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Ailing uranium millworkers seek recognition,aid

by Marjane Ambler

Grace Begay can't leave her husband, Steven, 64, alone. She follows him around the house, afraid that he'll black out again with no one there to help him. As he sits patiently describing his symptoms in Navajo through an interpreter, he holds his arms crossed to still the otherwise constant tremor in his hands. He has seen eight doctors in the past 17 years, none of whom can figure out what's wrong with him.

For 10 years Wallace Martin, also a Navajo, has had trouble with his lungs. When he tries to walk fast, he has trouble breathing. Doctors kept telling him there was nothing wrong until finally they saw evidence of silicosis in his lungs. "That uranium got me," he says.

Henry C'Bearing, an Arapahoe Indian, also has trouble breathing sometimes and says he has felt lethargic for several years.

Most of Bob Haddenham's hair has grown back, and he no longer blacks out in the middle of sentences, but his bitterness has not abated. A resident of Riverton, Wyo., he believes the Eisenhower administration used him and his coworkers as radiation guinea pigs, and he has devoted his limited energy in recent years to completing a file that his wife can use to fight for compensation after he dies.

While these men and others who worked in uranium mills 15 to 20 years ago live hundreds of miles apart, they have a lot in common. At least partly disabled, they share many of the same symptoms — unexplained blackouts, skin sloughing off, constant fatigue, asthma, chronic bronchitis and susceptibility to colds.

When they blame their afflictions on their uranium mill work they are looked at skeptically by peers and professionals. Until now, many of them have hesitated to even try for compensation, because most of their symptoms showed up years after they left the mills.

Doctors, confronted with a confusing array of symptoms, tell them they're diabetic or epileptic or not sick at all. If they are Indian, some people assume their health problems stem from excessive use of alcohol.

Lawyers won't take their compensation cases without statements from doctors saying the ailments were caused by their jobs. But because working conditions in the mills were so much better than in the dogholes the miners worked in, almost no health studies have been conducted on millworkers. So even sympathetic doctors don't have research to back them up.

HELP AT LAST

However, finally someone is listening and saying that these special problems should at least be investigated further. Dr. Leon Gottlieb, a pulmonary

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In the News

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Should coal miners' daughters and sons be warmed by natural gas? Some people in Delta Co., Colo., think that local school officials need a lesson in logic.

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The mountains near Bozeman, Mont., have plenty of deer, but for how long? High-priced homesites are going up, and the deer have no place else to go for the winter, biologists say. Developers counter that a landowner has an inalienable right to make a buck.

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The town of Crested Butte may simply be seeking pure water, but AMAX Inc. is convinced that the town wants to douse its development fires as well. A look at the innocuous ordinance that drove an international mining firm to court.

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Early landscape painters in the West revealed our region's natural wonders to an eager public. While they may have idealized the place, their vision was crucial to its preservation. A look at Albert Bierstadt, Thomas Moran, Charles Russell and Frederick Remington, and their contributions to conservation.

Courtesy Buffalo Bill Historical Center, Cody, Wyo.

Yellowstone Lake by Thomas Moran (1874).

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Schools' refusal to burn coal has local miners heated up

by John Ponce

DELTA COUNTY, Colorado — It's an odd twist on the old saw, "water, water everywhere and not a drop to drink," and a twist that union coal miners here don't like.

It's "coal, coal everywhere and not a stove to burn it," at least as far as the local school district goes.

In a break with tradition, the school district in one of western Colorado's most productive coal regions is building seven new schools, all of them to be heated with natural gas, an imported commodity. The move has not escaped the notice of miners and, some say, federal regulators striving for increased use of coal.

Delta County Joint School District 50, which actually covers minute portions of Gunnison, Montrose and Mesa counties as well, will build a host of new schools in the next two years under a $13.5 million bond issue passed overwhelmingly by voters in May, 1979. All apparently will be gas heated, including the newly furnished elementary school in Paonia, other elementary schools in Delta and Crawford, and high schools in Delta, Cedaredge, Paonia and Hotchkiss.

Though most of the big mines are over the county line in a sliver of Gunnison County at the head of North Fork Valley, the Delta County towns Hotchkiss, Crawford and Paonia have substantial populations of miners.

There are more than 500 miners digging coal at the Bear Mine near Somerset, more than 300 at U.S. Steel's Somerset Mine and about the same number at Western Slope Carbon's Hawk's Nest mines. At the area's only non-union mine, Colorado Westmoreland's Orchard Valley Mine near Paonia, about 100 work underground.

Aside from some miners living in the finger of Gunnison County at Somerset — still in the school district — most miners call Delta County proper their home, and the schools in Paonia, Hotchkiss and Crawford reflect a mix of mining and fruit-growing families.

UMWA DISMAYED

The United Mine Workers of America, representing a sizable portion of this mining population, is most dismayed that school officials have chosen natural gas over coal to heat new schools.

Last April, Joe Voorhees, UMWA chairman in the North Fork Valley, told a school board meeting — which did not have "school heating" on the agenda — that coal would be a wise choice for area schools. He had heard that the district was considering natural gas.

"We feel with all of the revenue that is generated in this county, not to say the large payroll (from coal production)...that a little more consideration should be given to coal in heating these schools," Voorhees told the five-man school board.

In a county where a UMWA strike two years ago heightened tensions between union and non-union mines, veteran UMWA member Plouvier nevertheless used Colorado Westmoreland data to illustrate some of his points.

He asserted that working within the school district are some 680 miners, with 118 other persons employed in direct support services. He quoted the estimated 1979 Colorado Westmoreland Orchard Valley Mine property tax of $462,318; $115,836 from the coal-hauling Denver & Rio Grande Western Railroad's property; some $123,520 in property taxes from U.S. Steel's Somerset Mine holdings in Delta County; and $59,096 from the dormant Adolph Coors Bowie Mine, about five miles from Paonia.

In addition, the school district received some benefit from $245,942 in property taxes from mine and other real property in part of Gunnison County that lies within the school district.

By comparison, argued Plouvier, Rocky Mountain Natural Gas, potentially the main supplier of natural gas to the district schools, had paid some $19,380 in property taxes during the same 1979 period.

Voorhees stressed that the UMWA and miners were not simply asking for the dollar support of the school district, but for the symbolic promotion of Western use of coal as an energy source. "If this industry's not promoted locally, then what are you going to do?" asked the union leader.

He noted that eastern markets for area coal are dwindling with conversion of power plants to "scrubber-type" boilers that eliminate the need for the cleaner-burning, but costlier-to-ship Colorado coal.

District Superintendent Dr. Robert Frossard responded that up-front funding of coal heating in seven new district schools could not be afforded under the school bond package.

Photo by John Ponce

NICOLE PIERCE, seven, with a hunk of locally-mined coal in front of the recently built grammar school in Paonia, Colo. Several schools under construction in coal-producing Delta County, including Paonia's, will be heated with natural gas.

He said that coal-burning equipment would cost the district roughly $100,000 more than currently anticipated by the building program, with another $50,000 going for secondary costs like roads for delivery of coal stocks and added custodial care.

He cited evidence that coal heat required more expensive maintenance and produced some safety problems, especially during coal delivery. "It seems it's more difficult getting people who can run a coal furnace," added Frossard.

Finally, he argued that the school district would not be that big of a coal customer. "From a standpoint of the (coal industry) workers, I don't think it would make a great difference in your economy," said the superintendent.

School board trustee chairman Jerry Osborne said that the district remains supportive of the coal industry, but has to look out for current tax dollars spent on the building program.

Meanwhile, militant coal miners are mounting a campaign to rid their region of dependency on ever-costlier imported fuels like natural gas. The fight to retain coal heat in neighborhood schools is an opening skirmish.

The UMWA is less concerned with the dollars the mines would earn if coal were burned in schools than it is with the symbolism of heating local buildings with local coal.

FEDERAL SUPPORT?

Delta County UMWA organizer Marvin Romero of Paonia said early in July that the union's national leaders approached an unnamed federal attorney in Washington, D.C. in a search for legal means to block further natural gas heat installation in six other schools yet to be built. Speaking cautiously of the federal attorney, Romero said, "He jumped right at it (the possible case against the school district)." However, to date there has been no federal action.

Drawing a line of logic from a domestic energy Executive Order signed June 18 by President Jimmy Carter, Romero argues that federal support for Delta County's public schools might give those school districts quasi-federal status, thus making them subject to the edict of the Executive Order.

That order, released by the office of Presidential Press Secretary Jody Powell, was designed to "promote the conversion of oil-and-gas-burning federal facilities to coal and other alternative fuels."

Romero believes the Executive Order might be extended, in court actions like the one contemplated by the UMWA, to enforce the continued use of coal where capabilities exist.

And, he says, future litigation may move to include state and local government agencies funded in part by the federal government — arguably, including school districts such as Delta County's.

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John Ponce is co-publisher of the **Paonia Herald** in Paonia, Colo.

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Crested Butte water ordinance immersed in AMAX court challenge

by Heather McGregor

GUNNISON, Colo. — Less than a month after Crested Butte, Colo., passed an ordinance aimed at protecting its watershed, city leaders find themselves facing AMAX, Inc. in court.

AMAX, one of the largest mining firms in the world, hopes to dig for molybdenum on private land within the new 19,000 acre watershed district, which means the company would be required to obtain a permit from the town.

"Our only alternative is to go to the courts," said Mike Rock, the project's community affairs manager. "We have a mine up there, a business interest. We won't abandon that interest and we won't hesitate to protect it."

The ordinance was passed unanimously by the Town Council July 21, after town attorney Ron Landeck and special attorney Wes Light spent nearly a year writing drafts, holding public hearings and talking with Colorado water attorneys.

It requires private landowners within the district to obtain permits for various activities that could pose a threat of pollution to the watershed, including excavation, mining, drilling, altering water courses, removing vegetation and cutting timber. If a project's impacts can't be mitigated, the ordinance gives the town the right to turn it down.

The cost of processing the permit will be borne by the applicant. "Fast-track" permits for obviously minor impacts will be processed within 45 days, while permits for major impacts will take six months, according to the town.

"CATCH-22"

Most town officials thought AMAX would wait to file for a permit before taking court action, but the company sees itself in a "Catch-22" situation that requires an immediate decision by the courts.

The Colorado Water Quality Control Department is requiring AMAX to construct a water treatment plant to clean up mine water flowing from an old mine near Crested Butte. If AMAX doesn't comply, the agency will begin fining it for non-compliance next July.

Yet company officials feel that construction activities on the treatment plant and other activities that will keep its mining claims valid are prohibited by the watershed ordinance.

Caught between what it sees as conflicting requirements of two governmental agencies, AMAX has turned the decision over to the courts, rather than applying directly to the town for a permit.

Light said he doesn't understand why AMAX did not apply for a permit and wait for the town's response. The multi-national mining company must obtain 33 other permits from various governmental agencies before it can proceed with the molybdenum project.

"Apparently AMAX assumed that their activities would not be permitted under the ordinance," Light said. "But there's no proof of that at this point."

Rock argues that the ordinance does not guarantee a permit for every application.

"Usually you have certain assurances that if you follow the standards outlined in regulations, then you will receive a permit. But there is a lot of discretion on the part of town officials as to whether or not to permit these activities," Rock said.

"Apparently they don't think they can meet those standards," Light said. The ordinance was inspired by a Colorado statute that gives the state's municipalities the right to protect their watersheds. That law has been challenged only once, when the Durango city council tried in 1904 to shut down a pigsty on the Animas River above town. The State Supreme Court upheld the city's case.

Photo by Sandra Courtner

WES LIGHT AND RON LANDECK, authors of the watershed ordinance that drove AMAX to court.

Light said the thought of protecting Crested Butte's watershed first surfaced in 1975, three years before AMAX discovered the high-grade molybdenum deposit nearby in Mt. Emmons. In that year, the tailings pond at the old Keystone Mine broke open, leaking toxic mine wastes into Coal Creek and the town's water supply.

> **"We have a mine up there. We won't abandon that interest."**
>
> **— AMAX**

"People think this ordinance is aimed at AMAX, but our concern for the watershed predates AMAX coming in. If AMAX leaves tomorrow, we'll still have to do this. There are literally dozens of other actions that could pose a problem to the watershed," Light said.

PUBLIC LAND PROBLEMS

While the Crested Butte ordinance affects all private land within the watershed district, it does not control activities that occur on public land, which takes up 90 percent of the district.

To protect the watershed's public land, the town has requested withdrawal status for the land through the U.S. Forest Service.

In March, Gunnison National Forest Supervisor Jimmy Wilkins told the Agriculture Department that the withdrawal was not necessary, primarily on the grounds that prior laws protect the water supply, that previous mining has not degraded the water and that the cost to the government for the withdrawal would be equal to moving the town's water supply.

The final decision, though, rests with the secretary of Agriculture. Assistant Secretary Rupert Cutler sent a letter to Wilkins in June which called the forest supervisor's environmental assessment of the proposed withdrawal inadequate.

Cutler has turned the assessment back to the Forest Service for a closer look, and in the meantime he has directed the Forest Service to "aggressively enforce all laws and standards in effect to protect the drinking water supply of the Town of Crested Butte."

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*Heather McGregor, a former **HCN** intern, is a reporter for the **Gunnison Country Times**. This article was paid for by the HCN Research Fund.*

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specialist formerly with the Shiprock Public Hospital in New Mexico, and Joseph Wagoner, a Public Health Service researcher in Washington, D.C., have convinced Arizona attorney and former Interior Secretary Stewart Udall to represent two Navajo millworkers. William Tsosie and Elvin D. Smith have now joined the 65 uranium miners who are suing the federal government and uranium companies for compensation.

Like the miners, these men helped produce uranium for the nation's nuclear defense program in the 1950s and '60s. After the miners dug uranium out of the ground, it was sent to nearby mills to be crushed, ground, treated chemically with acidic or alkaline solution and extracted from the solution. The final product, yellowcake (U_3O_8), was then dried and packaged for shipping to enrichment plants in the East. Then, as now, most of the mills were in New Mexico, Colorado, Utah, Arizona and Wyoming. Several were on land bought or leased from Indians — in Riverton, Wyo.; Mexican Hat, Utah; Shiprock, N.M.; and Monument Valley and Tuba City, Ariz. Many mills, including these five, closed down in the 1960s, when the nation had stockpiled enough uranium for its defense program.

Millworkers must wait their turn for compensation behind uranium miners and victims of radioactive fallout from atomic tests.

The number of millworkers disabled during that era doesn't approach the number of miners, 600 of whom have been screened by the Shiprock Hospital alone. But Udall and community health representatives on the Navajo Reservation are convinced there are many more sick millworkers than have surfaced so far.

When Udall began investigating the potential for a millworkers' suit, he found that in the late 1940s, when people first became alarmed about uranium workers' exposures to radiation, both mines and mills were a concern. It was only later, when money and investigating manpower were scarce, that the spotlight focused on the miners.

EARLY STUDIES

A front page story in the **Denver Post** on July 8, 1949, on an inspection by federal officials of the Naturita uranium mill was headlined: "A-Plant Fumes Lethal in Hour, say Officials." The article created such a furor that, according to a memo by Duncan A. Holaday, an industrial hygienist with the U.S. Public Health Service, it was "unadvisable" to survey the other uranium mills at that time. The article described mainly the non-radioactive toxic chemicals in the air, but as a result of the story, several workers from Naturita and other mills wrote to the Colorado health department inspector describing symptoms that indicated silicosis (scar tissue in the lungs) or radiation poisoning.

When other mills were subsequently surveyed, operators were assured the information would not be released in the newspapers. The reports are now stored in the files of the National Institute for Occupational Safety and Health, but according to NIOSH officials, "Great care was taken not to identify the mills." Consequently, the reports are of little use for litigation.

Holaday, who conducted many of the inspections, has since retired. Except for silicosis, he doesn't think millworkers contracted diseases from their work. The dust in the mills, which under certain conditions could be carried into the lungs and cause damage, was not that difficult to control, Holaday now says. "Most of the mills did a beautiful job after we ran a few courses for their people on ventilation," he said.

However, some of the older mills — Naturita, Rifle and Uravan — which had been operating since the 1920s, were notoriously dirty, he said. "What they needed most was a new plant.

"Most of the mill operators were trying, but they weren't really competent," Holaday said. "They put in fancy ventilators that just got all the dust circulating, because they hadn't bothered to clean up first," Holaday said.

The mill at Shiprock on the Navajo Reservation was "a real mess," he said. A few years after it closed in 1968, a Navajo cleanup crew found at least $100,000 worth of yellowcake between two layers of roofing, according to Harold Tso, director of the Navajo Environmental Protection Commission. Apparently the dust had settled in the old roof, and no one had bothered to clean it out before a new roof was built over it.

A URANIUM MILL owned by Susquehanna-Western on the Wind River Reservation in Wyoming.

Men who worked at various mills tell of stirring yellowcake with rakes in open, steam-heated floor pans. They were given cloth respirators to cover their noses and mouths, but sometimes they weren't cleaned, and men would use them still caked with residue from the previous day. Since they often weren't told that uranium could be dangerous, some men wouldn't bother to wear the respirators at all.

In the early years, workers would eat their food in areas thick with the hazardous dust. Men who worked at the Susquehanna-Western plant near Riverton say that the drinking fountain sometimes wouldn't work, and when they took it apart, they would discover that it was clogged with yellowcake. One worker said he would take the mandatory shower at work, but the water was so contaminated that he would take another shower when he got home and leave a yellow residue in the bottom of the tub.

Millworkers stirred the radioactive yellowcake with rakes in open, steam-heated floor pans.

AEC'S ROLE

As early as 1959 the uranium mill operators and the U.S. Atomic Energy Commission were predicting compensation suits, and the AEC reportedly was cautioning mill operators to avoid providing evidence.

According to a memo prepared by Lew Hazen, a consulting engineer for Susquehanna, Dr. G.V. Beard of the AEC told mill operators not to give employees copies of their radiation tests. Hazen's memo was written after a meeting of AEC officials and mill operators in Grand Junction, Colo., at which he quotes Beard as saying that once you admit an employee has been contaminated with radiation, you "get into another category and it would cost everybody an awful lot of money to comply with regulations....Under no circumstances would the AEC tolerate or permit any licensee to admit that any employee had a 'body burden' of uranium."

Beard, now retired in Salt Lake City, says that he did not and would not have said this. "The AEC had pretty good monitoring back then," he says.

Hazen's memo implies that another AEC official gave the operators permission to exceed standards. "Mr. Walker (D.I. Walker of the Division of Inspection, AEC, Idaho Operations Office) said that if a mill could show that concentrations in certain parts of the plant must be higher than MPC (maximum permissible concentrations) he had authority to give, and would give permission to operate under these higher conditions."

Walker, now working for a private organization in Salt Lake City, says that Hazen was wrong here, too. He says he had no such authority and would not have given permission to operate above MPC.

About 10 years later, some of the mills were closing down. A few millworkers were tested to see if radioactive elements had been deposited in their lungs, but nothing was found. Wagoner and Dr. Victor Archer of the Public Health Service's NIOSH studied 104 former millworkers who died prior to 1968 and found three more cases of cancer of the lymphatic and hematopoietic tissue than would have been expected. However, since the study group was small, Archer says the results were considered suggestive but statistically inconclusive.

NIOSH started a larger study of millworkers' deaths in 1971, but it was dropped for several years because of higher priorities, principally the uranium miners. By then attention was focused on radon daughters (decay products of radon) as the principal radiation problem among uranium workers, and these radionuclei were thought to exist only in the mines.

Now, more than eight years after Wagoner and Archer warned of health problems associated with mill work, the government is resuming its studies of this occupation's hazards. The Nuclear Regulatory Commission has just funded McDonald E. Wrenn of the University of Utah Medical School to study lung tissue from deceased millworkers. Wrenn says that the radiochemical techniques he will be using are much more sensitive than previous methods and may find evidence of contamination that earlier studies of live workers' lungs missed.

Coincidentally, Dr. Richard Wax-

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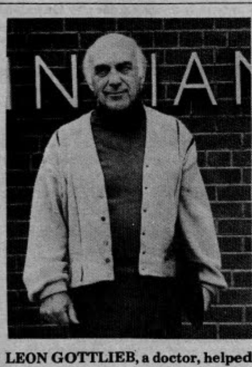

LEON GOTTLIEB, a doctor, helped convince lawyer Stewart Udall to take up the cause of two ailing Navajo uranium millworkers.

BOB HADDENHAM believes the Eisenhower administration used him and his co-workers as radiation guinea pigs.

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weiler of NIOSH is reviving the agency's study of millworkers' deaths that was dropped several years ago.

Such studies are crucial to attempts by millworkers to get compensation. While the health effects of radiation have been widely studied, the research has not found diseases peculiar to this cause. In other words, the victims get lung cancer, leukemia, bone cancer, skin cancer, but so do people who are not exposed to excesses of radiation. Radiation victims also age faster, and their natural immunities to other diseases are broken down.

As the AEC told Congress in 1960, "It is impossible for a workman's compensation program to provide compensation for all cases of occupationally connected diseases or disabilities without also providing compensation for nonoccupationally connected cases of disease or disability in several major classes of diseases."

Consequently the burden of proof is on the employee to show the connection.

WAITING THEIR TURN

While these new research efforts and Udall's suit are hopeful signs to some of the disabled millworkers, they realize the benefits — if any — are several years away. Their numbers are smaller and, generally speaking, their problems less severe than the miners'. For now, they must wait their turn for medical and legal attention.

Udall and his associates have all they can do to represent uranium miners and nuclear test fallout victims in the region, and the Indian Health Service staff in Shiprock has been strained beyond its limits just to screen all the miners who have shown up. Funding ran out a few weeks ago for Dr. Gottlieb. He is well liked and respected by the uranium victims, who circulated petitions asking the IHS to extend his stay. But the IHS could no longer pay him, and in fact other staff cuts were necessary because of the costs of screening the miners, according to Dr. Neil Gordon, chief of medicine at the Shiprock Hospital.

"The horror of this is that it isn't over," Udall says. "We can't just say we've picked up the wreckage and it's over. I just got a call yesterday saying another Navajo miner had died. The work is going to go on and on...We just must be patient."

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Marjane Ambler, a former managing editor of **High Country News**, is a free-lance writer in Lander, Wyo. This story was funded by a grant from the Alicia Patterson Foundation.

Sypes Canyon

Subdivisions slice up Montana deer haven

by Ken Western

BOZEMAN, Mont. — As many as 7,000 deer spend their winters in the Bridger Mountains near here.

But developers are rapidly transforming their habitat into high-priced homesites. While the number of animals displaced so far is small here, the problem is widespread, sparking controversy in communities all over the Rocky Mountain region.

The issue is residential growth at the expense of critical wildlife habitat. Triggering this particular debate is a proposed subdivision northeast of Bozeman that overlaps a major deer winter range.

The controversy over Sypes Canyon Subdivision No. 1 has been marked by extensive local media coverage, public meetings and a lawsuit filed last year against the Gallatin County Commissioners by the Montana Wildlife Federation and the Gallatin Wildlife Association. The plaintiffs have appealed the case to the Montana Supreme Court after a lower court ruled that the subdivision was lawfully created.

Preservationists characterize the issue as one of "public need versus private greed," while developers assert that a private landowner has the right to enjoy a reasonable (and sometimes spectacular) gain on an investment.

At the center of the controversy is Michael Copeland, an economist at Montana State University in Bozeman who owns 120 acres of land in Sypes Canyon. Copeland hopes to subdivide 58 acres into 27 lots ranging in size from 1.18 to 3.75 acres. The plan was recently approved by the state Department of Health and Environmental Sciences following a preliminary environmental review.

Copeland contends that development of his land will not jeopardize the 50 to 100 deer that winter nearby. He insists that the homes would be built about three-fourths of a mile from the nearest of these animals.

"The probable effect of the subdivision is zero," Copeland says. "If damage has been done, it is the result of surrounding homes, and further development would not worsen the situation."

Copeland doesn't perceive the major issue as one of people-versus-wildlife. "It all boils down to who has the right to do what with the land," he says.

WELL-STUDIED DEER

Considerable information exists on the deer living in the Bridgers, due to 10 years of study by Richard Mackie, 47, a professor of wildlife management at MSU. Mackie's studies, sponsored mostly by the Montana Fish and Game Department, were initiated to help provide the department with guidelines for improved management of deer.

"Existing or planned subdivisions now loom significant in the future of many important deer and other big game populations in Montana," Mackie told the Conference of the Western Association of Fish and Wildlife Agencies this summer. "Some may not survive, especially in western Montana." Mackie views development in this region as a "creeping, growing cancer" that usurps critical habitat and eventually destroys the very qualities of solitude and proximity to wilderness that incoming homeowners seek.

A high density of homes in Sypes Canyon and elsewhere along winter ranges raises the prospect of continual disturbances to the deer from active children, dogs, automobiles, slamming doors, loud music, and other cacophony that is part of contemporary living.

"Disturbances associated with housing developments can greatly alter, reduce or possibly eliminate deer use of an area," Mackie notes. "Mule deer in the Bridger Range exist on a negative energy balance during most winters. They continually use more energy than they can obtain from the food they eat. Thus, they must draw on fat reserves obtained during summer and fall to survive. They also strive to conserve energy by lowering their metabolic rate and by following energy-efficient activity and range use patterns."

"We're losing a substantial resource if we lose any of the winter range areas. There are no other places where the deer can go."

— Richard Mackie

Studies show that the metabolic rate of a deer will increase about 25 percent each time it is forced to rise to its feet because of a disturbance, says Don Bianchi, regional information officer of the state Fish and Game Department in Bozeman. Too many such disturbances may weaken the deer possibly to the point of premature death, Bianchi says.

Fish and Game officials have been among the most vocal opponents of proposed subdivisions in Sypes Canyon, warning that the developments threaten a winter mule deer population of 600 to 700.

Fearing further development in Sypes Canyon, the Fish and Game Department more than a year ago proposed establishing a half-mile buffer zone between the winter range and any new homes.

That idea has not endeared the department to area landowners seeking to retain the option to sell their land at subdivision prices. Within that proposed buffer zone are 35 landowners holding a total of 9,280 acres. About 47 percent of their land is considered winter range.

In meetings with the public, Bianchi and Mackie have emphasized the importance of the winter habitat to the deer. "We're losing a substantial resource if we lose any of the winter range areas. There are no other places where the deer can go," Mackie told one group.

An occasional home in ranch areas won't upset the balance, Bianchi says. "We can live with agriculture. We can't live with subdivisions. Life for the deer in the Bridgers is uncertain and demanding enough without the entry of man."

Bianchi readily admits that the Fish and Game Department can't afford to purchase land for a buffer zone, however, particularly at subdivision prices. The land is estimated to be worth $3,000 an acre in large tracts, and more in small parcels of an acre or two. While the department spends several hundred thousand dollars a year to purchase big-game land, it focuses on property that is less expensive.

Bianchi has encouraged county residents to use land-use planning techniques. He suggests that speculators who buy property and then subdivide at an optimum time would not purchase land if it was clear that an area was recommended for wildlife habitat. Potential subdividers would at least carefully consider any moves, knowing that a court fight would be likely if they proceeded with plans for development, he says.

"It's fairly obvious that the solutions (to the habitat problem) are not biological," says Mackie, "but a matter for public political processes."

Area residents troubled by sprawling growth have indicated an interest in developing a master plan for Gallatin County. Previous attempts have failed, however, and a former county official describes the current subdivision regulations as a "cookbook," rather than an effective tool to insure orderly growth.

AN ANGRY NEIGHBOR

One of those most upset by Copeland's proposed development is a neighbor, who prefers to remain anonymous. "It destroys everything I have been building for a number of years," he says. "It's really an infringement on my rights. When I moved here, it was a rural area. That was the quality of life I wanted."

Copeland's neighbor believes that the Gallatin County Commissioners are afraid to say no to the developers. "They do not take into consideration the felt needs of the people in the area," he says. "Through proper planning you should have plans for an area in accordance with the desires of the people."

Gallatin County Zoning Commission has placed minor restrictions on the subdivision. Dogs have been banned in the development and in neighboring Sypes Canyon Subdivision No. 2, but this is expected to have little impact on dogs roaming in the area or living in adjoining areas. A barrier of bushes or shrubs between the lots and winter range also are required.

To protect important deer winter ranges on private lands, Mackie suggests that efforts be expanded to purchase land and acquire development rights. He also suggests obtaining leases or easements to permit continued deer use of the ranges and exploring the possibility of cooperative land use exchanges.

Copeland, on the other hand, argues that the market system should dictate how best the land can be used.

"The people who are screaming for the deer won't want the land as badly if they have to pay for it," he says. "It's a question of where along the continuum of possible costs do you draw the line."

"I keep being asked what's the answer," Mackie says. "I'm not telling these people what they can do and what they can't do. All we're doing is trying to say that when you do a certain thing, as far as deer are concerned, there is going to be an effect of some sort. When you put development out there, you usurp the range from the deer."

— — —

Ken Western is a free-lance writer in Bozeman, Mont. This article was paid for by the HCN Research Fund.

New DOE coal lease targets may change future digs' size

The Department of Energy stuck some new figures into the computer this month that may alter the economic picture for the Rocky Mountain states over the next decade.

Using revised estimates for the growth of electrical consumption and transportation costs, the experts at DOE decided that the amount of coal dug in Wyoming, Montana and northern Colorado would not increase at the rapid rates predicted in 1978 and 1979. DOE's figures for annual coal production in 1990 in the western Northern Great Plains region dropped from 503 to 336 million tons.

On the other hand, the agency raised earlier predictions, for coal production in the central and southern Rockies, particularly in Utah and New Mexico.

DOE's Director of Resource Analysis, Tony Prato, said the biggest factor altering his agency's estimates was the electrical growth rate, which generally determines the need for Western coal. Last year DOE used an annual electrical growth rate of 4.4 percent; this year, because of recent drops in electricity consumption nationwide, it used a 3.2 percent rate for "medium range" projections.

The change in predicted coal use will have a bigger impact in the West than in other parts of the country. "When you expect coal demand to increase at a slower rate, it draws down production in the West," said Prato. "It's the swing region — the first to contract, the first to expand."

The revised estimates could have a serious effect on both development of planned coal mines and the leasing of federal coal in the region. The Bureau of Land Management, which handles federal coal leasing, is reportedly considering lowering its upcoming coal leasing plans.

And John Weiner, a Laramie, Wyo., attorney who has studied the federal coal leasing program for Friends of the Earth, said the lowering of DOE targets in the Northern Rockies "makes it pointless to do any more leasing" in the Green River-Hams Fork area. Federal coal in that part of northern Colorado and southern Wyoming is scheduled to be the first in the nation offered for new leasing during the coming year. Weiner says production from current leases and private coal holdings will meet the DOE's new projected needs.

In southern Colorado and Utah DOE had estimated production of 33 million tons in 1985 and 41 million tons in 1990. Those figures jumped to 62.2 and 81.8 million tons, respectively, in this year's forecast.

Prato said the reasons for that rise are still being studied— but he pointed to Utah's aggressive development of its resources and projected synfuel development in the region, as well as Utah's proposed Intermountain Power Project, which DOE "assumed would go." In fact, Utah's coal production in 1979 was already up to levels DOE previously thought would not be reached until 1985.

Prato said his department was still analyzing the reasons for a similar rise in projected production for the Southwest — in Arizona and New Mexico. In 1979, DOE predicted the Southwest would produce 19.7 million tons of coal in 1985 and 22.8 million tons in 1990. Those figures were revised upward to 41.2 and 65.3 million tons respectively.

Industry experts blamed the downward turn in the forecasts on the nation's slow move to convert utilities to coal, reduced consumption, and rising transportation costs. "Generally, coal consumption did not materialize as we'd been led to believe," a spokesman for Carter Mining Co., a subsidiary of Exxon USA, told the **Casper Star-Tribune.**

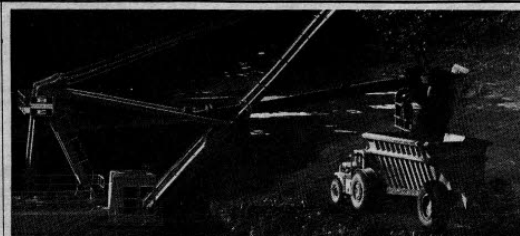

Photo by Michael McClure

ESTIMATES of future coal production in the Powder River Basin of Wyoming and Montana have been revised downward.

Senate votes to strip mine regs; Udall refuses

The U.S. Senate has passed an amendment to an obscure shipping bill which would throw out regulations drafted by the Office of Surface Mining to enforce the federal strip mine law. However, the surrounding furor apparently has more to do with politics than policy and the bill will probably die in House-Senate conference.

The Senate voted 54 to 31 to allow states to draft their own mining and reclamation regulations based on the language of the statute itself rather than OSM's lengthy and controversial regulations. The amendment was sponsored by Sen. Robert Byrd (D-W. Va.).

One congressional staffer questioned "how far Byrd is really willing to go to push this bill," but said he acted under considerable pressure from coal industry interests in his home state. Rep. Morris Udall (D-Ariz.), one of the chief architects of the original strip mine law, is adamantly opposed to the amendment and vows "to work with my colleagues in the House to stop this ill-conceived measure."

Proponents claim that the amendment would allow more flexibility for states to deal with reclamation issues unique to each state's environment and long-term land-use goals. Opponents say, however, that the intention of the strip mine law in the first place was to provide a federal uniform standard "from Maine to the Pacific" for strip mining. One Congressional source said, "It is clear that this amendment would destroy that standard. The act is specific in some places, unspecific in others. Comprehensive regulations are necessary." Opponents also fear that every state reclamation program would be challenged in court, leading to delays in enforcement and regulations dictated by the courts.

Udall, however, has said that he will not give in on any points of the bill. Udall has been appointed to the House conferees and "he expects to have the support of a majority of the House conferees," according to an aide.

There are also rumblings that the White House, while publicly uncommitted, is working behind the scenes to allow the bill to die without action. The bill to which the amendment was attached, the Vessel Tonnage Act of 1980, is not of major importance. Some observers speculate that Byrd attached his amendment to the bill because it could be allowed to die quietly, saving face for everyone and avoiding Democratic in-fighting in an election year.

Reaction in western states to the amendment is mixed. Wyoming is on the verge of promulgating its own rules, complying with OSM's, and the state's senators fear that the amendment would delay implementation of the state program. Montana's Sen. John Melcher (D) fought for and gained an "amendment to the amendment" which would incorporate in the strip mine statute itself OSM's rules protecting the environmentally-sensitive alluvial valley floors of the West. Sen. Howard Metzenbaum (D-Ohio) accomplished the same with regulations covering the reclamation of prime farm land.

These "little changes" don't improve the amendment in Udall's eyes, however. "I believe my colleagues have as little appetite as I do for seeing 10 years of work on landmark legislation go down the drain," he said.

State of Wyoming Public Notice

PURPOSE OF PUBLIC NOTICE

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

IT IS THE STATE OF WYOMING'S INTENTION TO ISSUE WASTEWATER DISCHARGE PERMITS TO (1) ONE INDUSTRIAL PERMIT, (1) ONE SWIMMING POOL PERMIT, (5) FIVE OIL TREATER PERMITS; TO MODIFY (3) THREE INDUSTRIAL PERMITS; AND TO RENEW (26) TWENTY SIX OIL TREATER PERMITS, (2) TWO COMMERCIAL PERMITS, (1) ONE STATE FACILITY PERMIT WITHIN THE STATE OF WYOMING.

APPLICANT INFORMATION

(1) APPLICANT NAME: FORT UNION COAL MINE

MAILING ADDRESS: P.O. BOX 8002
RAPID CITY, SOUTH DAKOTA 57701

FACILITY LOCATION: FIVE MILES NORTH OF THE
CITY OF GILLETTE, WYOMING
CAMPBELL COUNTY

PERMIT NUMBER: Wy-0028851

The Fort Union Coal Mine is a proposed open-pit mine to be located approximately five miles north of the City of Gillette, Wyoming. Surface run-off and groundwater collected in the mine pits will be routed to a sedimentation pond which will discharge to Prairie Creek (Class IV Water).

The proposed permit requires compliance with effluent standards which are considered to represent "best available treatment" by the State of Wyoming. However, the permit also contains a "re-opener" clause which requires the permit to be modified if, at a later date, more stringent requirements are developed at the federal level.

In addition, the proposed permit requires control of run-off from distrubed areas, requires periodic self-monitoring of effluent quality and quantity with reporting of results quarterly, and allow exemption from effluent limitations in the case of severe precipitation events.

The permit is scheduled to expire August 31, 1985.

(2) APPLICANT NAME: ASTORIA HOT SPRINGS SWIMMING POOL

MAILING ADDRESS: ASTORIA MINERAL SPRINGS, INC.
P.O. BOX 128
JACKSON, WYOMING 83001

FACILITY LOCATION: HOBACK JUNCTION
TETON COUNTY, WYOMING

PERMIT NUMBER: Wy-0028843

Astoria Mineral Springs, Inc. operates the Astoria Hot Springs Swimming Pool located at Hoback Junction, Teton County, Wyoming. The pool is fed by a natural hot spring and approximately 313 gallons per minute overflows into the Snake River (Class II Water).

Every three days during the summer and every two weeks during the winter, the pool is emptied and approximately five pounds of chlorine is added to the pool. Monitoring of the effluent by the Department did not reveal any chlorine residual in the effluent.

The proposed permit allows the pool to continue discharging and includes no effluent limitations provided that there is no significant change in the mode of operation. No self-monitoring is required, however, the proposed permit contains a provision which allows the permit to be modified to include effluent limitations and monitoring requirements if it is later determined that such changes are necessary.

(3) APPLICANT NAME: DIAMOND B. INDUSTRIES

MAILING ADDRESS: P.O. BOX 608
NEWCASTLE, WYOMING 82701

(see next page)

Environmental index puts Idaho reps down

The Idaho delegation to the House of Representatives got the lowest marks of any state in an annual rating of key 1979 energy and environmental votes by the League of Conservation Voters, a Washington-based political action group.

Rep. Steve Symms (R-Idaho) pleased the League on only three of the 27 issues it deemed most important: he voted to restrict the powers of the Energy Mobilization Board to waive existing laws, restrict synthetic fuels development to military needs, and cut funding for a solar satellite project. All three proposals lost.

The state's other representative, George Hansen (R), was in line with the League only on the satellite issue. The Idaho representatives received overall scores of 12 and five, respectively, out of a possible 100.

"They've got their index upside down," Hansen told **High Country News**. "I feel strongly that you need to maintain a decent environment, and I consider myself to be one of the highest environmental voters. But I can't vote for what the people in New York want. I have to vote for what people in Idaho want and need."

The league, steered by representatives from the country's leading environmental groups, each year tallies congressional voting records on a number of key conservation votes. The league's scores have been criticised by members of Congress as a poor indication of a legislator's overall environmental contribution, however. The group fails, critics say, to consider committee votes and legislative initiatives.

Furthermore, the ratings should consider the political nature of the congressional district, says Chuck Ford, administrative assistant to Rep. Ray Kogovsek (D-Colo.), who scored a 69. "There is tremendous pressure in southern Colorado for development, and given that, I think the congressman's score is excellent."

The average House score was 46, with Democrats averaging 53 and Republicans 35. One representative, Richard Ottinger (D-N.Y.), received a perfect 100 and four members, including the late Harold Runnels (D-N.M.), received zeros. The average for Rocky Mountain states representatives was 34.

League Director Marion Edey admits that the selected votes may not represent the full range of conservation concerns. "The problem last year was that there were very few votes on traditional conservation issues such as parks and wildlife, and the votes were heavy on energy and urban issues," says Edey.

Ford says western congressmen such as his boss may have problems because their scores are too high. "People in our district don't have any problem eating environmentalists for lunch," says Ford, "and if a few backpackers from Denver are pleased with the votes — big deal."

Idaho's Hansen, conversely, says he is unworried about his score. "I've been on so many hit lists, including being named the dirtiest of the Dirty Dozen," he said. "And all it does is verify to the people of Idaho that I'm doing the right things."

How LCV rates the region's reps:

MONTANA	
Pat Williams (D)	65
Ron Marlenee (R)	36
NEW MEXICO	
Manuel Lujan (R)	20
Harold Runnels (D)	0
UTAH	
Gunn McKay (D)	16
Dan Marriott (R)	12
COLORADO	
Pat Schroeder (D)	74
Timothy Wirth (D)	68
Ray Kogovsek (D)	69
Jim Johnson (R)	16
Ken Kramer (R)	9
IDAHO	
Steve Symms (R)	12
George Hansen (R)	5
WYOMING	
Richard Cheney (R)	28

Hot Line

SYNFUELS RUSH. While businessmen expressed skepticism last year when the Carter Administration proposed a massive, government-funded synfuels program, their doubts seem to have evaporated now that the program is a reality. The **New York Times** reports that companies are lining up for a share of the $88 billion in loans, loan guarantees, grants and subsidies that are in the works for companies producing energy from everything from peat to oil shale. The Energy Department is receiving about 150 inquiries a day as it prepares for the second round of awards under the program — this time they have $300 million to dish out.

SHRUBBERY SAVES FUEL. Planting windbreaks around homes could shave ten to 25 percent off fuel bills, according to Robert Hartung, a forester with the Soil Conservation Service. Well-placed trees and shrubs can effectively reduce the rate at which cold air enters houses in winter. Through shading, they can also cut down on summer cooling costs. At its Plants Materials Center, the U.S. Department of Agriculture is currently testing the suitability of various species as windbreaks. One effective arrangement is conifers on the north side and deciduous trees on the south side of houses, to shade in summer and permit sun to penetrate in winter. On-site assistance is available from SCS to help owners locate and design windbreaks.

PIT ART. An abandoned open pit coal mine near Hanna, Wyoming will get a facelift with a $53,000 environmental earth sculpture. Grant funds have been awarded through the National Endowment for the Art's Visual Arts Program to the town of Hanna and artist Stanley Dolega of Laramie. According to Dolega, the purpose of the project is to "develop the concept of environmental sculpture as restoration in the reclaiming of abandoned surface mine land."

SEND MAX OUT. Wyoming officials welcomed the state's new Bureau of Land Management director, Maxwell T. Lieurance, at a recent ceremony in Cheyenne. Lieurance pledged to help the state cope with enormous industrial impacts from the nation's energy push, and to listen to environmental groups' concerns about the agency's environmental analysis process. While criticism has frequently been leveled at the agency, both by environmental interests and state government, BLM's national director Frank Gregg said at a news conference following the ceremony, "One of the things we want to do very badly is to improve our relationship with the state to make sure that the development process makes sense. Wyoming will bear the brunt of the nation's accelerated energy policy." Lieurance has a reputation as an effective troubleshooter and conciliator in the agency. Gregg said, "If you have a group that is really mad, you send Max out."

UTAH COAL TO JAPAN. Utah Gov. Scott M. Matheson (D) says that Japan plans to purchase as much as 200,000 tons of Utah coal annually within three years. Matheson met with officials of the Japan Coal Development Co. in late August. He says that Japanese officials will visit the western United States late this year or in early 1981 to discuss steam coal imports. Matheson says that though initial Japanese purchases will be relatively small, total purchases from U.S. mines could reach 81 million tons annually by 1995 if transportation and port facilities are available.

FACILITY LOCATION: WAGNER B-ANDERSON NE¼, SECTION 11, T49N, R66W, CROOK COUNTY, WYOMING

PERMIT NUMBER: Wy-00282701

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

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

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

(4) APPLICANT NAME: E. DOYLE HUCKABAY

MAILING ADDRESS: 1706 SECURITY LIFE BUILDING, DENVER, COLORADO 80202

FACILITY LOCATION: NO. 1-18 FEDERAL — KREJCI (W-35133) SW¼, SE¼, SECTION 18, T36N, R63W, NIOBRARA COUNTY

PERMIT NUMBER: Wy-0028789

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

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

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease, which must be monitored quarterly. The proposed expiration date for the permit is December 31, 1982.

(5) APPLICANT NAME: PETRO-LEWIS CORPORATION

MAILING ADDRESS: 6200 SOUTH FRONTAGE ROAD, BILLINGS, MONTANA 59104

FACILITY LOCATION: W-48255, HATFIELD-HATFIELD FEDERAL NO. 1, NE¼, SECTION 2, T 19N, R88W, CARBON COUNTY, WYOMING

PERMIT NUMBER: Wy-0028835

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

The discharge must meet Wyoming's Produced Water Criteria effective immediately. No chemical limitations have been imposed on this facility except for oil and grease (10 mg-1) and pH (6.5-8.5). This is due to the extreme aridness of the area which allows for beneficial use of the water for agricultural purposes. There is no evidence to indicate that limitations more stringent than the Produced Water Criteria are needed to meet Wyoming's Water Quality Standards. The Department will continue to evaluate the discharge and, if necessary, will modify the permit if evidence indicates that more stringent limitations are needed.

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease, which must be monitored quarterly. The proposed expiration date for the permit is December 31, 1982.

(6) APPLICANT NAME: B.W. ALLEN

(continued on page 10)

The West on canvas

Early American ar

Blackfoot Captive by W.H.D. Koerner (1931).

Courtesy Buffalo Bill Historical Center, Cody, Wyo.

by Alfred Runte

The West, as the climax of American geography and expansion, has inspired some of the nation's most popular art. The geological uniqueness of the West also gave form and meaning to the myriad of emotions scholars have defined as "nature appreciation."

The landscape artist in particular, by dramatizing the natural wonders of the West, helped convince Americans of the need for scenic preservation. The living legacy of this combination — the magnificence of the West revealed to an eager public by the landscape painter — was the national park idea.

Granted, few artists resisted the temptation to romanticize the West, to suggest that its mountains were in fact higher, its canyons far deeper, and its inhabitants more colorful and noble than in real life. But if such exaggeration has hurt the West, the fault lies in our own failure to interpret the people and landforms of the region in a manner more consistent with the pressing social and ecological needs of the modern world.

From an environmental standpoint, the idealization of the West has been

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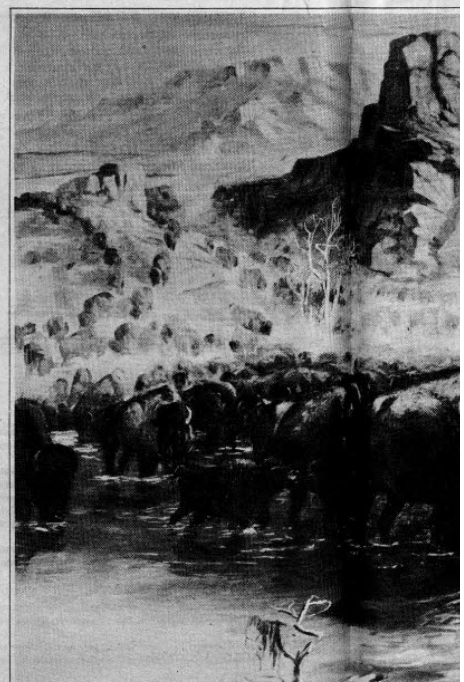
Courtesy Buffalo Bill Historical Center, Cody, Wyo.

Island Lake Wind River Range, Wyoming by Albert Bierstadt (1861).



Where Great Herds Come to Drink by Frederic Remington (1892).

The West that appeals to the American imagination may not have existed...(but) it is those popular notions that are buying time to explain why the region deserves protection for what it is.

merican artists painted romance into landscapes

crucial to its survival as a distinct region of the United States. The complexity and pessimism of ecological issues has discouraged public commitment; popular support for conservation historically has rested on emotional as distinct from scientific ideologies. To be sure, the very romanticism some scholars now find inappropriate made scenic preservation in the United States possible.

Ever since American independence in 1783, writers, intellectuals, and nationalists struggled to establish the cultural distinctiveness of the new nation. Time and time again these thinking Americans endured insults about the permanence and worth of their contributions to world civilization.

James Fenimore Cooper was among those who conceded, "As a whole, it must be admitted that Europe offers to the senses sublimer views and certainly grander, than are to be found within our own borders, unless we resort to the Rocky Mountains, and the ranges in California and New Mexico."

As Cooper implied, arguments to the effect that the American land would inspire cultural greatness in the future awaited the winning and opening of the West to achieve real credibility. Here at last were mountains, canyons, and other natural wonders whose uniqueness needed no qualifications. The landscape painter was among the first to respond enthusiastically; the sheer grandeur of the West first came to life in the works of Albert Bierstadt and Thomas Moran. Bierstadt, drawn west by the Rocky Mountains in 1859, returned in 1863 to paint perhaps his most famous trademark, Yosemite Valley. Thomas Moran, who accompanied the Hayden Survey of 1871 into Yellowstone, soon rivaled Bierstadt with completion of "The Grand Canyon of the Yellowstone." In June 1872 Congress purchased the 7 by 12 foot canvas for $10,000 and later hung it in the Senate lobby.

By focusing the attention of Congress and the public on the grandeur of Yosemite and Yellowstone, Bierstadt and Moran contributed significantly to the growing belief that both landmarks were national treasures. It followed that their confiscation by private individuals would debase both their cultural and esthetic value. In 1864 Congress responded positively by setting aside Yosemite Valley as a state reserve, and in 1872 Yellowstone became the first national park.

Although both areas today are recognized and managed for their ecological resources as a whole, romanticism was the crucial prerequisite for their preservation in the nineteenth century. In keeping with the cultural doubts of the United States, Bierstadt and Moran idealized the waterfalls, cliffs, mountains, and other natural "curiosities" of the West. In fact, Yellowstone National Park owes its great size not to the first glimmerings of ecological wisdom and altruism, but to the conviction that only a large park would guarantee the safety of Yellowstone's yet undiscovered "freaks" and "decorations."

Recent idealizations of the West, inspired by the work of Charles Russell and Frederic Remington, have also made a distinct contribution to a preservation consciousness. Much as Albert Bierstadt, Thomas Moran, and their contemporaries celebrated the natural wonders of the West, so Russell and Remington romanticized its spaciousness and unlimited horizons.

Although usually backdrops to other subjects, such as the life of the cowboys and Indian, the scenic vistas of Charles Russell in particular call to mind the vanishing beauty of the prairies and plains. The distinction is important, for unlike the national parks, which shout out their uniqueness to even the casual observer, the esthetic appeal of America's grasslands is more subtle. Any image that equates the nation's heartland with popular impressions of American culture may serve to heighten public awareness about the price of turning the West into an energy farm.

In this regard romanticism is the region's insurance policy. The West that appeals to the American imagination may not have existed; still, it has been far easier to embrace and defend. It is popular notions about the West that are buying environmentalists the time to explain why the region deserves protection for what it is instead of for what it never was. The transition from romanticism to reality will take place. Meanwhile, if the West is to survive, there is room and need for both.

Alfred Runte is Assistant Professor of Western History at the University of Washington, and author of **National Parks: The American Experience.**

This article was prepared for a presentation at "That Awesome Space," a conference sponsored by The Institute of the American West, a division of the Sun Valley Center of the Arts and Humanities. A major part of the funding was provided by Levi Strauss and Company and the Association for the Humanities in Idaho.

Courtesy Buffalo Bill Historical Center, Cody, Wyo.

Frederic Remington (1892).

Courtesy Buffalo Bill Historical Center, Cody, Wyo.

The Fallen Rider by Frederick Remington (approx. 1809).

(continued from page 7)

MAILING ADDRESS: P.O. BOX 2352, CASPER, WYOMING 82602

FACILITY LOCATION: 28-1 FEDERAL TANK BATTERY, SE¼, NW¼, SECTION 28, T45N, R67W, WESTON COUNTY, WYOMING

PERMIT NUMBER: Wy-0028860

(7) APPLICANT NAME: UNION OIL COMPANY OF CALIFORNIA

MAILING ADDRESS: P.O. BOX 79, WORLAND, WYOMING 82401

FACILITY LOCATION: JAYSON UNIT INJECTION STATION, NE¼, SECTION 36, T46N, R71W, CAMPBELL COUNTY, WYOMING

PERMIT NUMBER: Wy-0028878

Facilities are typical oil treaters located in Weston and Campbell Counties, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharges are to Class IV waters, Sage and Coal Creeks, via an unnamed drainage.

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

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

(9) APPLICANT NAME: ASH CREEK MINING COMPANY

MAILING ADDRESS: SUITE 660, WESTLAND BANK BUILDING, 10403 WEST COLFAX, LAKEWOOD, COLORADO 80215

FACILITY LOCATION: TEN MILES NORTH OF THE CITY OF SHERIDAN, WYOMING, SHERIDAN COUNTY

PERMIT NUMBER: Wy-0025810

The Ash Creek Mining Company operates an open-pit coal mine known as the PSO No. 1 Mine located approximately ten miles north of the City of Sheridan, Wyoming.

The existing permit for this facility authorizes a discharge of mine water from a series of two settling ponds into Little Youngs Creek (Class III Water). The company has now requested that this permit be modified to allow discharge from three additional sedimentation basins which will receive run-off from disturbed areas only and are designed to completely contain the ten year — 24 hour storm event. Two of these additional discharges will be to Little Youngs Creek, and the third will be to the west branch of Little Youngs Creek (Class IV Stream).

The proposed permit for this facility requires compliance with effluent limitations which are considered to represent "best available treatment" by the State of Wyoming (the total suspended solids limitation for the discharge to the Class IV Water is slightly less restrictive than the others). However, the permit also contains a "re-opener" clause which requires that the permit be modified if more restrictive limitations are developed in the future at the federal level.

The proposed permit requires periodic self-monitoring of effluent quality with reporting of results monthly. It also contains requirements for controlling run-off from disturbed areas and contains an exemption from effluent standards in instances of abnormal precipitation and run-off events.

The proposed permit is scheduled to expire September 30, 1985.

(9) APPLICANT NAME: EXXON MINERALS COMPANY, USA

MAILING ADDRESS: P.O. BOX 3020, CASPER, WYOMING 82601

FACILITY LOCATION: HIGHLAND URANIUM MINE, NORTH OF DOUGLAS, CONVERSE COUNTY, WYOMING

PERMIT NUMBER: Wy-0020796

The Exxon Minerals Company operates the Highland Uranium Mine located north of the Town of Douglas, Converse County, Wyoming. The mine is open pit and wastewaters consist of the effluent from dewatering wells, dewatering of mine pits, and surface run-off. The discharges are to Antelope Draw, the North Fork of Box Creek via unnamed drainages, and unnamed stock ponds, all of which are Class IV Waters.

The existing permit for this facility allows discharge from six separate locations, however, the company has now requested that three additional discharge points (for various dewatering wells) be added to the permit.

The proposed permit grants authorization for the additional discharge points and requires immediate compliance with effluent limitations which are considered to be "best available treatment" by the State of Wyoming. However, the permit contains language which requires that it be modified if more stringent limitations are developed at the federal level in the future.

Also, the permit requires self-monitoring of effluent quality on a regular basis with reporting of results quarterly, requires control of run-off from disturbed areas, and allows exemption from effluent limitations in case of large precipitation events.

The permit is scheduled to expire August 31, 1985.

(10) APPLICANT NAME: FMC CORPORATION

MAILING ADDRESS: P.O. BOX 750, KEMMERER, WYOMING 83101

FACILITY LOCATION: SKULL POINT MINE NEAR KEMMERER, LINCOLN COUNTY, WYOMING

PERMIT NUMBER: Wy-0027626

The FMC Corporation operates a large open pit coal mine near Kemmerer in Lincoln County, Wyoming, which is known as the Skull Point Mine. The Corporation currently has a permit to discharge pit and surface run-off from the mine, but has now requested that the permit be modified. Specificially, the Corporation has requested various changes in discharge points, the addition of new discharge points, and elimination of limits on total dissolved solids.

The Corporation has asked that existing discharge points 002 and 003 be dropped from the permit (telephone conversation with Mr. Clayton Kite) and that new discharge points from new settling ponds be added as points 004, 005, 006, 007 and 008. All discharges will be to Class IV Waters which are tributaries to Cumberland Creek which is also a Class IV Water. The proposed permit includes all of these requested changes.

The existing permit for this facility contains a limitation in total dissolved solids of one ton per day. Total dissolved solids are controlled because the discharge is in the Colorado River drainage and the State of Wyoming has agreed with the other states in the basin to control all point sources of salinity to the extent feasible. However, under the agreement between the states, it has been agreed that point sources are to have no discharge of salinity only if no discharge is "practicable." Th Corporation has submitted documentation to the Department which shows that the cost of complying with the salinity standard far outweighs the downstream salinity reduction benefits. The Department believes that the Corporation's documentation is sound, therefore, the proposed permit does not limit total dissolved solids. The proposed permit does require continued monitoring for total dissolved solids.

The proposed permit requires compliance with effluent limitations which are considered by the State to represent "best available treatment." However, the permit also contains a "re-opener" clause which requires the permit to be modified if more stringent limitations are adopted at the federal level.

The proposed permit contains self-monitoring requirements which requires effluent quality and quantity to be monitored on a regular basis with reporting of results quarterly. In addition, the proposed permit contains language exempting the permitee from effluent limitations in cases of ten year — 24 hour precipitation events and contains standard language requiring control of run-off from disturbed areas.

The permit is scheduled to expire July 31, 1985.

(11) APPLICANT NAME: AMOCO PRODUCTION COMPANY

MAILING ADDRESS: P.O. BOX 569, POWELL, WYOMING 82435

FACILITY LOCATION: TORCHLIGHT FIELD, SW¼, SECTION 25, T51N, R93W, BIG HORN COUNTY, WYOMING

PERMIT NUMBER: Wy-0002721

(12) APPLICANT NAME: AMOCO PRODUCTION COMPANY

MAILING ADDRESS: P.O. BOX 569, POWELL, WYOMING 82435

FACILITY LOCATION: COTTONWOOD CREEK FIELD, TENSLEEP BATTERY, NE¼, SECTION 7, T47N, R90W, WASHAKIE COUNTY, WYOMING

PERMIT NUMBER: Wy-0020699

(13) APPLICANT NAME: AMOCO PRODUCTION COMPANY

MAILING ADDRESS: P.O. BOX 569, POWELL, WYOMING 82435

FACILITY LOCATION: BONANZA FIELD, MCINTOSH BERWICK "C" LEASE, NW¼, SE¼, SECTION 26, T49N, R91W, BIG HORN COUNTY, WYOMING

PERMIT NUMBER: Wy-0024643

(14) APPLICANT NAME: ARJAY OIL COMPANY

MAILING ADDRESS: 225 NORTH STATE STREET, SALT LAKE CITY, UTAH 84103

FACILITY LOCATION: BARNETT SERIO TANK BATTERY, SW¼, SECTION 29, T51N, R92W, BIG HORN COUNTY, WYOMING

PERMIT NUMBER: Wy-0022772

(15) APPLICANT NAME: ARJAY OIL COMPANY

MAILING ADDRESS: 225 NORTH STATE STREET, SALT LAKE CITY, UTAH 84103

FACILITY LOCATION: LAMB FIELD, WOODWARD NO. 1 BATTERY SW¼, SECTION 2, T51N, R93W, BIG HORN COUNTY, WYOMING

PERMIT NUMBER: Wy-0026034

(16) APPLICANT NAME: ARJAY OIL COMPANY

MAILING ADDRESS: 225 NORTH STATE STREET, SALT LAKE CITY, UTAH 84103

FACILITY LOCATION: LAMB FIELD, GOVERNMENT NO. 2 TANK BATTERY, NW¼, SECTION 18, T51N, R92W, BIG HORN COUNTY, WYOMING

PERMIT NUMBER: Wy-0026042

(17) APPLICANT NAME: ARJAY OIL COMPANY

MAILING ADDRESS: 225 NORTH STATE STREET, SALT LAKE CITY, UTAH 84103

FACILITY LOCATION: LAMB FIELD, MADISON TANK BATTERY SW¼, SECTION 12, T51N, R93W, BIG HORN COUNTY, WYOMING

PERMIT NUMBER: Wy-0026051

(18) APPLICANT NAME: ARJAY OIL COMPANY

MAILING ADDRESS: 225 NORTH STATE STREET, SALT LAKE CITY, UTAH 84103

FACILITY LOCATION: LAMB FIELD, TENSLEEP "A" TANK BATTERY, SW¼, SECTION 1, T51N, R93W, BIG HORN COUNTY, WYOMING

PERMIT NUMBER: Wy-0026069

(19) APPLICANT NAME: ARJAY OIL COMPANY

MAILING ADDRESS: 225 NORTH STATE STREET, SALT LAKE CITY, UTAH 84103

FACILITY LOCATION: LAMB FIELD, TENSLEEP "B" TANK BATTERY, SW¼, SECTION 12, T51N, R93W, BIG HORN COUNTY, WYOMING

PERMIT NUMBER: Wy-0026077

(20) APPLICANT NAME: BRINKERHOFF COMPANY

MAILING ADDRESS: 3410 ANACONDA TOWER, 555 17th STREET, DENVER, COLORADO 80202

(continued on page 13)

Western Roundup

MOUNTAIN LION

Head count for Wyoming lions

Last year, hunters took home more than twice the usual number of mountain lions from the Wyoming backcountry. Although only 40 permits were allocated, 30 sportsmen got their prizes.

The increase in killings of the elusive animal has spurred the state Game and Fish Department to begin a study on the cat population in Wyoming. After clamping down an "emergency closure" on sales of hunting licenses in May, the agency has sent out questionnaires to hunters, ranchers, and biologists for information about sightings and signs, as well as problems, such as livestock kills. The goal is to develop a mountain lion management plan.

Currently the Game and Fish Department estimates that sizeable populations remain in the southern Big Horn Mountains and on the fringes of the Big Horn basin. Sitings also cluster in the Medicine Bow Mountains, the Sierra Madre, the Upper Platte Valley near Saratoga, and the southern end of the Wyoming Range.

Various theories are being proposed for the increasing frequency of sitings and killings of mountain cats. One is that humans are making greater inroads into lion territory. The possibility also exists that mountain lions are on the increase in Wyoming. Predator control is now more restricted, and the deer population, one of the staples of the cat's cuisine, is expanding. While Game and Fish says that the 150-lb. felines have never been notorious livestock marauders, they will occasionally bring down lambs, calves, and young horses.

Farming tops Montana water polluters

While the development of Montana's energy resources poses significant threats to the water quality in the state, agriculture is still the biggest polluter, according to the Montana Department of Health and Environmental Sciences.

The conversion to cropland since 1974 of one million acres of grazing and other lands is one major reason why, Loren Bahls, head of the agency's water quality management division, told the **Associated Press.** "It all boils down to economics," he said. "There is more block farming and less contour plowing. Farmers are no longer leaving hedgerows. The idea is to make that land pay."

A recent 250-page document produced by Bahls' bureau inventoried the threats to water quality in the state. Energy development — synfuels plants, oil and natural gas from the Overthrust belt, coal mining, power plants and more hydroelectric facilities — could certainly cause significant degredation of the environment, the report says. But, Bahls adds, "We have the tools to deal with energy impacts, such things as reclamation laws, mining laws, and the state siting act. We feel much more comfortable about dealing with pollution from energy development than with agricultural pollution."

Bahls' agency is currently working with Montana's 58 conservation districts in an effort to locate areas of serious agricultural pollution, and to develop timetables for cleanup.

While the cleanup program leaves the details of cleanup to the local level, "if districts fail to respond, it is possible the Environmental Protection Agency or the state will step in," Bahls said. So far his department is only making recommendations, such as contour farming and the preservation of grass and trees along waterways.

Agricultural pollution problems cited by the report include sediment, salinity, and dewatering. Dewatering, or the withdrawing of 95 percent of the waters from Montana's streams for agricultural use, is the number one cause of the agricultural pollution.

Cleanup costs for agriculture will be great. The report estimates for example that $37.3 million will be spent on Big Horn, Carbon, Stillwater, Yellowstone, and Sweetgrass counties alone.

Clean air regulations in peril

The automobile and energy industries will lay siege to the Clean Air Act amendments when they come up for renewal next year, Sen. Gary Hart (D-Colo.) predicted at a meeting with the Colorado Air Quality Control Commission recently. Any successful weakening of the air pollution control laws would be devastating for the pristine air in Colorado's parks and wilderness areas and would seriously worsen the urban Front Range's pollution problems, he said. Slated for large-scale synthetic and other energy fuel development, "Colorado stands to be hurt the worst by all developments if we relax the air standards," Hart said. Hart is a designer of the 1977 Clean Air Act amendments and chairman of the National Commission of Air Quality, which will make recommendations to Congress for upgrading air quality in March 1981.

Auto manufacturers, blaming financial woes on pollution standards, are gearing up for a major assault on auto emission regulations. Recently, the U.S. Environmental Protection Agency eliminated an auto emission-control requirement which would have cost the industry $350 million annually.

Hart has threatened to sue the administration if EPA approves the industry's proposed relaxation of high altitude emission regulations. As now written, the law requires that by 1984 automakers produce cars that run as cleanly at high altitudes as they do at sea level, according to Hart. "We're trying to prevent serious mistakes from being made to help the auto industry," he said.

Proposals by oil shale firms to weaken the state sulfur dioxide standard will be considered by the Colorado Air Quality Control Commission at a hearing in Meeker, Colo., on Sept. 12. The companies argue that they can't meet the .3 pounds-per-barrel-of-oil emission limitation, and prefer the "best available control technology" standard. John Clouse of the Colorado Air Pollution Control Division said the change would mean more pollution from in situ oil shale mining.

Salt water slurry for Colorado?

Diverting the Colorado River saline waters through pipelines for energy production could alleviate the river's salinity problems and spur western energy development, according to Secretary of the Interior Cecil Andrus. The Water and Power Resources Service is currently studying the new approach, which Andrus says is "one way of handling the heavy salt load of the Colorado River which has plagued the Western states and Mexico for years."

Extensive crop damage and other problems are caused by the load of 10 million tons of dissolved minerals which the river carries toward its mouth in the Gulf of California each year. Within the next 20 years, at least 2.8 million tons of the salt load must be removed to maintain water quality. Water and Power Services estimates that the controls under study could remove 2 million tons.

At the same time, the saline water could supply a significant amount of the water needed for cooling coal-fired power plants and for coal-moving slurry lines. The salt water might also be used for western oil shale development.

"Rather than look at it as a waste product, we believe saline water should be considered as a potential resource," says Commissioner of Water and Power Resources R. Keith Higginson.

"Rapidly climbing costs of structural controls on the salt load, such as desalination and evaporation pond disposal, are casting a shadow on their use, except in special situations," he says. In addition, "physical limitations and new regulations impacting upon pond disposal and deep well injection are prompting us to look at other alternatives."

Recently, power plants have been constructed on the East Coast to use brackish water or seawater directly.

According to Mike Clinton of Water and Power Resource's Colorado River Water Quality Office, "New developments in wet cooling towers using brackish water are promising for the arid West."

Higginson said that the study is planned to be a team effort, with input from the Environmental Protection Agency, Department of Energy, Electric Power Research Institute, the Office of Water Research and Technology, and the Colorado River Basin Salinity Control Advisory Council. Opportunities for public involvement are also part of the planning process, he said.

STATE OF WYOMING

Financial Statements of Insurance Companies which are Authorized to do business in Wyoming.

Published in High Country News Aug. 22; Sept. 5, 19; Oct. 3, 17, 31, 1980

DEPARTMENT OF INSURANCE
STATE OF WYOMING

National Aviation Underwriters, Inc., Attorney-in-Fact for
National Insurance Underwriters
10534 Natural Bridge Road, St. Louis, Missouri 63134
Lambert Field, P.O. Box 10155, St. Louis, Missouri 63145
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

GROSS PREMIUMS RECEIVED	$288,656
Losses Paid Deducting Salvage	623,116
Losses Incurred	1,110,334
Total Admitted Assets	11,388,675
Liabilities	9,366,240
Capital Stock Paid Up	-
Surplus	2,022,435
Income during year ending December 31, 1979	3,170,092
Expenditures for year ending December 31, 1979	3,402,796

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

THE NATIONAL INVESTORS LIFE INSURANCE COMPANY
Home Office: Second and Broadway Streets, Little Rock, Arkansas 72201
Mailing Address: Post Office Box 3668, Little Rock, Arkansas 72203
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$-0-
Gross Premiums Received	51,903
Direct Benefits and Losses Paid	14,887
Direct Benefits and Losses Incurred	2,488
Total Admitted Assets	167,684,963
Liabilities	156,630,838
Capital Stock Paid Up	2,000,000
Surplus	9,054,124
Income during year ending December 31, 1979	57,133,721
Expenditures for year ending December 31, 1979	53,761,707

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

NATIONAL OLD LINE INSURANCE COMPANY
(Mail) P.O. Box 2900; Little Rock, Arkansas
(Home) Capitol 9 Woodlane, Little Rock, Arkansas 72201
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$7,111,000
Gross Premiums Received	236,542.65
Direct Benefits and Losses Paid	109,130.56
Direct Benefits and Losses Incurred	114,926.90
Total Admitted Assets	232,945,629
Liabilities	205,075,151
Capital Stock Paid Up	5,691,449
Surplus	22,179,028
Income during year ending December 31, 1979	61,187,888
Expenditures for year ending December 31, 1979	52,480,149

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

National Fidelity Life Insurance Company
1002 Walnut Street, Kansas City, Missouri 64102
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$44,648,633
Gross Premiums Received	1,641,979
Direct Benefits and Losses Paid	296,350
Direct Benefits and Losses Incurred	304,614
Total Admitted Assets	227,332,226
Liabilities	206,619,101
Capital Stock Paid Up	3,125,000
Surplus	17,588,125
Income during year ending December 31, 1979	82,209,959
Expenditures for year ending December 31, 1979	76,961,560

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

National Guardian Life Insurance Company
2 East Gilman Street Madison, WI 53703
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$111,164
Gross Premiums Received	9,327
Direct Benefits and Losses Paid	2,862
Direct Benefits and Losses Incurred	0
Total Admitted Assets	204,243,117
Liabilities	190,840,383
Capital Stock Paid Up	NONE
Surplus	13,402,734
Income during year ending December 31, 1979	42,150,146
Expenditures for year ending December 31, 1979	40,554,145

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the state of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

National General Insurance Company
P.O. Box 10155 Lambert Field; St. Louis, Missouri 63145
10534 Natural Bridge Road; St. Louis, Missouri 63134
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

GROSS PREMIUMS RECEIVED	$145,319
Losses Paid Deducting Salvage	158,343
Losses Incurred	160,962
Total Admitted Assets	21,375,313
Liabilities	15,513,070
Capital Stock Paid Up	1,512,000
Surplus	4,350,243
Income during year ending December 31, 1979	18,364,325
Expenditures for year ending December 31, 1979	17,016,501

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of the State relating to insurance, and it is duly authroized to transact the business of insurance in the State of Wyoming.
Dated Aug 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

National Fire Insurance Company of Hartford
Mail — CNA Plaza — Chicago Illinois 60685
Home — 270 Farmington Avenue, Farmington, Connecticut 06032
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

GROSS PREMIUMS RECEIVED	$90,829
Losses Paid Deducting Salvage	4,305
Losses Incurred	24,323
Total Admitted Assets	614,756,945
Liabilities	493,569,556
Capital Stock Paid Up	5,000,000
Surplus	116,187,389
Income during year ending December 31, 1979	231,928,242
Expenditures for year ending December 31, 1979	219,294,424

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of the State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

National Liberty Life Ins. Co.
MAIL: Valley Forge, PA 19493
HOME: Liberty Park, Frazer, PA 19355
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$-0-
Gross Premiums Received	29,198
Direct Benefits and Losses Paid	15,076
Direct Benefits and Losses Incurred	14,528
Total Admitted Assets	71,952,290
Liabilities	53,791,636
Capital Stock Paid Up	1,500,000
Surplus	16,660,653
Income during year ending December 31, 1979	56,206,886
Expenditures for year ending December 31, 1979	46,757,902

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

NATIONAL INDEMNITY COMPANY
3024 Harney Street, Omaha, Nebraska 68131
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Gross Premiums Received	$241,977.00
Losses Paid Deducting Salvage	140,922.00
Losses Incurred	108,298.00
Total Admitted Assets	409,798,815
Liabilities	192,035,504
Capital Stock Paid Up	5,500,000
Surplus	212,263,311
Income during year ending December 31, 1979	125,636,554
Expenditures for year ending December 31, 1979	105,564,354

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

National Independence Life Insurance Co.
Room 810 Illinois Building Springfield, ILL 62701
Liberty Park, Frazer, PA
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$230
Gross Premiums Received	1,062
Direct Benefits and Losses Paid	-0-
Direct Benefits and Losses Incurred	-0-
Total Admitted Assets	13,160,374
Liabilities	9,203,636
Capital Stock Paid Up	1,504,000
Surplus	2,452,737
Income during year ending December 31, 1979	8,994,046
Expenditures for year ending December 31, 1979	10,345,298

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

The National Life Assurance Company of Canada
522 University Avenue, Toronto, Ontario, Canada M5G 1Y7
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$-
Gross Premiums Received	27,015
Direct Benefits and Losses Paid	16,715
Direct Benefits and Losses Incurred	14,156
Total Admitted Assets	44,826,839
Liabilities	41,070,839
Statutory Deposit	600,000
Surplus	3,156,000
Income during year ending December 31, 1979	19,826,913
Expenditures for year ending December 31, 1979	20,780,133

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

National Home Life Assurance Company
Valley Forge, Pennsylvania 19493
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$992,149
Gross Premiums Received	411,862
Direct Benefits and Losses Paid	164,822
Direct Benefits and Losses Incurred	166,417
Total Admitted Assets	205,575,514
Liabilities	174,163,216
Capital Stock Paid Up	1,111,000
Surplus	30,301,297
Income during year ending December 31, 1979	238,994,505
Expenditures for year ending December 31, 1979	234,946,473

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

NATIONAL PRODUCERS LIFE INSURANCE COMPANY
Mail: P.O. Box 16294 Phoenix, Arizona 85011
Home: 244 W. Osborn Phoenix, Arizona 85013
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$-0-
Gross Premiums Received	12,573
Direct Benefits and Losses Paid	2,184
Direct Benefits and Losses Incurred	1,758
Total Admitted Assets	30,814,007
Liabilities	27,173,817
Capital Stock Paid Up	1,391,273
Surplus	2,248,916
Income during year ending December 31, 1979	3,687,479
Expenditures for year ending December 31, 1979	3,471,737

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the Satate of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

National Liberty Life Ins. Co. of America
Liberty Park, Frazer, Pennsylvania 19355
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979
No Direct Business in 1979

Insurance Written	None
Gross Premiums Received	None
Direct Benefits and Losses Paid	None
Direct Benefits and Losses Incurred	None
Total Admitted Assets	$3,000,583
Liabilities	136,412
Capital Stock Paid Up	1,500,000
Surplus	1,364,170
Income during year ending December 31, 1979	335,754
Expenditures for year ending December 31, 1979	141,754

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

DEPARTMENT OF INSURANCE
STATE OF WYOMING

NATIONAL LIFE INSURANCE COMPANY
National Life Drive, Montpelier, Vermont 05602
BUSINESS IN WYOMING FOR THE YEAR ENDING DECEMBER 31, 1979

Insurance Written	$838,722
Gross Premiums Received	102,084
Direct Benefits and Losses Paid	7,234
Direct Benefits and Losses Incurred	2,787
Total Admitted Assets	2,330,369,946
Liabilities	2,179,975,873
Capital Stock Paid Up	None
Surplus	150,394,073
Income during year ending December 31, 1979	411,950,871
Expenditures for year ending December 31, 1979	388,487,108

Pursuant to Section 26-3-129 (b), Wyoming Insurance Code, I certify that to the best of my knowledge and belief, the insurer above named is in all respects in compliance with the laws of this State relating to insurance, and it is duly authorized to transact the business of insurance in the State of Wyoming.
Dated Aug. 21, 1980
s. John T. Langdon
Insurance Commissioner

Bulletin Board

SHORT SOLAR COURSE

The Solar Energy Research Institute is offering a week-long course in solar heating and cooling in federal buildings Sept. 22-26 at the Sheraton Santa Fe Inn in Santa Fe, N.M. The course will cover the design, engineering and economics of passive and active solar systems. A registration fee of $60 will cover luncheons, tours and a workbook. Contact the Conferences Group, SERI, 1617 Cole Blvd., Golden, Colo. 80401.

LAND RESCUE WORKSHOP

People interested in setting up open space and agricultural foundations dedicated to land preservation are invited to a one-day workshop in Denver Sept. 29 sponsored by The Nature Conservancy, The Trust for Public Lands and Open Lands Real Estate. Kingsbury Browne, billed by the groups as "the country's leading authority on the operation of open space land trusts," will participate. Registration is $20 for the meeting, which will begin at 8:30 a.m. at the Denver Athletic Club.

COAL DECISION SESSION

At a Sept. 17 meeting in Cheyenne, Wyo., state and federal officials on a regional "coal team" will come up with a final recommendation to the Secretary of Interior for federal coal leasing in the Green River-Hams Fork area in Colorado and Wyoming. A secretarial decision in mid-October and lease sales in January are expected to follow. The coal team will receive public comment before it makes the recommendation. For more information, contact Gerald Magnuson, alternate chairperson, Bureau of Land Management, 136 East South Temple, Salt Lake City, Utah 84111, (801) 524-5431. The meeting will begin at 9 a.m. in the third floor conference room of the BLM state office at 2515 Warren Ave.

CRESTED BUTTE RENDEZVOUS

The annual Colorado Plateau Rendezvous, a gathering of Western Slope conservationists, has been set for Sept. 20 and 21 at the Lost Lake Lodge near Crested Butte. The weekend will include discussions with Cliff Merritt of the American Wilderness Alliance and leaders in local grassroots groups. The cost for the rendezvous is $10 a person to camp on the grounds and $15 to stay in the dormitory-style lodge. The Saturday evening meal will cost extra. Reservations can be made through the Western Colorado Congress, P.O. Box 781, Montrose, Colo. 81401.

REALITIES FOR THE '80s

The Tenth Vail Symposium, "Dreams of the '70s — Realities for the '80s," will be Sept. 26-28 in Vail, Colo. Sessions on water, tourism, energy and the Sagebrush Rebellion are scheduled. The $10 registration fee should be mailed to: Tenth Vail Symposium, P.O. Box 100, Vail, Colo. 81657. According to the sponsors, the meeting will commemorate "a decade of dreams with a realistic examination of the future role of the mountain recreation community and the use of resources in the Rocky Mountain West."

INDIAN MINING REGS

Proposed regulations governing mining and mineral development (excluding coal) on Indian lands were published in the **Federal Register** in August. For more information contact Tom Riggs at the Office of Trust Responsibilities, Bureau of Indian Affairs, Washington, D.C. 20245. Public comments on the regulations will be accepted through September.

RANGE RAP

Public range lands and their management will be the key issue at the National Public Lands Advisory Council meeting Sept. 22-23 in Boise, Idaho. The council, which advises the Bureau of Land Management, consists of 17 members, both private citizens and state and local officials. All sessions are open to the public, which is invited to make statements beginning at 2:30 p.m. on the 22nd. Address inquiries about the meeting to Karen Slater at the Bureau's Washington, D.C., headquarters (202)343-8947.

BIOMASS BOOST

Biomass projects are slated for a boost from the Department of Energy, which has announced loan guarantees of up to $400 million for alcohol fuels plants, up to $15 million for other biomass-derived fuels, and up to $25 million for municipal-waste-to-energy plants. The agency is soliciting comments on its proposed regulations on the program, which were published in the **Federal Register** Aug. 14. Comments should be sent by Sept. 12 to DOE, Office of Public Hearings Management, Room B120, Box XU, 2000 M St., N.W., Washington, D.C. 20461.

MISSOURI RIVER PLANNERS MEET

The Missouri River Basin Commission, a state-federal group responsible for water resources planning in a 10-state region, will hold its 34th quarterly meeting Oct. 29-30 at the Ramada Inn Central in Omaha, Neb. For more information, write: MRBC, Suite 403, 10050 Regency Circle, Omaha, Neb. 68114.

CLASSIFIEDS

Classified ads cost 10 cents a word. They must be prepaid.

ENVIRONMENTALISTS based near Denver. Males, females, ages 20's through 60's. Ten or more days per month planning, leading, assisting backpack, canoe, ski-tour trips nationwide. Non-profit organization, minimum wages. Sojourners, PO Box 845, Evergreen, CO 80439.

OUTDOOR BUSINESS OPPORTUNITY. Do you have a profitable outdoor business idea you'd like to try? Or perhaps an existing business you wish to expand to a southwest location. Now considering proposals on developing rugged, accessible site within National Forest close to wilderness area as a base for nature, ecology, self-sufficiency education. Write: Dusty Miller, P.O. Box 1206, Carefree, Arizona 85377.

NEWS EDITOR. **High Country News** is looking for a full time news editor with copy editing skills and a good grasp of natural resource issues. Low salary, health insurance. Job includes writing, making assignments and editorial policy setting. Application deadline Oct. 1. Send resume, writing and-or editing samples, and references to Geoffrey O'Gara, HCN, Box K, Lander, Wyo. 82520.

COLORADO Open Space Council is hiring a lobbyist for the Colorado Legislature; full time during the session and part time during the interim. Experience in politics and conservation issues helpful. Pay based on ability to raise funds. Contact Dickey Hullinghorst, COSC, 2239 E. Colfax, Denver, CO 80206 before September 20th.

(continued from page 10)

FACILITY LOCATION:	BETA USA LEASE, SE¼, SECTION 6, T47N, R90W, WASHAKIE COUNTY, WYOMING
PERMIT NUMBER:	Wy-00025283
(21) APPLICANT NAME:	FARMER'S UNION CENTRAL EXCHANGE
MAILING ADDRESS:	P.O. BOX 126 LAUREL, MONTANA 59044
FACILITY LOCATION:	MURPHY DOME FIELD, SHAD BATTERY TREATER PIT, NE¼, SW¼, SECTION 5, T43N, R91W, HOT SPRINGS COUNTY, WYOMING
PERMIT NUMBER:	Wy-0024171
(22) APPLICANT NAME:	FARMER'S UNION CENTRAL EXCHANGE
MAILING ADDRESS:	P.O. BOX 126 LAUREL, MONTANA 59044
FACILITY LOCATION:	MURPHY DOME FIELD, ROSE BATTERY TREATER FIELD, NW¼, NW¼, SECTION 6, T43N, R91W, HOT SPRINGS, COUNTY, WYOMING
PERMIT NUMBER:	Wy-0024180
(23) APPLICANT NAME:	FARMER'S UNION CENTRAL EXHCANGE
MAILING ADDRESS:	P.O. BOX 126 LAUREL, MONTANA 59044
FACILITY LOCATION:	MURPHY DOME FIELD, CORBETT BATTERY TREATER PIT, NE¼, NW¼, SECTION 1, T43N, R92W, HOT SPRINGS COUNTY, WYOMING
PERMIT NUMBER:	Wy-0024198
(24) APPLICANT NAME:	FARMER'S UNION CENTRAL EXCHANGE
MAILING ADDRESS:	P.O. BOX 126 LAUREL, MONTANA 59044
FACILITY LOCATION:	MURPHY DOME FIELD, HANCOCK SHANNON BATTERY, NE¼. NE¼, SECTION 34, T44N, R92W, WASHAKIE COUNTY, WYOMING
PERMIT NUMBER:	Wy-0024201
(25) APPLICANT NAME:	FARMER'S UNION CENTRAL EXCHANGE
MAILING ADDRESS:	P.O. BOX 126 LAUREL, MONTANA 59044
FACILITY LOCATION:	MURPHY DOME FIELD, SHAD LEASE WATER KNOCKOUT NO. 1 SE¼, ND¼, SECTION 1, T43N, R92W, HOT SPRINGS COUNTY, WYOMING
PERMIT NUMBER:	Wy-0024210
(26) APPLICANT NAME:	FARMER'S UNION CENTRAL EXCHANGE
MAILING ADDRESS:	P.O. BOX 126 LAUREL, MONTANA 59044
FACILITY LOCATION:	MURPHY DOME FIELD, SHAD LEASE WATER KNOCKOUT NO. 2 SW¼, SE¼, SECTION 6, T43N, R91W, HOT SPRINGS COUNTY, WYOMING
PERMIT NUMBER:	Wy-0024228
(27) APPLICANT NAME:	V.R. GALLAGHER
MAILING ADDRESS:	1110 METROBANK BUILDING DENVER, COLORADO 80202
FACILITY LOCATION:	FUSSELMAN — EDWARDS WELL NO. 1 NE¼, NW¼, SECTION 34, T44N, R92W, WASHAKIE COUNTY, WYOMING
PERMIT NUMBER:	Wy-0027570
(28) APPLICANT NAME:	GETTY OIL COMPANY
MAILING ADDRESS:	P.O. BOX 3360 CASPER, WYOMING 82602
FACILITY LOCATION:	LAKE CREEK TENSLEEP UNIT BATTERY NO. 1 SECTION 14, T43N, R92W HOT SPRINGS COUNTY, WYOMING
PERMIT NUMBER:	Wy-0002984

(see next page)

OPINION

Gloom and doom: the prognosis biz broods and deludes

by Geoffrey O'Gara

Like the ticking of a bomb, dire statistics set the beat of the Seventies: **The Limits of Growth**, published in 1972, recited numbers showing that the world's resource well was running dry; the Ford Foundation's **A Time to Choose** warned Americans they must change their energy habits or face the consequences, painted by the gloomy numbers; and now the State Department and the Council on Environmental Quality have issued the **Global 2000 Report to the President**.

This one outdoes its predecessors: It consumes 766 pages telling us that the environment is in danger, world population overflowing, and the poor getting poorer and more angry. The numbers point that way — energy is more scarce, humans more numerous, the ice caps likely to melt, and so forth.

This kind of prognosticating has become quite an industry, and perhaps because of that, the ticking bomb has begun to sound like a metronome. We are told every few years that our extinction draws nigh. The reports are the streetcorner doomsayers of the bueaucratic age, clothed in statistics rather than sackcloth.

Sometimes the warnings are right and beneficial, like Rachel Carson's **The Silent Spring**. Sometimes the ideas are original, but a step away from reality. Other times, the numbers trail leads off into an oblivion that never arrives.

Should we take them all seriously, or none? Or some? Julian L. Simon, a professor of economics at the University of Illinois, Urbana, argues in the June 27 **Science** magazine that some of the most prominent doomsayers are not to be trusted. Faced with the grim specter of enlarging deserts worldwide, Simon attacks the Worldwatch Institute, a big wheel in the doomsayer industry, for spreading stories about the worldwide decline of arable land. He cites statistics gathered by the United Nations' Food and Agriculture Organization indicating that "arable and permanent cropland" have actually risen from 1965 to 1974, from 1403 to 1507 million hectares. He notes that per capita food production worldwide has increased at a rate of about one percent a year over the last quarter-century.

Simon questions the prevailing notion that on the whole the environment is deteriorating. He cites Environmental Protection Agency and U.S. Geological Survey figures showing that sulfur dioxide and suspended particulates in the air have declined in recent years, and drinkable water in the United States has increased.

We know firsthand by simply looking at the Denver skyline that some things are getting worse, but in our own region we could use a little of Simon's skepticism. Our biggest fear here is that the energy development that has already scarred delicate dry lands will continue to eat up the landscape at a faster and faster rate. But just last week the Department of Energy backed off its earlier predictions of mammoth increases in coal production for the Powder River Basin; it knocked the numbers down by over 50% for 1990. And some energy experts say those projections still do not adequately reflect the genuine trend towards lower energy consumption in this country.

What motivates the doomsayers? Some really believe it, and are horrified by the crowded, dirty future they envision. But there is also a pool of grants, book contracts and notoriety enticing many an ambitious academic to bathe. And that funding is more likely to go to a messenger foaming with bad news than to a scientist who says things are no better-no worse, or only mildly bad.

There is also the Utopian vision that underlies so much of American thinking — we have always dreamed a world in which food, freedom and fun were plentiful. The future may not look so bad compared to a past littered with famine, war and poverty; compared with Utopia, though, it's awfully grim.

To some, the debunking of the doomsayers may seem a pointless exercise — and the statistics used to counter the doomsday forecasts are as fragile as the numbers they attack. Indeed, both sides — throwing around today's "facts" to illustrate tomorrow's tragedy — demonstrate what Henry James called "the fatal futility of fact."

There is an argument, too, that doomsayers, even if they are wrong, at most make us more cautious or at worst have no effect at all.

Simon disagrees. "We should not shrug off bad news as harmless exaggeration," he writes. "There will be a loss of credibility for real threats as they arise, and loss of public trust in public communication."

Thumbing over the glossy, illustrated **Global 2000** report, a reader may wonder if that trust has already been lost. They spent $1 million to deliver this bad news; and yet what most readers hear is not the ticking of an expensive bomb; it's the metronome, and we go on about our business to its beat.

Dear Friends,

If one were inclined to get sentimental about comings and goings, there would have been enough mistiness in the **HCN** offices this year to grow hothouse tomatoes. For a while, the accent was on "goings" — but lately, the tide has quietly turned.

We do have another departure to report: Betsy Schimelpfenig, who has filled in for three months as interim production manager, is producing her last issue this week. When Hannah Hinchman decided to leave her production job and go to art school, Betsy stepped in from the circulation department. With a short break-in period, she kept us readable during the long search for Hannah's replacement — and still found time for her circulation work, some drawings and maps, and her son Sam. She had the endurance and good humor that the job requires — but she is sticking with her plan to return to school this fall, aiming ultimately to be a veterinarian.

Kathy Bogan is taking over as production manager. She emerged from a pack of applicants the way staff members often do — an artist and instructor at Lander's National Outdoor Leadership School, she had friends in town who simply matched her to the job and encouraged her to apply, then encouraged us to consider her.

Kathy is not the only "coming" we have to report. Two longtime **HCN** stalwarts, Dan Whipple and Marjane Ambler, are back in town. Dan tried the bigtime — **Business Week** in Houston, Tex. — and decided, as the bumper sticker says, "I'd rather be in Lander." We'll be seeing his articles in future issues, and will test his reputation as the "Master Straightener" on production days. Marjane is still studying Indians and energy development under a grant from the Alicia Patterson Foundation, and a sample of that work is running in this issue.

Also returned to the fold is Phil White, our correspondent in Cheyenne, who stopped by recently to chat about butterflies, geysers, and some of the other fauna and flora that reach our pages through his busy brain. Refreshed by a summer devoted to other pursuits, Phil has promised us an interesting piece or two this fall.

— the staff

(29) APPLICANT NAME: GETTY OIL COMPANY
MAILING ADDRESS: P.O. BOX 3360 CASPER, WYOMING 82602
FACILITY LOCATION: LAKE CREEK TENSLEEP UNIT BATTERY No. 2 SECTION 11, T43N, R92W HOT SPRINGS COUNTY, WYOMING
PERMIT NUMBER: Wy-0002992

(30) APPLICANT NAME: GETTY OIL COMPANY
MAILING ADDRESS: P.O. BOX 3360 CASPER, WYOMING 82602
FACILITY LOCATION: LAKE CREEK TENSLEEP UNIT BATTERY NO. 6 SECTION 10, T43N, R92W HOT SPRINGS COUNTY, WYOMING
PERMIT NUMBER: Wy-0003000

(31) APPLICANT NAME: GETTY OIL COMPANY
MAILING ADDRESS: P.O. BOX 3360 CASPER, WYOMING 82602
FACILITY LOCATION: B.C. PRESCOTT LEASE, SECTION 36, T44N, R92W WASHAKIE COUNTY, WYOMING
PERMIT NUMBER: Wy-0003026

(32) APPLICANT NAME: GETTY OIL COMPANY
MAILING ADDRESS: P.O. BOX 3360 CASPER, WYOMING 82602
FACILITY LOCATION: J.F. GARDNER LEASE, SECTION 35, T44N, R92W WASHAKIE COUNTY, WYOMING
PERMIT NUMBER: Wy-0003034

(33) APPLICANT NAME: GRACE PETROLEUM
MAILING ADDRESS: 1515 ARAPAHOE STREET DENVER, COLORADO 80202
FACILITY LOCATION: SOUTHEAST NOWOOD OIL FIELD, NOWOOD GOVERNMENT "A" LEASE, SW¼, SE¼, SECTION 9, T48N, R90W, WASHAKIE COUNTY, WYOMING
PERMIT NUMBER: Wy-0001601

(34) APPLICANT NAME: GRACE PETROLEUM
MAILING ADDRESS: 1515 ARAPAHOE STREET DENVER, COLORADO 80202
FACILITY LOCATION: SOUTHEAST NOWOOD OIL FIELD, NOWOOD GOVERNMENT "B" LEASE, SE¼, SW¼, SECTION 9, T48N, R90W, WASHAKIE COUNTY, WYOMING
PERMIT NUMBER: Wy-0001619

(35) APPLICANT NAME: KOCK PRODUCTION COMPANY
MAILING ADDRESS: P.O. BOX 850 WORLAND, WYOMING 82401
FACILITY LOCATION: RUTH A. RICE LEASE, NE¼, NE¼, SECTION 22, T48N, R90W, WASHAKIE COUNTY, WYOMING
PERMIT NUMBER: Wy-0026131

(36) APPLICANT NAME: ZOLA VAN NORMAN

(see next page)

Letters

NO NUCLEAR PLANS

Dear **HCN**,

I read each issue of **HCN** with interest. Your perspective on the energy and environmental issues is useful and your coverage of Utah issues is generally fair and accurate. Don Snow's article on coal development in Carbon and Emery Counties was particularly interesting and serves to underscore the problems associated with rapid population growth in rural areas.

However, I must object to one statement in your "Dear Friends" discussion of Mr. Snow's article: "Why does Utah ask the Department of Energy to consider siting a nuclear park in it's borders when every other state shunned the idea?" The State of Utah has never requested or supported the siting of any nuclear energy facility in the State. The Department of Energy has been directed by law to analyze the concept of "clustered" nuclear power plant siting, in contrast to traditional dispersed siting. National screening studies identified a region near Green River, Utah, as suitable for such a study. Gov. Scott Matheson and the Utah Energy Conservation and Development Council agreed to the study of a hypothetical nuclear energy center, provided that certain conditions were met.

First among those conditions was a recognition that the study represented no commitment by the State of Utah toward any nuclear development. The study has proceeded on that premise. There is not now, there has not been and there is not expected to be any proposal for construction of a nuclear plant in Utah.

It is our hope that the information generated by the DOE-funded study will be useful in addressing more likely scenarios for coal and synthetic fuel development. The decision to proceed with this study was carefully debated and studied and represents an attempt to make decisions about Utah's future with the best information available.

Utah is not the only state involved in this program. South Carolina is nearly finished with a similar study which addresses the questions associated with siting in the eastern portion of the country as well as generic safety issues.

Kent Briggs
State Planning Coordinator
Salt Lake City, Utah

POPPY PLANTATIONS

Dear **HCN**,

As an ex-New Yorker I can remember how difficult it was to appreciate the alarm caused by the advent of large-scale coal development in the West as described by sundry news articles in the early seventies, especially when the view from my parent's apartment included the Con Edison power plant across the EastRiver.Living and traveling in the Southwest since then has been quite a learning experience.

From your article on the **INFORM** study (**HCN** 7-11-80) it looks like the corporate mine operators and their distant cousins in the federal bureaucracy are operating with similarly clouded perspectives.

I would like to suggest planting the state flowers of the major coal consuming regions. The most appropriate being, of course, the California poppy, in huge fields larger than any in its native state. With large clumps of coal strewn above ground to set off the fire red flowers. (And I imagine enough lime strewn in the soil to counteract the leaching of the coal?)

To some extent the layout of the plants will depend on the local topography, but it might be intriguing to use the contrasting flower colors to form lines simulating the linear contours on topographic maps, or to attempt to duplicate the patterns of thermographs or other images based on radiation, or even photographic solarizations, as opposed to rigid geometrical forms.

Jacqueline Wolff
Hollywood, Calif.

CANYON BURROS

Dear **HCN**,

I was very surprised by your attitude in a short article about Grand Canyon wild burros in your June 13 issue. Most conservation groups support the National Park Service's plan to shoot the burros if no one can find an economical way to remove them.

Since the Wild Horse and Burro Act prohibited the Park Service from shooting the burros, the feral burros have taken over the inner canyon. They compete with native bighorn sheep for food, they pollute the extremely scarce and sensitive watersheds, they overgraze their range, and they cause considerable erosion. Furthermore, they multiply at a rate of 40 to 50 percent per year. Although they are picturesque, they are not native, but were turned loose by miners when they abandoned their claims in the canyon.

The National Park Service has tried many ways of herding and live-trapping excess burros in the past few years. Few methods have worked and the ones that were successful are **very** expensive. As a taxpayer I cannot support paying $1500 per animal to get them out of the canyon, only to have them wander back in (as many have).

The Park Service is allowing a private group to come in and try to control the burro population. If that doesn't work they will shoot excess burros. I feel that shooting is more humane than some of the methods that have already been tried. In trying to round up burros on the rough terrain, sometimes good saddle horses are hurt and have to be destroyed.

It's been several years since I was in the canyon. The last time I was there was when Park Service rangers were still shooting burros, prior to passage of the Wild Horse and Burro Act. I saw only six burros, but I hiked through a water shed where the burros had just been mating. The soil and vegetation were torn up and there were droppings everywhere, including all up and down the streambed. I had to go three more miles to get water from the next stream. Bighorn sheep would not drink either, as they are discriminating like humans in their drinking habits. A friend of mine hiked in the same location this year. He saw numerous groups of 20 or more burros. I hate to think what the vegetation and water quality was like.

Meg Weesner
John Day, Ore.

MAILING ADDRESS: P.O. BOX 481
THERMOPOLIS, WYOMING 82443

FACILITY LOCATION: KIRBY CREEK OIL FIELD,
GUN BARREL, SW¼, SECTION 21,
T43N, R92W, HOT SPRINGS COUNTY, WYOMING

PERMIT NUMBER: Wy-0027308

Facilities are typical oil treaters located in Hot Springs, Washakie and Big Horn Counties, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharges are to Class IV waters, Dead Horse Gulch, Cottonwood Creek, Milton Draw, Coyote Coulee, Brome Draw, Mud Creek, Nowater Creek and Alkali Creek. Three Getty facilities discharge into Lake Creek (a Class II water) via an unnamed drainage.

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

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

(37) APPLICANT NAME: GROS VENTRE UTILITY COMPANY

MAILING ADDRESS: P.O. BOX 2263
JACKSON, WYOMING 83001

FACILITY LOCATION: NORTH OF THE TOWN OF JACKSON, WYOMING
TETON COUNTY

PERMIT NUMBER: Wy-0021296

The Gros Ventre Utility Company operates the wastewater treatment facility which serves the Jackson Hole Golf and Tennis Club and which is located north of the Town of Jackson, Wyoming. The wastewater treatment facility consists of two extended aeration package plants followed by chlorination and a polishing pond. The operator has the option of discharging from a lift station located prior to the polishing pond (discharge point 001) or from the polishing pond (discharge point 002). Both discharges would be to the Gros Ventre River (Class II Water) via an unnamed drainage.

The proposed permit requires compliance with national secondary treatment standards and Wyoming's in-stream water quality standards effective immediately. In addition, the proposed permit requires periodic self-monitoring of effluent quality and quantity with reporting of results quarterly.

The permit is scheduled to expire September 30, 1985.

(38) APPLICANT NAME: WADE'S MOBILE HOME MANOR

MAILING ADDRESS: P.O. BOX 277
LARAMIE, WYOMING 82070

FACILITY LOCATION: SOUTHWEST SIDE OF CITY
OF LARAMIE, WYOMING,
ALBANY COUNTY

PERMIT NUMBER: Wy-0024651

Wade's Mobile Home Manor is located on the southwest side of the City of Laramie, Wyoming. The facility's wastewater is treated by an extended aeration package plant and chlorinator which discharges into an unnamed drainage which is a tributary of the Laramie River (Class II Water).

The proposed permit requires compliance with national secondary treatment standards and Wyoming; in-stream water quality standards effective immediately. In addition, the proposed permit requires periodic monitoring of effluent quality with reporting of results quarterly.

The permit is scheduled to expire September 30, 1985.

(39) APPLICANT NAME: WYOMING INFORMATION CENTER
MAILING ADDRESS: WYOMING HIGHWAY DEPARTMENT
P.O. BOX 1708
CHEYENNE, WYOMING 82001

FACILITY LOCATION: SOUTH OF THE CITY
OF CHEYENNE, WYOMING
LARAMIE COUNTY

PERMIT NUMBER: Wy-0024694

The Wyoming Highway Department operates the Wyoming Information Center located South of the City of Cheyenne, Wyoming. The wastewater treatment facilities serving the Center consist of an extended aeration package plant followed by chlorination and a polishing pond. In addition, a trailer dump station located . the Center is served by a non-discharging septic tank and leach field system. The polishing pond discharges into the Clear Creek drainage (Class IV Water).

The proposed permit requires compliance with national secondary treatment standards and Wyoming's in-stream water quality standards effective immediately. The proposed permit requires periodic self-monitoring of effluent quality and quantity with reporting of results quarterly.

The permit is scheduled to expire September 30, 1985.

STATE-EPA TENTATIVE DETERMINATIONS

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

PUBLIC COMMENTS

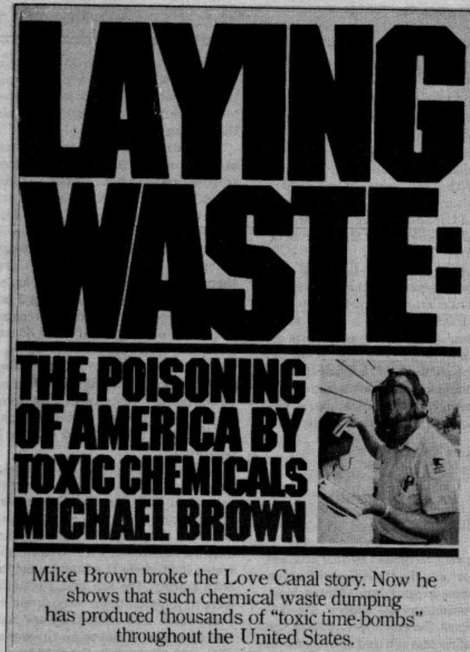
Public comments are invited any time prior to October 6, 1980. Comments may be directed to the Wyoming Department of Environmental Quality, Water Quality Division, Permits Section, Hathaway Building, Cheyenne, Wyoming 82002, or the U.S. Environmental Protection Agency, Region VIII, Enforcement Division, Permits Administration and Compliance Branch, 1860 Lincoln Street, Denver, Colorado 80295. All comments received prior to October 6, 1980 will be considered in the formulations of final determinations to be imposed on the permits.

ADDITIONAL INFORMATION

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

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

Public Notice No: Wy-80-009



Michael Brown, Pantheon Books, New York, 1980. $11.95, hardcover, 351 pages.

Review by Peter Wild

The opening scene of our low-budget horror movie presents the Shroeders. Typical middle-class Americans, they live on a quiet residential street. While Tim is off pouring cement during the day, his wife Karen putters around their ranch-style house, keeping up the shrubs and lawn, taking an occasional proud glance at their fiberglass swimming pool.

One day while idly gazing out a back window, Karen gasps. As if it possessed a mind of its own, the water is rising right out of her pool. Frantic, Karen runs to call Tim. At the same time, neighbors are experiencing strange problems. A weird black sludge is oozing out of people's lawns, creeping into their basements.

Our protagonists rally with buckets and mops and bulldozers. But nothing can stop the invasion. One whiff of the globby stuff and dogs keel over dead. Children break out in splotches. They whirl in playgrounds, rolling their eyes, seemingly possessed. Some adults run to and fro frenetically, while others sit on the edges of their beds afflicted with headaches and depression. Babies are born with hideous defects. At the height of the crisis, the mayor leaves for a vacation in Ireland; other government officials, not so lucky, simply shrug and turn back to their paperwork.

For eighty pages Michael Brown, the reporter who broke the Love Canal story, documents the progress of the nightmare. The unreal horror is real; this is no harmless Saturday matinee thriller. The Love Canal disaster left hundreds of people financially and emotionally distraught, many of them eaten by cancer. And unlike the solution in **The Blob**, the Love Canal monster was not finally scooped up by helicopter and discarded far out at sea.

Books

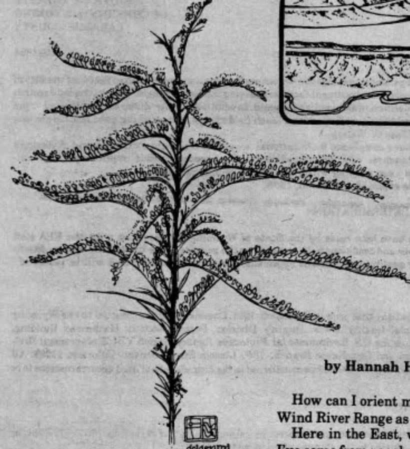
The problems created by the reckless dumping of carcinogens by the Hooker Chemical Company will persist through generations of misshapen children.

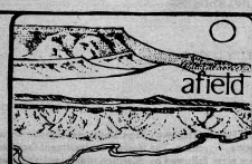
We pity those people of Niagara Falls, New York, then breathe a sigh of relief that we are not numbered among the helpless victims. But Brown will not let us off that easily. His next section samples thousands of waste sites scattered across the nation from Massachusetts to Florida, from South Carolina to Oregon. Here in the West, for example, schools have been built of radioactive tailings from uranium mines. In some parts of Colorado, officials puzzle over what to do about concentrations of mercury, PCBs, and DDT in local water supplies. Every state in the Union is dotted with toxic witches' brews.

And don't feel smug if you haven't got a chemical plant in your backyard. Because industrialized states have tightened disposal regulations, "midnight dumpers" export the wastes to unsuspecting rural areas — a farmer's field, an out-of-the-way creek. Some don't even bother going that far. Police caught one "moonlighter" who drove around at night with the spigot on his tank truck open, casually trailing a deadly stream of PCBs on country roads. Multiply that a hundred times, a thousand times.

Hauled into court, one dumper protested that he thought he was disposing of nothing more lethal than "spaghetti sauce by-products."

The problems of chemical wastes are so bizarre, alarming, and widespread that the public may despair of solutions. Countering the belly-up attitude, Michael Brown lambastes the Environmental Protection Agency. For fear of offending the politically mighty chemical industry, EPA often finds it convenient to "look the other way," according to the author, who has written a rational account despite his anger and frustration. With the exception of some brave officials, EPA policy makers salve their consciences with platitudes about political realities and environmental trade-offs. In the context of this book, they are hardly convincing. As Brown details, he himself took some knocks from the publisher of his newspaper when he started exposing locally powerful Hooker Chemical. The reporter has been bruised, but he's not down. His last chapter, "Epilogue: The Road Back," suggests ways for citizens to regain control of their chemically-invaded lives.





by Hannah Hinchman

How can I orient myself without the Wind River Range as part of my spine?

Here in the East, when I say where I've come from people don't write me off as a hayseed. Instead, they get a dreamy look in their eyes — it's clear I've opened a fantasy door with the word "Wyoming." The harried graphics designer in mid-town Manhattan stops his palaver when he hears it, slows down, settles back. It's the land of his dreams, he says, and tells me to start again at the beginning with my story.

There are so many layers of fantasy about the West we must unravel when we arrive; some that others have woven, some that we've spun ourselves. Just the idea of wildness — in the East it is an intimate and elusive thing with leprechaun habits. You may surprise it in a ferny hollow. Or feel its presence in the trunk of a white oak tree. It has to be stalked and waited for. In the West, wildness is colossal and ever present. It's too obvious. It stands outside all the pleasant historical associations that weave through Eastern wildness.

White man's history of the Old West is a deep fantasy layer, hard for newcomers to dig through. If they go out on the Red Desert a few times they'll see recent history's frantic scratchings. If they take a good long look at Jeffrey City, Wyo., they'll see how the fierce countenance of wildness makes people feel tired, quiet and homeless, realizing they are leaving only a few more frantic scratchings.

The mountainous billboard in Times Square depicting the familiar Marlboro Man on his fine Wyoming quarter horse made me more homesick than anything I had encountered on the long journey away from the West. With all the millions of lights and colors around, even the photographic image of Wyoming light, many times removed, was stunning.

I stood there — a new arrival myself — hoping that the people who follow that image out West will find some new resources in themselves. Our fantasies of the West are colorful and carry many of our fondest notions. But they run dry. Our history looks shabby when you examine it, a process based on greed.

When the fictions don't pan out, too many take what they can get from a place and move on. I hope the new arrivals in the West will look up from the picturesque and rugged and be able to sense, maybe for just a moment or two at first, the real place: empty but far from barren, immense but poised so lightly.