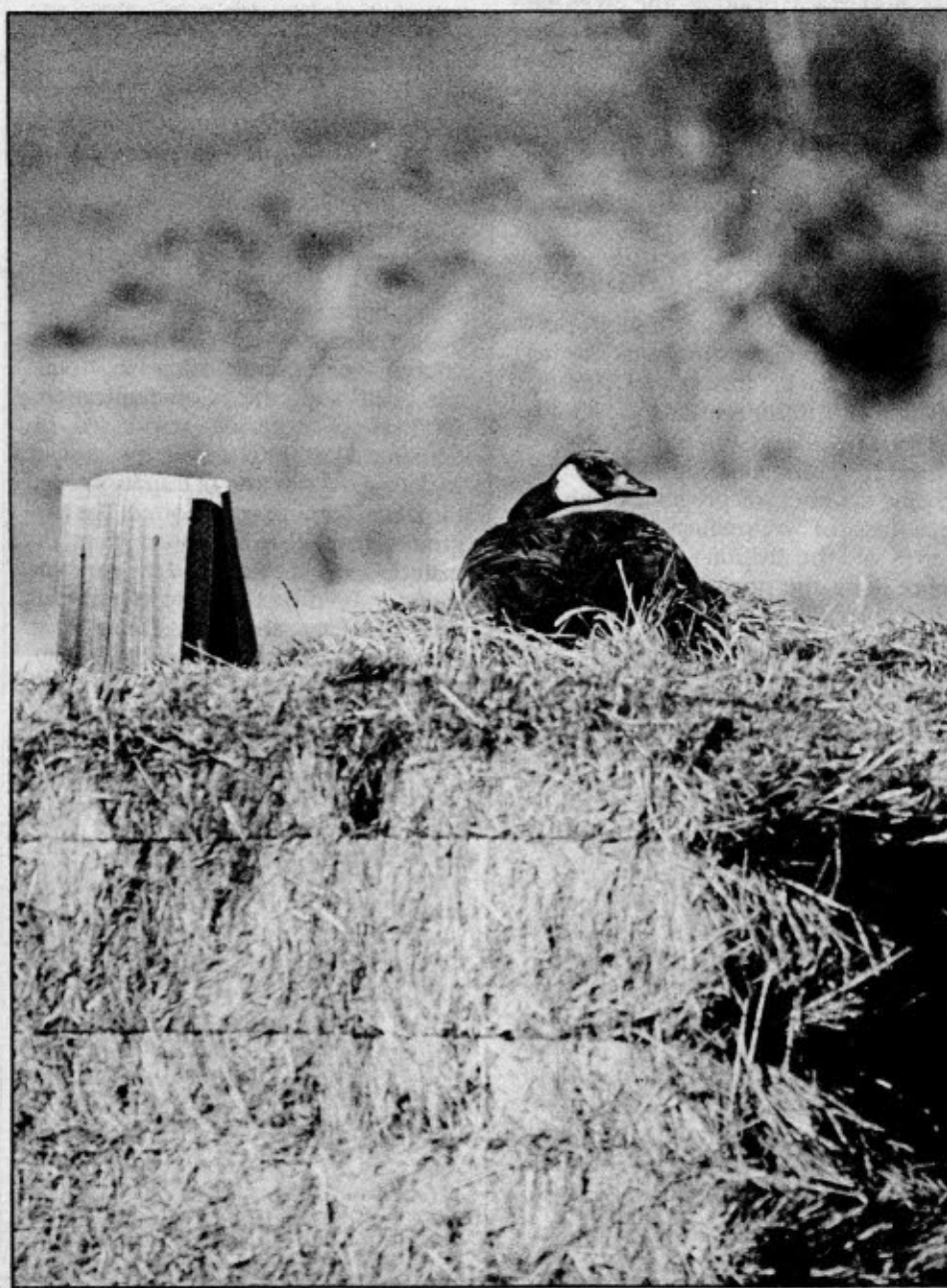
Then, if we allow it to happen, there is an amazing three to seven seconds of quieting as the geese puzzle over this solemn group of comrades in wing. The smartest goose then realizes something is wrong and bolts and the whole amazing process is reversed. The ground comes alive in a roar of wings as two tons of energized down feathers and gooseflesh climb skyward like leaves sucked up by some giant whirlwind.

I would be content to just watch, but Rich yells, "Now!" An array of human activity leaps skyward too. One man reacts to cultural imperative. Although his belly is full of glazed doughnuts and truck-stop coffee, he must kill and capture to show his worth to friends. Another long-time companion who just lost his job swings and shoots — more as a learned motor response to Rich's verbal stimulus. A third man, having abandoned cerebral activity, moves from a deeper motivation that dates back tens of thousands of years through millions of hunts — the game moves, the hunter pounces. I decide to watch.

The geese are five miles east now — all but four of them. A moderate take,

Goose chases: city, country and wild

A shattered picture window, and instantly you're in bed with a strange goose.



and only five shots were fired. I was watching for cripples, which sometimes sag and collapse only after miles of flight. I saw none. Rich and Scotty are walking back and looking at a goose that has been banded. Scotty holds the aluminum leg band close and strains in disbelief at something. "Russian!" he exclaims. "This son of a bitch flew all the way from Russia!"

Later that day it occurred to me as I looked at this animal, while dressing and plucking her and her fellows, that I held in my hands something that gives meaning to words like freedom, strength, endurance and sureness. Here was an animal that gave substance and expression to qualities that seem to guide us daily and to which we all aspire. Wild things — the eagle, the wild goose and, in lesser degree, country and city geese — are symbols, paradigms, that sum up and draw together important ideas. We can look at them and partially describe ourselves. They are standards that help us determine whether we see those same qualities in the other things in our lives.

I hoped that the death of these four had somehow contributed to the naturalness, the wildness of those many that escaped, that they would be even wilder and more reluctant to come close to us

next time. We respect that which eludes us.

On my way home from work, I again drive around City Park Lake. This time there are no geese on the road. A middle-aged couple is feeding popcorn to a mixed brood of wild and domestic breeds of ducks and geese. I am disappointed to see these Canada geese with their barnyard cousins. Will numbers and familiarity soon breed contempt, as it must have with the buffalo and the passenger pigeon? How long will it be before someone takes aim on the goose in the road and they assume the same status as the bewildered jackrabbit in the headlights?

I suddenly become very supportive of the Division of Wildlife's efforts to begin moving nesting boxes and geese out of town. Leave a few, but put most of them on notice. Tell them to get out and make a living. Let us make pets out of our domestic breeds, not these voyagers. They're too noble for that.

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George Wallace is a faculty member at Colorado State University and a farmer near Ft. Collins, Colorado. This article was paid for by the HCN Research Fund.



MOVING?

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DON'T LEAVE US BEHIND!

May 14

Poetry of the earth will grace HCN's pages, as will the mysterious escapades of the Church Universal Triumphant in Montana. Then we'll look at the effects of the nation's current energy surplus on the Rockies.



Cutting EPA in Half...

That's the Reagan administration's budget strategy for the Environmental Protection Agency.

In the current issue, *The Amicus Journal* takes a close look at the Reagan administration's efforts to dismantle the Environmental Protection Agency, at the economic collapse of the nuclear industry, at why federal research into the question of carbon dioxide buildup in the atmosphere is being cut back, at what can be done to save prime agricultural soils and why the U.S. is turning its back on the energy problems of the Third World.

Published by the Natural Resources Defense Council, *The Amicus Journal* is written in plain English, simply designed and uninterrupted by advertisements. Each issue of *The Amicus Journal* offers a wide variety of environmental issues and perspectives. Recent contributors have included Lewis Thomas, Edmund Muskie, Robert Stafford, Paul and Anne Ehrlich, David Lilienthal, John Cole, Lester Brown, Cecil Andrus, Toby Moffett, and Lou Harris.

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Majestic Log Homes

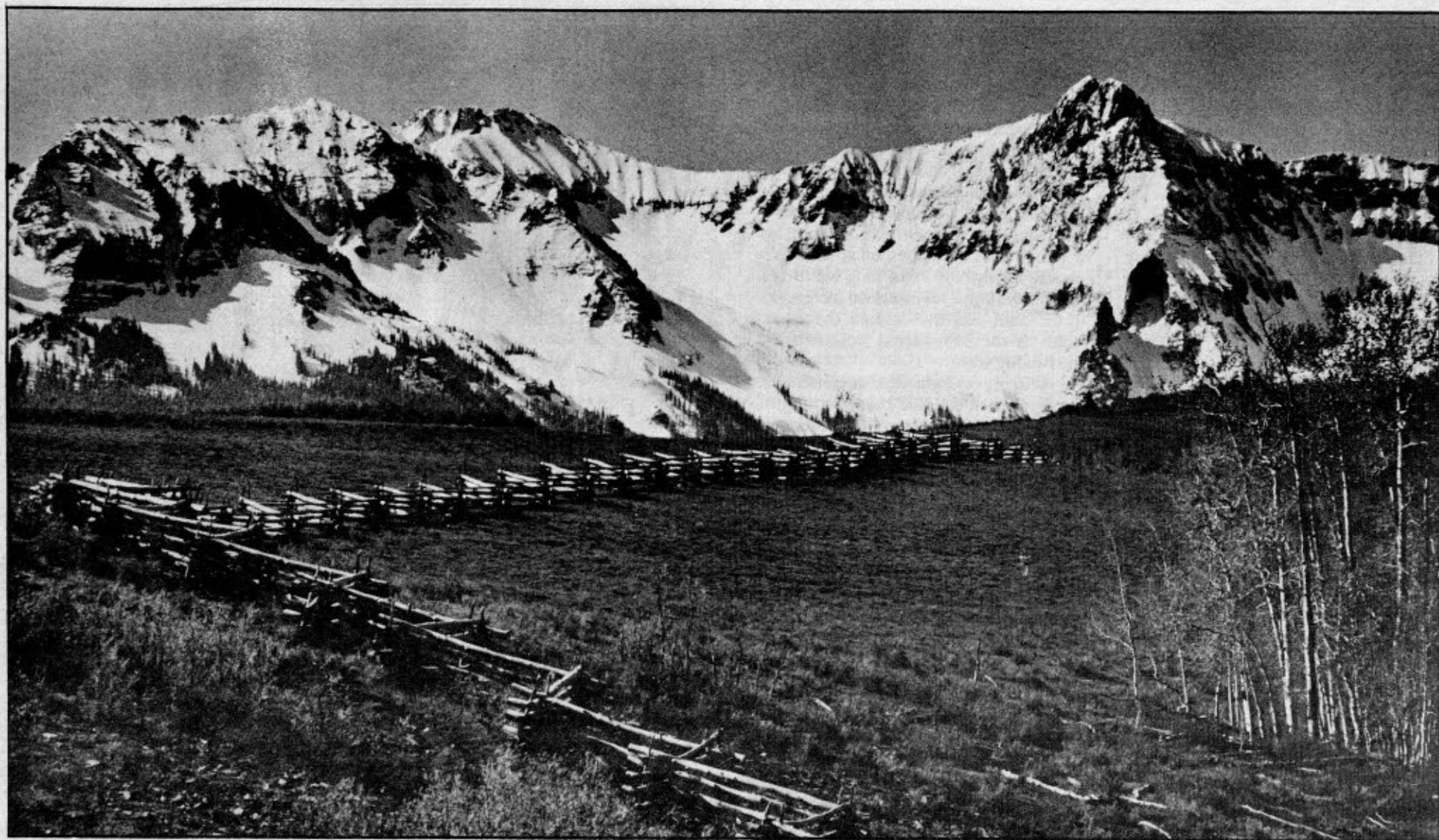
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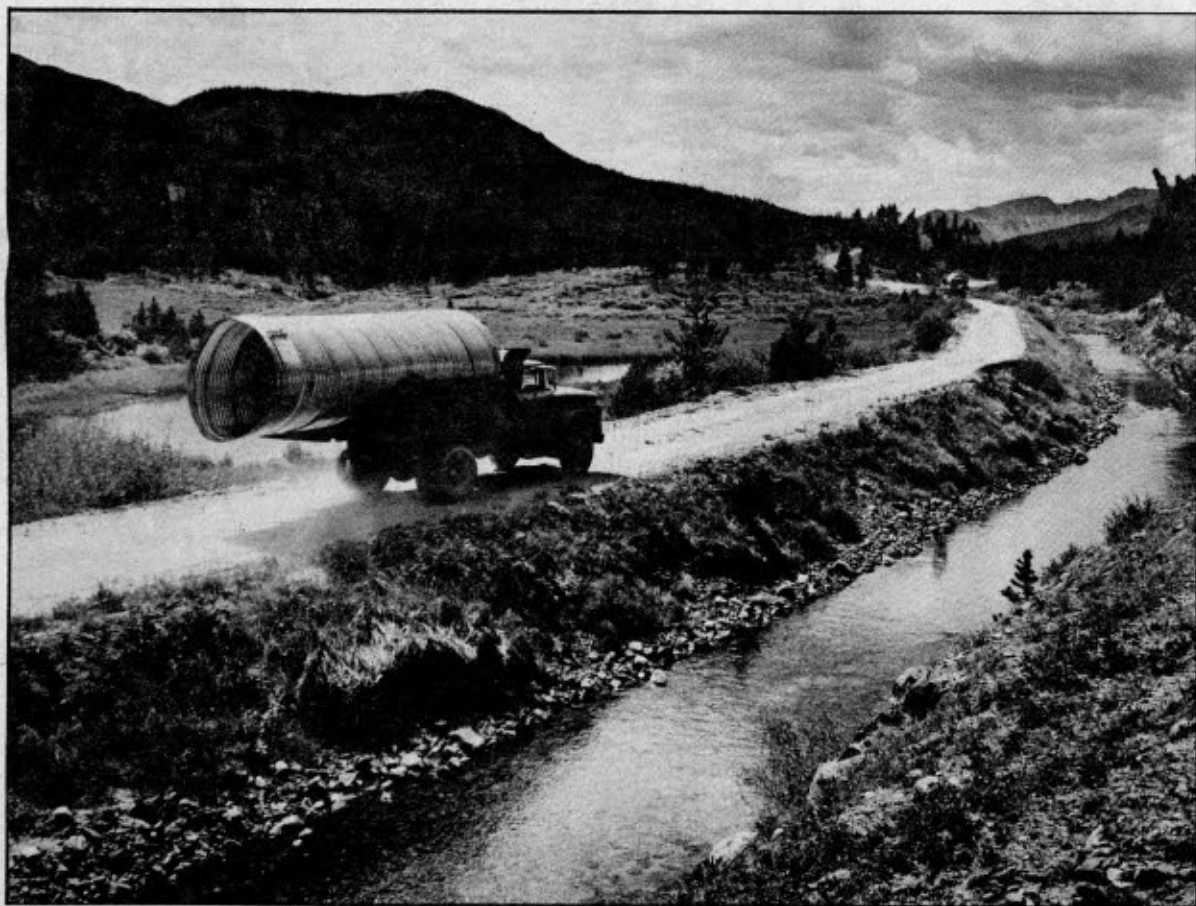
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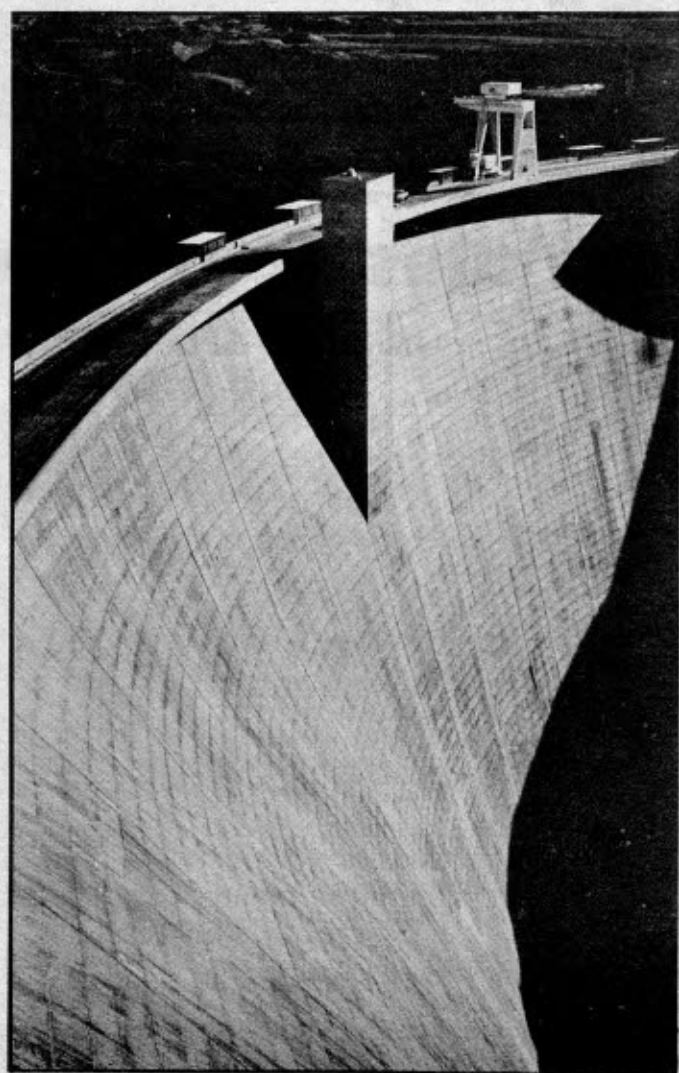
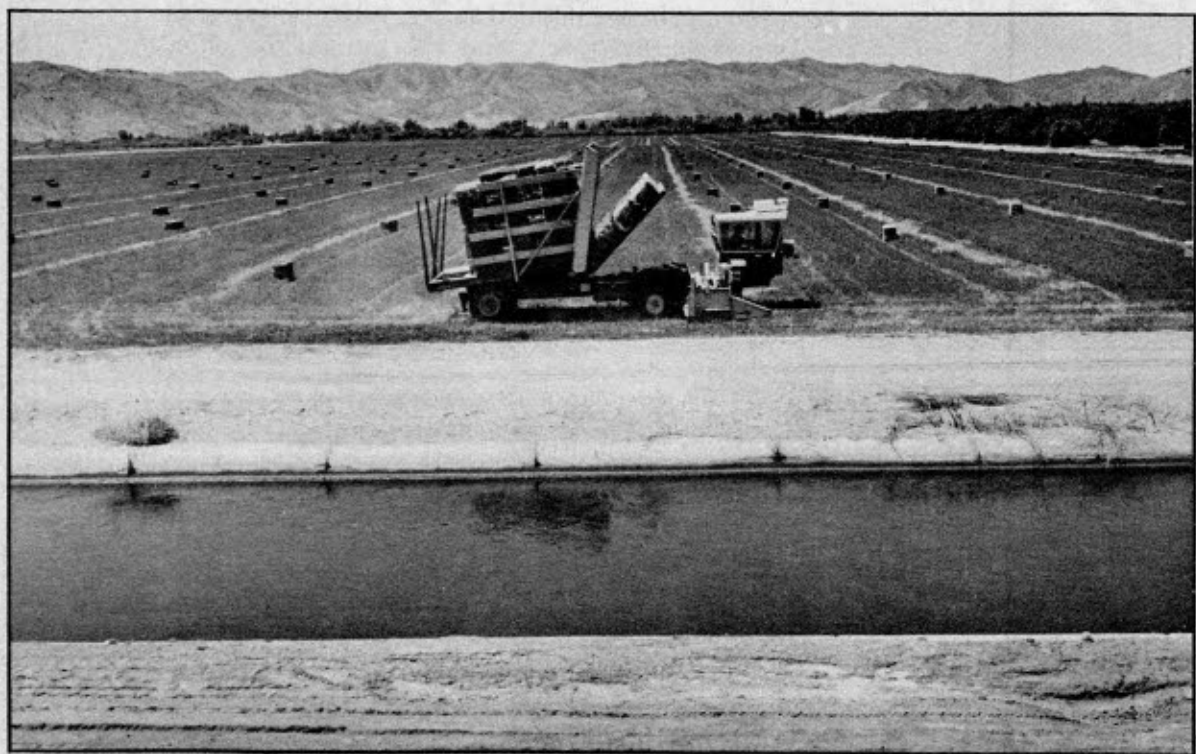
Above: San Juan Mountains near Dallas Divide in southwestern Colorado



Left: Grand Ditch diverts the first flows of the Colorado

Lower left: Near Yuma, Arizona

Below: Holding pond, Four Corners Power Plant near Farmington, New Mexico.



The Colorado: a river no more

Story and photos by Philip Fradkin

The river's waters and the land surrounding it in the basin — the heartland of the West — are fused together in a common destiny, as are those areas outside the watershed to which Colorado River water is diverted — southern California, Salt Lake valley, Colorado's Front Range and the Rio Grande valley in New Mexico. The quantity and quality of the river's flows are a mirror image of what is upon the land — indeed, are the prime reason for there being something built upon or scratched out of the soil in the first place. How easily this is forgotten in the urban areas of this oasis civilization. Not the Rocky Mountains nor the Pacific Ocean, but the Colorado River which flows from one toward the other, is the single most unifying geographical and political factor in the West.

What the river has become — in effect a graded ditch — is the inevitable price that had to be paid for the establishment of an extensive culture in the desert. Given the nation's policy of westward expansion and its corollary of growth, a policy that has gone unchallenged until recently, there was little else the lower river could have become. The problems arise when that civilization believes it can continue to grow until all the water from the river is used, and then grow some more when additional water is poured into the Colorado from rivers to the north. There is a point when all this growth, and its costs, become unacceptable; a point, which is fairly imminent, where the costs greatly exceed the benefits, and someone has to say, "No more." □

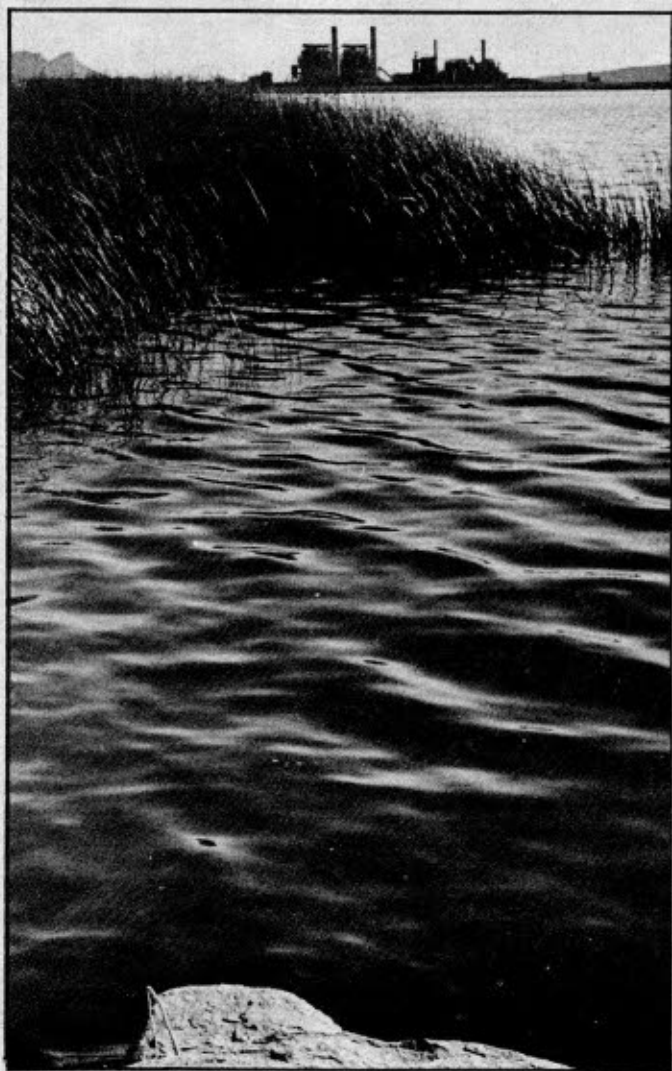
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Philip Fradkin is the author of the book *A River No More*, recently published by Knopf. He is presently a freelance writer living in California.

Right: The Grand Canyon

Below: Glen Canyon Dam

Lower right: Near Lake Havasu



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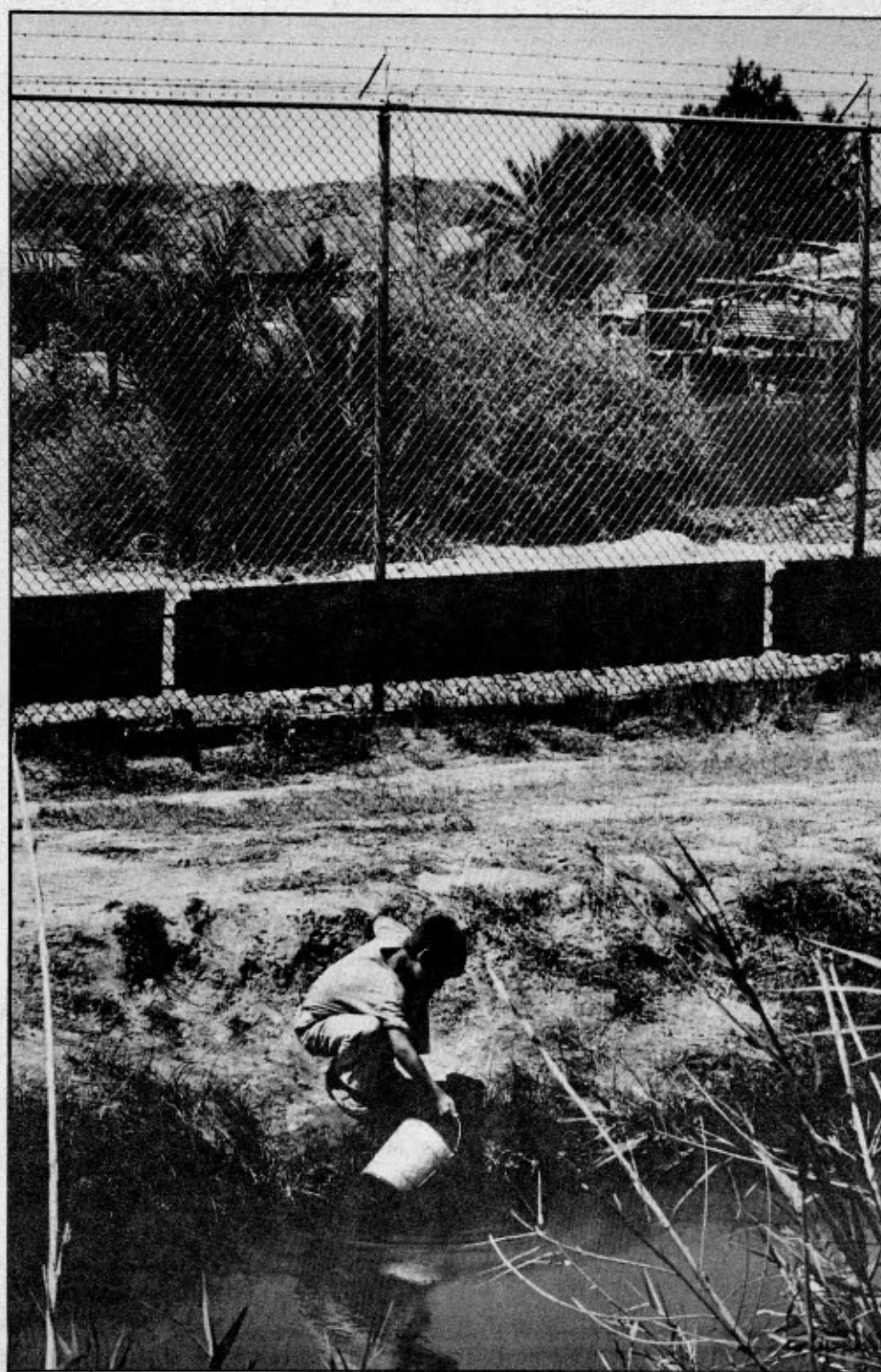
River...

(continued from previous page)

The Grand Canyon is looked upon as a great natural wonder but the river within it is now the ultimate ditch; its flows are precisely measured to meet energy and water supply needs.

Right: Dipping water from the Colorado on the American side of the border for "smuggling" through the border fence to Mexicali, Mexico

Below: Where the Colorado used to enter the Gulf of California in Mexico



BULLETIN BOARD

ROMCOE TRAINING WORKSHOP

A one-day training session on environmental conflict management will be conducted by the Rocky Mountain Center on the Environment in Denver on Tuesday, June 22. For more information, contact Laura Sharpe at the Center for Environmental Problem Solving, (303) 444-5080.

EARTH TREK FOR KIDS

The National Wildlife Federation conducts a summer backpacking program in the Colorado Rockies for 13 to 17-year-olds. The 12-day "Earth TREKS" combine training in backpacking skills with studies of Colorado geology, flora and fauna. For more information, contact Earth TREK, National Wildlife Federation, 1412 16th St. NW, Wash., D.C. 20036 or (703) 790-4363.

MONT. WILDERNESS STUDY EXPEDITIONS

The University of Montana's Center for Continuing Education and Summer Programs is offering eight Wilderness Study Expeditions this summer, ranging from "Northwestern Montana's Grizzlies: Their Habitat and Management" to "Mountains and Rivers Without End: Field Practicum in the Ethics, Literature and Native Traditions of the Northern Rockies." Academic credit is available for the courses, which range in cost from \$250 to \$450. For more information, contact the Center at 125 Main Hall, University of Montana, Missoula, Mont. 59812.

NUCLEAR WAR CONFERENCE IN HELENA

"A Montana Conference on the Prevention of Nuclear War" will be held May 7-8 in Helena. The conference will begin at 6:30 p.m. Friday, May 7, in the Helena Civic Center Auditorium with the film "Day After Trinity," followed by a keynote address by Daniel Ellsberg. It will continue all day Saturday, May 8, beginning at 8 a.m., in the Carroll College Commons. Morning sessions will feature speakers on military, medical, economic, political and ethical dimensions of nuclear war. Afternoon sessions will offer a variety of concurrent small group discussions, concluding with a panel discussion. The conference is free and open to the public.

UTAH COAL HEARING

OSM will hold a public hearing May 13 in Salt Lake City on a proposal to give Utah responsibility for regulating coal mining on federal lands within its boundaries. The hearing will be held in Room 4108 of the 4241 State Office Building in Salt Lake. Anyone interested in making an oral or written presentation on the proposed agreement should contact Andrew DeVito, OSM, Dept. of Interior, 1951 Constitution Ave. NW, Wash. D.C. 20240 or (202) 343-5866.

SOLAR CONFERENCE

"The Renewable Challenge," the 1982 solar technologies conference and international exposition sponsored by the American Section of the International Solar Energy Society, Inc. will be held June 1-5 in Houston, Texas. Cost of the session is \$170 for AS/ISES members, \$210 for non-members and \$70 for students. To obtain the conference booklet and registration form, write AS/ISES at U.S. Highway 190 West, Killeen, Texas 76541.

STEADY-STATE ECONOMICS WORKSHOP

Montana State University is offering a four-credit-hour workshop June 21-July 2 on the economic, ecological and ethical implications of continued economic growth — and its alternative. John Nehring of the MSU Department of Agricultural Economics will be the workshop coordinator. Tuition is \$120. To register, send your name, address and phone number and a \$30 deposit by June 1 to Continuing Education, MSU, Bozeman, Mont. 59717.

WATER AND ENERGY CONFERENCE

The American Society of Civil Engineers is teaming up with the League of Women Voters and the Council of State Governments to offer a three-day western conference on "Water and Energy: Technical and Policy Issues." Sessions will be held at Colorado State University in Fort Collins June 27-30; costs will be \$150 for off-campus participants, \$220-\$240 for on-campus participants. To register, write CSU, Conferences and Institutes, Rockwell Hall, Fort Collins, Colo. 80523, (303) 491-7501.

INTERIOR SEEKS WATER COMMENTS

Interior Department is seeking comments on its proposed new "Economic and Environmental Principles and Guidelines" for planning water projects, published in the March 22 *Federal Register*. The guidelines would cover Army Corps of Engineers, Bureau of Reclamation, Soil Conservation Service and Tennessee Valley Authority water projects, seeking to make national economic development the chief planning consideration and to reduce paperwork and lead times. To comment or obtain a copy of the proposed rules, write Water Resources Council, 2120 L St. NW, Wash., D.C. 20037.

OUTPLAN THE PLANNERS

Jump ahead of developers and invest in "How to Judge Environmental Planning for Subdivisions: A Citizen's Guide." The guide teaches you to ask the right kind of questions to judge the environmental soundness of a development plan. The guide is available from INFORM, 25 Broad St., New York, NY 10004, for \$3.95.

NEW OIL AND GAS MAP

The USGS has just released a new map outlining the oil and gas potential of the Shoshone National Forest in northwestern Wyoming. The map shows a moderate to high potential for oil and gas in the east-central part of the national forest, with lower potential in the northern and west-central sections. Copies of the map may be purchased from the Open-File Services Section, Western Distribution Branch, USGS, Box 25425, Federal Center, Denver, Colo. 80225.

WILD BURROS

Wyoming Advocates for Animals, a Cheyenne-based group, and the National Organization for Wild American Horses (NOWAH) are offering wild burros from federal lands to Wyoming residents. The adoption fee is \$150 per animal. NOWAH will transport the animals to a central point in Wyoming if enough residents are interested in adopting, thereby decreasing the cost of transportation. For more information, write NOWAH, Box 171, Conifer, Colo. 80433 or call (303) 674-8020.

UNIVERSITY OF THE WILDERNESS

A new catalog of courses offered by the University of the Wilderness is now available from that non-profit organization, which operates a campus in Wyoming's Snowy Range. Most sessions last a week, with fees ranging from \$255 to \$285, including meals and lodging. Courses range from backpacking trips in the Snowies to a special "Global 2000-Planetary Initiative Conference." For a copy of the catalog, write University of the Wilderness, Box 1687, Evergreen, Colo. 80439.

LOW INTEREST ALTERNATIVE ENERGY

The Montana Department of Natural Resources and Conservation is offering low-interest loans for commercial projects involving solar, wind, geothermal, microhydro and biomass energy alternatives. Applications for the loans, which are being offered under DNRC's Renewable Energy Grants and Loans program, are due May 10. To obtain more information and application guidelines, contact the Energy Division, DNRC, 32 S. Ewing, Helena, Mont. 59620, (406) 449-3940.

NRAG TRAINING SESSIONS

The Northern Rockies Action Group has just released a brochure on its 1982 training sessions for citizen groups in the region. Fundraising seminars titled "Toward Self-Sufficiency" will be held June 11-12 in Boise, Idaho and Sept. 24-25 in Denver. "Getting Organized" will be offered Oct. 1-3 in Jackson, Wyo. and a media skills workshop titled "How to Be Heard" will be held Nov. 12-14 in Seattle. Enrollment fees range from \$100 to \$125 and registration is limited. For more information, write NRAG, 9 Placer Street, Helena, Mont. 59601.

NATIONAL RIVERS INVENTORY RELEASED

The National Park Service has released a Nationwide Rivers Inventory, including 1,500 stream segments totalling approximately 61,700 miles — or about two percent of the nation's total river and stream mileage. The inventory identifies those free-flowing streams which are in relatively natural and undeveloped condition and which possess scenic, recreational, geologic, fish, wildlife, historic, cultural or other values which make them potential candidates for state, federal or local conservation efforts. Copies of the list and information on specific stream segments are available at the Park Service's Rocky Mountain Regional Office, Box 25287, Denver, Colo. 80225.

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

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HIGH COUNTRY NEWS FOOTRACE takes place June 12, Lander, Wyoming. 5 miles; all ages and levels of mobility welcome. Watch this space for details.

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HIGH COUNTRY EXPERIENCES

Contact Joyce at Travel Services Unlimited, 238 Main St., Lander, Wyoming 82520; (307) 332-6500 to learn more about A WIND RIVER EXPERIENCE IN TIME AND SPACE and about WOMEN IN THE WILDERNESS. These backpacking experiences will occur in July in the Wind River and Absaroka Mountains of northwestern Wyoming with outdoor educators and leaders who wish to share their love of the wilderness.



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The Keystone Science School announces the schedule for its 1982 Preservation of Species workshop series:

EXTINCTION: A GLOBAL ISSUE, July 9-11, taught by Dr. Elliott Norse, Director of Science and Policy for the Center for Environmental Education, Washington, D.C.
URSUS ARCTOS HORRIBILIS: THE MARGINS OF SURVIVAL, August 6-8, taught by Dr. Charles Jonkel, Professor, University of Montana, and head of the Montana-based Border Grizzly Project.

SPECIES RECOVERY: QUEST TO RETURN THE BANISHED, October 1-3, directed by John Torres, Chief, Nongame and Endangered Species Section, Colorado Division of Wildlife.

THE ENDANGERED SPECIES ACT: THE SNAIL DARTER AND BEYOND, November 5-7, directed by Robert J. Golten, Counsel, National Wildlife Federation Natural Resources Clinic in Boulder, Colorado.

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Cost: \$450

Limit: 12 persons

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A five night, six day experience in the Washakie Wilderness of the Absaroka Mountains of Wyoming for women to experience the outdoors with Wyoming women who wish to share their love of the mountains.

Date: July 18-23, 1982

Cost: \$450

Limit: 12 persons

Contact Joyce at:

Travel Services Unlimited

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Reclamation...

(continued from page 1)

mation as required by this Act is not feasible." To date, no company has ever been denied a permit to mine because of that clause.

SMCRA also established the Office of Surface Mining, the federal regulatory agency entrusted to carry out the provisions of the act.

SMCRA deals with reclamation under two conditions: abandoned mines and new existing or future mines. At the outset, OSM designed a program of interim rules and regulations which individual states had to meet or exceed in their own legislation. There was also a third option. The state could let the federal government impose a program. According to the Casper, Wyoming OSM office, both Idaho and Utah opted for the imposed program because they have little or no surface coal mining within their borders. Colorado, Wyoming and Montana have all written their own programs, which have been accepted by the OSM.

Prior to the 1977 act, the states of Wyoming and Montana had passed their own reclamation laws. Both state laws were considered stringent, good protection laws. In fact, one coal company official said he heard the OSM designed its rules after Montana's.

OSM finalized its regulations by March of 1979. It took the states another year to adjust, submit their mining programs and be approved. The states permit, enforce and monitor company mining plans, while OSM monitors the states. The current administration has emphasized decreasing OSM's role in state programs, which will lower reclamation standards and threaten the environment.

The interim period was a difficult time for both the states and the OSM due to frequent revisions and changes in interpretation of the interim rules.

"When the regulations first came out, we (the Wyoming Department of Environmental Quality and coal companies) were antagonistic and argued with each other," said Mark Moxley, DEQ's Land Quality Division's district supervisor for southwestern Wyoming. "But now we are interpreting the rules in a consistent manner. Once you work with regulations and have experience with them, things work out. We're at that point now. Things have settled down."

"There's always been the question of what is successful reclamation," said Karen Christensen, environmental coordinator with the Jim Bridger Coal Mine near Rock Springs, Wyoming. "Everyone has their own definition. There is a little formula they (regulatory agencies) give you, but everyone is always questioning it. Do you base it on diversity? On density?..."

"If you are going to develop, there will be disturbance, but you can do it in a sound manner," said Sam Scott, environmental manager of Peter Kiewit Sons Inc.'s Sheridan, Wyoming office. "The gains I've seen take place in the last eight years are absolutely phenomenal. And if we can make the gains we've made in the next eight years, I think reclamation will be a moot question."

"In general, we will have useful land after mining, but it will be different. It will never be exactly as it was before," said Doug Dollhopf, professor of soil science at Montana State University.

"The issue of reclamation is about to be laid to rest," said Don Hartley, reclamation director at the Jim Bridger Mine. "I think there is enough successful reclamation around to indicate, not so much that all has been done yet, but that it is possible to do it all."

"The (reclamation) success of an area is not a cut and dry question," said Rocky Beavers, former OSM employee in Denver and now a private consultant. "If the vegetation is surviving and meeting post-mining objectives, then it is successful — in the short run — regard-

less of changes in the land. However, no one is absolutely sure if those stands (of vegetation) are going to survive 20 years down the line."

In the West, "we're dealing with the biggest surface disturbances man has ever done," said Keith Kirk, geophysicist with the OSM in Denver. "We're doing the best we can with scientific data, but it is still a guess. We're not going to know until 10 to 20 years later if we're right."

There is no absolute answer to the long-term success of reclamation, but on the basis of the studies and efforts that have been made the outlook is more positive than negative. It's not that there aren't problems, but in the short term at least, lands are being reclaimed in all types of topography in all types of climates and for all types of uses. It is a very site-specific art.

In western surface mining, a long strip, several hundred feet long and up to 200 feet deep is dug for access to coal. SMCRA specifies that the land be returned to approximately its original contour, a process that requires careful engineering and planning.

The strip leaves a tall wall, even after the hole is filled in. Those "highwalls" must be graded down under present law, but many specialists want to leave a few standing.

Because the topography of the West included bluffs and steep walled cliffs, coal companies and others argue that leaving some highwalls is actually restoring the land to natural topography. They also claim that highwalls, or "bluff extensions," as the companies and agencies refer to them, are excellent wildlife habitat, particularly for raptors, which often nest in the sides of cliffs.

Opponents claim that highwalls are dangerous, that they sluff off much more

readily than natural cliffs, leaving an unstable foundation several feet high. Experts admit that some aren't stable, but they also argue they are not dangerous in all cases.

The Bridger Coal Mine in southwestern Wyoming is an area where the geological makeup is primarily sandstone. Sandstone highwalls, are, in the opinion of Don Hartley and Karen Christensen, stable enough to leave standing. They do not propose to leave them everywhere, but they want to scatter them as part of their contouring design and for wildlife habitat.

Sharon Mikol, environmental biologist with the Wyoming Game and Fish Department in Lander, agreed. She said at the Arch Minerals Seminole I mine near Hanna, (in southcentral Wyoming), five golden eagles have nested on highwalls left from mining activities prior to the first reclamation laws.

"Sluff will happen faster than normal on highwalls," Mikol said. "But eventually it will be come a stable structure. Out at the Arch minerals mine, some of the old highwalls are actually rock outcrops that were not above the surface (until mined). But the law says you can't leave highwalls and it also says you can't disturb eagle nests."

Sam Scott, who was with Wyoming's Game and Fish for 15 years, also feels bluff extensions should be left for wildlife habitat. Kiewit and Sons had a similar situation of an eagle nesting in an old highwall on the firm's Black Butte mine in the same area.

Before a pit is dug, topsoil is removed and either placed directly on an area to be reclaimed, or stored for future use. According to the law, said MSU's Dollhopf, all overburden material (soils that lie on top of the coal seam) must be analyzed to determine if there is any bad

material. It is hoped that that will prevent introduction of toxic soils into topsoil reclamation.

But Dollhopf said it isn't feasible to examine soils in the manner of the law. He explained that in Montana and Wyoming, law requires a soil sample every 2,000 to 5,000 feet for analysis. Dollhopf said that isn't often enough to give a true analysis of the soil. "Technology says we must take the sample every 200 to 300 feet, but that is not economically feasible," he said. "If we did, then we could put the picture together. We can't do this now and we really don't know what we're putting in the topsoil."

One University of Wyoming professor said that there is danger in stockpiling topsoil. If it's stored too long, it can lose its fertility.

In the arid west, topsoil is precious, highly variable in its depths, and a "take it where you can get it" policy exists. Moxley, with the Lander DEQ, said in southwestern Wyoming there is little or no topsoil on bluffs and cliffs and sometimes as much as 10 feet in bottom lands.

However, in other areas, such as the Powder River Basin, where topsoil is more uniform, the controversy continues over how much needs to be salvaged. Some companies advocate taking only a couple of feet if it will support plant growth, while the law says you must take all topsoil regardless of depth.

After topsoil is applied, revegetation can begin. In pre-reclamation law days some companies took it upon themselves to distribute seeds, even though it wasn't required. Those plantings and the plantings during the first years of reclamation law usually consisted of grasses only. Companies usually used hearty, introduced grasses that took root easily and prevented erosion. The reclaimed grasslands were usually good for grazing cattle, but the lack of diversity and native species made most of those areas poor wildlife habitat.

Wildlife habitat is almost always going to be a post-mining use of the land in the west. Most companies, like Jim Bridger, in the last year, have focused on a wide variety of plants, trying to establish native species of shrubs and forbs that will enhance wildlife habitat.

Sagebrush is probably the most common shrub in the West. It has been proven important to wildlife, especially as big game forage during critical winter months. Even though it seems to have no trouble surviving western climates and soils, coal companies have found it difficult to establish sagebrush from seed.

"We have been successful with transplanting mature sagebrush," Bridger's Christensen said. "It is picked up with the topsoil and directly applied to the area we are reclaiming. The sagebrush is kind of crumpled up, but there is lots of propagation and seed in that." Bridger began this direct application method last year.

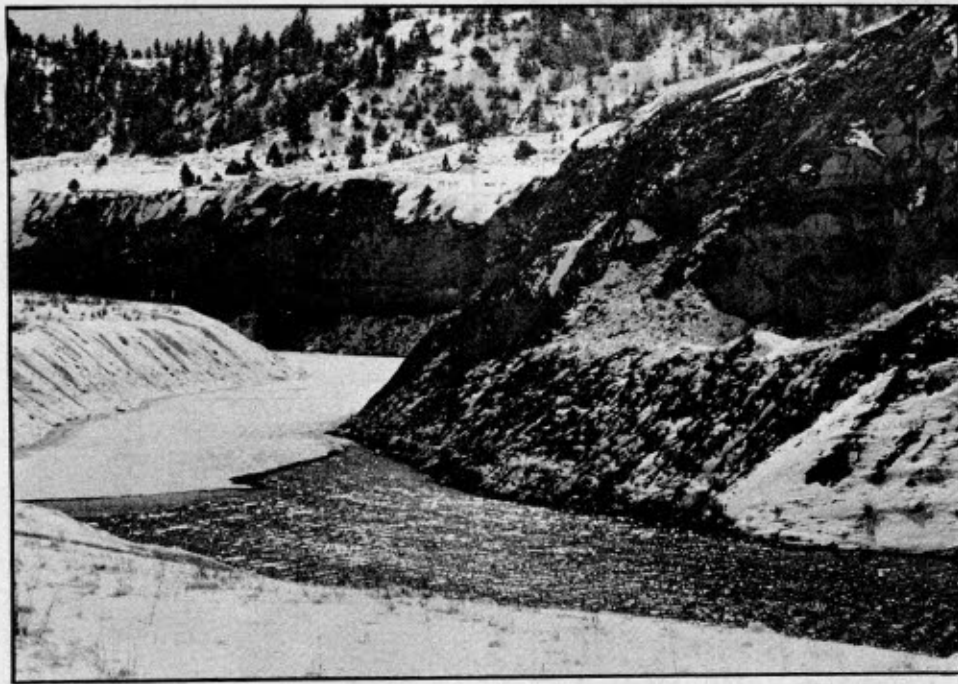
However, Christensen and Hartley agree they do not have statistical data to back up this method. They planted a small sample last year and are basing their hopes that direct application will work on the success of that sample plot.

Kiewit's Scott said he "hasn't been convinced by anyone to return areas to sagebrush."

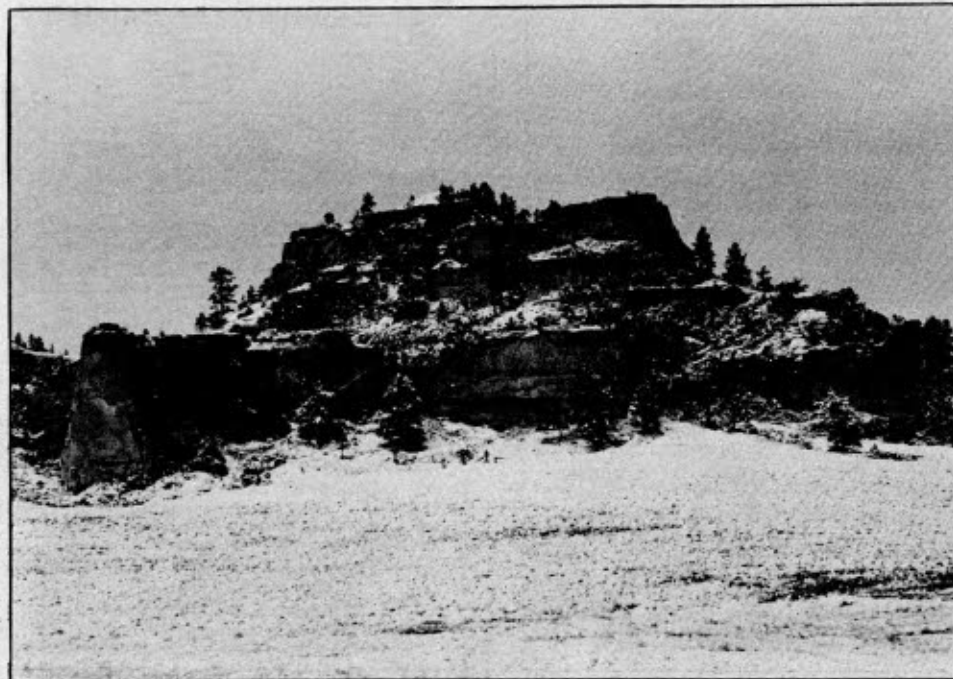
Scott said it is frustrating when on "one side of the fence," Montana's Department of Fish, Wildlife and Parks is spraying to destroy sagebrush to improve wildlife habitat, and on the other side of the fence, the OSM is saying you must plant it to improve wildlife habitat.

"We would like to go back to grassland," he said. "There is ample sagebrush in the area (of Kiewit's Decker mine, in Montana, just north of Sheridan, Wyoming) for wildlife. If you provide water and succulent forbs, you can improve wildlife habitat."

Sharon Mikol stressed that diversity and density are important in wildlife habitat. Under present law, vegetation must be returned to the same density it



The controversy remains over whether or not to leave mining highwalls as shown above at the Big Sky Mine near Colstrip, Montana. Below are comparable "natural" bluffs.



was before mining. Mikol disagrees with that stipulation.

"We don't necessarily want the same density," she said. "Say a mine is 60 percent shrubs before mining. We might want it at 20 to 30 percent shrubs because it is better habitat. We don't like huge stands of sagebrush. It is better if it is a patch density — interspersed."

"The more diverse (the vegetation), the better the likelihood of it surviving all stress," said Rocky Beavers. "Diversity is the key to any long-term survival without the assistance of man." And such survival of vegetation on reclaimed lands is something the company must prove.

In compliance with SMCRA, companies must file performance bonds which are not released until "a diverse, effective and permanent vegetation cover of the same seasonal variety native to the area of the land to be affected" is established. And, it must be "capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area...for a period of 10 full years" in areas where average precipitation is 26 inches or less. All Rocky Mountain states average less than 26 inches a year.

Precipitation is probably the key factor in all revegetation success. It is so critical, Rocky Beavers said, that Congress considered putting a moratorium on mining in areas which received less than six to 10 inches per year. That did not happen.

Obviously, if there is little precipitation, there is little chance of plant growth. Faced with that problem, many companies have chosen to irrigate their newly reclaimed lands during the growing season. The hope is that the plants can take over on available moisture after they've had a few years to become established.

In southwestern Wyoming and in the Four Corners area of New Mexico, average precipitation is around seven inches per year. In addition, these areas have poor soils.

In New Mexico, Beavers said the Sunbelt Mining Company has proposed mining in a badlands area which fits the dry, poor soils description — and produced little forage naturally. The question has arisen: Should the site be reclaimed to badlands or should it be reclaimed to vegetation? The decision will be left to the state of New Mexico. Beavers said, however, that no one has experience in reclaiming badlands to badlands.

Other water problems also exist. SMCRA states that all water running through a mine must be held in sediment ponds until it reaches a certain quality and can be discharged.

For Don Hartley at Bridger, that law seems unreasonable. Even though Bridger has not received enough precipitation to require a discharge permit, Hartley said the water quality level he would have to meet is unreasonable for the area.

"By regulation you have to have a water quality of 70 ppm (parts per million) total suspended solids," he said. "So the water I'm discharging off my reclaimed slope is almost clear water and I'm discharging it into a stream that probably has 10 times that much sediment just naturally. That is what the sediment level is in this part of the country."

For the Peabody Coal Company's Big Sky mine and Decker mine near Colstrip, Montana, another type of water problem arises. In that area it is not uncommon to bisect aquifers when digging a pit. Aquifer reestablishment is an unsolved problem and one that worries Montana rancher Nick Golder near the Big Sky mine.

"We in the ranching business are certain water travels a great deal faster, maybe 100 to 1,000 times faster than what hydrologists think," Golder said. "We have a backlog of information of what's been done with streams and wells in this country since man has been here and you start to learn about it. Hydrologists think water moves slow

and it does in most places, except in certain channels. You can see it pouring out of the sides of (mine) pit walls. Some have been running there for years. Some dry up and are called perched aquifers — they (hydrologists) will admit to those. But not the ones running forever. There's an old pit nearby we used as a swimming hole as kids that is the result of a running aquifer."

Golder is worried about this loss of water and has proposed reconnecting aquifers as best as possible by means of a trench.

Such a process is unresearched and, of course, costly. Groundwater hydrology has been named the number one reclamation challenge of the 1980s. For now, there are no answers.

Adding to the problems, the quality of groundwater after it has flowed through a pit is usually lowered.

"Often the coal seam itself is an aquifer," MSU's Dollhopf said. "After the coal is taken out, the water wants to fill up that 30 foot zone when they backfill it with dirt. Does the water go through the dirt as well? Is it the same quality? We're seeing it does go through the other material and that it is poorer quality. However, it is usually good enough for livestock."

Sam Scott said Keiwi's water is of top

quality and the company has 300 wells at Decker monitoring it to prove that. Golder said it is easy to strategically set wells to consistently monitor quality water.

Golder also feels coal companies are missing another important reclamation point — soil settling.

"Any dirt contractor knows that to just put fill dirt in a hole, it will settle," he said. "You've got to pack it as you go. If you dig a water line for your house, say six feet deep, and just throw the dirt back in it, that will settle with clumps and bumps and some places will settle a foot deep. Magnify that six feet up to 150 feet, which is what they normally mine, and do the same thing with the dirt, which is what they do, and you're talking about a real mess with that settling. They are beginning to admit to it now — some areas have cracks in the soil and slumping. Western Energy (a mine north of the Big Sky mine) admits to a 20 percent settling. I've personally seen it double that."

Another western reclamation obstacle is wind. High winds often blow seed away or make it difficult for plants to stay rooted. To cut down on effects of wind, Bridger and other companies have begun to reclaim rock piles to act

as wind breaks, to mulch to keep plants in place and to leave rough, choppy surfaces instead of the smooth look of a farmer's field. The latter also serves as a wind break.

If wind or lack of moisture or any other reason prevents a reclaimed area from revegetating, the company must try again the next growing season. "It's try and fail — that's the only way to learn," said Rocky Beavers.

The Reagan administration has proposed several changes in the performance standards of SMCRA and has given more control to the states.

Changes in the federal rules include decreased requirements in diversity of vegetation and the elimination of test plots to show introduced species will grow, elimination of the requirement to prove reclaimed areas could support grazing, a revamp on groundwater quality standards, changes in the need for mulch and ground cover in the early stages of plant growth and others. Companies feel that because reclamation needs vary considerably from area to area, these changes are not a weakening of the regulations, but an attempt to make the rules more site specific and practical.

Coal companies are happy with these moves; the environmental community is not. If the states gain more control without a stringent federal guideline, environmentalists fear the reclamation laws will be relaxed in direct opposition to the purpose of SMCRA. The Environmental Policy Institute fears coal interest lobbying will be more successful at the state level and will seriously weaken current state laws.

The National Wildlife Federation recently won a case to stop the proposed federal changes. The group filed suit against the Interior Department, claiming that under the National Environmental Policy Act, full environmental impact statements must be prepared before any changes can take place. Norman Dean, counsel for the Federation, said it was a "victory for conservation because it broke the momentum of the regulation rewrite." The Interior Department will probably have the EISs complete by fall.

The current administration was accused of trying to reduce the effectiveness of the OSM when it moved this region's OSM headquarters from Denver to Casper, Wyoming in January. On October 6, 1981, Sarah Bransom with the Denver OSM, wrote HCN that over 60 percent of the Denver staff resigned in response to the move. It was not because they didn't want to move to Wyoming, she wrote, but because they felt the move and reduction in staff was an "attempt to reduce the effectiveness of the Surface Mining Act of 1977."

Interior Secretary James Watt's reasoning behind the move was to make the OSM more cost-effective and to move the office closer to mining activities. A General Accounting Office report showed that neither of those objectives would be met by the move. Still, the move occurred — at least in part. A 15-person administrative staff is in Casper and a 69-person technical staff remains in Denver, down 131 persons from its previous 200-person staff. The only other technical center is in Pittsburgh.

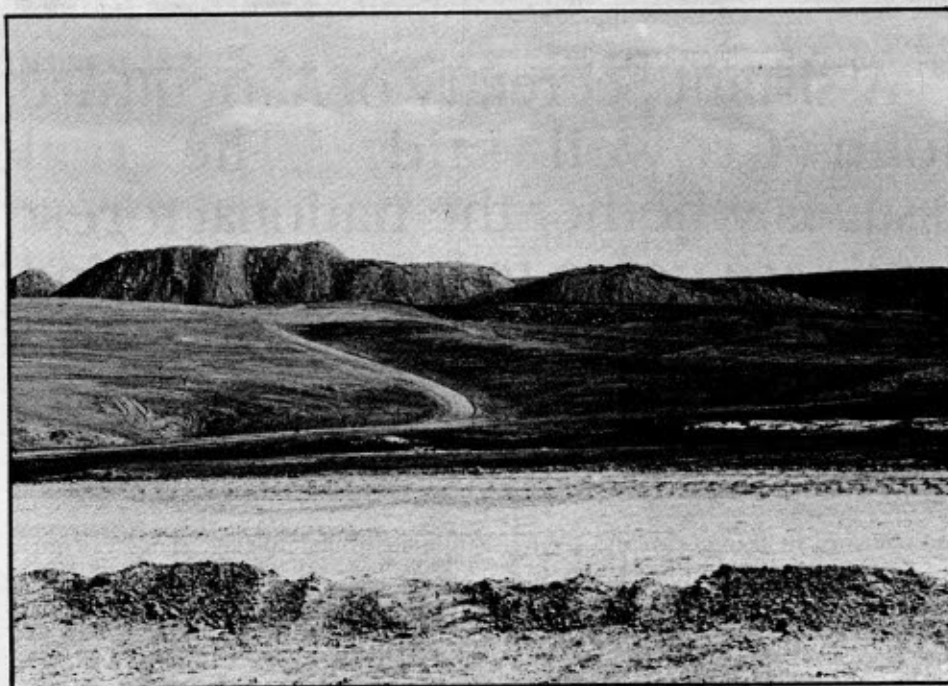
The staff in Denver is responsible for providing states with technical assistance when they ask for it, but the states make their own conclusions, explained Keith Kirk. In the past, OSM would offer its conclusions and recommendations.

Kirk said the work load wasn't reduced when the change in offices occurred and he said the Denver office is severely overtaxed. However, he said there is a possibility the Denver staff will increase.

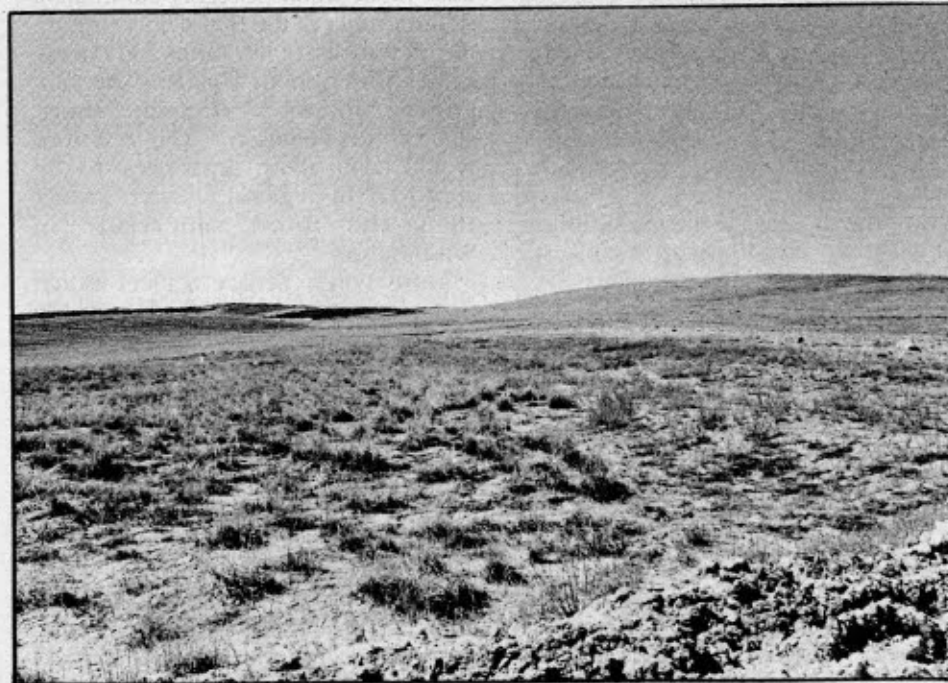
Is there a need for continued stringent federal guidelines for reclamation? Probably so, because as Don Hartley said, the companies' goal is compliance and compliance is driven by regulations. It is yet to be seen if current state-of-the-art reclamation methods are the best guess.

"We're doing the best we can with scientific data, but it (reclamation) is still a guess."

— Keith Kirk, Denver OSM



Reclamation efforts at the Bridger Coal Mine near Rock Springs, Wyoming. Above, two reclamation plots are divided by a road. On the left is a plot seeded this year, on the right, a plot seeded last year, with sparse vegetation showing. Below is a four to five year old reclaimed area where irrigation was used. The hill to the far right was not irrigated.



Forests...

(continued from page 16)

sabotage hopes for a balanced application of the multiple use concept in the forest planning effort. The net effect, they said, will be to restore timber harvest to its former primacy, thus destroying years of effort to reform the Forest Service through the legislation of the 1970s.

The Reagan administration apparently does place a high value on timber harvest. In establishing its "levels of achievement" for the Resources Plan-

ning Act goals, the administration specified an 80 percent sale of available timber, while only calling for 50 percent of recreation potential, 40 percent for fish and wildlife and 30 percent for soil conservation.

At the same time, Forest Service Associate Chief Doug Leisz is proposing the production target increase in the annual timber harvest of from 12 billion to 14 billion board feet in the next few years. In contrast, only 8 billion board feet were harvested in 1981 from national forests, down from 10.4 billion in 1979. Poor demand for timber products has been the reason for decreases.

Currently, however, 34 billion board feet of timber are still standing on the forests — sold but not cut — due to weak demand.

Wyoming is also facing the Wyoming Wilderness bill, which should come before Congress in late summer or early fall, about the same time as the National Forest Management Act regulatory changes appear in their final form.

The Wyoming Wilderness bill contains very strong "release" language — provisions that land not designated wilderness be managed for multiple use. But if "multiple use" threatens to regress again to "dominant use," as the

conservationists fear, then the study team's new analysis and recommendations will be clear signs of the management direction on Wyoming's national forests in the 1980s.

+++

Tom Wolf is Legislative and Forest Policy Chairman of the Colorado-Wyoming Chapter, Society of American Foresters. He is also Executive Director of the Wyoming Outdoor Council in Cheyenne, Wyoming. This article was paid for by the HCN Research Fund.

...and the feds change forest budget and rules.

by V.M. Kahn

"Productivity and economic efficiency" are the bywords for a two-pronged offensive launched recently by the Reagan administration to increase the amount of timber cut in the nation's 191 million acres of national forests. "We want the national forests to contribute more to the national economy," said Matt Mathes, a U.S. Forest Service public affairs specialist in Washington, D.C.

The program includes budget proposals which will give the Forest Service's timber sales and road construction programs hefty increases, while timber research, and soils and watershed management face budget reductions. It also proposes revisions to Forest Service planning regulations which would add "net public benefit" as the prime criterion by which management alternatives are evaluated.

While environmentalists and some representatives in Congress are expressing outrage and concern about the double-edged thrust to increase cutting, Forest Service staffers generally maintain the budget and rule changes are "insignificant."

Nevertheless, budget proposals put forth by the Department of Agriculture call for a \$1.37 billion budget for the national forest system in 1983, an increase of \$70 million over 1982. Timber sales management would receive a \$29.9 million increase to \$188.2 million while the Forest Service's road construction budget would receive an increase of \$43 million for a total \$297 million budget.

Forestry research, timber stand improvement, and soils and watershed management, however, would all lose money, in some cases up to a quarter of their funding. "It is absurdly illogical and irresponsible to cut the very programs which offer protection to the forest resources threatened by...logging activities," charged Rep. Jim Weaver (D-Ore.) at a recent House subcommittee hearing in Washington.

However, Assistant Secretary of Agriculture John B. Crowell, former general counsel for Louisiana Pacific — the largest purchaser of federal timber — told the *Washington Post* that "the real issue is whether the national forest lands are going to be managed and productive or unmanaged and unproductive."

The second front of the administration's offensive is an Agriculture Department proposal revising the land management planning regulations, an effort led by former National Forest Products Association staff member Douglas MacCleery who is now a deputy assistant secretary of agriculture. Under laws passed in the 1970s, a comprehensive planning and assessment program was set up for the nation's forests. A 1985 target date has been set for completion of these plans.

Under the revised regulations, planning programs must be designed to "maximize net public benefits." The former regulations stated simply that plans should provide for multiple use



Jackson Hole News

Assistant Secretary of Agriculture John Crowell said, "The real issue is whether the national forest lands are going to be managed and productive or unmanaged and unproductive."

and sustained yield of goods and services (that is, the forest must be able to provide high-level annual or regular periodic output of its resources in perpetuity). Under this new criterion, all alternative plans for managing the forest whether for timbering, wildlife protection, scenic vistas, hiking or fishing, must be evaluated against the value of the full production of those resources which are quantifiable in monetary terms. Timber harvest levels in such an assessment are not constrained either by the requirements of sustained yield or the demand that trees reach a certain age before being cut. Any alternative except for timber cutting, then, would detract from the ability to maximize timber production.

However, because of the implications for old-growth forests in the Northwest, the revision which has generated the most controversy is a provision directing planners to consider and formulate departures from long-term sustained yield policies whenever "an increase in net public benefit would be expected." Under the old regulations, departures were allowed only in three carefully defined situations.

"This flies in the face of the whole history of our forests over the previous century, which has been to restrict cutting levels so that the forest cannot be depleted," charged National Audubon Society Vice President Brock Evans. "This most dangerous new provision opens up the way to great abuse and

ultimate 'timber mining' on many of our forests."

Indeed, John Crowell told the *Post* that "the so-called even-flow policy is absurd when you are dealing with an old-growth forest that has a larger inventory than can be accommodated under even-flow...These forests have been under-harvested in the past."

However, noting that the wood in old-growth forests is of higher quality than most woods, Gregory Skillman, a staff member of the House Subcommittee on Forests, Family Farms and Energy called the rush to liquidate the old-growth forests "extremely short-sighted economically." The revisions would also allow departures to be approved by regional foresters rather than the forest supervisor in Washington.

Most Forest Service staffers noted that alternative analyses had normally been done under the old regulations and that such analyses are often quite useful. Having the regional forester approve departures will help streamline the decision-making process, they said, and in many cases, the regional forester is closer to the situation and thus better able to make decisions than the supervisor in Washington.

Serious reservations have also been expressed about changes in the regulations mandating the maintenance and improvement of habitat for "management indicator species." Under the new regulations, habitat for "selected spe-

cies shall be maintained and improved in accordance with directions established in forest plans." The National Wildlife Federation charged that "these proposed regulations would permit the sacrifice of important wildlife habitat to accommodate commodity extraction... (and) will facilitate brushing aside wildlife in the rush to obtain timber and minerals."

The revisions would also limit to 5,000 acres or more lands that can be considered for wilderness designation once forest plans are revised. "This proposed change is illegal, runs counter to past policy, violates congressional purpose and makes poor policy sense," charged Peter Kirby of the Wilderness Society.

The Forest Service has also increased the time limit for revision of forest plans from a minimum of 10 years to a minimum of 15 years. "This would allow for a 50 percent increase in the time period for roadless areas to be developed and disqualified for wilderness before they may be studied again," Kirby said. Other revisions would limit public participation by allowing the Forest Service officer to "deny part or all of a request (for public input) if complying with the request would unreasonably burden, inhibit or interfere with the planning or decision-making process."

While most agency planning staffers said the proposed revisions simply "streamlined" and made more understandable complex regulations, one forester in the Northwest regional office admitted that "total changes are significant."

Yet, a forester in Denver noted that most national forests have an active timber management program anyway and that the tradeoff evaluations mandated under the National Forest Management Act and the National Environmental Protection Act which identify nonquantifiable amenities, such as wildlife and recreation, are still in effect. "It's important to do an economic analysis," he said, "as long as both factors, economic ones and nonquantifiable amenities, are considered objectively. If you make a decision to emphasize amenities, they will fare well against the economics."

However, as House staff aide Greg Skillman noted, "the pressures are there to produce timber. Being able to say that you've increased habitat for woodpeckers may not be the best way to achieve a promotion these days."

"Ultimately, policy decisions on which resources to emphasize are made by the administration," a Forest Service staffer in Washington noted. "Where the administration comes in is in looking at their program in terms of economic options." As the Forest Service's Matt Mathes pointed out, "The 1983 budget does call for increased timber cutting."

The budget proposals must still go before the House Appropriations Committee. The new regulations are expected to be adopted this fall.

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V.M. Kahn is a freelance writer in New York.

OPINION

Being "reasonable" in Utah

It is rare that an environmentally-oriented publication like this one has anything nice to say about Sen. Jake Garn (R-Utah). It is therefore with great pleasure that we commend him for his current efforts to insure adequate environmental analysis before the U.S. Department of Energy puts a high-level nuclear waste dump in Garn's home state (see Western Roundup in this issue). The senator is planning an amendment to the Nuclear Waste Disposal Act that would require a full environmental impact statement on the proposed waste repository before DOE decides to sink a \$50 million exploratory shaft.

Utah Gov. Scott Matheson (D) has recommended this EIS for some time. Though he won't say so publicly, Matheson has become increasingly skeptical about DOE's responsiveness to his state's concerns.

The underlying fact is that nobody really wants to become the nation's nuclear graveyard. However, of all the states that are targetted, only Utah is being "reasonable" about it. That is, all the others — Texas, Louisiana, Mississippi, even Washington — have told DOE flat out to look elsewhere. Utah's politicians are saying, "Well, if it really has to be here and nowhere else is suitable, we'll take it."

Perhaps this attitude stems from the Great Western Inferiority Complex — the feeling that there is this useless desert land out there that we ought to put to use for the national good. And, after all, the nation has to put this nuclear waste dump somewhere. Utah is arguing as though it doesn't have a good case.

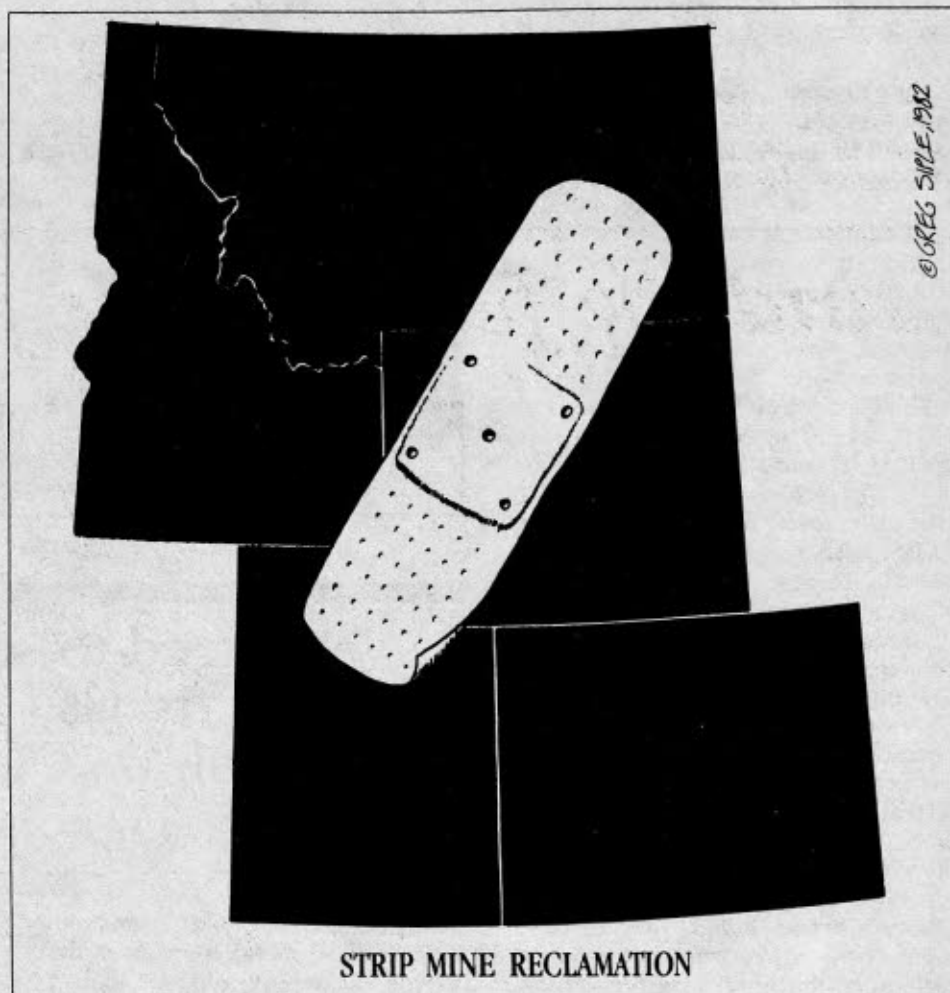
The fact is, however, that Utah may have the best case against siting the dump within its borders. The site deemed acceptable is a mile and half from Canyonlands National Park, one of the most spectacular in the park system. This in itself ought to eliminate the site from consideration. Canyonlands needs a nuke dump like Disneyland needs a smallpox epidemic. In addition, it can be argued — unfortunately — that Utah is already doing its part in disposing of the nation's less desirable substances. It has become the resting place for the weteye bombs at Tooele and is rumored to be under consideration for transfer of the Rocky Flats nuclear weapons facility from Colorado.

Nevertheless, it is one of the cardinal sins of Utah politics to appear less than, well, politic. Garn, like Matheson, is being "reasonable." Using a tactic long deplored in the conservative community, he wants to study the problem to death, rather than deal with it directly. He will make a great show of weighing all the evidence, exploring all the avenues, checking all the options. Once this is done, he will no doubt find a position so overweight with compromise that it will collapse into a quivering mass on the floor, allowing the uncompromising to walk over it.

We shouldn't be too hard on Garn, though. He is an intelligent, honorable man. But he and Matheson are facing the accumulated debris of 20 years of shortsighted U.S. policy on nuclear power. Waste disposal is the Achilles heel of the nuclear power industry. The term "waste" itself is a rather tame euphemism for the most dangerous substance made by man — short of that which actually blows up over cities. In our infinite wisdom, we have gone on creating it without having the foggiest notion how we are going to isolate it from the biosphere for the requisite 10,000 years or longer.

Indeed, Garn now finds himself in an uncomfortable position because he has been a supporter of nuclear power. In one of the key Senate votes of 1979, he voted against a resolution that would have put a moratorium on the issuance of new licenses for nuclear power plants. This may at least have done something to stem the future flow of hazardous material and saved another state from the delicate adagio that Utah is now doing.

The congressional Office of Technology Assessment said the other day that nuclear waste's only problem is one of public relations. OTA said that no one believes that the



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government is capable of dealing with the problem, but that there are no insurmountable technical problems.

We hate to be the bearer of bad tidings, but someone should inform OTA that neither the government nor anyone else has successfully handled this material for the requisite amount of time. One wonders how OTA would have speculated on the survival of human beings in a report written 10,000 years ago.

Matheson, in the rush to be reasonable, has said that if no other site is really acceptable, then Utah will take the dump. In addition, we presume, he will accept the site that DOE picks for him, a mile and half from Canyonlands.

Well, if Utah's political leadership won't say it, maybe we can. This whole thing is insane. It is stupid. It is irresponsible. It makes no sense. Zero. Put it somewhere else.

— DSW

LETTERS

HCN SPLURGE

Dear HCN,

Sitting here in the seventh day of overcast skies, rain and high winds on the Oregon coast, HCN in hand. You've sent notice of this being the last copy and, it being so, decided to sign on for another year.

Winter storms started in November with a big blast on Friday the 13th that was just the beginning. Indeed, Oregon has rain! And wind, and hail and even three snowstorms.

Having spent far too many days indoors, I spent a recent evening perusing the HCN of March 19th, and after carefully counting pennies and balancing the checkbook, decided to splurge.

Mainly after laughing my way through "Devil in the Woodwork," appreciating Greg Siple's ability to smile at a nuclear dump, and finding so much useful information in Barbed Wire and Bulletin Board, I realized you are the best environmental news around.

Roger H. Brooks
Newport, Oregon

NOT MODERN

Dear HCN,

Moderate squalor, dammit! (HCN, letters, 3/19/82).

Doug Long
New Concord, Ohio

SUBWAYS AND SEQUOIAS

Dear HCN,

That blend of aesthetics, humor and lofty historical precedent to discuss a subject as misplaced and inappropriate as graffiti made the article by Dan Whipple a pleasure to read (HCN, 3/19/82). But to keep the spirit of the activity so respectfully treated — especially by those subdued, low contrast photographs by Dale Schicketanz — some mention should be made of the New York City subway trains. These are seven to 10 cars of overall, wrap-around, inside-outside expression of color, raucous design and calligraphic flourish that, whenever a train comes rattling and roaring into one of those fluorescent gray stations, puts a whole new edge on the idea of grace in motion. It may not be worth the trip, but is surely one of graffiti's finer moments.

Also, a personal favorite graffiti experience: carefully carved name and date inscriptions from the 1860s on an inner wall of a sort of interior chamber formed within the burned-out trunk of an enormous specimen of a sequoia tree. The old inscriptions are higher up than the more recent, and more casual, ones, but to look up at those dates within the trunk of a tree that was a seedling sometime B.C., and burned before written memory, with the remains of the trunk closing in on you from above, was to lose track completely.

Hollywood, California
Jacqueline Wolff



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Wyoming reviews national forest management...

by Tom Wolf

Controversy over two western Wyoming timber sales has prompted Gov. Ed Herschler (D) to call for a re-examination of forest management policy on the Bridger-Teton, Shoshone and Big Horn National Forests. In response to the request, originated by the State Forestry Advisory Committee, the Forest Service has funded the Society of American Foresters to re-activate the Wyoming Forest Study Team.

The team was originally organized in 1971, when it completed a report entitled "Forest Management in Wyoming." That effort led to a number of changes in forest management, many of which were incorporated into the National Forest Management Act of 1976.

The revived team is charged with examining how well these changes have worked by undertaking a "thorough, objective and impartial analysis of the situation."

The study team has four major tasks: review the effectiveness and application of the 1971 recommendations; explore current concerns of interested organizations and individuals; review current timber activities in light of legislation, regulations, directions and current technology in the planning, preparation and administration of timber harvest, and develop recommendations regarding any needed modifications to current timber management practices.

Controversy over timber policy in Wyoming is not new. The 1971 team concluded, "The problem has been to translate policy into practice by changing traditional attitudes toward the dominant place of timber harvest in forest values." The "traditional attitudes" were the predominance of timber harvesting, sometimes at the expense of other values, including wildlife, watershed and wilderness.

From a technical forester's point of view, the 1971 report is a useful document. It contains clear photographic evidence of poor Forest Service timber harvest practices, along with suggestions for improvements. Furthermore, most of the recommendations are now law. The Resources Planning Act of 1974 and the National Forest Management Act of 1976 were passed when the clearcutting controversy so familiar to people in Wyoming spread throughout the country to places like West Virginia, Texas and Idaho. In fact, the legislation governing the Forest Service's actions and limiting its professional discretion probably changed more during the 1970s than in any previous decade.

The report called for a continuation of clearcutting on lodgepole pine forests "where it is a sound silvicultural harvesting method and in harmony with the management objectives for the unit of land."

But the recommendations also called for blending timber harvest practices into a broader land management framework. Where management objectives include uses other than timber harvest, the study team recommended silvicultural practices "such as seedtree and shelterwood cutting and overstory removal." Seedtree harvesting leaves some trees in a timbered area to provide a seed source for new growth. In shelterwood harvesting, the logging company enters the stand in stages, cutting some of the trees, allowing regeneration to establish itself and then cutting the remainder. Overstory cutting takes the overmature trees, releasing younger trees for faster growth. All are far more expensive than clearcutting.

The report also suggests limiting clearcutting in Englemann spruce and



Jack Creek area, Bridger-Teton National Forest, Wyoming

"We need to see that timber management is also a general management tool."

— Wyoming State Forester Carl Johnson

subalpine fir zones until satisfactory regeneration practice have been developed. The report said, "The forests should consider a light selection cutting or 'pussyfoot logging' on low-yield sites."

In a section entitled "Modifying Clearcutting Methods to Protect the Environment," the study team showed particular concern for water quality, landscape design, wildlife and recreation values. Roads received special attention, particularly the need to distinguish between temporary and permanent construction and to control the temporary environmental effects of roads, such as slumping and sedimentation.

The team also said the public should be closely involved in the planning process. "The forests and regions should evaluate timber harvest areas that have drawn repeated public criticism and begin major rehabilitation programs where necessary to improve the visual image and protect other resource values."

"Repeated public criticism" is a reasonably accurate description of the controversy surrounding the Jack Creek and Klondike Hill timber sales. The areas are located on the Bridger-Teton National Forest near Pinedale in western Wyoming. The Forest Service completed an environmental assessment in late 1981, indicating its intent to proceed with the sales. The uproar hasn't died yet.

Both areas are RARE II (second Roadless Area Review and Evaluation) roadless areas, but neither was included in the Forest Service wilderness recommendation "partly because of the interest in timber activity there," according to Fred Kingwell, public information officer for the Bridger-Teton National Forest. Environmentalists did include the areas as part of the Gros Ventre proposed wilderness in their alternative proposal.

The Forest Service has proposed selling a total of about 10.4 million board feet on 546 acres in the two areas. The Jack Creek sale would be 6.8 million board feet on 416 acres and Klondike Hill, 3.6 million board feet on 230 acres. The sales are moderate-sized by Bridger-Teton Forest standards, but small when compared to sales in the timbering regions of the Northwest.

The EA on the sale was appealed to the regional forester. Five groups appealed the Jack Creek sale and one

the Klondike Hill sale. The appeals emphasized some of the issues the first study team addressed. They are concerned about the impact of the cutting on floodplains and wetlands near the sites and on wildlife habitat. They also objected to plans for roads, a concern addressed by the 1971 study team and of interest to local citizens and wilderness advocates. A large portion of the local population told the Forest Service in public hearing it wants to keep the areas roadless, though few are calling for a formal wilderness designation. Wilderness advocates want the area as a designated wilderness. Obviously, timber roads would eliminate both options.

A decision on the appeal is still pending. The regional forester has set September 1 as a deadline.

None of the affected parties will admit openly that the Forest Service's handling of the Jack Creek and Klondike Hill sales was the impetus for the re-evaluation of forest management practices. Asked why it was necessary to bring the team back now, team member Jack Schmautz said, "There is no intent to undercut the Forest Service or intervene in the planning process."

Bart Koehler of the Wyoming Wilderness Association, which is one of the appellants, said, "We're glad to have the study team back in action. It was the Wyoming Wilderness Association's appeals that started all this. However, the lack of understanding that we are right in the middle of the wilderness bill fight shows that the team might be out of touch with Wyoming forest issues." The Wyoming congressional delegation has recently proposed a state wilderness bill that is immersed in controversy (HCN, 3/19/82).

Schmautz said, "We will focus on the technical questions and on physical management. And, we will be looking for objective and factual comments from the public on the Forest Service's response to our 1971 recommendations."

Schmautz added that the team is well aware of the continuing controversies over Forest Service timber management policies in Wyoming and he said the sites of the Jack Creek and Klondike Hill sales will be included for visits.

Since 1971, as illustrated in part by the two Wyoming sales, the focus of debate over timber harvesting has changed. Before 1970, a 1,000-acre clearcut was not an unusual site in the

wake of timber activities. None of the clearcuts on either of the two Wyoming sales will exceed 40 acres.

However, Schmautz believes the focus of contention over the years has changed from the actual harvesting practices to the question of whether certain roadless areas should be logged or included in wilderness. "However," said Schmautz, "the team will not be looking at wilderness questions or at the cumulative impact relations between oil and gas development and timber harvest in the Overthrust Belt."

Study team leader Carl Bernsten is director of science programs for the Society of American Foresters. He is a highly respected forest scientist and researcher, with broad experience in silviculture and timber management. Bernsten said, "I don't see how we can avoid looking at the cumulative impacts on the forests of roading systems necessitated by oil and gas development. But we will consider these impacts only as they affect timber management. We have no economist on the team, so we had to draw the line somewhere."

Fred Kingwell, public information officer for the Bridger-Teton National Forest, said, "The 1971 study was a historic event which led to major improvements in Forest Service management of 'key values' such as wildlife, aesthetics and recreation. We agree that it's time for another look at timber harvest in Wyoming and our own internal controls tell us that we have followed the recommendations of the 1971 report. (Bridger-Teton Forest Supervisor) Reid Jackson personally welcomes this review of Bridger-Teton timber harvest practice."

Carl Johnson is Wyoming's state forester and chairman of the State Forestry Advisory Committee, where the proposal for the update originated. The committee will meet with the study team June 17 in Pinedale, center of the timber harvest controversy. Johnson agreed with Schmautz about the team's aims, adding, "Ten years is long enough for them to see if the Forest Service has acted on their recommendations and if the land is recovering."

Johnson does not place much faith in the educational value for the public of the team's report, saying its true value would lie in the areas of basic research and forest science. He said, "Modern forestry has to look at land management, not just sawlog production like we used to do. Even the 1971 team report focused too narrowly on sawlog forestry. We need to see that timber management is also a general management tool, protecting against fire and insect damage and producing more water, better recreation opportunities and better wildlife habitat through vegetative manipulations. The biggest problems we have right now are caused by insects and disease. Large parts of our forests are ready to burn — and burn hot!"

These biological problems are important to the study team, but it will also operate in a highly charged political atmosphere quite different from that of 1971. The fierce local opposition to the Jack Creek and Klondike Hill sales is matched by the Louisiana Pacific Company's equally fierce determination to bid on the sales.

On the national level, the Reagan administration has just announced changes in the National Forest Management Act regulations that could have far-reaching effects on timber harvest in Wyoming. The administration said it intends to "streamline and clarify" the regulations, but John Hooper of the Sierra Club and Peter Kirby of the Wilderness Society claimed otherwise. They said the proposed changes will

(continued on page 14)