

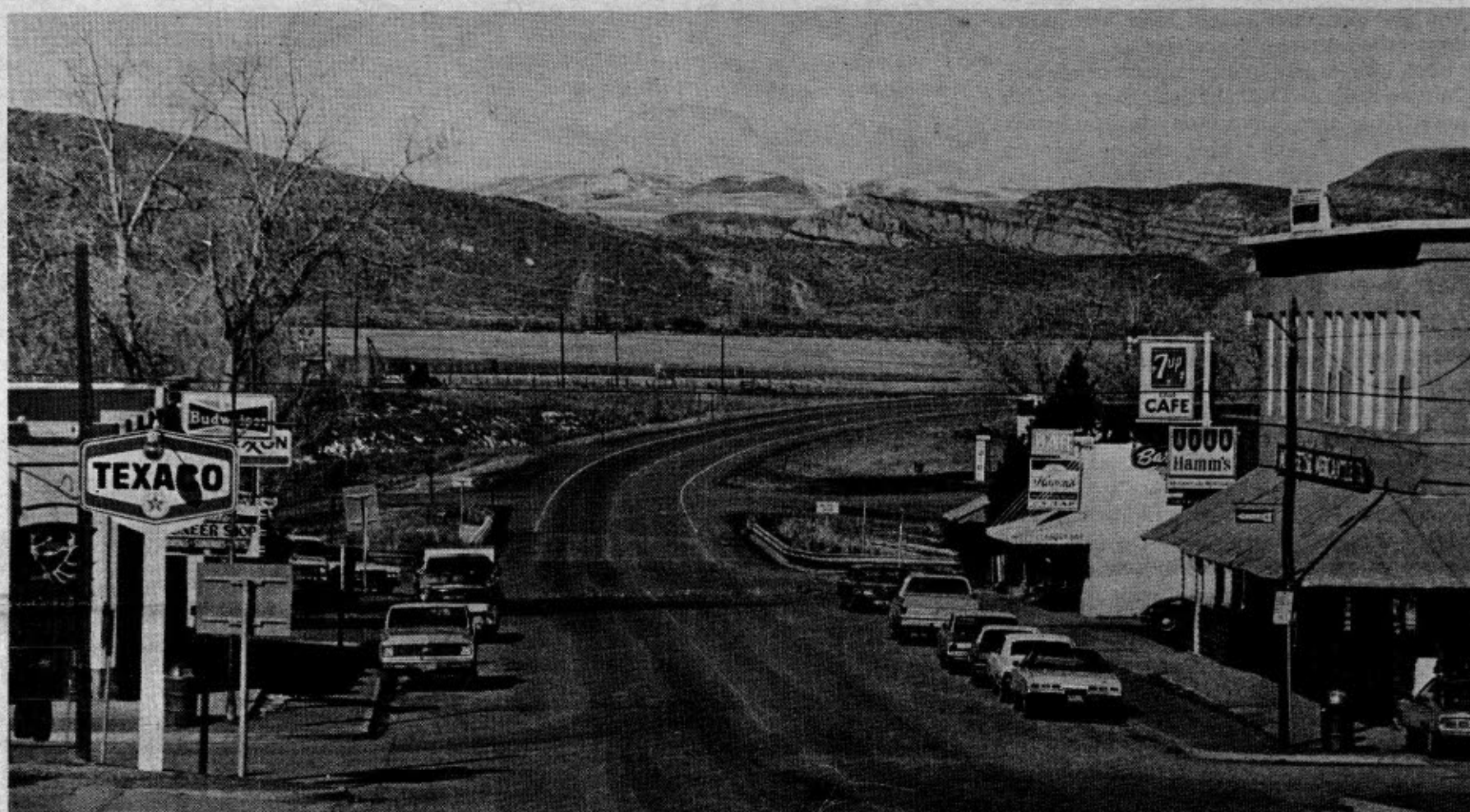
The Environmental Bi-Weekly

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Lander, Wyoming

Friday, November 22, 1974



The little town of Meeteetse awaits its fate quietly on the surface, but the proposed copper mine 39 miles up the valley has riled some of the residents who have organized the Meeteetse Preservation

Organization. At the two cafes in town, the Pioneer Shop with the antlers on the door to the left of this picture and the Club Cafe on the other side of the street, conversations with patrons prove that not all the residents feel the same way.

Meeteetse contemplates its future

by Marjane Ambler

Meeteetse, today, is a small cowtown near the Absaroka Mountains in northwest Wyoming. When you stop at one of the two cafes in town, and you don't look like a hunter, you feel the eyes of the community watching with curiosity to see what could have brought you here. Locking the car door behind you is a sure sign that you're new to these parts. Residents number 430, according to the sign, but anyone you ask will quickly tell you the sign hasn't been changed in years, and there aren't that many anymore.

Meeteetse's tomorrow is now in question. It may be determined early in 1975 when American Metal Climax, Inc. (AMAX) decides when to proceed with an open pit copper mine up the Wood River Valley at the old ghost town of Kirwin. The mine would remove the top of Bald Mountain, and more than 700 construction workers would be needed — nearly twice the population of Meeteetse — during part of the two year construction period.

The people of Meeteetse have different opinions on whether or not their fate is in the hands of AMAX — if you can get them to discuss it.

In the Pioneer Cafe and Drug Store, the talk at the counter is of other things even though little Meeteetse has made front page of the *Billings Gazette* displayed at the newsstand in the corner. "Ruckelshaus joining Wyoming mine fight" the headline reads.

Mary Ann Farmer, waitress behind the counter and a Meeteetse native, says the mine proposal hasn't brought too much controversy into the cafe. After all, AMAX has been at the Kirwin site since 1961 test drilling the site.

Farmer believes it is inevitable. "If the government wants it, they're going to get it," she says apparently assuming most of the copper would be used for government mints. She adds that if Meeteetse doesn't cooperate, the community will lose out.

The waitress at the other cafe in town agrees that

the town could do nothing to stop the mine even if it wanted to. "There's only one guy who could do anything about it, and he's not here," she says, pointing heavenward.

Both waitresses and their customers that day look forward to the money and the new faces the mine would mean. "Meeteetse is dying; everybody is driving to Cody to do business," Farmer says. The store she works in used to include a pharmacy, but it closed a year and a half ago and prescriptions now have to be sent to Cody. The town also lost a grocery store and the only barbershop within the past two years. "I own property in town, and I don't want to have it worth nothing," she says.

She admits, however, that a classic symbol of a dying town — vacant houses and stores — is mis-

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"Meeteetse is dying; everybody is driving to Cody to do business. . . I own property in town, and I don't want to have it worth nothing." Mary Ann Farmer

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HIGH COUNTRY

By Jane Bell

I have just re-discovered what every craftsman, farmer, and do-it-yourselfer knows from first hand experience. Your hands are the most important tools you have. And they are the most vulnerable to hurt, injury, and damage. That term "first hand" has a logical derivation from all the skills and trades known to man.

Only a few short weeks ago, my hands were the soft, manicured tools of an editor. Now they bear the marks and scars of one who does far more than push a pencil and work a typewriter. I have a blackened nail on each hand; there are fresh scratches and scars on both, and the blisters of August have been transformed into the calluses of November.

Last week I was nearly in desperation because both hands hurt so badly and I still had so much to do. My left hand still has a small hurt from a broken bone in the heel of it — received from the handle of a 16-pound sledge. I got that about a month ago while driving the two-inch steel casing for our well. I never went to a doctor because I didn't want to be hampered by a cast or bandages. Both wrists and my right forearm were strained from lifting and moving pumice and cement blocks. A change in the work done has helped both.

Hands are so important to the man on the land because of the variety of tasks they are called upon to do. I didn't really appreciate that fact until I was contemplating my cut and hurting hands last week. I hadn't really appreciated them until I had them in such bad shape that I could hardly use them, or even sleep at night because of the hurt in them. But I got to thinking of all they had done for me in these past weeks since August. They have, in turn, been the hands of a plumber, carpenter, electrician and farmer. They dug ditches and moved rock to lay pipe and fit it for a water system, and to install a complete sewer system. They made forms and worked concrete, then mixed mortar for laying pumice block. Before that they had shoveled several tons of sand and crushed rock for the basic materials for concrete.

They built a porch of lumber, poles, plywood and roofing tin, and assembled a small, pre-fit shed. They hand-sawed, fit, and nailed a set of roof trusses for the well building. They sawed logs and poles for firewood with both chain saw and cross-cut, and then chopped and split the wood with axe and wedge.

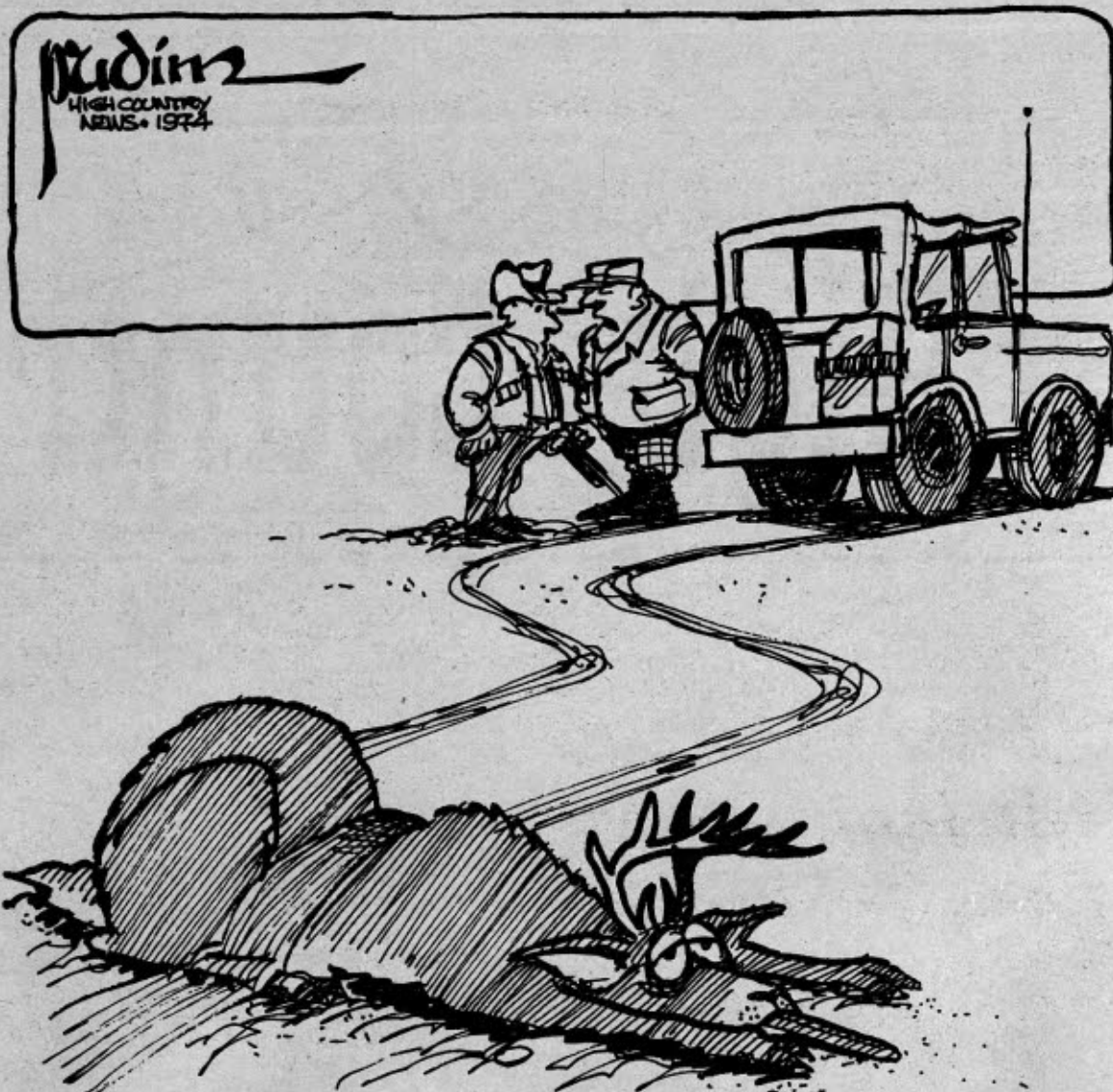
They assembled and installed stove pipe and metal chimney for the wood-burning heating stove. It meant cutting and fitting on the mobile home itself.

They installed an electric powerplant, connected it to the wiring system, and only made one small mistake. They will be called upon to do all the wiring necessary for our house as we build it.

They have set fence posts, strung barbed wire and installed metal gates in the never ending task of building and maintaining fences. They are now drawing plans for a barn and chicken house. As we acquire livestock, they will be called upon to gently frightened animals and tend to wounds. They will be the hands of a mid-wife at the sometimes difficult births of calves, lambs and other babes of the farmstead. They will milk the cows the old-fashioned way, and pick the feathers and pull the entrails from chickens, ducks and turkeys grown for home use. They will butcher the meat animals, cut the meat, and cure the hams.

They will put up hay, plant potatoes, hoe gardens, pick apples, squeeze cider and grind grain.

In other words the tasks never end for busy and willing hands. Those who would go to the land must know and appreciate the place of their hands and what they will be called upon to do, or they are doomed to awful mistakes or failure. But the rewards are worth the effort. Those two wonderful, useful appendages at the end of our arms can bring satisfaction that cannot be measured except in terms of the heart and peace of mind.



"THAT'S HOW YOU DO IT. NOW, FOR ELK, YOU HAVE TO USE A TRUCK."

Letters

Dear Editors,

Congratulations for bringing the Nevada Range Report to your many readers. We (Wild Horse Organized Assistance — WHOA!) are getting the word out to our members also, and it is our personal feeling that the evaluation is long overdue. An original news release out of Washington, which I received by telephone, concluded with the statement that conditions set out in the report were not unique to Nevada, which presents rather a bleak picture of our public land resource throughout the West.

Please know how much I enjoy **High Country News**, and even more importantly how grateful I am that there are people like you!

Very Sincerely yours,
Velma B. Johnston
(Wild Horse Annie)
Reno, Nevada

Editors:

Having read Dave Sumner's article on "Mickey Mouse Replaces Elk," and living in Dubois alongside the Disney holdings, we would like to make the following clarifications.

First of all, the Disney Corporation has been a very strong supporter of the controversial DuNoir Wilderness Study Area, a key elk calving ground in the Wind River Valley. Secondly, many elk winter in their DuNoir valley hayfields, and hunting access has been rather restrictive. The Disney Corporation has done far more to protect habitat and

wildlife on their landholdings here in Dubois than is often the case with private landholders. To date, all their actions indicate that elk have a higher priority here than does Mickey Mouse.

However, we too have run into much rumor and speculation about future development of this property. We therefore feel it would be timely and advisable for the corporation to set its intentions down in writing, perhaps in a letter to this newspaper.

Finally, the ranch's manager is subdividing some of his own landholdings around Dubois, but this activity should not be confused with the Disney Corporation.

We regret that such implications of future development were made in the article without first checking with people in the area. The article has generated some negative feelings among people we should be supporting and encouraging for the good they are presently doing.

Sincerely,
Laney Hicks
Pamela Rich
Northern Plains Office of
the Sierra Club
Dubois, Wyo.

Dear Editors:

Your paper absolutely astounds me as to where and how you gather and edit all the environmental information; it is superb. You



Editorials



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Strange Wyoming bedfellows

Bill Budd, executive secretary of the Wyoming Mining Association, told the Wyoming Wool Growers Association convention in Buffalo this month that the miner and the sheepman should be friends. He said the two are natural allies but have been torn apart by radical, emotional environmentalists who are forcing useless and costly requirements on reclamation and air and water quality maintenance.

Budd called the woolgrowers' attention to the rising cost of baling wire, barbed wire, fertilizer, labor costs, and feed. He said many of these products come from the mining industry which is experiencing increased fuel, labor, and materials costs. He pointed his finger at "pointless and costly" environmental requirements like stockpiling topsoil

and insisting that coal-burning power plants install pollution control devices.

Budd's attempt to blame inflation on the conservationists and his insensitivity to the real needs of the woolgrower must have seemed absurd to the sheepmen. The mining industry seems willing to sacrifice the land's topsoil, water, and clean air to provide cheaper baling wire. It doesn't take a degree in ecology or longer than a day on a ranch to know that without topsoil, water, and clean air, there won't be any grass. And without grass there would be no sheep. Granted we might have alot more barbed wire to fence off the unreclaimed land, but maintaining productive range is our most important task.

As Norman Palm, vice-president of the woolgrowers, pointed out to the convention, in our haste to solve the energy shortage, let us not forget the top six inches of ground which grows the food that is in such short supply around the world. —BH

Strip Montana— spare Texas

Beginning in 1978, the Decker Coal Company, which operates a strip mine at Decker, Mont., near Sheridan, Wyo., will be shipping coal to Austin, Tex. The coal will supply a coal-fired electric generating plant to be built by the city of Austin and the Lower Colorado River Authority in Fayette County, Tex.

Texas has enough lignite coal within its borders to power all the state's electric generating plants with fuel for 300 years, according to Texas Gov. Dolph Briscoe's office. The Lone Star State has over one million acres of strippable coal reserves. So why are we stripping the Northern Plains and shipping coal to Texas from Montana?

If Texas has its own extensive rich coal reserves then there is no reason to strip our range land, make our ranching communities into boom towns, and consume our scarce water. Is this what "national need" is all about? —BH

Guest Editorial

Oil refineries on again, off again

Reprinted from STRAIGHT CREEK JOURNAL, Nov. 12, 1974

All those of you who have suffered through the so-called energy crisis and its corollary high prices will be dismayed to know that industry arguments have now come circle.

During the period of the worst fuel shortages last year, you see, the major oil companies placed the blame on the fact that they had not been granted approval to build new refineries. As a result, the companies explained, there would be gasoline shortages and prices would inevitably rise.

tages and prices would inevitably rise.

This past week, the Mobil Oil Corporation announced that it was scrapping previous plans to build a multi-million-dollar refinery at Paulsboro, New Jersey. The new reasoning, if you can stand to go on, is that gasoline prices are so high now that consumers aren't purchasing as much gas as they used to. Therefore, states Mobil, the new refinery is not necessary.

must have a very dedicated staff who are also efficient and you must have a good line of communications from all over the United States. Please keep up the good work.

Sincerely,
LeRoy Seyhers
Lead, S.D.

To the editor:

What a crude approach! I do not know how the Lamm for Governor committee got my name and address, but I certainly resent their gall. Further: I trust it is not new HCN policy to release the names and addresses of subscribers who are attempting to support HCN. I suggest that this unsavory situation be dealt with in the next issue of HCN.

Sincerely,
Fred L. Schneider
Marysville, Ohio

Dear Editors:

It was appalling to me to receive recently a letter from the Lamm-Brown political headquarters addressed "Dear High Country News Reader." Obviously your publication permitted use of your mailing list and the Lamm-Brown partisans ineptly made it clear that this had been done.

I could not have objected to your article favoring Mr. Lamm's candidacy although I felt it disclosed a

rather intense editorial bias considering its appearance in news columns. Lending your mailing list for a purely political appeal does not reflect well on your credibility. I am confident it was resented also by other Colorado readers. Do you regularly make a practice of giving or selling your circulation list?

Sincerely,
Frank Starzel
Denver, Colo.

Dear Mr. Starzel and Mr. Schneider:

We are sorry that the letter from Lamm-Brown headquarters upset you. Let us explain the circumstances that surrounded that mailing so that you will understand our position.

The original article on Dick Lamm and two other candidates that appeared in the Sept. 27, 1974 issue of **High Country News** was totally unsolicited. We chose to run it because we thought these nationally-prominent environmentalists in politics made an interesting story and because they deserved our support.

When a Lamm campaign worker in Colorado read the HCN story he called us up to ask us if he could follow up the story with a mailing to our subscribers with a request for a contribution. We asked if, in return, we could have a list of Lamm contributors for a HCN sample mailing. The exchange was agreed upon and we sent Lamm headquarters our list.

The Lamm cover letter ("Dear HCN Subscriber") was read to us over the phone before it was sent out and we agreed to its format. We thought we should be perfectly open with our readers about how Lamm headquarters got their names.

At HCN we find we have to constantly solicit mailing lists and send out samples just to keep a steady number of subscribers. Many publications sell their mailing lists on the open market. We have chosen to give ours up only for select causes — but we do not hide the fact that it has been used several times in the past. We decided to give our list to Lamm because the list we received in exchange would help HCN and because we believed the election of Lamm as Governor of Colorado would be one of the best things that could happen to the Rocky Mountain environment. This was not a partisan move — our allegiance is to the land. We thought it was another opportunity for our readers to help conserve the Rockies' resources. If they didn't like politics, they were welcome to throw it away.

The deed is done. We're sorry we offended you. And we are glad you took the time to communicate your reaction.

We will be printing this letter in HCN to solicit more reader response. Hopefully readers will weigh the benefits we receive from using the mailing list against the inconvenience of receiving occasional mailings and let us know what they want to see us do.

The editors.

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Meeteetse . . .

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sing. She knows there is nothing available in the entire community.

NEED NEW FACES

Gladys Winsor also would like to see AMAX open the mine. She first moved to Meeteetse in 1925, and although she has tried living other places, for some reason that she can't quite explain, she keeps coming back. Sitting at the end of the counter by the window where she can watch the main street, Winsor says, "I'd like to have some new faces around here; I get tired of the same old ones." When she was told there might be 700 people plus their families, she was surprised.

She and Farmer both think that AMAX should pay for new sewer and water lines in the town and for paving the road which leads to the mine.

Winsor believes that there are maybe one third of the people in the area who oppose AMAX opening the mine. A younger woman at the counter says that most of those who oppose it are new to the area. "They came here to get away from all that," she says. She admits there might be some problems brought on by opening the mine. "Right now we don't have much trouble with the kids — then we might have problems like Powell or Cody," she says. Farmer agrees, "We've got good kids; they don't dare do anything because they know it would beat them home."

Farmer questions the motives of some of those who are now fighting the mine although she admits, "Maybe I'd feel the same way if I lived up there in the Wood River Valley."

MPO REJECTS HOPELESSNESS

Much of the energy behind the formation of the Meeteetse Preservation Organization (MPO) first came from ranchers in the Wood River valley down river from the proposed mine and from other area ranchers. Town membership in the MPO has since grown; estimates of support vary. Katherine Dvarishkis, head librarian for Meeteetse and a

"When you're older, you kind of hate to see the way of life that you know change." Katherine Dvarishkis

member of the MPO, believes it's about half and half, but she says one reason is that many people think the mine is inevitable. "If they had their druthers, they'd druther not, but . . ." she says.

They have been rejecting this sense of inevitability since their first meeting on Sept. 7, 1974, when they determined that something needed to be done, raised \$6,000 on the spot, and hired probably the foremost environmental attorney in the country, William Ruckelshaus, who had gone to law school with one of the MPO members, Charlie Rumsey. Ruckelshaus was formerly head of the Environmental Protection Agency.

Those who started the MPO believe the organization is necessary to preserve their way of life and the environment of the area both because of projected size of the Kirwin work force and because of the location for the mining operation. Some MPO members interviewed said they would not fight new small industry or even other mining as vigorously.

A professional man in the community, familiar with the local financial picture, says that because of the number of people brought in, he doesn't believe the mine would ever be a tax advantage to the present residents. "Boom town studies prove that the people living here now will bear the burden," he says.

Without the mine, he states emphatically that Meeteetse is not dying. With it, he hates to say what



On a Monday morning, many of the people of Meeteetse stop by the Pioneer Shop as they do the day's shopping and discuss the news over cups of coffee with Mary Ann Farmer, the waitress.

the future of the town might bring. One problem is the time lag between necessary improvements, such as water and sewer, and new tax money from the new residents. The town cannot force AMAX to help with this impact since there is no state law providing for this. James Cooper, AMAX project manager at Kirwin, has met with the town council and dis-

cussed financing low cost loans for Meeteetse or buying its municipal bonds to help but no firm commitments have been made. Cooper says, "I'm sure we're not going to limit ourselves to the law. We will do whatever is necessary to help out. . . . It's to everyone's benefit to help with problems of that sort."

COMMUTE TO CODY?

According to the environmental study done on Kirwin, the impact would be eased if all the Kirwin employees would live in Cody, which is a larger community, but which is 72 miles from the mine. However, Cooper says that decision would have to be made by the individual employees. Asked about the feasibility of an AMAX bus for employees between the mine and Cody, he says that was not being considered. He thinks, however, that commercial bus lines might see that it would be to their advantage to offer the service.

The professional man interviewed added that one of his biggest concerns in the proposed mine is its location. "Even a mining industry could be acceptable under totally different conditions," he believes. The site is very near the Washakie Wilderness Area. National forest land surrounding the mine, now very remote, would be made accessible by roads for the mining operation since the tailings pond and some of the slurry line for carrying the tailings

would be on forest land.

Other potential environmental impacts listed in the Kirwin Environmental Study included water pollution from leaching of soluble heavy metals and other chemicals, elimination of wildlife habitat, and temporarily closing off more than 1,000 acres of potential outdoor recreation land.

Since the study, tests have been run on water in the water bath after the tailings have settled. The tests show the water is potable by U.S. standards, according to Cooper. Lime is used to balance the acidity which is usually a problem in tailings.

Also since the study, AMAX has decided to reuse its water, pumping it back to the mill from the tailings pond. This reduces water consumption to about 1,500 acre feet per year, according to Am-brose Walsh, AMAX consultant. He said this means no large reservoir will be needed, thus disturbing fewer acres.

To lessen the impact on wildlife anticipated in the study, AMAX has decided to bury some parts of the pipeline. Using time-lapse photography, they're now trying to locate possible wildlife migration routes. Cooper says the line would also be buried when it crosses private grazing land.

NEWCOMERS HAVE SEEN COPPER PITS

When people in the cafes gripe about newcomers opposing the mine, two they're likely referring to are Bill and Pat Lamdin, who moved to the area three years ago from Maryland. Pat knows she might have turned some people off when she spoke out at the community meeting called by AMAX last July because many interpreted her remarks as opposing growth for Meeteetse. Actually, she explained, she was speaking against open pit copper mines and specifically against AMAX.

Bill says they have a bad habit of trying to take on messianic roles. "But you can't say to your neighbors, you've never seen an open pit mine; you don't know how bad it can be," Bill realizes. The Lamdins visited the Kennecott Copper Mine in Utah and brought home a jar of tailings as a reminder. The Kennecott mine is several times larger than Kirwin would be. Shaking the jar to show the powdery consistency of the tailings, they say it's hard to imagine what six miles of tailings look like until you see them. The Kirwin tailings pond could be more than 900 acres when complete.

When they made the move west, they said they didn't really see a blue sky until they crossed the Missouri River in South Dakota. They feel the Meeteetse school is the best their three children have ever been in. Asked what they personally have to gain by being in the MPO, Bill answers quickly, "Blue sky and clean air. We would benefit because we like this country the way it is."

AGRICULTURE THREATENED

Others, who have lived in the area for generations, will also gain personally from involvement in the MPO since they see agriculture as the principle way of life threatened. Ralph Larsen, whose family has been ranching since the 1890s there, says simply that Kirwin would ruin them. Grass is his livelihood, and he runs his cattle on two grazing permits on national forest land. He figures he would lose both since Kirwin developments are contemplated in the same areas. He knows at least three other permittees who would be affected.

Jean Thomas, who manages the Pitchfork Ranch for her mother, Betty, fears the people who would be brought into the area who would have no respect for the land. "This kind of people leaves gates open, starts fires, and drives four-wheel drive vehicles all over the grazing land," she says. Her mother is concerned enough to be vice chairman of the MPO, and her uncle, Howard, is chairman.

Agriculture has served as the relatively secure financial base for the area for years. One of the new ranchers sees mining as a highly insecure base. Pony Duke pointed to the Anaconda Copper Mine which had announced plans to lay off 1,000 workers.

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AMAX wants to be good guy

Newspaper accounts said it would be "a catastrophe for Butte and bad for the whole state of Montana." Duke asks the community to consider what a large layoff or a strike would do to Meeteetse. He cites figures showing that unemployment rates in mining communities are 3.4% above the national rates, which he said could be because mines need two and a half as many workers to get going as they need to produce. Speaking from his own experience, he said mining communities generally don't look prosperous despite claims of the large benefits to be accrued from new payrolls. Others express doubts that workers could work year around so high. Little Bald Mountain is 10,500 feet high.

Asked about employment figures, Kirwin Project Manager Cooper says the maximum number of construction workers needed during the two year construction period would be 700. The construction workers would work seven months each of the two years. Cooper says it was "assinine" to assume these workers would remain in the Meeteetse area on relief rolls after their work was completed when they could instead be earning nine dollars an hour elsewhere. He says these workers would come from in and around the Wyoming area. "Wyoming has developed a mobile force of construction workers," he says, who move from site to site.

WORK YEAR-ROUND

Cooper figures the construction would begin about a year after AMAX makes its decision since it would take about that long to complete all the "paperwork" of permits, applications, and public hearings. After the construction period, he says employment would level off at about 340 and would remain steady. Weather monitoring equipment on the site indicates they can work almost 365 days per year, Cooper says.

The prospect of the mine and of the onslaught of new people is bleak to many of the people of the Meeteetse area. As Katherine Dvarishkis says, "When you're older, you kind of hate to see the way of life that you know change." State Sen. Malcolm Wallop, a special guest for the MPO meeting on Nov. 4, said no one should have to apologize for feeling this way. He told the group they would meet with vague hints that they were being unpatriotic and standing in the way of progress. "Don't be ashamed of the position you take. It's not being unAmerican to say, 'I really like this place just as it is.'"

The hopes of the MPO remain high, especially after the Nov. 4 MPO meeting where both Ruckelshaus and Wallop offered encouragement. Representatives of the Department of Environmental Quality told the success story of Story, Wyo., where residents had opposed a limestone quarry. They convinced the Environmental Quality Council to set aside 25,000 acres, including some federal land, as having unique and irreplaceable scenic, historic, and natural value. Wallop said that under this statute, it is possible that the state has some power over federal lands. This was encouraging to the MPO because the Kirwin mine site is surrounded by national forest.

ENCOURAGEMENT FROM RUCKELSHAUS

Ruckelshaus said there are success stories by groups like the MPO all the time. "One of the things people have to discover is the tremendous power that they have in themselves. The greatest success stories are not where government acts but where the individual citizen acts. . . . You have the power to affect your future, to control your own lives if only you're willing to exercise it," Ruckelshaus said.

The MPO is now organizing fact sheets on several possible impact areas including soil and water conservation, agriculture, social and economic, and environmental concerns. MPO Secretary-Treasurer Mary Ellen Duke says anyone interested in more information or in contributing can write the MPO at Box 201, Meeteetse, Wyo. 82433.

At the Kirwin site and at a site in Colorado, American Metal Climax, Inc. has worked to establish the image of being "the good guy" — one mining industry which has an environmental conscience.

James Cooper, project manager for AMAX at Kirwin, said the Kirwin Environmental Study is an example. The study was conducted by two Colorado consulting firms — the Rocky Mountain Center on Environment (ROMCOE) in cooperation with the Thorne Ecological Institute. Results were published in July, 1973, and Thorne is now working on a supplemental study.

Cooper said the unusual thing about the study is that it is being used as a guide for AMAX in making plans rather than as just a description of potential impacts. State environmentalists have also been

given tours of the site and asked for their comments on the study.

Asked by environmentalists about reclamation, Cooper and project consultant, Ambrose Walsh, say the tailings pond, which may be more than 900 acres, will likely be made into a reservoir when the mine closes so it would be available for storing irrigation water. AMAX is also studying results of tests on revegetating the tailings.

The mine site itself, however, will not be reclaimed after its 35 years in operation.

"There is very little that can be done for reclaiming an open pit mine such as this," Cooper said. "Revegetation is very impractical on the 30 to 40 degree slopes . . . It is impractical to recontour, since we'll be removing 50 million tons of material."

(Continued on page 12)



Photo courtesy of AMAX

The high, narrow valley of the Wood River creates a problem for tailing disposal both from an environmental and from an engineering aspect. The year long study of the mine's potential impact on the valley is being used by AMAX to guide development. The biggest problem faced is the tailing disposal because the original site has high vegetative, wildlife, and scenic values. Four alternate sites are now being considered for the tailings pond. The tailings pond could cover 900 acres. Kirwin, the site of the mill, is indicated on the valley floor and Little Bald Mountain, the mine site, is shown on the right. Project manager James Cooper says the trees, shown between the two sites, would help camouflage the mine. Meeteetse is at the far end of the valley.

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Invisible poison— sulfur dioxide

by Joan Nice

Sulfur dioxide set off the largest air pollution disaster in recent history. Due to SO₂ and other air pollutants, 4,000 people died on a smoggy day in London in 1952.

Although the West isn't in store for such an instant massacre, the amount of sulfur dioxide in our air is growing. One 2,000 megawatt power plant can put out several hundred tons of sulfur dioxide each day. And plants are planned that could cloud the entire length of the Rocky Mountains.

Sulfur dioxide gas is invisible, but it is poisonous. When it comes in contact with air and water, it forms sulfuric acid, which — in large enough concentrations — has already destroyed crops, damaged trees, and increased hospital admissions in the West.

Industry ads have been telling us that if low sulfur coal is burned, air pollution control equipment will be unnecessary. Unfortunately we cannot go on dreaming that western coal is harmless to burn. It is highly variable in sulfur content. Research has

shown that even with so-called low sulfur western coal, clean-up equipment will probably be required to preserve our health and to meet with federal air pollution standards.

The equipment required, sulfur scrubbers, will add at least 10% to the cost of plants. That cost, and the additional cost of transporting the power to a load center, may be two good reasons for energy developers to have second thoughts about putting their proposed plants in the West.

Can we count on scrubbers?

The blue sky over the San Juan Power Plant in New Mexico is costing millions of dollars, but the company footing the bill says it's worth it.

The New Mexico Public Service Company is installing sulfur scrubbers which will remove 90% of the SO₂. The scrubber will produce elemental sulfur as its waste product — a substance which is marketable.

Scrubbers have been used for years to remove hydrocarbons and particulates from factory and power plant smokestacks. We have less experience in using scrubbers to remove gaseous sulfur oxides. But a number of coal fired plants around the country are using scrubbers and have been pleased with their operating success. A growing body of evidence shows that, despite claims in American Electric

Power's recent advertising, sulfur scrubbers do work. The U.S. Environmental Protection Agency has documented this contention.

Recent successful operations include:

— Louisville Gas and Electric Company: Its Paddy's Run scrubber at Louisville has operated for over five months with well over 90% reliability.

— Arizona Public Service Company: Its Cholla unit has operated for eight months with a reliability of 90% or better.

— Southern California Edison Company: Its Mohave scrubber has operated for eight months with reliabilities over 84%.

There are two types of scrubbers. The lime-limestone scrubber produces a sludge which must

be placed in ponds or hardened for deposit in a landfill. Other scrubbers produce salable products: sulfuric acid or elemental sulfur.

THE ISSUE — COSTS

"The real issue is one of the cost of scrubbing," points out the Sierra Club's research office.

Scrubbers are expensive. The Environmental Protection Agency suggests \$50 to \$65 per kilowatt of plant capacity. That would mean a cost of at least \$75 million for a plant the size of the proposed 1,500 megawatt station in Wheatland, Wyo. That would add about 10% to the plant's cost.

Through rate increases, utilities could probably pass these costs along to the consumer. But high capital costs may not be the only thing that is making some utilities balk. Their reluctance may stem from a fear of what major rate increases would do to their customers' appetites for power, Sierra Club researchers believe.

In the Pacific Northwest much of the power is provided by hydroelectric dams. Scrubbers on the few coal-fired utilities would probably mean little change in rates in that region. But midwestern utilities, who are largely dependent on coal-fired plants, might have to pay two huge, new costs. They would pay for scrubbers on almost every facility in their grid. And since many of them already have contracted to buy "low-sulfur" western coal, they would also have to pay for transporting either coal or power to their load centers.

Midwestern power producers might have to double their rates, Sierra Club researchers estimate. If other region's economy's were not hit so hard by scrubbers, new industry might flock to the regions with low rates.

"It may be necessary to provide nationwide price adjustments for electric power in order to simultaneously maintain economic stability and clean air," the researchers warn.

Where it hurts

Why is sulfur dioxide troublesome? And where has it caused trouble?

Sulfur dioxide has harmful effects on plants, animals, and non-living things.

Either 1) Sulfur dioxide (SO₂) is slowly converted to sulfur trioxide (SO₃), which can combine with water vapor to form droplets of sulfuric acid (H₂SO₄) or —

2) sulfur dioxide is absorbed onto particles which carry concentrations of sulfur dioxide to sensitive tissue.

In human beings it can cause bronchitis, asthma, emphysema, and lung cancer. It can kill plant cells. It can speed up the rusting and corroding of metals, the rotting of fabric, and the erosion of certain rocks.

The formation of sulfuric acid has increased the acidity of rain falling on the eastern U.S. and Europe by 100 to 1,000 times above normal levels in just the last two decades. Where the acid rain problem is severe, crop damage has been recorded on beans, oats, radishes, soybeans, and tomatoes.

Even the wide open spaces of the West are not big enough to swallow up the effects of this subtle air pollutant.

A pulp and paper mill in Montana ran into unexpected problems when it switched from natural gas to fuel oil. The Hoerner Waldorf plant near Missoula made the switch in 1972. A year later 5,200 acres of Douglas fir forest around the plant began to show signs of damage. On more than 1,000 acres the damage was assessed as severe. On these trees at least one-half the needles on a branch were missing, and many of the remaining needles were damaged.

COAL FIRED DISEASE

A doctor in Durango, Colo., has noticed increased health problems ever since the Four Corners power

plant fired up in 1964. From 1961 to 1970 the number of patients with lower respiratory illnesses admitted to the hospital has nearly doubled. The population served by the hospital has not increased; in fact it has decreased slightly. Durango is about 50 miles from the plant.

The doctor, Richard H. Geer, was concerned enough about his findings to testify "in behalf of the children of the Four Corners area" at public hearings held in 1971. "I, for one, am not willing to sacrifice the lung of one Navajo child for the luxurious benefits of the middle class overconsumer of electric power in the metropolitan areas," Geer told the U.S. Senate panel.

Other residents of the Southwest are becoming sensitive to the air pollution issue. A University of New Mexico study indicates that the people who live around the Four Corners plant near Farmington, N.M., would be willing to pay to restore their clean air and their long-distance vistas. Surveys taken in the area indicate that residents in 22 counties surrounding the plant would be willing to pay \$19 to \$25 million to get rid of air pollution.

COMBINED EFFECTS

Too much sulfur dioxide severely damages living things. However, the tons per day emitted by a plant aren't a direct measure of how much is too much. Weather patterns in a given locality can increase or decrease sulfur dioxide's harmful effects. Other substances in the air may also work to increase sulfur dioxide's negative effects.

When plants are exposed to combinations of sulfur dioxide and nitrogen oxide or sulfur dioxide and ozone, plant damages occur at very low levels of pollution, says air pollution expert Dr. Mike Williams.

Sulfur sources

1. "The Low Sulfur Coal Myth," Environmental Policy Center, 324 C. St., Washington D.C. 20003.
2. "Some Western Coal Sulfur Problems," Sierra Club Research Office Bulletin, Revised Oct. 17, 1974, Sierra Club, Mills Tower, San Francisco, Calif. 94104.
3. "Flue Gas Desulfurization Installations and Operations," Environmental Protection Agency, Washington D.C. 20460.
4. "Sulfur Damage to Douglas Fir near a pulp and paper mill in Western Montana," Clinton E. Carlson, U.S.D.A. Forest Service Northern Region, Division of State and Private Forestry, Missoula, Mont. Report No. 74-13.
5. "Benefits of Abating Aesthetic Environmental Damage from the Four Corners Power Plant," New Mexico State University Agricultural Experiment Station Bulletin 618, Las Cruces, N.M., May 1974.
6. "Low Sulfur Coal: A Revision of Reserve and Supply Estimates," Michael Rieber, Center for Advanced Computation Document No. 88, Urbana, Ill.

The truth about low sulfur coal

Now that we've discovered low sulfur coal in the West, why all the fuss about expensive cleaning devices in power plant stacks?

Because "conventional estimates of both known resources and known recoverable reserves of low sulfur coal are grossly overstated" says Michael Rieber of the Center for Advanced Computation in Urbana, Illinois.

Western coal does have a lower percentage of sulfur per ton than most eastern coal. However, since its heat (BTU) content is lower than eastern coal's, more western coal must be burned to produce the same amount of electrical power. Thus, the amount of sulfur that emerges from the stack of a plant burning western coal may be equal to or greater than the sulfur emissions of eastern coal burning plants.

The picture is further clouded by geologic factors in the West. The climate is drier and the coal is closer to the surface and younger than are the eastern deposits. As a result, sulfur in western coals is more difficult to remove. In eastern coals, water under pressure and heat has transformed some of the sulfur into pyrites — redeposited sulfur minerals. The heavy pyrites can be easily washed from crushed coal by floating out the coal and letting the pyrites sink. Western coal has some pyrites, but a smaller portion of its sulfur is in that convenient form.

Another reason that our western low sulfur reserves may not be so bountiful is linked to the variability of western seams. The top and bottom levels of the coal may have a much higher percentage of sulfur than the middle of the seam. These levels may be near groundwater which has carried sulfur

compounds from adjacent rocks. In addition, this portion of the coal may be even lower in heat value than the rest of the reserve due to degradation by the groundwater.

WON'T MEET STANDARDS

"Without question little of the purported low-sulfur coal in the northern plains is in fact effective low sulfur coal," says a Sierra Club research team which has dug into coal analyses provided by the U.S. Geological Survey. The major area of truly low sulfur coal is around Decker, Mont. "But even this site has much coal that will not meet (federal) new source performance standards," the team says.

The team calls sites south of Gillette, Wyo., where massive coal development is scheduled to take place in the Powder River Basin, "for the most part a disaster. Except at Decker, those Montana sites

selected for development today by companies such as Peabody and Montana Power are among the least suitable of the many available. The Rosebud bed at Colstrip far exceeds the 1.2 pound cutoff."

The "cutoff" for low sulfur coal refers to emission limits set by the U.S. Environmental Protection Agency's new source performance standards. The standards limit the emissions of new coal burning plants to 1.2 pounds of sulfur per million BTUs of power produced.

In eastern Wyoming and Montana the only major thick deposits that appear to fall below the cutoff are some of those at Decker and those at Yeager Butte in the Custer National Forest — both in Montana.

The team concludes that "large scale development of western coals to reduce midwestern air pollution cannot be justified at the present time based on available data."

COMPANY AND MINE	SULFUR CONTENT % BY WEIGHT	BTU VALUE PER POUND	POUNDS OF SO ₂ PER MILLION BTUS
Peabody Coal Co. Big Sky Mine-Montana	.75%	8450	1.78 lb.
Western Energy Co. Colstrip Mine-Montana	.80%	8750	1.82 lb.
Rosebud Coal Sales Co. Rosebud Mine-Wyoming	.88%	10450	1.69 lb.
C.D.R. Enterprises, INC. Borderland Mine-Kentucky	.65%	12300	1.05 lb.
Harlan Fuel Co. Harlan No. 1 Mine-Kentucky	.85%	14000	1.21 lb.
Kessler Coals INC. Mine No. 1-West Virginia	.80%	13600	1.17 lb.

Chart prepared by the Environmental Policy Center, Washington D.C.



Wyoming sets SO₂ regulations

Wyoming's proposed SO₂ emission regulations will be considered at a public hearing Dec. 9 at 11 a.m. The hearing will be held by the Environmental Quality Council of the Wyoming Department of Environmental Quality (DEQ) in the auditorium of the State Office Building-West in Cheyenne.

Dr. Tim Fleming of the DEQ's Air Quality Division advisory board says that while the proposed regulations allow some leeway for existing sources, for new sources the limits are "as rigid as technically possible."

"If an industry doesn't like them, they don't have to come into the state at all," Fleming says. Industry representatives are expected to voice strong objections to the proposed regulations.

The new regulations would set strict emission limits for new coal and oil fired equipment. Larger emissions would be allowed for existing coal fired equipment. No limits have been proposed for existing oil fired equipment.

The full text of the proposal is available in the offices of the Wyoming Department of Environmental Quality, State Office Building West, Cheyenne, Wyo. 82002 and at county clerks' offices in the state. To submit written testimony or to make an appointment to speak at the hearings, contact the DEQ.

Colorado's sulfur standards, not as strict as those proposed by the state of Wyoming, are being challenged in public hearings this week.



Sulfur dioxide pollution used to be a problem only in cities where homes and industries were fueled by coal. But now that Americans have relegated most of their coal burning to the wide open spaces, rural people must guard against the harmful effects of sulfur dioxide concentrations, too. The Four Corners plant (pictured above) will install sulfur scrubbers in 1977 to meet federal air standards. Without controls, the cluster of giant-sized power plants in the Southwest would emit enough sulfur dioxide to endanger the health of plants, animals and people.

Photo by Terry Moore

8-High Country News
Friday, Nov. 22, 1974

A WORKING RANCH W

by Gary Nabhan

On the Sonoita Plains in southeastern Arizona an 8,000 acre grassland reserve known as The Research Ranch sits amidst the cattle ranches west of the Huachuca Mountains.

Few outsiders would imagine Santa Cruz County, which borders Mexico, would be able to support good grassland. Yet an 1864 explorer describes a journey through country where "... grass up to our horses' shoulders covered the valley ... abundance of mesquite, cottonwood, willow and walnut are found in riverbottoms and the grass is so luxuriant that in many places it is difficult to travel off the beaten track."

While the sacaton grass in the floodplains is still tall and impenetrable, it is the upland ranges and creek flow which have changed drastically. The Research Ranch vicinity was once described as being "in the midst of a broad rolling plain or mesa abundantly covered with nutritious and luxuriant grasses." Much of the surrounding area today has been invaded by what an old-timer called "mesquite chaparral."

* * *

"What do you do out at that Research Ranch anyway? I know you don't keep cattle on that range ... You just watch the grass grow?" a curious neighbor asks.

"Yep," returns a grinning Research Ranch student who's examining the regrowth of grassland blackened by fire earlier in the year. Although the purpose of the fire ecology study funded by a grant from the Forest Service's Eisenhower Consortium to the University of Colorado can be expressed in more complex terms, Rob McKnight simply replies, "We're just watching the grass grow."

"You sure you don't need any of my animals to come and graze that good grass for you, sort of neaten up the range a little?" asks the neighbor.

The "good grass" of The Research Ranch has been free from grazing since 1969. With the goal of a practical contribution to conservation in mind, Mr. and Mrs. Frank Appleton converted their former Elgin Hereford Ranch into a site for The Research Ranch, Inc., a non-profit, private operating foundation. Dedicated to environmental research, conservation, and education, the foundation now leases the Appleton's land for \$1 a year, while eventual total ownership is being phased over.

The Appleton family's interest and concern for the land did not stop there, however. Ariel Appleton currently serves the foundation as its president and is very much a part of the research and fund-raising programs which are in progress. Mrs. Appleton has noted that there was not a single sizeable non-manipulated tract of land in the Southwest which could be used as a permanent indicator of range quality for land management decisions. A long range hope is that the land will return to a condition similar to that prior to intensive grazing, which probably began early in the Spanish colonial period of the Southwest.

Range recovery is setting its own pace and course as scientists study it from the ground and from the



air. Dr. Charles Bonham of Colorado State University has pointed out that the rate of vegetational succession has not been known for the region's grasslands. In 1969, Dr. Bonham began to utilize aerial photographs to map the various plant associations on the ranch so that they may be studied through time.

Short grass prairie dominants, including several of the gramas, threeawns, and tobosa, made up much of the range cover then, while groundsels and thorny shrubs were also common. Now the developing patches of certain perennial mid-grasses strike one's eye: silky Arizona cottontop and cane beardgrass, plus tanglehead, sideoats, and others. The longer living grasses now form a richer cover which is more nutritious than the forbs and shrubs it tends to replace. Coupled with a noticeable increase in trees along the major washes, these changes provide attractive resources for wildlife.

Today there's a diversity of animals utilizing the oak-studded grasslands of the Research Ranch. Native species like the white-tailed and mule deer, javelina, plus smaller, less conspicuous animals now "manage" the vegetation. The natural community of the semiarid prairie is re-emerging.

Studies by Dr. Ron Pulliam and University of Arizona graduate students have extended our knowledge of grassland finches and their feeding behavior. Observational studies of other small vertebrates such as the rock squirrel are also being conducted. Rodents, sparrows, grasshoppers, and ants are not considered pests; instead, they're accepted as herbivores (plant eaters) essential to the energy transfers of the ranch, dividing up available seed and leaf resources in fine seasonal shifts. As plans for reintroducing the pronghorn antelope and black-tailed prairie dog are carried through, and as more predators establish themselves, the food web will be more fully rounded out.

The Research Ranch encourages the discussion of responsible land use in the region. Under the direction of Dr. Phil Ogden, University of Arizona students have designed and initiated numerous experiments whose results are applicable to surrounding grasslands managed for grazing. The effects of fertilization, modified water availability, and seasonal shifts in use intensity have all been examined using the ranch. This kind of information is of potential aid to ranchers making management decisions influencing forage quality.

Livestocking operations are not the only land uses which the Research Ranch brings into the open forum. Ranch director Larry Michel represents the ranch at public and scientific meetings. Though he received graduate training in evolutionary ecology in Texas, he now finds himself working as a jack of all trades, performing maintenance tasks as well as implementing wildlife management programs. "It is personally and professionally rewarding," he says, "to be a part of an idea that not only conserves vanishing land but will also hopefully change some long held concepts about this land and its use."



SIDEOATS GRAMA



Hilaria belangeri
curly mesquite

I felt motion in the landscape; in the fresh, easy-blowing morning wind, and in the earth itself, as if the shaggy grass were a sort of loose hide, and underneath it herds of wild buffalo were galloping, galloping. . . .

—Willa Cather in MY ANTONIA

WITHOUT LIVESTOCK

High Country News-9
Friday, Nov. 22, 1974

THE POIGNANT TUMBLEWEED STORY

(Told by a lady on a Great Sand Dunes National Monument nature trail, when a ranger mentioned **Salsola**, Russian Thistle, the legendary tumbleweed of the West.)

"I grew up during the Depression, in the Dust Bowl, when the drought and dust-storms made it hard for families to get by on farms and ranches.

"I was just a little girl when it got tough for my family. Things got so bad, the animals they had given me for pets either had to be sold or eaten.

"So since I didn't have any playthings left, nor any pets, they put a leash on a tumbleweed for me, and I'd let it trail behind me, bouncing along through the dust."



TANGLEHEAD

POSTHOLES

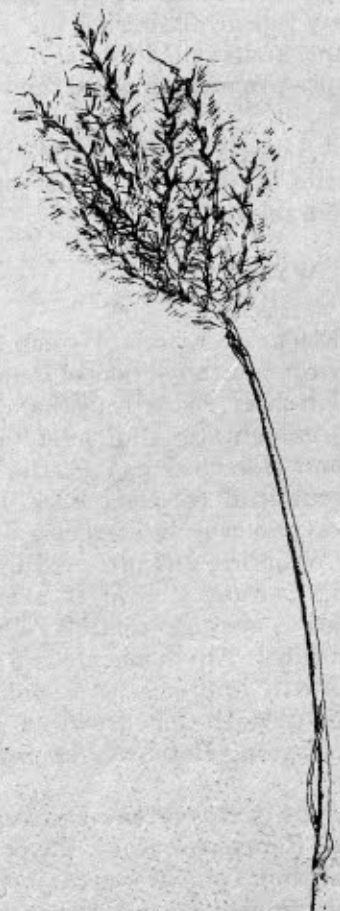
(told by John C. Rhudy, Elbert County, Colo., rancher)

"Well, during the Dust Bowl we weren't hit so hard here as some of those south or southeast of us. But I remember how those winds were, and those storms, 'bout taking everything which wasn't rooted to the center of the earth including the ground itself we were standing on.

"And one morning I was out working on the ranch, a hot gray quiet morning, and I was repairing the fence, digging postholes. I'd gotten a good bit of the work done, and was ready to go in for lunch as I usually do — yet I noticed something was to stir in the air.

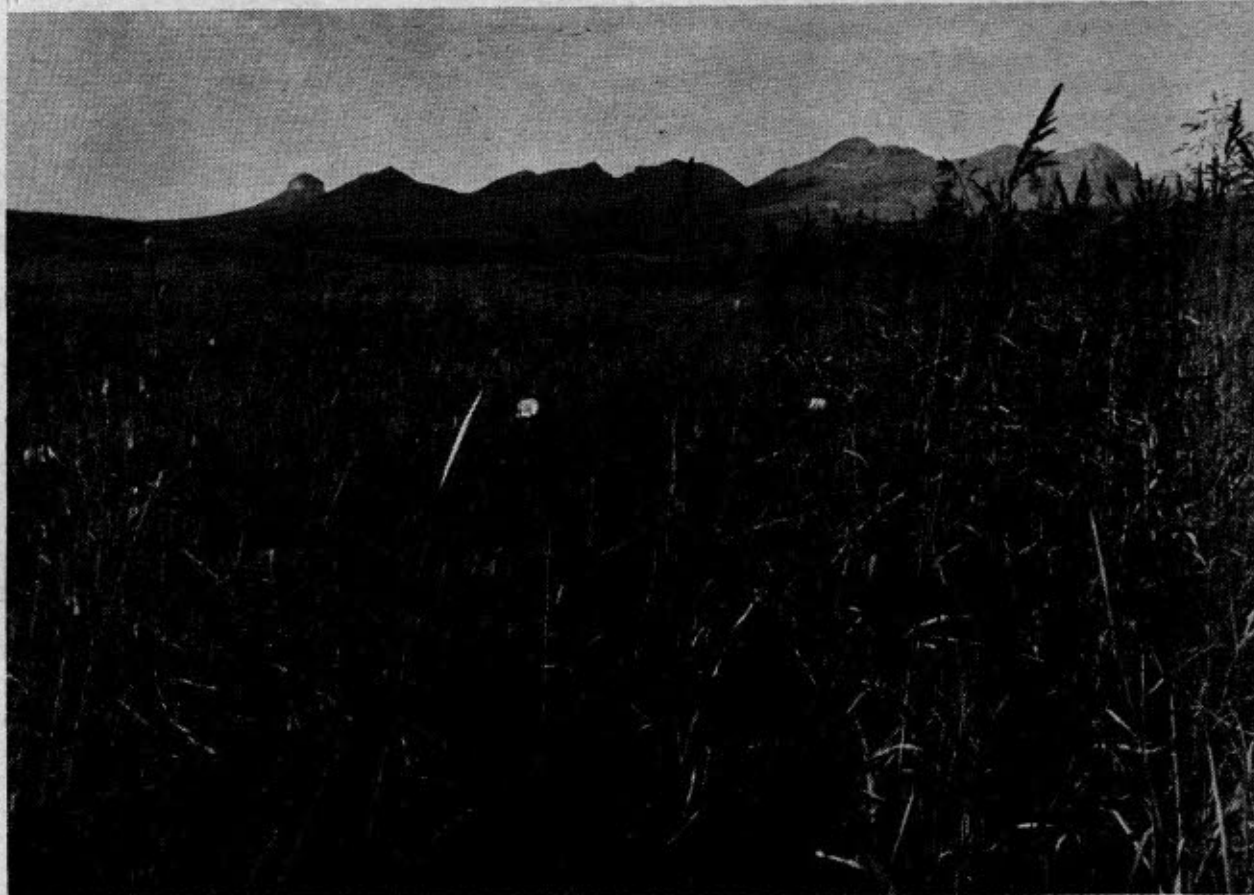
"Well, that afternoon when I went out again to the line I'd been working, it was windier than all get out, and those holes I'd dug had **BLOWN** clear down to Jones's property, 'half mile away.'

"All that work and then Jones: I see him now and then in the hardware store, yet to this day he's never thanked me for the holes me and the winds gave him..."



CANE BEARDGRASS

Photo by Larry Michel



Few outsiders believed that this 4,000 acre piece of southern Arizona land could support a lush growth of grasses. Today it is the site of The Research Ranch, where scientists fence out livestock and watch the grasses grow.

10-High Country News

Environment a big winner at the polls

by Bruce Hamilton

While the energy industry is calling for defeat of the federal strip mine regulation bill and a weakening of the Clean Air Act, the nation's voters have reaffirmed their commitment to environmental protection by electing some candidates with strong environmental platforms and removing some of those legislators who failed to act on behalf of the land.

As proof of the potency of the environmental issues in the last election, environmentalists point to the defeat of eight of the "Dirty Dozen" incumbent U.S. House members and the election of 12 of 17 candidates supported by the national League of Conservation Voters.

The Dirty Dozen are the 12 U.S. congressmen with the most objectionable environmental records. The notorious list has been prepared by Environmental Action of Washington since 1970, and this year's success ratio is the best yet.

Dirty Dozen candidates that were defeated this November include the following representatives: Glenn Davis, R-Wis.; William Hudnut, R-Ind.; John Hunt, R-N.J.; Earl Landgrebe, R-Ind.; Robert Mathias, R-Calif.; William Scherle, R-Iowa; Frank Stubblefield, D-Ky.; and Roger Zion, R-Ind.

The four dirty dozen team members that retained their seats were: Sam Steiger, R-Ariz.; Samuel Devine, R-Ohio; Dale Milford, D-Tex.; and Burt Galt, R-Calif.

COLORADO

Colorado, more than any other Rocky Mountain state, brought environmental issues into the forefront of this year's election. Candidates were caught arguing over who was the better conservationist. "Who's going to stop them from turning Colorado into another Appalachia? Pete Dominick is," read one advertisement for incumbent Republican Sen. Peter Dominick. Democratic challenger Gary Hart, George McGovern's presidential campaign manager in 1972, said, "I consider myself a conservationist."

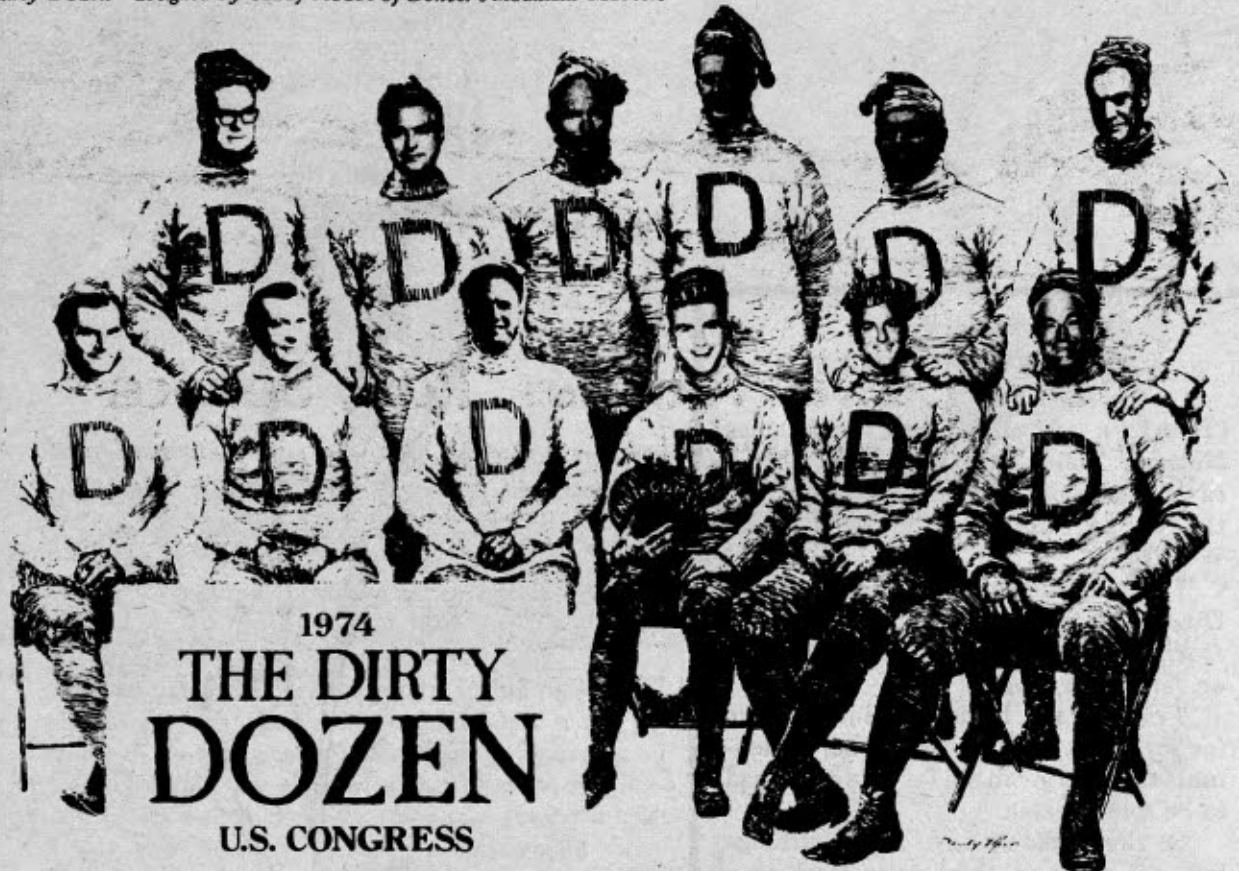
The governor's race posed a similar problem for the voters. In the months before the election, incumbent Republican Gov. John Vanderhoof courted environmentalists by coming out against the controversial Two Forks Dam, raising objections to the Beaver Creek ski development near Vail, and calling for a continued federal coal leasing moratorium. Democratic State Representative Dick Lamm, Vanderhoof's opponent, has been a long-time champion of land use, environmental quality, and controlled growth.

On election day, both incumbents lost. The Republicans had been given their chance, and Colorado voters were determined that a change was needed. Vanderhoof's half-hearted support of land use legislation and Dominick's poor conservation voting record (33% in 1973-74 and 11% in 1972-73 according to the League of Conservation Voters) made some voters feel the incumbents were Johnny-come-latelies to the cause. The League of Conservation Voters praised Lamm for his attempts to "expose the true cost of Colorado's growth and the need to control it" and gave him financial support.

U.S. Rep. Pat Schroeder (D) also received financial support from the League which helped her win re-election. The League said Schroeder has "one of the best voting records in Congress," and cited her strong opposition to the Rio Blanco underground nuclear test to free natural gas.

Amendment 10, the ballot proposition which would bring future nuclear experimental blasts in the state before the voters for their approval, was passed. In the past the Atomic Energy Commission has exploded two nuclear devices (Project Rulison and Project Rio Blanco) to stimulate production of natural gas. Both blasts were protested by citizens

Dirty Dozen designed by Sandy Moore of Denver's Mountain Gazette.



in the state. Now citizens will be allowed to vote before another blast occurs.

MONTANA

"Orangutans" was the label state Sen. Fred Carl gave to liberal Montana House members who produced a storm of environmental and land use legislation last session. The reactionary state senate killed most of the legislation, but this year's election may change that trend.

Carl was unseated by Rep. Richard Colberg, one of the "orangutans" who backed much of the environmental legislation Carl opposed. Colberg was not alone in his move up to the senate. Seven other house "orangutans" gained state senate seats this month. The Billings Gazette reports that most of the vacancies left by representatives moving up to the senate were filled by newcomers, "many of whom are committed to environmental legislation."

Rep. Dorothy Bradley, one of the strongest backers of environmental legislation in the Montana House, retained her seat from Bozeman. Ed Dobson, the Northern Plains representative of Friends of the Earth, failed to gain a seat in the state house, but he did raise important issues during the campaign. Frank Dunkle, the rebellious former Montana Fish and Game Director who resigned his post in 1972 to unsuccessfully run for governor on an environmental platform, has won a state senate seat in this election.

On the national scene, both of Montana's U.S. representatives were up for re-election, but only one, John Melcher, was returned to office. GOP incumbent Dick Shoup, who earned a League of Conservation Voters' rating of only 26% in the last session, will be replaced by state representative Max Baucus. While in the Montana House, Baucus introduced bills on subdivision regulation and supported the Utility Siting Act, the coal moratorium, the stream preservation bill, and increased coal taxation. Baucus earned a 94% favorable rating by the Montana Environmental Information Center and the Montana League of Conservation Voters.

UTAH

Conservationists experienced several setbacks in this year's election in Utah. U.S. Rep. Wayne Owens (D), a good friend of wilderness in his home

state, failed in his attempt to move up to the senate seat vacated by retiring Sen. Wallace Bennett. Salt Lake City's mayor, Jake Garn, won that race.

Utah's weak land use act was voted down by a three to two margin. The act, which narrowly passed the legislature last session, had the backing of Gov. Calvin Rampton. It was placed on the ballot by a petition of over 60,000 signatures. Realtors, builders, and other opponents of the act claimed that it threatened property rights, diminished the powers of local government, and invited federal intervention. Strong land use proponents called the bill "a bowl of mush."

Weber and Salt Lake Counties narrowly approved a ¼ cent sales tax to subsidize bus service. Davis County voters rejected the tax.

WYOMING

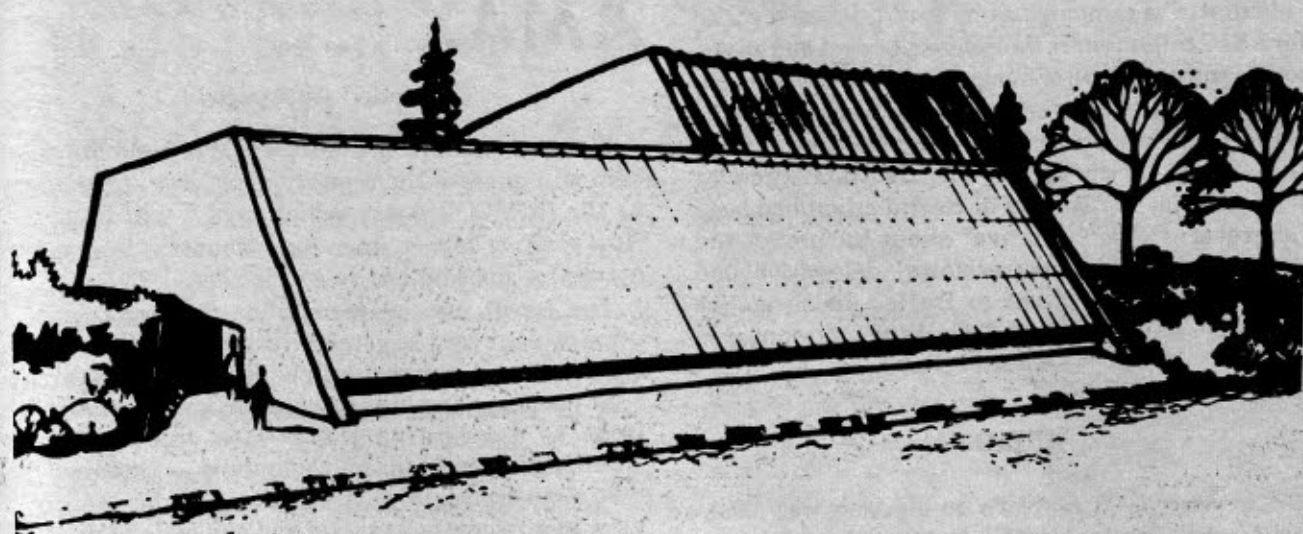
According to most press reports, Wyoming has just elected an environmentally-oriented Democratic governor, Ed Herschler. Actually neither candidate was an environmentalist. But most conservationists will admit Herschler had a better platform than his Republican opponent, Dick Jones. Both candidates saw no way to prevent industry from coming into Wyoming and preferred to talk about controlling industry once it arrived. Herschler talked about stronger controls — hence his environmental label. Environmentalists view this controlled growth approach as a welcome change from the growth for growth's sake philosophy of the out-going Hathaway administration.

Rep. Teno Roncalio (D) has retained his seat in the U.S. House of Representatives. Casper oil broker and state senator Tom Stroock (R) put up a strong showing, but Roncalio's environmental accomplishments in the House made him a favorite of conservationists. Roncalio's active support of a surface owner consent provision in the federal strip mining bill brought him many votes from the ranching community.

NORTH DAKOTA

Paula Ward, the regional governor of the Isaak Walton League, bid for, but did not win a seat in the

(Continued on page 12)



Solar power reaches Park Service

Ground was broken last week for one of the first public buildings to be heated and cooled by solar energy. The innovative National Park Service visitor center will be built near Lovell, Wyo., and will serve as an entrance to the Bighorn Canyon National Recreation Area. The \$1.3 million structure was designed by Wirth Associates of Billings, Mont.

The solar system will provide one-half to two-thirds of the energy needed to heat the building and almost all of the energy needed to cool it, solar energy consultant Dr. George Lof says. Glass covered solar panels, tilted at a 50 degree angle, will cover approximately 2,500 square feet of the south side of the building. Air will be circulated between the layers of collection panels and then passed through an insulated storage unit where daytime heat or nighttime coolness will be transferred to pebbles and stored for later use in temperature control.

The decision to use solar energy conversion techniques may establish this project as a model for other Park Service buildings, says Lynn H. Thompson, Rocky Mountain regional director of the National Park Service.



Emphasis ENERGY

in the Northern Rockies and Great Plains



Idaho Power has chosen a site 24 miles southeast of Boise for its proposed 1,000 megawatt power plant. There, it would be close to the Boise load center and to the Union Pacific Railroad which would bring Wyoming coal to fuel the plant, power company officials say. Environmental groups in the state have expressed concern about possible air pollution in Boise.

Shell Oil Company says it plans to strip mine coal on the Crow Indian reservation in Montana. The mine's location near the state border has upset Sheridan, Wyo. Coal taxes will go to Montana, while most of the impact will probably hit Wyoming. The operation may increase Sheridan's population by 500 to 1,000, Shell warns.

Production from Grand Mesa underground mines in western Colorado is likely to double during the next two years. The mining towns of Paonia, Somerset, Bowie and Hotchkiss are surrounded by the coal fields. Production in the area is now about 1.5 million tons a year. By 1976 state and federal officials expect it to be 3.5 million tons.

An Interior Department proposal to lift a moratorium on federal coal leasing in the West has drawn sharp criticism from both environmental groups and government agencies. The draft environmental impact statement outlining the plan fails to show a need for more leasing and fails to consider major impact of coal development, opponents say. The U.S. Environmental Protection Agency, the Colorado Division of Planning, the Institute of Ecology and the Natural Resources Defense Council Inc. have all submitted devastating reviews.

The National Engineering Laboratory, which is being considered as a future site for the storage of the nation's nuclear wastes, has suffered some

serious embarrassments this month. First, radioactive strontium and cesium escaped from a pipe at the Idaho lab. Later, the Twin Falls Times-News revealed that highly radioactive wastes have been buried at NEL in pasteboard boxes. Sen. James McClure has called for an immediate and thorough investigation of this unorthodox method of waste disposal.

In the meantime the governor's study committee has refused to endorse the storage of atomic wastes at the Eastern Idaho site. The Atomic Energy Commission's draft environmental statement on disposal of nuclear wastes is inadequate, the committee says.

What the Atomic Energy Commission promised was impossible happened in Colorado this month. In retrieving natural gas from a nuclear-blasted well, Project Rio Blanco brought up small amounts of cesium 137 in water vapor. Cesium is a radioactive substance capable of causing cancer and genetic defects in humans. In public statements before the blast, the AEC said that both cesium 137 and strontium 90 would be trapped in solidified melted rock after the blast and would not escape. An AEC spokesman says the agency doesn't know why the cesium emerged.

The Montana Board of Natural Resources and Conservation has given the go-ahead to construction of a 230-kilovolt power line from Colstrip to Broadview. In its decision, the board rejected recommendations of the state Department of Natural Resources and Conservation. A department study contended that Montana Power Company, who is building the line, had not shown that a public need existed. Opponents had argued that approval would be a "foot in the door" for a third and fourth generating unit at Colstrip, Mont. and the twin 500-kilovolt Colstrip-to-Hot Springs line.

High Country News-11
Friday, Nov. 22, 1974



The Hot Line

energy news from across the country

Major Oil Corporation, a subsidiary of Arizona Fuels, Inc. of Salt Lake City plans to have an oil sands semi-works extraction plant in production by Dec. 1. The plant, to be located on the southern tip of Utah's Asphalt Ridge, will reach full production of 1,000 barrels per day by March, 1975. Eugene Dalton, president of Arizona Fuels, says his oil sands extraction process will prove more economical than oil shale extraction. Dalton claims he'll be able to produce oil from oil sands for around \$6 a barrel.

Webbie Armstrong of Fort Myer, Fla. and his family has a new way to beat the high cost of electricity — they've unplugged their all-electric home. Now they use kerosene lanterns, a kerosene stove, a block of ice in the refrigerator and cold showers. "I think it's something that everybody may have to do sooner or later," says Mrs. Armstrong. The family unplugged their home when the monthly electric bill topped \$100. Now their fuel costs are about \$9.70 per week — for kerosene, ice and use of the laundromat.

The Atomic Industrial Forum says fossil fuel-fired electric generating plants are now six times more costly than nuclear plants. The AIF says fuel costs for U.S. nuclear power plants dropped 10% this year to 2.0 mills per kilowatt hour. During the same period, fossil fuel costs rose 85% to 11.6 mills per kilowatt hour.

Gas rationing or raising fuel prices are the only two ways to cut gasoline consumption over the short term, according to a Rand Corporation study done for the National Science Foundation. Results of the study run counter the Administration's voluntary program.

National Coal Association president Carl Bagge thinks the Project Independence Blueprint just released by the Federal Energy Administration is a flawed document that fails to recognize either coal's potential or its problems. "From analyzing the Project Independence Blueprint, the coal industry can only conclude that its future contribution to energy needs of the nation will be minimal, that the industry could well slip back into the chaotic competitive situation of the 1950s and 1960s, and that the nation's energy future belongs to the oil and gas industry, imported fuels, and nuclear power," said Bagge.

The cost of the trans-Alaska pipeline has increased six-fold since 1969. In 1969 the project was estimated to cost \$900 million and was to be completed in 1972. Today the price tag is \$5.98 billion with a completion date of 1977. The big oil tankers used to ship the oil from Valdez will add another \$1 billion to the total cost. "This is a large, tremendously huge project, and we are suffering the effects of inflation," said a pipeline spokesman.

The nomination of Andrew E. Gibson as Federal Energy Administrator has been withdrawn by the White House. Gibson's ties to the oil industry he would be expected to regulate, including a \$1 million separation agreement with Interstate Oil Transport Co., were reasons for the rejection. Retiring Wyoming Gov. Stanley Hathaway was also approached to fill the position, but the governor told the White House he was not interested. The job has been empty since administrator John C. Sawhill was ousted last month.

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At the polls . . .

(Continued from page 10)

North Dakota legislature. However, during this election month she did win the title of Conservationist of the Year by the North Dakota Wildlife Federation.

The U.S. Senate race, at press time, was still not final. Incumbent Republican Sen. Milton Young has reportedly beaten former governor William Guy by 176 votes, but a recount which is being conducted may change those results. Young voted with the League of Conservation Voters 33% of the time in 1973-74 and 7% of the time in 1972-73. Many North Dakota conservationists oppose Young because of his bulldoggish support of the Garrison Diversion. Guy had a better environmental record than Young, but he was not the first choice of many environmentalists. Independent James R. Jungroth, the "North Dakota's not for sale" candidate, won the allegiance of many residents concerned with the coal issue and the support of the League of Conservation Voters but failed to tally more than about 6,000 votes.

Mark Andrews, the incumbent representative in the U.S. Congress, won re-election over Democrat-NPL candidate Byron Dorgan. Dorgan was the one dissenting vote in the Governor's Energy Task Force's eight-to-one decision to issue a permit for the Michigan-Wisconsin coal gasification plant. Andrews, according to Ralph Nader, "has voted rather consistently against the environment."

IDAHO

Idaho Gov. Cecil Andrus (D) won his re-election bid by a wide margin. Andrus has been a strong spokesman for wilderness and wild rivers in Idaho during his tenure in office. What surprised some political observers was that Andrus carried every county but Lemhi. It was thought that his wilderness advocacy would cost him votes in areas dependent on timber production or in favor of more dams on the Snake River, but this didn't prove to be the case.

Incumbent U.S. Sen. Frank Church (D) also won his re-election bid. Church has been rated by the League of Conservation Voters as voting 72% of the time in agreement with environmentalists during this past year.

Democratic candidate John Evans, who was credited with a perfect 11-0 score on conservation issues by the Idaho Conservation League, will be Idaho's new lieutenant governor. Incumbent Attorney General Tony Park lost his position to Republican Wayne Kidwell. Kidwell was the "principle paid lobbyist supporting continued use of throw-away beer and soft drink containers in the last two sessions of the Idaho Legislature," according to the Idaho Conservation League.

Idaho voters also passed a Sunshine Initiative on the ballot that will enable the public to know more about who is lobbying the legislature and who is contributing to political campaigns.

SOUTH DAKOTA

He ran his campaign out of his parents' living room on a small farm outside Humboldt, S.D. and challenged a Democratic incumbent, Rep. Frank Denholm, that the political experts were saying was unbeatable. But when the ballots were all counted, Larry Pressler, a 32 year old Rhodes scholar and a former legal aide to Secretary of State Henry Kissinger had won an astounding upset victory.

Pressler was outcast by the Republican party until near the end of his campaign because no one thought he had a chance. Even Pressler had his doubts about winning, so he decided to run as

"idealistic" a campaign as he could. Pressler called for a \$17 billion cut in the defense budget and an end to the manufacture of nuclear weapons. On the environmental front he called for a moratorium on the Oahe Diversion Project to allow more time to study the effects of the project on his state. Pressler claimed that the Bureau of Reclamation had been "aggressive" and "secretive" about the project and that the existing congressional delegation had handed a "blank check" to BuRec. Idealism was evidently what the South Dakota voters wanted to hear.

ARIZONA

U.S. Rep. Sam Steiger's re-election was disappointing to environmentalists, but the race was unexpectedly close. Steiger received only 51.2% of the votes cast. He was named as the head of the Dirty Dozen because of his opposition to land use planning and strip mining controls and his sponsorship of a dam in the Grand Canyon. His opponent, Mrs. Pat Bosch, was not a strong environmental candidate.

U.S. Rep. Morris Udall (D) easily won re-election to the house. Udall was the prime mover of land use legislation in the House and his re-election was good news to most environmentalists. During the past few months, Udall's votes on the strip mine bill amendments (specifically surface owner consent provisions) and the Grand Canyon Expansion Bill (giving park lands to the Havasupi Indian tribe) have disappointed some environmentalists.

The only environmental proposition on the ballot, which would have allowed the use of highway trust money for mass transportation and bicycle and pedestrian paths, lost by a two-to-one margin.

NEW MEXICO

New Mexico Governor-elect Jerry Apodaca (D) has a mediocre environmental voting record. However, one of his campaign planks was protecting the environment, and he has publically supported restoration of New Mexico's Environmental Quality Act, which was repealed by the legislature earlier this year. His Republican opponent, Joseph R. Skeen, lobbied for subdividers against a subdivision control bill in the 1972 session, according to the New Mexico Citizens for Clean Air and Water.



AMAX . . .

(Continued from page 5)

However, removing the top of Little Bald Mountain will improve the scenery — at least according to the ROMCOE study which says it will have a "low positive impact since Bald Mountain is an unattractive impediment to scenic view."

The report also oversimplified the sociological impact, according to some critics. Although it recognizes that the impact will be significant, it states that the proposed mining operation would be looked upon as representing the greatest threat to the "non-participants" in the community — those with low socio-economic participation — who "might view new residents as social and economic competition."

In actuality, those who see the mine as a threat are land owners and professional people in the community, among others, who appear to be fairly secure economically and socially.

To help the people of the communities prepare for the expected impact, Cooper said he has been meeting with community organizations such as the Lions Clubs and the Oldtimers Clubs and others since 1969. In July of this year, he called a community wide meeting in Meeteetse to bring residents up to date on Kirwin plans although a decision had not been made about when the mine would open.

He said he has been encouraging the county and the town officials to institute land use planning for some time, partially to protect against subdividing. He said he has been advising Meeteetse to contact the Department of Economic Planning and Development for help determining what the town's optimum size would be.

Critics say that it is difficult for the community to plan sewer and water improvements, for example, until they know for sure that Kirwin will be developed. It may mean the difference between planning for a diminishing population or a doubling population.

Walsh said the community should be preparing for growth since it is only a question of when the mine will be developed, not if. He said the government is encouraging mining firms to develop reserves rather than sitting on them.

Although copper prices have been falling since they peaked at the highest level ever last spring, Cooper said these temporary price fluctuations do not affect AMAX plans. Instead, he said, decisions are made on the basis of fluctuations over several years.



This open pit mine is at Climax, Colo., where American Metal Climax, Inc. (AMAX) mines molybdenum. (Now the molybdenum there is being mined underground.) James Cooper, project manager for the Kirwin mine for AMAX, said the company does not plan at this time to reclaim Little Bald Mountain when that open pit copper mine closes. After about 35 years of mining, the top of the mountain will be gone, and it will have an "indented surface instead of a bump," according to Cooper.

Western Roundup

High Country News-13
Friday, Nov. 22, 1974

Logging allowed in Moccasin Basin

Louisiana Pacific Corp. will be allowed to proceed with logging on two controversial Wyoming timber sales that have been tied up in a court suit since March 1973. A number of groups, including the Wyoming Outdoor Council and the Wyoming Wildlife Federation, went to court, saying an environmental impact statement was needed for the two — Moccasin Basin and Calf Creek-Papoose Creek (see HCN April 27, 1973). An appeals court agreed that the statement was necessary, and it was filed on Sept. 12, 1974. Among steps to be taken as timbering proceeds will be monitoring water to determine any changes in quality, fitting some elk with radio collars to gather information on effects on their behavior in cutting areas, and installation of remote cameras to record wildlife activities. In the meantime, although Louisians-Pacific is allowed to log, operations were shut down Nov. 13 because of market conditions. A company spokesman told the *Dubois Frontier* that all cutting and skidding would be stopped until Dec. 1.

Federal NRA land power tested

The powers of the federal government over private land will be tested in a court suit filed in Boise, Id., on behalf of landowners in the Sawtooth National Recreation Area (SNRA). The law which created the SNRA in 1972 gave the Forest Service power to regulate the private land which was included in the 754,000 acre tract. The area was created principally to protect land from subdivision. The law did not contain a grandfather clause to allow existing land uses to remain. Thus, the SNRA had the effect of zoning the small community of Obsidian out of existence, requiring all subdivision and buildings in one area to be rolled back to agricultural use. Summer homes in one subdivision were slated to go, according to *Ketchum Tomorrow*, a newspaper in the area.

Cloud seeding results released

Extensive environmental impacts of undertermined degree are forecast for the Upper Colorado River Basin if a proposed weather modification program is implemented, according to a study by the Stanford Research Institute. Possible negative impacts of the cloud seeding include increased probability of flooding and avalanches, changes in wildlife habitat, and an increase in ticks, flies, and mosquitoes which carry diseases. The study lists benefits including earlier and longer skiing seasons, increased irrigated agriculture, and augmented municipal and industrial water supplies, including the water necessary to develop coal, oil shale, and other natural resources. Wringing more snow from clouds over some areas would supposedly not reduce precipitation elsewhere because the moisture that falls on the Great Plains and the Midwest comes from circulation out of the Gulf of Mexico which collides with cold air from the west and north. A pilot seeding operation by the Bureau of Reclamation in southwest Colorado is beginning its fifth year.

Phosphate mine announced

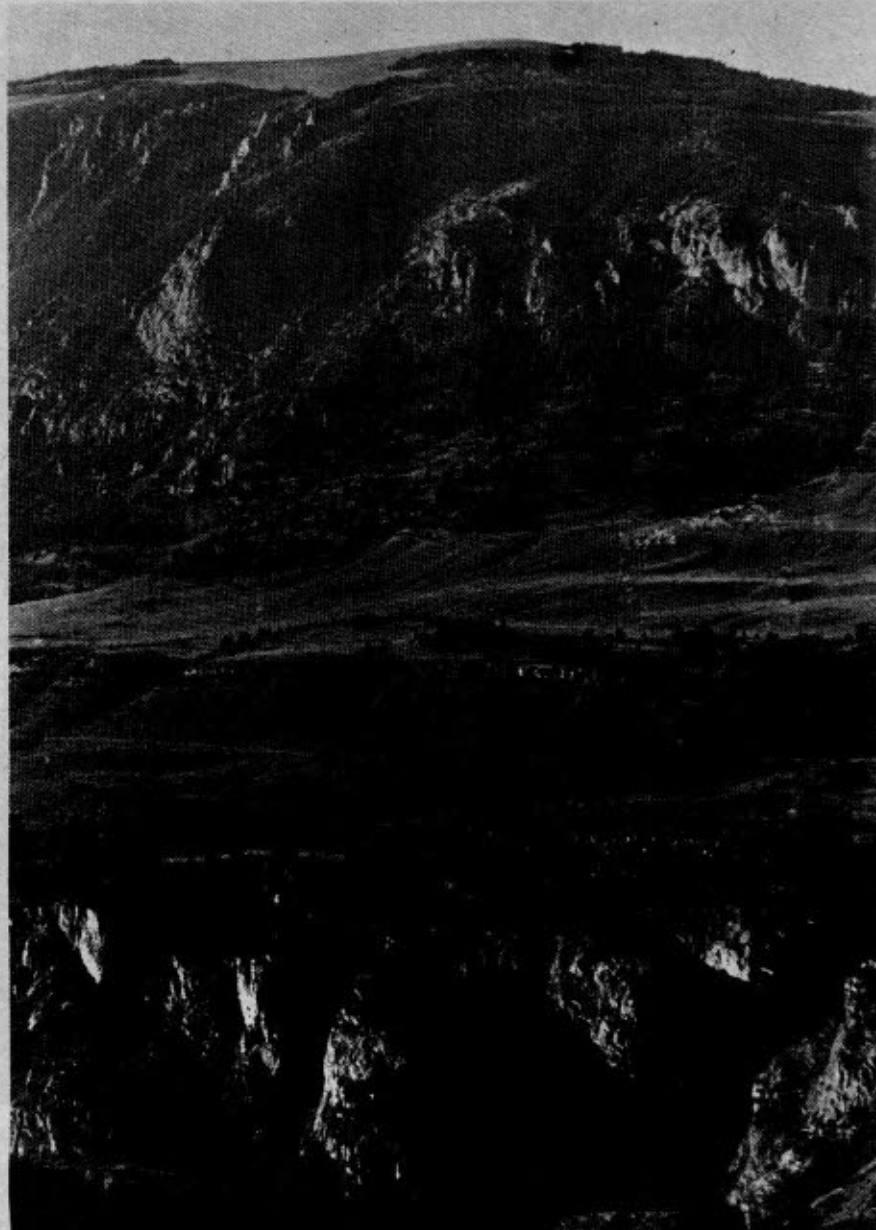
A new phosphate mine and phosphate plant are planned near Soda Springs, Id. The mine will be located on a 3,000 acre site 35 miles northeast of Soda Springs. The mine and plant are a joint venture among National Steel Corp. of Pennsylvania, Southwire Co. of Georgia, and Earth Sciences, Inc. of Golden, Colo. Construction is being delayed by the moratorium on new mines in the Caribou National Forest. A government task force is now conducting a land use study of the forest.

Utah keeps growing fast

Utah continues to be one of the fastest growing states in the nation, according to the University of Utah Bureau of Economic and Business Research (UBEER). A UBEER study entitled "Planning for Utah's Future — How Many People" predicts Utah will have an additional one million people within the next 25 years. Frank Hachman, author of the study, said national predictions show Utah with a 1980 population figure which the state has probably already surpassed this year.

Cloud seeding to help out farmers

Miles City, Mont. will be the site of cloud seeding experiments to increase rainfall for farmers. The project will be jointly sponsored by the U.S. Bureau of Reclamation and the Montana Department of Natural Resources and Conservation. The project will cost \$1 million a year and run for five to seven years. The scientists hope to increase rainfall by as much as 10% (up to one additional inch of rainfall per year in Miles City's case.)



An omnibus wild rivers bill initiating studies on 13 rivers passed the U.S. House this week. Included are three Wyoming rivers and a portion of the Colorado River in Colorado. The Clarks Fork in northwest Wyoming, (pictured above), the Sweetwater in central Wyoming, and the Snake River as it flows out of Teton Park would all be studied for possible inclusion in the National Wild and Scenic River Preservation System. The original action for the Wyoming rivers, begun by Congressman Teno Roncalio (D-Wyo.), had included the Green River, but it was dropped because of the controversy that has raged over the fate of that river for over a decade. Sen. Clifford Hansen (R-Wyo.) may push to have all three Wyoming rivers dropped in the Senate Interior Committee, Washington sources told HCN.

Briefly noted . . .

Montana recycling centers have stopped buying waste paper. Billings Recycling Center manager Bill Green said a decline in industrial demand for recycled newsprint has caused his operation to shut down for the next nine months to a year. Economic conditions are crippling the flow of pulp chips to paper plants which slows paper production and lowers the demand for recycled paper, he said.

In what has to be considered a landmark planning decision for Teton County, Wyo., a district court judge ruled that the county's Master Plan, once only an advisory plan, became legally binding and mandatory when it was incorporated into the Subdivision Resolution. The ruling was made after a group of landowners brought suit to stop three subdivisions which would have increased the county's density past recommendations of the Master Plan. The Teton County Commissioners had overruled the planning commission's recommendations against approval of the three subdivisions.

New construction on the Garrison Diversion Project in North Dakota (see HCN, March 1, 1974, page 10) is being opposed by Council on Environmental Quality Chairman Russell Peterson. Peterson told Department of Interior Secretary Rogers C.B. Morton that a public review of water quality and effects on wildlife and agriculture was needed before construction continued. Cave-ins, or slumping of banks along the project's McClusky Canal has heightened local opposition to the project. Repairs and redesign may add hundreds of millions of dollars to the final pricetag, reports the *Audubon Leader*.

PHOTO BY BOB LANGRISH FOR HIGH COUNTRY NEWS

14-High Country News
Friday, Nov. 22, 1974

Thoughts from the Distaff Corner

by Marge Higley

Thanksgiving. More than three hundred years ago, this day was designated as a time to put aside cares and worries, and give thanks for the good things in life. But times have changed, and somehow Thanksgiving has become just another holiday, crowded almost unnoticed between Halloween and Christmas. Compared to Christmas, the "commercial" value is almost nil, so it has become a day to stay home from work, eat turkey (that much of the tradition is still with us!) and watch football.

Cynics might ask, "So what's to be thankful for in this day and age? There's war in the world, and starvation, and sickness. There's greed, and dishonesty, and the earth itself has been dirtied and scarred almost beyond repair. So — what's to be thankful for?"

All these things are true, of course, but seemingly unsolvable troubles are not unique to this particular day and age. They existed long before that very first Thanksgiving Day.

Several years ago a dear friend sent me the following poem. It was written by a monk, in the year 1580. I think that Thanksgiving, 1974, is a good time to share it with you.

I am your friend and my love for you goes deep.
There is nothing I can give you which you have not
But there is much, very much, that, while I cannot
give it,

You can take —

No heaven can come to us unless our hearts find rest
in it today.

Take Heaven.

No peace lies in the future which is not hidden in
this present little instant.

Take Peace!

The gloom of the world is but a shadow,

Behind it yet within our reach is — Joy.

there is radiance and glory in darkness could we but
see

And to see we have only to look.

I beseech you to look.

Life is so generous a giver but we

judging its gifts by their covering

Cast them away as ugly or heavy;

Remove the covering and you will see beneath it a
living splendor,

Woven in love, by wisdom with power.

Welcome it and you touch the Angel's hand

that brings it to you.

Everything we call a trial, a sorrow or a duty,

believe me, that Angel's hand is there.

The gift is there and the wonder of an over-
sustaining Presence.

Our joys, too, be not content with them as joys —
They, too, conceal diviner gifts.

Life is so full of meaning and purpose

So full of beauty beneath its covering that you will
find earth

but cloaks your heaven.

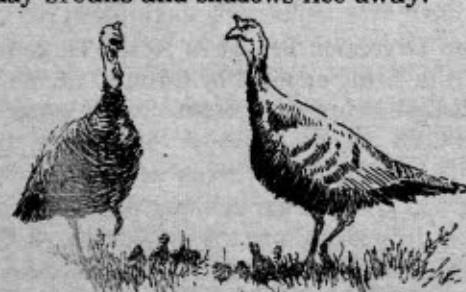
Courage then to claim it, that is all!

And so at this time, I greet you, not quite as the
world sends greeting

But with profound esteem and with the prayer that,
for you,

Now and forever

The day breaks and shadows flee away.



Windswept trees on Sheep Mountain in Fremont County, Wyo. The photographer, Jeff Clack, achieved the effect by reproducing the trees on ortho film from the original continuous tone photo. To make the print, he preexposed the background through lens tissue in the enlarger. The ortho negative was then contact printed on the paper.

BULLETIN BOARD

COLSTRIP EIS AVAILABLE SOON

The draft environmental impact statement for two power plants and their twin power lines proposed by Montana Power at Colstrip, Mont., will be available at the end of November. Prepared by Montana's Department of Natural Resources in addition to the company's own impact statement, the 6-volume report will contain research done by various state agencies, contractors and Natural Resources Department specialists, aimed at providing information rather than recommendations. The plants will be 700 million watts, with both powerlines carrying 500,000 volts. Copies of the draft statement will be available from the Montana Department of Natural Resources, 32 South Ewing, Helena, Mont. 59601.

WYOMING CITIZENS LOBBY

The Wyoming Citizens Lobby, organized at a meeting Nov. 16, is now seeking support from other Wyoming residents who are interested particularly in environmental and public interest legislation. Anyone interested in taking part in a statewide telephone chain, contributing money, or helping the lobby effort in Cheyenne during the 1975 session should contact Bart Koehler, director, Wyoming Outdoor Council at Box 67, Laramie, WY 82070.

SOLAR HEATING

"Solar Heated Buildings: A Brief Survey," by Dr. William A. Shurcliff, Harvard physicist, is available in its 5th edition from Solar Energy Digest, P.O. Box 17776, San Diego, Calif. 92117. It contains data on 68 houses, schools, and commercial buildings that are partially or fully heated. Data includes sketches and orientation of buildings.



ENCAMPMENT RIVER PLANNING UNIT WORKSHOPS

Workshops devised to develop management strategies for 131,190 acres of land straddling the Colorado-Wyoming border are scheduled for early December. The Encampment Planning Unit includes four inventoried roadless areas and a mountain river, thought by many as deserving wild river status. The workshops will be held by the joint planning team from the two National Forests involved, the Routt in Colorado and the Medicine Bow in Wyoming. Stressing that the Forest Service does not yet have a preference for any management alternatives, the meetings have been devised to bring publicly developed alternatives into the final decision. Four workshops are scheduled. In Wyoming on Dec. 3 at Encampment and Dec. 6 at Laramie, in Colorado Dec. 4 at Steamboat and Dec. 5 at Ft. Collins. Further information on the workshops as well as a detailed packet of information on the resources and values of the planning unit are available at the Forest Supervisors' offices: 605 Skyline Drive in Laramie for the Medicine Bow; or 137 10th St. in Steamboat for the Routt; or at any district Forest Service offices in the region.

Book Review

Opportunities in environmental careers

by Odom Fanning, Vocational Guidance Manuals, Louisville, Kentucky, 1971. \$5.75, hard cover. 267 pages.

Review by Peter Wild

In the good old days the young had it easy, in at least one way. Opportunities for education and types of work were limited, and frequently they felt lucky to have a job, any job, as dreary as it might have been.

Yet in our times young people, often beginning in junior high, are bewildered by the myriad career choices that will be open to them. They need to have as broad a knowledge as possible of the complex of opportunities that lie ahead, and that is why **Opportunities In Environmental Careers** is one of the books that should be available to every junior high and high school student, either through school librarians, counselors, or teachers — whomever may be called upon for advice and direction concerning future employment.

The basis premise of the book is a sound one: the worse the environmental situation gets, the more will be the demand for environmental technicians and professionals. State agencies concerned with air pollution, for instance, suffer from vacancies of about 20%, due to a lack of trained personnel.

It is especially important to match an individual's interests, abilities, and hopes for financial return with a proposed career. To help a student consider these factors, a number of charts in the book lay out requirements for jobs needing little education through those demanding a Ph.D. As illustration, many community colleges offer programs which lead to a two-year environmental degree that qualifies the student as a technician in a variety of fields. Tables provide samples of curricula so that a person can get the gist of how much math, English, sociology, and other courses, he will need. Such requirements, as well as other aspects of job situations, change rapidly. For this reason further research for details in specific fields will need to be

done. Here the book will prove a useful starting place by suggesting places to write for up-to-date information and by providing an extensive list of colleges with environmental career programs.

Coal lobby desperate

The Environmental Policy Center, the citizen lobbying center that has spearheaded the campaign to get a strong strip mine regulation bill this session, is about to fold. The center is out of money.

"They can't pay their staff, they can't even pay their phone bill. They may have to close their doors before the year is out," says Kathy Fletcher of the Environmental Defense Fund.

"They're the organization most responsible for lobbying on coal issues in Washington," says Fletcher. "Without EPC the folks fighting coal don't have a chance. They are the voice in Washington, where the major decisions are being made."

Citizens in the Northern Plains concerned about coal development have worked hand in hand with EPC in Washington. Ranchers and staff from the Northern Plains Resource Council and other regional organizations have worked out of the EPC office when in Washington. If that base was shut down, it would be a tremendous loss.

The EPC has also been vital in digging out facts on coal and publicizing their findings. "They exposed the real reasons behind the East to West shift and documented the low sulfur coal myth," says Fletcher. Material developed by EPC has frequently been used in stories appearing in HCN.

EPC needs help desperately. If you can offer them support, send your checks to the Environmental Policy Center, 324 C Street, S.E., Washington, D.C. 20003. (Donations to EPC are not tax deductible because the center engages in lobbying.)

High Country News-15
Friday, Nov. 22, 1974

Eavesdropper

environmental news from around the world

LOONEY LIMERICKS

by Zane E. Cology

There's talk of a mine near Meeteetse
AMAX says the site's hard to beat, see
But the sheep and the deer
Who, too, like it here
Think blasting and tailings aren't so neat-sy



The American Paper Institute says waste paper will account for 22.7% of the total fiber used in the manufacture of paper and paperboard in 1974. The API foresees a five per cent annual increase in the reuse of waste paper each year.

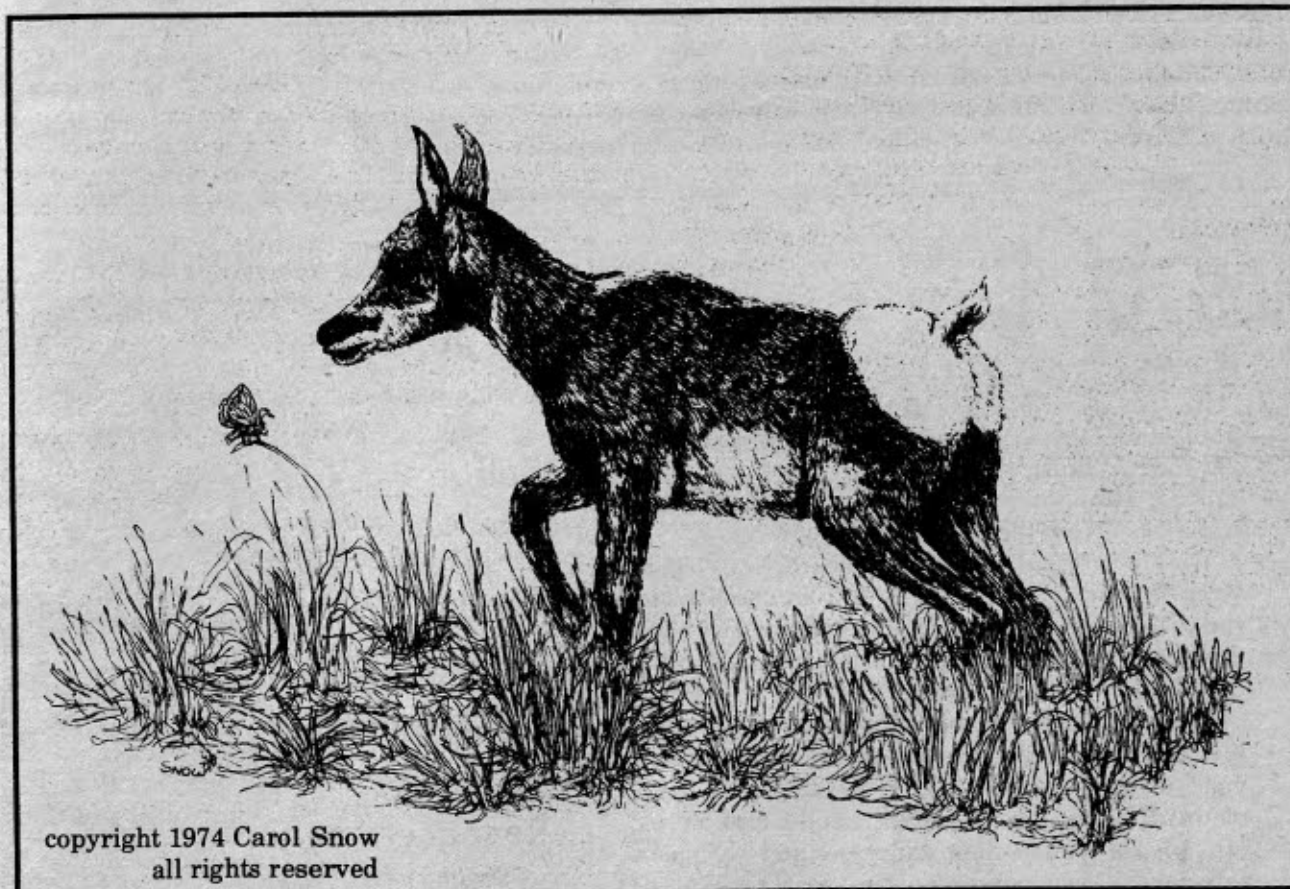
The Environmental Protection Agency has ordered an immediate nationwide study of the country's drinking water supplies to determine whether they contain cancer-causing chemicals. An EPA study of New Orleans drinking water revealed traces of 66 organic chemicals, some of which are known cancer-causers. The Environmental Defense Fund, relying on EPA data, reports that there is a "significant relationship" between cancer deaths in the city and contaminated public water supplies. There is some indication that use of chlorination for disinfection purposes may contribute to the formation of toxic chemicals in water.

Aerosol can propellants may pose a threat to the stability of the atmospheric ozone layer. It is this ozone that filters out the most lethal forms of ultraviolet rays from the sun. A special committee has been formed "on an urgent basis," to assess for the National Academy of Sciences what action might be taken. Some of those who have studied the situation now believe the fluorocarbons in the cans represent a far more serious threat to the ozone layer than would a large fleet of operating supersonic transports. The American SST program was shelved in part because of fears that SST exhaust gases would deplete the ozone and consequently would increase the incidence of skin cancer and cause other damage.

Scientists have developed a new variety of corn that surpasses beef in protein quality and, pound for pound, contains twice as much protein as milk. But now the researchers at the International Corn and Wheat Improvement Center in El Batan, Mexico are faced with the problem of how to convince farmers to grow the super-corn. Because the yields in weight are no greater than ordinary corn it brings the same price at the market as the traditional varieties. "We've had all these dramatic demonstrations of what this means to sick children and could mean to people in general but the average farmer doesn't know about this," laments one scientist.

Will the frog become the next endangered species in this country? Some researchers think so since frogs are disappearing all across the country. "We don't know exactly why the number of frogs is declining," said Ruth Hine, chairman of the Wisconsin Department of Natural Resources Committee on Endangered Species. "If it continues within the next few years the frog could be an endangered species." Suspected causes for the frog's plight include use of pesticides and "over-harvesting" by people who sell frogs for laboratory dissection.

Roundup-a-Reader Christmas Special



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Carol Snow, a noted regional wildlife artist, is helping **High Country News** by donating this original pen and ink drawing of a young pronghorn. We're offering these eight by ten inch drawings, suitable for framing free to anyone who can round

up two new subscribers to HCN. Carol Snow has signed each one personally. (By the way if you like Carol Snow's work, ask her to send you a free catalog of cards and prints: Carol Snow, Route 5, South Five Mile Road, Boise, Idaho 83705.)

16 **Ruckelshaus tells Meeteetse:**

'Power of individual is enormous'

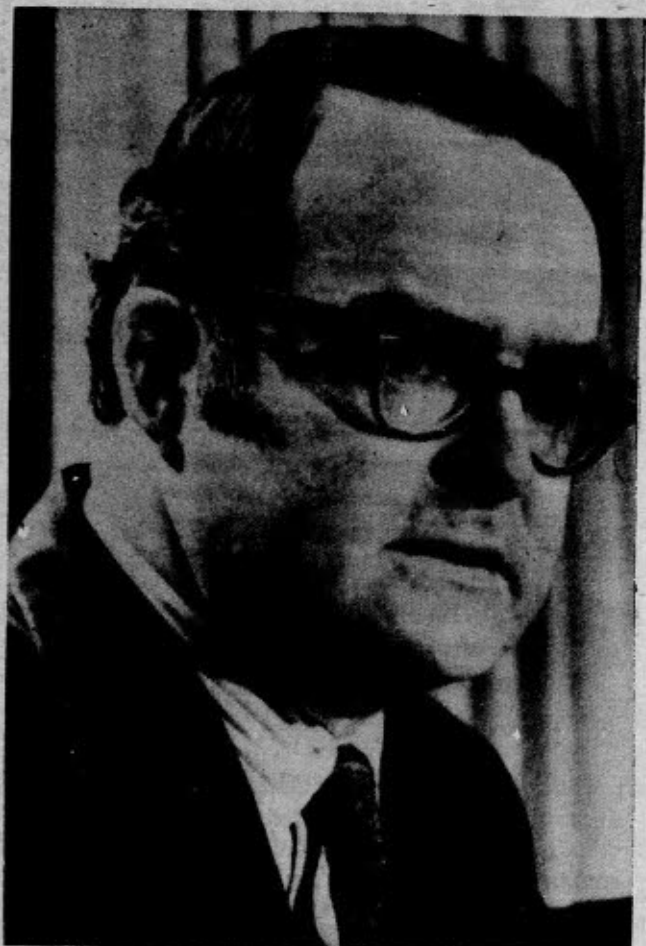
**WILLIAM D. RUCKELSHAUS**

Photo courtesy of the BILLINGS GAZETTE.

William D. Ruckelshaus, in Meeteetse last week, talked with the HCN about his reasons for working with the Meeteetse Preservation Organization (MPO) in its fight to preserve the community from the threat of copper mining impact. American Metal Climax, Inc. (AMAX) will announce early in 1975 when it plans to develop the Kirwin copper mine 39 miles from Meeteetse.

"This seemed to me to be a group of people very sincere about their way of living which they saw as being threatened. They're asking a very legitimate question about the impact on their lives, and they deserve to have their questions answered," he said. Ruckelshaus went to law school with a local outfitter, Charlie Rumsey, who is a MPO member.

Ruckelshaus has served as head of the federal Environmental Protection Agency, acting FBI di-

rector, and, as he told the MPO audience, he held a top post in the Justice Department for about 20 minutes. Ruckelshaus was referring to his short tenure as attorney general when he and Elliot L. Richardson resigned in October 1973 over their refusal to fire Special Prosecutor Archibald Cox.

Presently he has a private legal practice in Washington, D.C., about half of which consists of environmental cases. He said working with groups as small as the MPO is not new to him because there were several cases brought by small groups when he was attorney general in Illinois.

A quiet, unassuming man, he evidently preferred sitting in his corner of the livingroom at MPO Vice Chairman Betty Thomas' house listening to the stories of Meeteetse area residents rather than being singled out for an interview. However, his enthusiasm grew as he began sharing his favorite stories of how individuals had effected change.

He told about Verna Mize, a resident of Maryland, who had a love affair with Lake Superior. She became upset by Reserve Mining Co. dumping its industrial waste into the lake. Every vacation, Ruckelshaus said, she would come to the area and camp out on the steps of the state capitol buildings in the three states bordering the lake or she would swim in the lake — anything to draw attention to the situation. Later she appealed for federal help. Ruckelshaus, then director of the Environmental Protection Agency, said Mize would call his wife at home to ask why he wasn't doing anything about Reserve.

Although he didn't mention it in the interview, Ruckelshaus later found himself in conflict with President Richard Nixon over Reserve when he tried to crack down on the company, which contributed heavily to the Republican party.

At the MPO meeting Nov. 4 at the American Legion Hall, Ruckelshaus continued offering encouragement to the 90 people who assembled. The large turnout surprised organizers, since a community concert and a Lions Club speaker had been scheduled for the same night.

Ruckelshaus, who had spent the day touring the area by four-wheel drive vehicle, said, "I have been in every state in the union in the past few years, and I've never seen a place that is more striking in its natural beauty." In his travels, he said he had talked to people about how they define a perfect community. Universally, he said, they seek a place with no crime, a high level of educational benefits, a

place where the air is clean, the water pure, and plenty of open space. He told the Meeteetse citizens, "That's precisely what you have here — what most people want." Making a point to emphasize that the decision whether or not to fight the mine must be the community's, he nevertheless said, "I know what my position would be if I lived here."

Asked what the group's strategy was going to be, Ruckelshaus said that until AMAX announces its plans, the MPO hasn't taken a definite stand. Ruckelshaus and another man from his law firm have both toured the area and talked with residents to get background for any possible lawsuits that might develop.

—MJA

Strip mining bill in limbo

At HCN press time Thursday, members of the U.S. House and Senate conference committee had reconvened to try to work out a compromise on land owner consent for strip mining of federally owned coal where the surface is owned by a private party.

For a few hours Wednesday, hopes were high that a compromise had been reached during the committee's first meeting since the election recess. However, environmentalists, including the Environmental Policy Center, Friends of the Earth, and the Northern Plains Resource Council were still dissatisfied with the bill since they thought the definition of landowner was too restrictive.

Wednesday afternoon Sen. Henry "Scoop" Jackson (D-Wash.), chairman of the Senate Interior Committee, told the committee that he wanted a definition of landowners which was even more restrictive. Jackson preferred that veto power be limited to landowners who had lived on the land since 1961 or who had derived a significant portion of their income from the land since 1961. Wednesday's compromise would have reduced that to only the past three years.

Reports from Washington said the group was at a stalemate. A final decision must be reached soon since there is little time left for the bill to be returned to both houses for final approval and sent on to the President.

Dear Friends of HCN

If we were just running a newspaper, then life around the HCN would be a lot easier. But as it is, we find ourselves (just as we're sure you do) involved in a dozen or more projects — all time consuming. These past two weeks we've been involved in grazing meetings with the Bureau of Land Management (a result of our last issue's cover story), researching and organizing testimony and an article on sulfur air pollution, and helping set up an environmental-public interest lobby for Wyoming.

During hectic days like these we sometimes think of Tom idyllically relaxing on his land in Oregon — but then we get Tom's latest column and find he's working just as hard as he ever did around the office.

Luckily we're being helped through the holidays by Colleen Kelly. Colleen has dedicated a good deal of volunteer time to the environmental cause while she lived in Laramie, Wyo. She'll be running circulation and promotion programs for us until mid-

December as well as giving spot news help.

In this issue Marjane relates the story of the Meeteetse Preservation Organization, perhaps another indication of a changing perspective on growth and development in even the smaller communities across the region.

We also present a somewhat heartening election wrap-up and an election spin-off that needs reader input to help us form HCN policy: Should we allow the use of our mailing list by a political candidate? (See letters section on pages 2 and 3.)

As we mentioned to you before, we are beginning to accept advertising. Now we have a rate card almost off the press, so if any of you know of any mountain shops, book stores, health food stores, etc., please send us their addresses and we'll get a rate card to them. We are putting strict restrictions on the type of advertising and the amount that we'll accept, so as Joan says, make sure they're deserving.

—The editors.

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