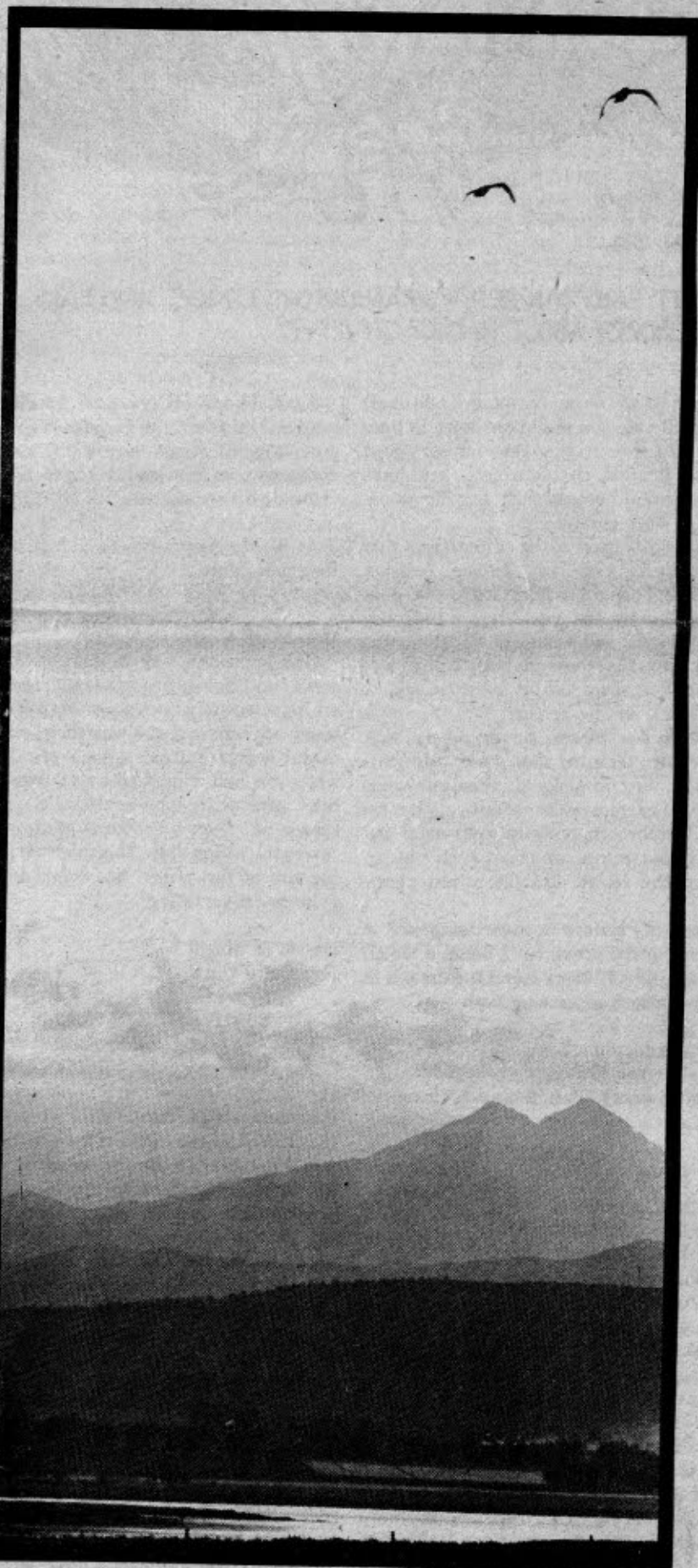


High Country News

Vol. 8 No. 22

Lander, Wyoming

Friday, November 5, 1976



URANIUM MINING. Northeastern Colorado's view of the Rockies — Mt. Meeker and Longs Peak. The foreground is beginning to change, however. An experimental uranium mining operation has moved in, and ranchers fear damage to their groundwater supplies. Photo by Robert Gillespie

A permit an arm's length long Uranium experiment moves into NE Colorado

by Kathy Kaiser

Weld County, Colo., is an agricultural area. Around the county seat of Greeley, some 70 miles northeast of Denver, one sees feed lots, farm equipment stores, and fields of wheat. The county ranks first in the country in the production of cattle, sugar, barley, and dry beans.

But also around Greeley, oil wells are pumping in the wheat fields, a nuclear power station is completed but not yet going, and meetings are being held about a proposed coal-fired power plant near the city.

Some residents view with alarm the entrance of yet another new energy development.

"We're worried about agricultural land disappearing," says Gretchen Cutts of the Greeley Committee on the Environment, a

group concerned about a uranium mining company's plans for the area.

Ranchers and farmers have watched for the last five years as uranium exploration companies moved in with huge equipment onto their land, drilled holes sometimes as deep as 500 feet, left the holes uncovered, left scars on the land, and then departed without saying so much as a hello or good-bye.

WERE NAMELESS

The companies probably would have remained nameless if rancher Doris Williams had not watched and catalogued their activities. She views with some trepidation the latest uranium mining company, which has come in, made its claim,

(continued on page 4)

New industry for Rockies Alunite-to-alumina plant proposed for SW Utah

by Bruce Hamilton

The national drive to become energy independent has brought a horde of energy developers to the Rocky Mountain West. Now government and industry experts are concerned about being overly-dependent on foreign countries for yet another strategic natural resource — bauxite to make aluminum. Again the Mountain West is a key target in the search for alternative sources of the raw materials needed to bring about mineral independence.

The U.S. now imports about 90% of its bauxite and alumina. Alumina is the aluminum oxide compound derived from bauxite or other minerals which is then refined into aluminum. Known domestic bauxite reserves represent less than a three year supply. Nearly all domestic bauxite is found in Arkansas.

In 1974, seven of the world's larger bauxite-producing nations set up the International Bauxite Association. The IBA was formed after member nations viewed the success of the Arab oil embargo and

realized that they had a virtual monopoly on another valuable commodity, according to *Metals Week*.

The threat of inflated bauxite prices and unstable supplies prompted government and industry to search for new domestic bauxite substitutes. One potential substitute — alunite — is being proposed for development in Southwestern Utah.

A draft environmental impact statement on the proposed development has been released, and developers hope to break ground for the mine and processing plant as soon as all regulatory hurdles are cleared. The operation would be the first commercial alunite plant in the U.S.

The alunite development project would nearly double the population of Beaver County, Utah. Yet despite the magnitude of the proposal, there is little controversy and almost no opposition.

"If there's going to be development in Southern Utah, alunite looks like one of the better options," says Lloyd Gordon, an environmental leader from Cedar City, Utah.

(continued on page 8)

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HCN

Letters

GET OFF THE FOOTBALL

To the editors:

Ed Abbey, occasionally accused of excess, in my opinion was mild and generous in his essay describing the debasement of Telluride, Colo. I believe it might be argued that J. T. Zoline's ski resort has fostered some beneficial renewal at Telluride; however as the plague of tacky alien condos festers in the valley, it is clear a point of diminishing returns was reached long ago.

Now the destiny of Telluride lies with its residents. They have secured planning and architectural regulations, but as one resident explained to me last month, "Telluride Company seems to get their projects approved with no trouble." She articulated her suspicions of graft and corruption. During the course of our conversation, another up-ended matchbox condo sprang forth, like a hulking mushroom in the meadow west of town.

As outsiders, about the only positive action available, aside from refraining from buying ski passes and ranchos, might be writing the local newspaper (Telluride Times, zip 81435) and hopefully stirring up interest in things more enduring than hang gliders and football.

Rob Thompson
Salt Lake City, Utah

LEANS ON US

Dear HCN:

I am a recent reader of your important newsletter and in a short time have come to lean on you for environmental news.

Recently at a Green & Yampa river meeting we naturally gave the Bureau of Outdoor Recreation trouble for not sending out notices of the meeting enough days in advance. Some mentioned they read about the meeting in HCN's "Bulletin Board" and managed to make it. That's reason enough for me to get your great paper.

Janet Goodnoe
Boulder, Colo.

POWELL: DEVOTED TO DEVELOPMENT

Dear HCN:

Your recent series on Major John Wesley Powell by Peter Wild was interesting although misleading on the role of Powell's influence on the development of the West. Powell's report *Arid Lands*' significance lies more in its remarkable prescience about modern developmental attitudes toward the West rather than as an early espousal of environmentalism. Rather than being a conservationist, Powell actually comes off in the report as a rational advocate of development, sounding very much like his modern counterparts in the Corps of Engineers (although plainspoken).

Throughout the book Powell calls for the construction of high mountain valley dams for storage of "waste water," i.e. spring runoff ("The greater storage of water must come from the construction of great reservoirs in the highlands where lateral valleys may be dammed and the main streams conducted into them by canals."), the diversion of rivers from their natural courses to provide for grand irrigation projects, unlimited cutting of timber from forests, the eradication of Indians from those forests (they were responsible for destructive forest fires), the opening of iron, gold,

silver, and coal mines ("there is a great abundance of lignite coals that may be cheaply mined."), and "the development of the agricultural and mineral resources and the establishment of manufactories." Contrary to the romantic fantasies of environmentalists, whose imaginations have understandably been captured by Powell's remarkable journey down the Green and Colorado Rivers, Powell would have applauded the Glen Canyon dam concept.

Powell's real contribution was in his understanding of the agricultural uses to which the semi-arid range could best be used, and in his recognition and appreciation of the importance of the dry-year wet-year cycle.

David Alberswerth
Glendive, Mont.

Peter Wild's reply:

Powell was for certain development, no doubt, as the article in its discussion of his proposals for revision of homestead practices clearly states. However, to compare his thinking to that of the Corps of Engineers, or to say that he, "... would have applauded the Glen Canyon dam concept," is quite a leap.

To carry the argument a bit further, Powell indeed pointed to the West's vast mineral resources. Does the writer of the letter then suggest that Powell would have praised current methods of strip mining?

The nub of the matter is that Powell was interested in promoting long-term stewardship — precisely the reason why congressmen representing the Western exploiters tried to shout him down. If Powell could come back today he would be horrified at our misuse of the land.

LAVA LOVER

Dear HCN,

It was good to see your small item on the Wapi and Craters of the Moon lava flows in Idaho (10-22-76). I attended one of the five public hearings on the Great Rift proposal for the area. Only seven people attended the hearing, along with five BLM people. Andy Gibbs has done an excellent job on the plan. It's too bad that more people aren't interested in what happens to some of the most unique lands in the U.S.

Debby H. Cookingham
Hailey, Idaho

AD POLICY ADVICE

Editors' note: The following letters are a few of the ones we received advising us about accepting anti-environmental ads. The Dear Friends column on page 16 of the last issue details the problem. We welcome more reader input to help us make this tough decision.

FOR SHAME!

Dear HCN:

Even before I finished reading your editorial message and found the invitation for reader opinion concerning censorship of ads (Oct. 22 issue), I had decided to write to you on this issue. It's a darned serious one, I believe.

I have never understood, first of all, the idea that any publication is "pure" for not accepting advertising. I do not understand the fear that any publication might somehow appear to be compromised for accepting advertising at all, and certainly not for accepting advertising that does not agree with its editorial policies.

For shame, that you should even consider censoring ads! It also seems foolish to try to distinguish between the "black," "white," or "grey" area ads. If only practically speaking, that of itself becomes a can of worms. Either you accept ads



"IT SAID 'DANGER - URANIUM DRILLING.' WHO SAID TO WORRY ABOUT RADIOACTIVITY?"

(period), or you do not accept any ads at all (in which case you would continue to limp along on a shoestring to get your very good product printed, circulated, etc., and have to continue to occasionally beg for donations to keep going).

You print letters to the editor (free) that do not agree with your editorial policies. You accept donations from God knows who. My God, allow the opposition to help pay your freight, add whatever pages to the publication that those ads help to pay for to supplement space lost for features, etc., to ads taken, and let 'er rip!

But please, please, never again talk censorship! Granted that some ads (this political year in Colorado displays some beautiful examples) are not entirely honest in their approach, but surely editorial and news departments can offset such bias by setting the record straight, when necessary.

I not only believe in advertising and in freedom of the press, but I believe we all have an obligation to exercise fairness in our operations concerning both.

Joyce Jorgensen
Publisher and Editor,
Ouray County Plaindealer

CENSOR

Dear HCN:

This is in response to your question regarding objectionable ads.

I think ads should be censored in HCN (tho I agree with the policy of the *Straight Ck. Journal* also!). I do think Tom Bell's approach was certainly "pure" but unrealistic in this "cut-throat" world. Are you having a hard time finding advertisers that have philosophies similar to those of HCN? If so, I can see why you are tempted.

But I subscribe to HCN not to read articles and ads counter to my philosophy. HCN is a "prodger," for me to get off my duff etc. and do something. I don't want to read ads directly counter to my thinking in the only true environmental newspaper I know. I can read these ads in the morning edition every day. I want to read HCN news and editorials. I have written to a couple of your advertisers — the current ads complement the news stories.

Again, I know HCN can use the advertising \$ and it is denying the advertisers freedom to print what they want, but this cheapens your newspaper if allowed. Yes, continue censoring ads.

Joan W. Montagne
Bozeman, Mont.

EQUAL TIME

Dear High Country News:

One approach you might consider is equal time. Some magazines and newspapers have recently been accepting public interest advertising, the way the electronic media accept public service ads. Thus, when you had a paid ad on a subject you take issue with, you could solicit a "response ad" from an interest group which favors the other side. This might increase the size of the paper, but would lead to balanced advertising.

Gerald H. Meral
Fair Oaks, Calif.

KEEP SHEETS CLEAN

Friends,

One is known by the company one keeps. I certainly judge a magazine or newspaper, unconsciously perhaps, by the advertising they run; it seems a sign of their "policy." I would not like to see the image of HCN tarnished in this fashion.

Appreciate having an opportunity to comment in this problem. HCN is a very important source of information to me and keeping its sheets clean, so to speak, gives stature to its reporting.

Doris Milner
Hamilton, Mont.

ANTI-ENVIRONMENTALISTS INVADE

Dear HCN:

I don't think that an environmental newspaper should have anti-environmental ads.

Anti-environmentalists have invaded every other newspaper. Let's keep HCN pure.

Martie Crane
Casper, Wyo.



Editorials HCN

Nov. 5, 1976 — High Country News-3

Get your mind in the gutter

Ever since the Adolph Coors Co. started putting its brew in aluminum cans, the roadsides of the Rocky Mountain West have been a major potential domestic source of aluminum ore.

The United States now imports about 90% of its bauxite to make aluminum — a very insecure position to those worried about mineral independence and international balance of payments. In 1974 the major bauxite exporting nations took a hint from OPEC and set up the International Bauxite Association — a move inspired by the Arab oil embargo.

But as the major bauxite producing countries plot to curtail our supply of aluminum cans — possibly creating hour-long lines at the nation's liquor stores and a beer rationing program — our national mind is not in the gutter designing ways to retrieve discarded Coors cans. Instead, developers have come up with a plan to strip mine mountains in Southwestern Utah to extract a new source of aluminum — alunite.

At first glance, the alunite development proposal for near Milford, Utah, by Alumet looks acceptable. Alumet promises not to pollute the local air too severely. The land that will be mined is far from spectacular. There doesn't appear to be an endangered species living in sight of the place. The towns nearby will experience explosive growth, but the residents seem to relish the idea.

So why not endorse this project? Why not prove that environmentalists can be for something instead of against everything?

Why? Because if we open this mine without first addressing our wasteful use of aluminum and other valuable finite minerals we just hasten the day when we'll run out of bauxite, and alunite, and every other conceivable substitute.

The United States, with only five per cent of the world's population, consumes one-third of the world's aluminum. In recent years the U.S. growth rate of consumption of aluminum has been three

times faster than the combined growth of all other metals, according to the U.S. Bureau of Mines.

And why do we need all this aluminum? For Coors cans? For TV dinner trays?

This outlandish demand for aluminum only compounds our energy predicament, since aluminum refining is tremendously energy consumptive. We build our aluminum plants along the Columbia River and in the Tennessee Valley where cheap, clean, plentiful hydroelectric power is available. Then we build new coal and nuclear plants in these same areas to meet new demand because the aluminum plants are using up all the hydropower.

It's absurd. No, we can't endorse a new mine just because it's relatively clean, and relatively well planned, and other sources of the mineral seem insecure.

We must also ask if there is a real need (not demand, need) for the mineral to be extracted.

The road to energy and mineral independence should not be a one-way route of ever-expanding domestic supply to meet every demand. That route is a dead end — ending in environmental ruin and mineral bankruptcy. The route we must take if we are to survive is one that never ends — a circular route.

Aldo Leopold used to tell the story of the Round River — a Wisconsin river that flowed into itself "and thus sped around and around in a never-ending circuit." Paul Bunyan discovered it, and floated many a log down it, according to Leopold's story. "The current is the stream of energy which flows out of the soil into plants, thence into animals, thence back into the soil in a never-ending circuit of life," explained Leopold.

We must learn the art of burling down the Round River. Conservation, recycling, and reuse should always be our first approach to natural resource supply problems. Let's mine the dumps, not the mountains.

—BH



OTHER PEOPLE HAVE THE BUCKS

Dear HCN:

Re: the question of whose advertising dollars should you accept. From the point of view of a reader who sees many of the "regular" press which contains ads like the one on returnable beverage containers, I would rather you leave them out of your paper. Why? Well I see enough of them in the daily papers, and I take HCN so that I can see the other side of the story. Examine for yourself the side of the issue that you support and look in *Rocky Mountain News*, *Denver Post*, or others and count the advertising for the conservation side. It's almost zero, because the other people have the bucks. I read your stories to find out how one-sided the issues that receive such wide circulation really are.

If you need more money to keep going, raise the subscription rate a couple of bucks. Do you realize that I am paying in 1976 the same as I paid in 1971 when I first started subscribing? Also do you realize that prices of everything (nearly) doubled

between 1972 and 1974? In addition I will be glad to donate another \$10 to the cause of printing if you say in your editorials that you need it. I am sure that I am not alone in doing this.

A comment on Edward Abbey. Although I think he is correct in what he says, I'm afraid that if you employ him more than occasionally for a news-feature story, you will gain a reputation like the Sierra Club. Most of the feature stories are well researched, full of facts, carefully written, and they come across as strong pieces of competent journalism.

S. R. Skaggs
Sante Fe, N.M.

SKI ADS OBJECTIONABLE

Dear HCN:

I am opposed to an "occasional" objectionable ad in HCN: and would oppose ads from pro-nuclear advocates, subdividers, and yes, too, large commercial ski resorts.

Sally Witzel
Sheridan, Wyo.



ALUMINUM MINE SITE? The solution may be getting our national minds into the gutter to retrieve such discarded aluminum supplies and reevaluating our "needs" for the metal.

Timetable wrong on ORV regs

The Bureau of Outdoor Recreation (BOR) recently released a draft environmental impact statement (EIS) containing proposals which could determine to what degree two-thirds of our public lands are permitted to be free from mechanized intrusions. Sadly, BOR has chosen to allow potentially irreversible environmental damages to occur even though they could be avoided or lessened by alternative measures.

The EIS was written with responsible motives in mind — to regulate off-road vehicles (ORVs) on all public lands, particularly on those managed by the Bureau of Land Management (BLM).

The use of these machines has frequently been associated with excessive noise, harassed wildlife, injured and destroyed vegetation, trail and stream bank erosion, and litter.

BOR proposes a fair solution — designate all BLM lands as either open, open with regulations, or closed to ORV use. It is BOR's timetable that worries us. The Interior Department is given until 1987 to make these designations. Unfortunately, until a designation is made, the undesignated lands would be open and vulnerable to these machines.

The EIS itself acknowledges, "On those lands that are held in undesignated status for extended periods, there will be some irretrievable losses of unique geological, archaeological, historic, cultural, and biotic resources."

One alternative to this decision has been offered by the National Parks and Conservation Association (NPCA). It suggests that the Department of Interior issue interim designations of all BLM lands within

a short time period, such as one year, using all three designations. This interim process would mean making preliminary judgments based on somewhat limited knowledge. However, any errors made during this period could be corrected in the final designation after more intensive study.

If any errors of judgment are made, let them be on the side of providing too much protection instead of too little. Decisions are reversible. The destruction of our land is not.

—MP



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Uranium. . .

(Continued from page 1)

and gotten approval to start a one-year test project.

The company, Wyoming Mineral Corporation, is a subsidiary of Westinghouse, which supplies nuclear plants across the country with fuel.

Wyoming Mineral has asked for and received one-year permission to mine for uranium in a seven-and-a-half mile site some 60 miles east of Greeley, near the small town of Grover.

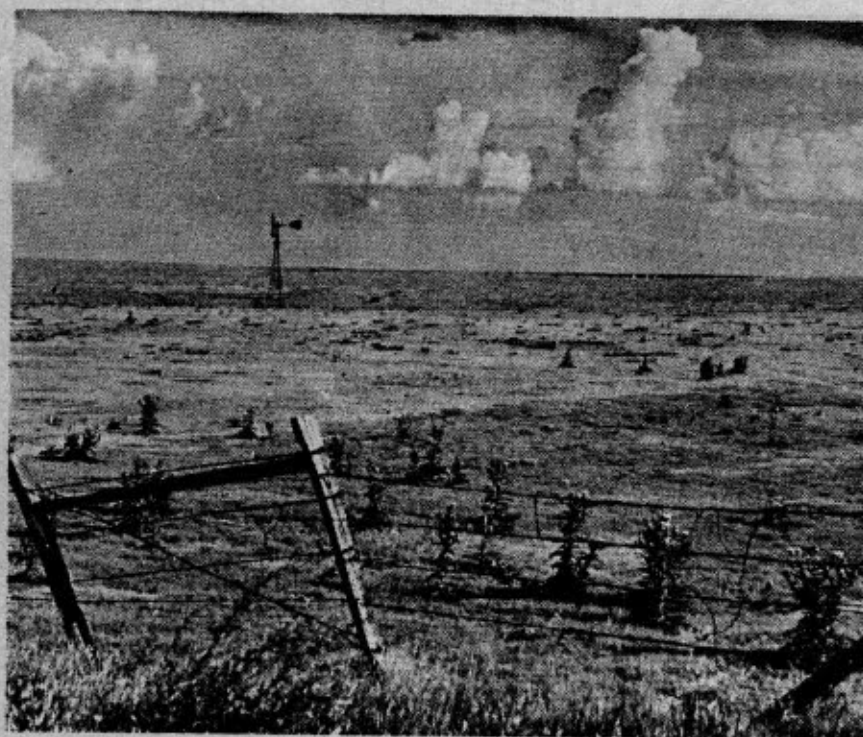
Attached to its permits are a list of conditions an arm's length long, detailing everything from what kind of equipment shall be used to how often water samples shall be taken.

Part of the reason for the detailed set of conditions is the newness of the technology chosen by Wyoming Mineral. The company plans to try in situ mining, also called solution mining. This process utilizes a series of injection and recovery wells through which chemicals are pumped to dissolve uranium. Once dissolved, it is extracted and concentrated at the site of the operation and shipped off for further processing. No mine shafts or surface mine pits are involved.

Solution mining obviously has environmental advantages over strip mining because very small amounts of land surface are disturbed.

But the main problem with solution mining is that the drilling of holes could cause a disturbance of water tables.

"I live close to that area (the area to be mined)" Weld County Planning Commission member Chuck Carlson told Wyoming Mineral. "The surface water is very



MORE THAN MEETS THE EYE. The Pawnee National Grasslands are of more than ecological and agricultural interest. Wyoming Mineral, a subsidiary of Westinghouse, plans to try solution mining to extract uranium here. The process involves pumping a chemical into the ground which will carry uranium to the surface at another pumping site.

Photo by Kathy Kaiser

important to ranch country, very important for our livestock. After you guys are gone, we've got to keep going."

"People are not after you," he said, "but the people before you who didn't adequately plug the holes."

Not everyone is so ready to except Wyoming Mineral from the list of past offenders. The Weld County Agricultural Council, an organization of ranchers and

farmers, voted unanimously to encourage the Weld County Commissioners not to grant a permit.

Speaking at a planning commission hearing, Norm Brown of the agricultural council said, "We could lose our water; we could lose our ranches. The permit should be denied unless we are certain we have adequate safeguards."

There have been unconfirmed reports of water wells suddenly going dry and water becoming hard or rusty after mining activity had taken place nearby.

Doris Williams, who with her son Lane, runs a 3,000-acre ranch near Grover, feels the problem is not only water, but also the company's attitude. "They have this attitude of 'Just try and stop us,'" she says. "It was on Mother's Day (1976) that Power Resources staked a hole, put a red tag on the gate, brought out a drilling rig and were going to stake it out," Williams related. "I told them I still have the shotgun' and that's the only thing that keeps them off."

Power Resources Corporation (POWERCO) is a partner with Wyoming Mineral. POWERCO drills and arranges for leases, while Wyoming Mineral gets the permit, does the testing, and, if that proves successful, goes on with full development. POWERCO has a 20% interest in the operation if all phases are completed.

POWERCO is also said to be part of the problem that has plagued residents of the area for the last five years: the holes left uncovered, the huge rigs that carve tracks on the land, and the disruption caused by such activity.

Despite assertions from the company that they were covering the holes, a survey of old drilling holes around Williams' ranch revealed many holes either left uncovered or filled in only to a depth of two feet or so.

Driving around in a truck with her son, Lane, Williams pointed out various old holes and explained which exploration outfit had made them, and how long they had been there. Though some of the holes were Getty Oil's (which had done exploration work in that area around 1973, according to Williams), many of them were clearly marked "POWERCO."

One hole that the Williamses dug up had been filled with dirt extending maybe a foot down and underneath was a plastic frisbee-shaped covering which held the dirt above it up. Below that, by Williams'

measuring, the hole extended some 264 feet.

Lane said he had checked some 30 holes on a random basis in that area and none had been filled below the one- or two-foot level. The number of holes in Weld County caused by uranium mining exploration has been estimated at 700.

Besides the problem of disturbing underground water, there is concern about cattle falling into the holes. Williams is also worried about the water being contaminated by some sort of an accident, like a truck with chemicals crashing near one of the holes, many of which are alongside the highway.

WHO'S RESPONSIBLE

But the larger question is one of responsibility. While POWERCO has made the holes, it is Wyoming Mineral which asks for the permit and must show the government agencies it comes before that it is responsible and capable, not POWERCO.

William Eisenbarth, manager of licensing and safety for Wyoming Mineral, says bluntly that exploration and acquiring mineral rights is not Wyoming Mineral's responsibility. Yet he admits that if a corporation is to do well, it must perform well in the public eye.

But, "if you were to go and look at the laws, the laws don't cover in detail what they (the ranchers) don't like going on. The fact that a lot of people are unhappy with it doesn't change the law," he said.

The county and several energy companies drilling in the area have met to formulate laws to cover local concerns, Eisenbarth said. He also had a copy of a letter signed by the president of POWERCO to landowners in Weld County, dated Aug. 24, 1976, pledging to plug holes that a landowner notified them about.

To drill a water hole, the state water resources department requires \$25 a hole, and if you don't find water, you have to replace the hole with cement so water doesn't contaminate other wells, Williams said. Yet for drilling other kinds of holes, such as uranium holes, there is no such requirement. Procedures for capping holes are outlined in Wyoming Minerals' permits, however.

The other thing that bothers ranchers is the companies coming on their land without asking permission or notifying them. Williams said one rancher was ordered off his own land when he asked one such company what they were doing.

In a letter to the county commissioners the Greeley Committee on the Environment states, "It has been the experience of

"I told them 'I still have the shotgun' and that's the only thing that keeps them off."

the ranchers that the drillers get lost rather too often, and strangely are found on private land when they thought they were on school land, etc. Several ranchers have had to post themselves at all exits from a field in order to catch a driller on their land, so as to establish the damage, ridiculously small as it is."

Also, a lot of ranchers bought their land from someone else who had sold the mineral rights. "I never got a solitary penny," Williams says. The mineral rights were sold or bought by the previous owner, yet the present owner must contend with the disruption caused by the energy company.

Much of the drilling for uranium has gone on on the Pawnee National Grass-



HOLE PLUGGED, BUT... Doris Williams and her son, Lane, took an HCN reporter out in the field to show her how the uranium exploration companies had left her land. This hole was plugged at the top with a couple of feet of dirt, but the hole extends over 260 feet into the earth. Williams fears possible groundwater contamination.

Photo by Kathy Kaiser

lands, land set aside by the federal government in 1937. Here, yellow dirt patches where mud has been piled around drilling holes mark old drilling activity. From such a spot, tracks cross the grasslands almost as far as the eye can see.

Stuart Adams, regional director of Pawnee National Grasslands said he hasn't had any problems with drillers for the last three years.

"Wyoming Mineral is still working out there. I just checked their holes yesterday and there is no problem," he says.

Adams maintains that the advantages and disadvantages of such mining have to be weighed together. "We have a thousand acres here," he says, and the amount of land used for drilling is small. "If there's a serious problem, then we ask them to come back (and clean it up), but this country's pretty darn tough. If we're patient, the vegetation will come back."

LENGTHY PROCEEDINGS

In order to get permission to do test mining, Wyoming Mineral had to get a subsurface disposal permit from the Colorado Water Quality Commission and a special use permit from Weld County.

In addition, an operator's notice of activity was filed with the Colorado Bureau of Mines and Reclamation; a radioactive materials license application with the Colorado Department of Health; and a water well permit from the State Engineer's office.

The water quality commission meeting to consider Wyoming Mineral's permit lasted seven hours. The permit was given contingent on a set of conditions which took Wyoming Mineral and the state health department at least a month to work out.

The Weld County Planning Commission went through similarly lengthy proceedings before it issued its special use permit.

NEW TECHNOLOGY

One of the reasons for the extensive work on the permit is the newness of solution mining technology. No one really knows if water leaching will take place, or if there will be a build-up of chemicals in the ground, or if those chemicals could prove harmful.

Ammonium bicarbonate is pumped down to put the uranium in solution; hydrogen peroxide is used to oxygenate it and bring it back up. Some 800 gallons of water a minute are pumped in and out again with the chemicals. One of the problems addressed in the conditions attached to the permits is how to restore that water and how you figure out what to restore it to after Wyoming Mineral is through with it.

The conditions are supposed to also solve some of the problems discovered in Wyoming Mineral's existing in situ uranium operations. One in Kaycee, Wyo., is in the test stage. A large operation in Bruni, Texas is in the full development stage.

The Texas operation is monitored by a spot check once or twice a week by the Texas health department and water quality board. Jeff Korth of the water quality board, said the Bruni operation has been shut down a couple of times.

Once, when the solutions being pumped back up were not what was expected, it was discovered that solution was escaping upward into a zone above the mineralized zone.

Korth said they lowered the injection rates and the problem took care of itself. (Eisenbarth remembers this differently: he said the problem was that the solution was leaking because of old injection wells which hadn't been properly capped that Wyoming Mineral did not know about because there was no record of the holes.)

Increased capability of water samples

away from the site to pass an electrical current, a phenomena called increased conductivity, may be a sign of another problem. Korth says it may mean that chemicals are traveling away from the mine site.

Eisenbarth said he doesn't believe there is increased conductivity because the state's data was insufficient to show what the conductivity was in the first place.

That is one of the points in the set of conditions imposed by the Colorado Water Quality Commission.

"Prior to the injection of chemicals, water quality characterizations shall be established for the mineralization zone, the first overlying, the first underlying and the Laramie-Fox Hills aquifers and for all monitor wells," the permit reads.

The water quality commission is requiring a bond: \$5,000 for surface restoration (in addition to water restoration) and a fee, which has not been established, for each hole drilled by Wyoming Mineral. Restoration includes removing all equipment from the site, all wells in compliance with the department of health and-or state engineer's requirements, and the site leveled and seeded according to recommendations from the Soil Conservation Service.

Weld County also stated in its permit that Wyoming Mineral must show clear evidence that the aquifer has been restored before Weld County will consider any further development or test permits.

CAN'T LIVE WITH REGS

Unlike Texas, the Colorado health department does not have the manpower (and Weld County doesn't have the expertise) to monitor Wyoming Mineral's tests operations. So an elaborate set of safeguards has been set up by the state health department and Weld County, much to the dismay of Eisenbarth.

"There's no way we can live with these regulations," Eisenbarth says. He contends the standards leave no room for error. "If we are one or two days late (with required samples) it'll be an excuse to close us down," he said.

"We've had more trouble with this than anywhere. With the NRC (Nuclear Regulatory Commission) we just sailed through; we made our presentation and they acted on it."

Eisenbarth also charged that the Weld County Planning staff was overstepping its bounds by including regulations for subsurface procedures in the permit, something which he says is supposed to be under the jurisdiction of the water quality commission.

But Gary Fortner, staff director, doesn't agree. "The ranchers and farmers are heavily reliant on the groundwater; any disturbance in the water will affect the farmers and ranchers. This is a legitimate interest of the county. We want to back up the state regulations."

"Somewhere, somebody has to have faith in what we're doing," Eisenbarth says. "We're not asking to go out there and mine the hell out of the land, we just want to test. All the questions you raised will be answered by the test; if you don't allow us this, someone else will get out there and strip mine and then you will have no aquifer."

The threat of strip mining is not an entirely idle one. Eisenbarth said privately that at some point when mining uranium, it becomes more economical and efficient to strip mine. That point depends on the quality, the quantity, and the price of uranium, to name a few factors.

And, if that happens, Weld County residents will be faced with more threats to their agricultural land.



The twain shall meet



by D. Sawyer Whipple

"It will not do to leave a live dragon out of your calculations, especially if you live near him." — J.R.R. Tolkien, The Hobbit

Environmentalists generally don't pay too much attention to labor unions and labor organizing struggles, except for the purpose of "coalescing" for lobbying or other political activity. But, there is currently a struggle in the West for representation of miners by labor unions that deserves a lot more attention than it's getting. The main players in the struggle are the United Mine Workers of America, the coal operators, the Operating Engineers Union, and a host of local unions.

There has been an effort in the western coal fields to break the power of the UMWA. The effort has been led by AMAX Coal, which refused to sign a contract with the UMWA based on the agreement in the East between the Bituminous Coal Operators Association, the operators' bargaining agent, and the UMWA. Ostensibly, AMAX wanted to sign a "western contract" to cover the unique conditions in the West. The end result, however, will probably be the breaking of the UMWA at the AMAX mines near Gillette, Wyo.

The UMWA isn't a favorite of coal operators. The union has a reputation for volatility, unpredictability, and general neglect of the terms of their contract. In the East, wildcat strikes, idling thousands of workers, spread quickly, resulting in company loss of millions of dollars.

The UMWA also has a recent history of internal strife, evidenced by the murder of presidential candidate Jock Yablonski during one election and the current dissatisfaction with President Arnold Miller.

All of this contributes to instability in the coal fields.

Nevertheless, the union's hold over Eastern coal production is impressive. A long and bitter relationship between the employer and miner has contributed to a sense of solidarity seldom seen in other unions. One picket can close a mine and several can start a wildcat strike that will idle virtually all Eastern production.

Western miners don't have this strong union tradition, and the UMWA, with a push from some of the operators, is losing its foothold as an organizing force in the West. At AMAX's mine in Gillette, a representation election will be held shortly, and few give the UMWA much chance to win. The Rosebud coal miners voted the UMWA out as their bargaining agent not long ago, and a similar struggle is beginning at the Stansbury coal mine in Rock Springs, Wyo.

The meaning for Western coal development is simple: Other things being equal, operators would rather open a mine in the West than the East since they don't have to face the militant UMWA. In the West, where the UMWA is weak, the operators can deal with the less volatile Operating Engineers or a small, virtually powerless local union. Wages don't enter the picture because, with the high productivity from strip mining in the West, labor costs are a small fraction of operating costs.

Labor problems aren't the only incentive for locating new mines, of course, but they carry significant weight.

The UMWA recently voted down a resolution at its national convention to launch a major organizing campaign in the West. By doing so, the union is weakening its bargaining position at contract time in the East and hastening the stripping of Western coal.

"Mama Bear"
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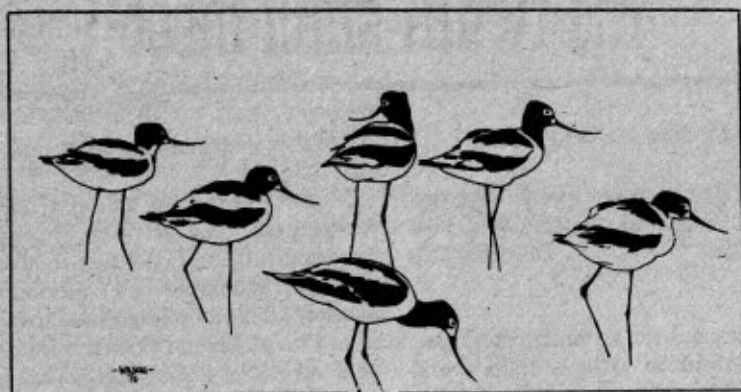
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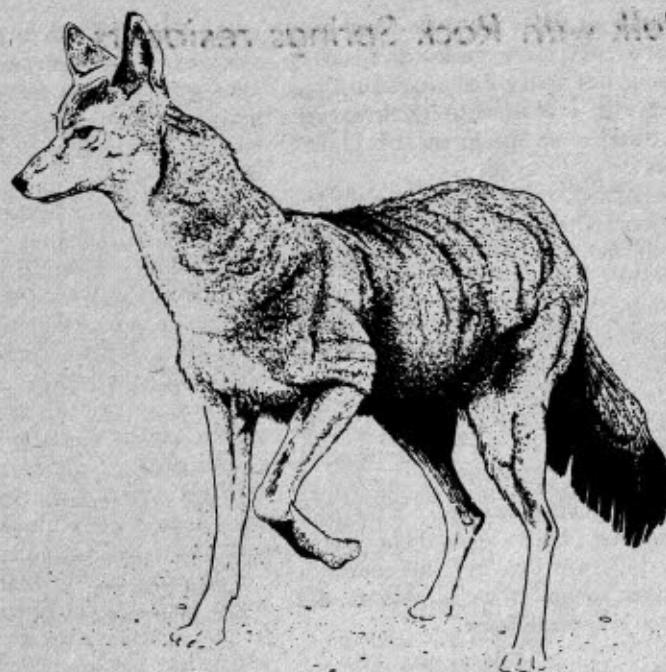
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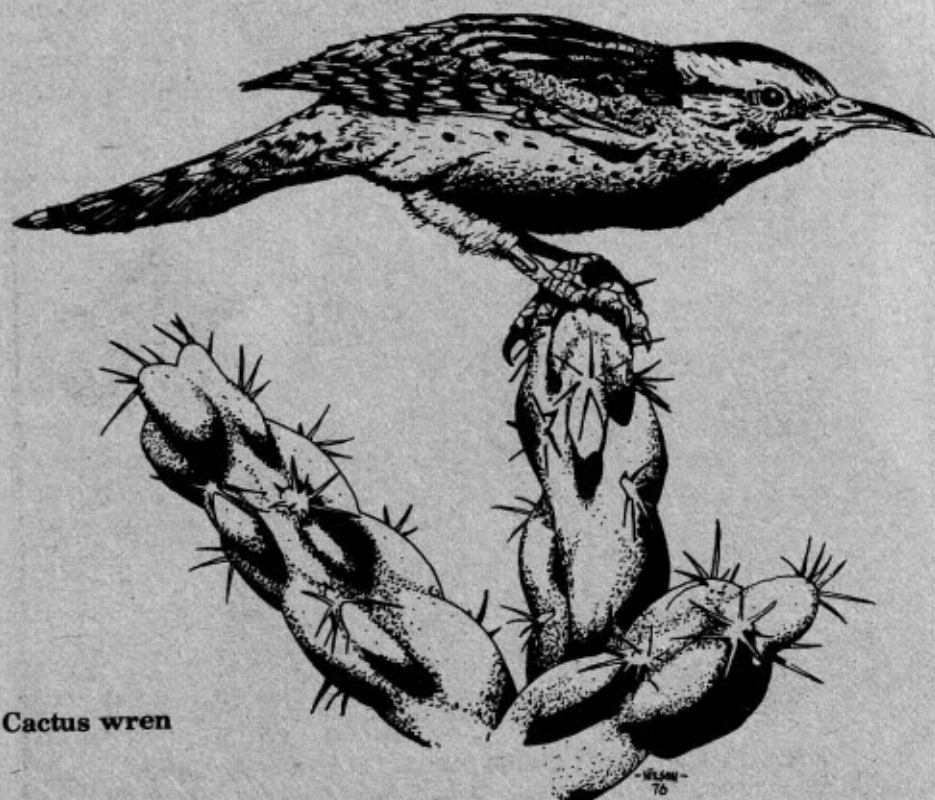
Dave Wilson — a pen for preservation

It all adds up. Combine an artist with a major in biology, stir in a concern for the environment and you get an animal illustrator, says David Wilson.

Wilson, whose work appears here, has been drawing most of his life. The Flagstaff, Ariz., artist enjoys the outdoors and wants to preserve it. When not busy with **High Country News** illustrations, Wilson enjoys "art, the Grand Canyon of the living Colorado River, hiking, rock climbing, cross-country skiing, whitewater rafting, conservation-ecology."

Wilson "wouldn't mind making a living selling art." In the meantime, he gets into the wilds as much as he can. He has been a commercial river guide on the Colorado River and has worked in an outdoor-oriented experimental education program.

Wilson has been extremely generous with both his work and his time. Not only has he allowed us the use of the drawings on these pages, but he has also spent many hours working on special illustrations for **High Country News**.



Cactus wren



Redwing blackbird

The boom town — after the statisticians go home

by Marjane Ambler

In sociology classes across the country, students are reading about Rock Springs—Wyoming's best known boom town. It has become a symbol of what happens to a town when development hits suddenly, leaving local officials unprepared.

Although Rock Springs is still growing, most of the statisticians and the reporters have now gone home. How do the people who remained see their town? HCN chatted informally with some oldtimers, teenagers, and newcomers to find out.

THE OLDTIMERS

Not surprisingly, many of the oldtimers resent their town being painted as such an undesirable place to live. "It makes my blood boil when I read in the papers about Rock Springs being such a bad place," one man, who had lived in Rock Springs since 1923, tells HCN. "Those reporters come in to write about pleasure houses, but they're in other towns, too," he says.

Rock Springs has always had lots of miners who were always fighting, his friend adds. Now, he says, "with all the riff raff," he admits it's worse.

A woman at another card table at the Young at Heart Senior Citizen Center adds, "It's the younger generation — the outsiders. The majority of them would have problems wherever they went." Her grandson married a "home town girl — thank God for that — and then left Rock Springs. There's greener pastures — or so they think," she explains.

She agrees that Rock Springs has been unfairly treated. Her daughter-in-law left because she wanted "operas and stuff like that." She herself is content to come to the senior citizen center every afternoon to play cards. "It's a pastime; at this age that's about all you're looking for," she says. "Rock Springs is a friendly place. It's just these new people who have run all over this town," she sighs.

Jim Grasso, director of the center, sees the problems of the elderly in a boom town as being more serious. "Those people at

Wheatland don't know what's going to happen," he says, referring to another Wyoming town which is just beginning to boom due to a new power plant under construction.

Several people from Wheatland came to visit the Rock Springs center in December 1974 to see what conditions they could expect. Grasso told them about the housing situation in Rock Springs, where landlords move older people out so they can attract workers who can pay higher rents. The senior citizens group serves as a political force, pressuring government to provide low cost housing.

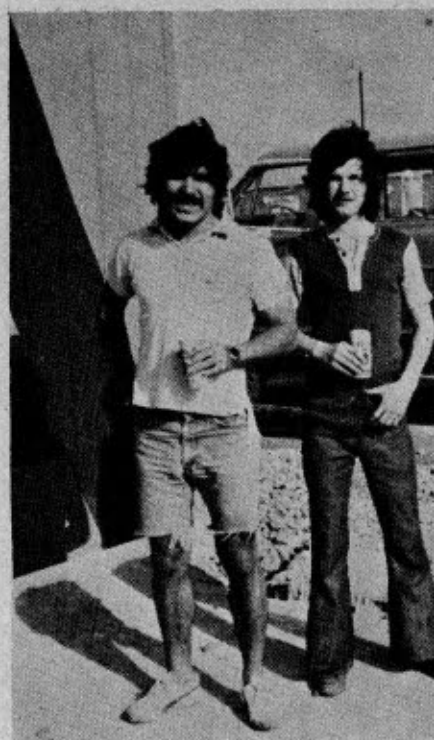
It also serves as a social gathering place in a town that is often criticized for not providing recreational opportunities. Grasso told the Wheatland visitors that potluck dinners and meetings are always held in the afternoons. "We didn't worry about getting out at night before, but with all this impact and all that, people just are afraid to get out, that's all," he says.

THE NEWCOMERS

Newcomers. Riff raff. Outsiders. No matter what adjective is applied, it's rarely complimentary, and the construction workers and other "boomers" know they are not welcome — even if their dollars are.

Terry is a cook in one of the compounds for workers. His friend Joe is a technician. "What do they think of us?" Joe asks HCN. But he quickly admits that he knows the people of Rock Springs look down upon newcomers like himself. "I can understand how they feel — we're making lots of money and taking it all out," he says. He's making \$50,000 a year — more than he could make anywhere else in the country — but he plans to leave soon. He won't take all that money with him; he brags of spending \$300 on alcohol alone in one long weekend.

"I've gone to work drunk," Terry tells the reporter, almost defiantly. "I wouldn't do that at home in Michigan." In Michigan, he explains, he might not get another job. But in Rock Springs, the turnover rate is still so high that when Terry asked his boss to fire



OUTSIDERS. Construction workers and other "boomers" know they aren't welcome in Rock Springs — even if their dollars are.

him, he says he balked. He has too much trouble keeping workers.

Nonchalantly tossing a beer can to the ground as he talked, Terry says, "I hate this town." He complains bitterly of the dry sagebrush, of the hostility that had recently resulted in two stabbings in the compound where he lives, of the constant wind that blows dust off the desert into Rock Springs, and of having nothing to do. He claims he wouldn't consider littering in his hometown, but he's just biding his time here and doesn't care what he does to Wyoming.

One thing he does enjoy is working on his car, but managers of the company compound where he lives have told him he can't take it apart for extensive repairs in the parking lot because it's "too messy." He stays at the compound because he pays only \$13.80 a week for room and board, which provides him with a narrow room just large enough for a bed. Rules are strict; no female visitors are allowed.

"There's nothing to do but get drunk. . . I've heard there's good hunting around here, but it takes a year to get a license, and I'll never stay that long," he says.

Many newcomers from other parts of the country find nothing attractive about the

dry, barren country around Rock Springs. Some do find amusement, however. They wander out to local prairie dog towns and shoot for sport. A local wildlife expert, Dick Randall, tells HCN that the area has lost 60% of its prairie dog population in the last two years. One day he went to check on a favorite prairie dog town. He found instead two young men with their rifles, who bragged that they had each shot 74 prairie dogs there that day.

THE TEENAGERS

For the kids in Rock Springs, the worse part seems to be over. Two years ago they were going to school in four shifts. Lunch lines went all the way to the back of the lunchroom, and if you weren't there before everyone else, there was no time to even get through the whole line, a group of teenagers told HCN.

Now the teenagers see some advantages and some disadvantages to living in the town. "The stores used to be crappy; we're finally getting the things we needed," one boy said. "There are more places to go." "More girls."

However, some of the teenagers see disadvantages to living in the new Rock Springs. The newcomers put pressure on other students, including pressuring them to use drugs. One boy says he's always enjoyed going swimming and then walking to the show . . . but his parents won't let him go alone downtown anymore. Now when he goes swimming, it's so crowded, he "can't even move."

The "competition in sports is horrible — if you're not really something, you might as well forget it," he says.

Showing compassion for the newcomers, one girl told HCN, "Some of the kids figure



that the only way to make friends is to be tough. Others are real quiet and only have two or three friends."

Sitting in a circle around the reporter in the park, another boy added, "I feel sorry for their kids — they just get somewhere and they got to move."

Asked whether the town was better or worse since the boom, the students had mixed feelings. "I don't know . . . it don't matter to me," one boy said. "If I'd lived here all my life, I guess I would say I wish it hadn't."



TEENAGERS see some advantages and some disadvantages. There are more places to go. But the swimming pool is crowded and the competition "horrible."

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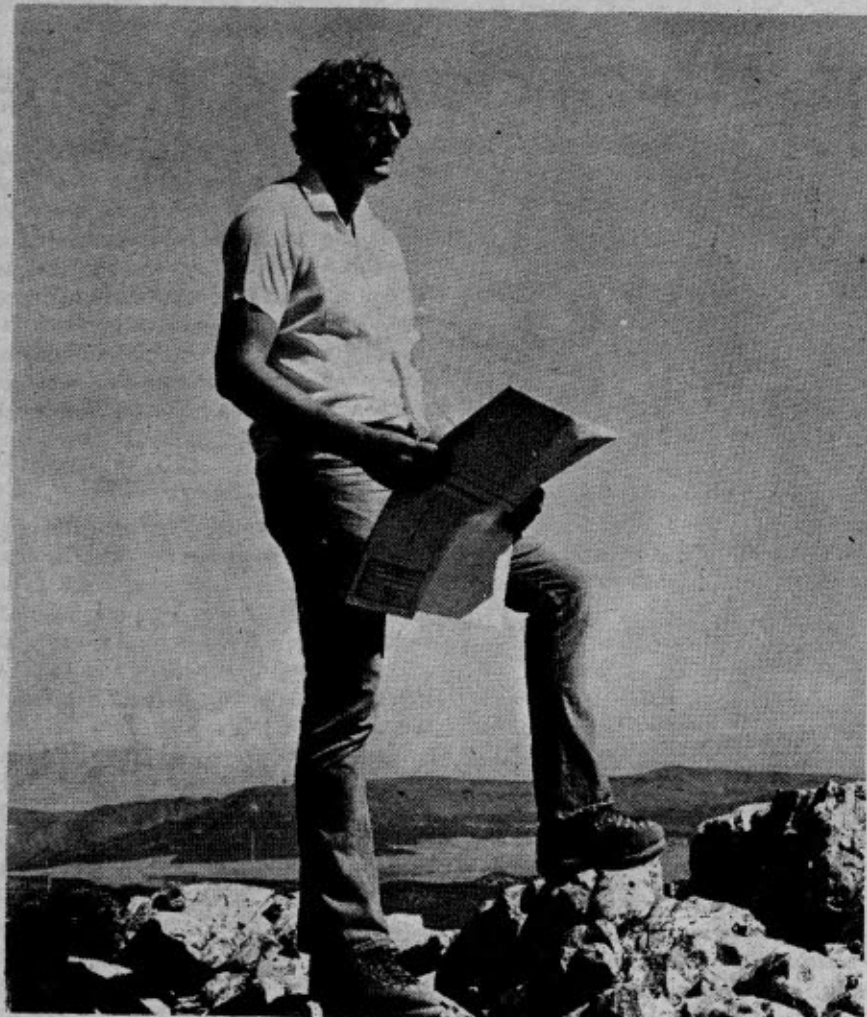
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SITE OF DEVELOPMENT. Alunet resident manager Harry Perry stands at the proposed mine site, map in hand. Behind him lies the Wah Wah Valley where the processing plant, water wells, and tailings ponds will be located.

Alunite. . .

(continued from page 1)

Making aluminum from alunite is an infant industry. The Russians have the world's only commercial alunite operation. The U.S. has never pursued alunite development because no one believed this country had reserves rich enough to warrant development. That myth was disproved when some geologists from Golden, Colo., with a firm known as Earth Sciences, Inc., discovered what is now believed to be the biggest alunite deposit in the world. The deposit is northwest of Cedar City in the remote Wah Wah Mountains.

Earth Sciences has joined forces with National Steel Corporation and Southwire Company to develop the Utah alunite deposits, which are on public land. The joint venture is called Alunet. Alunet has purchased the Russian alunite-to-alumina plant process and has tested it out at a pilot plant in Golden. The consortium claims it has proven enough reserves at the Wah Wah site to last for 40 years at a production rate of 500,000 tons of alumina per year. Unproven reserves in the same area could boost the development's life to 200 years at the same rate of production, according to Alunet resident manager Harry Perry. A production rate of 500,000 tons of alumina per year would supply five per cent of the 1976 U.S. demand for alumina, says Perry.

As well as alumina, the developers plan to extract potassium sulfate fertilizer, aluminum fluoride, and sulfuric acid from the alunite. The sulfuric acid will be used to produce phosphate fertilizer — the phosphate rock being imported to the Utah plant complex from a mine in Idaho. The

alumina would be shipped by rail to another site for eventual refining and manufacture into aluminum products.

FEW NEGATIVE COMMENTS

Ernie Eberhard, a U.S. Bureau of Land Management official who helped put out the environmental impact statement on the project, told HCN, "The only negative comment I've heard is, 'Why is it taking so long to approve the project?'"

A socio-economic survey prepared by Lewis & Associates of Logan, Utah, for Alunet substantiates Eberhard's conclusion. Results of a survey in the two counties which will experience socio-economic impact from the development (Beaver and Iron Counties) revealed that 50% of the respondents were "unconditionally in favor" of development and another 47% were generally in favor. Only three per cent were opposed to the project.

In the survey, local residents stressed the advantages of more job opportunities, increased local business, and an increased tax base. When offered a list of possible disadvantages, almost 50% of the respondents answered that there wouldn't be any perceived disadvantages. Less than 25% of those polled saw any problems occurring such as increased crime, housing shortages, overcrowding in schools, or environmental pollution.

The environmental impact statement lists the following major negative impacts:

AIR QUALITY. "Atmospheric emissions of particulates, sulfur oxides, nitrogen oxides, and fluorides would result in deterioration of air quality."

SOCIO-ECONOMIC. "The resulting boom town situation would be the cause of

Most local politicians saw so few problems with development that they were hesitant to plan for boom town conditions.

adverse impacts. Increased demands resulting from the new population would lead to housing shortages, lack of goods and services, and a lower quality of life."

LAND DISTURBANCE. The mine and processing plant would damage 2,715 acres of land, with loss of wildlife habitat, cultural resources, soil, vegetation, and land productivity resulting. The land involved is an arid desert covered with pinyon pine and juniper at the higher elevations and desert shrubs and grasses in the lower areas. Mule deer, pronghorn antelope, wild horses, mountain lions, and other wildlife frequent the site.

TACIT APPROVAL

Environmentalists who have fought other major development plans for Southern Utah have expressed tacit approval of

this project. The major concern of conservationists opposed to the Kaiparowits coal-fired power plant in Southeastern Utah was that the proposed plant would degrade the air quality. The alunite development will also degrade existing clean air, but no one has raised any noticeable objections.

"Unless someone has a specific interest in preserving an area from development and pollution you don't get conflict," explains BLM's Eberhard.

The Kaiparowits project, which was finally dropped by the developers, would have polluted national parks and primitive areas cherished by millions of Americans. The alunite project will pollute a little-known and seldom used area devoid of spectacular scenery. The nearest park, Cedar Breaks National Monument, is 58

More details on the alunite plan

According to a popular song, the Big Rock Candy Mountain was a paradise with cigarette trees, lemonade springs, and soda water fountains. The real Big Rock Candy Mountain is a mountain of alunite near Marysville, Utah, according to **Colorado Business**. The candy-colored pink and white rocks are an alunite-quartz formation.

As early as World War I, alunite was mined around Marysville. Miners were after the potassium sulfate in the rock, which was used to make gunpowder and fertilizer.

Today, developers are looking at Utah's alunite for a number of valuable products. About 100 miles southwest of the Big Rock Candy Mountain, the world's largest deposit of alunite has been discovered.

Alunite is a basic hydrous potassium aluminum sulfate— $KAl_3(OH)_6(SO_4)_2$. In its pure form it contains 37% alumina, 11.4% potash, 38.6% sulfur trioxide, and 13% water.

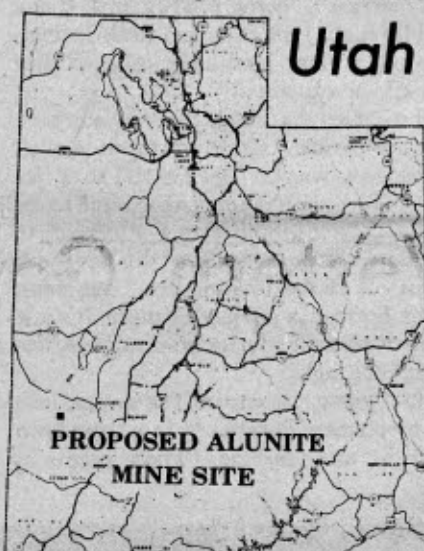
The developer, Alunet, plans to mine four million tons of alunite per year from an open pit mine. In an adjacent processing plant, powered by an on-site 75 megawatt coal-fired power station, the ore will be dissolved in a caustic solution and the products selectively precipitated. In processing alunite there will be three main products — 500,000 tons of alumina per year, 370,000 tons of potassium sulfate fertilizer per year, and sulfuric acid. The sulfuric acid will be combined with phosphate rock from an Southeastern Idaho lease under Alunet control to produce 1.7 million tons of phosphate fertilizer per year. Up to 20,000 tons of aluminum fluoride will be produced per year using products from the alunite process and the phosphate fertilizer plant. Aluminum fluoride is used in the aluminum smelting industry.

Alunet plans call for hauling in phosphate rock and hauling away alunite and phosphate products by rail. The alumina and the aluminum fluoride would be shipped to aluminum refineries in other parts of the country — probably the Pacific Northwest.

Aluminum refining consumes large amounts of power and would not be economical in Southern Utah where only expensive coal-fired power would be available. Existing refineries in the Pacific Northwest and the Tennessee Valley use cheap hydroelectric power. There is some discussion of developing geothermal fields

north of Cedar City, Utah, near the proposed alunite plant and using earth energy to refine the aluminum. Alunet says it cannot count on geothermal power being developed, so it is making plans to ship the alumina out of the region.

The open pit mine will cover 240 acres and a rock waste pile will cover 175 acres.



Neither site will be reclaimed. Tailings ponds will cover 1,250 acres.

Construction could start as early as next year if the regulatory process goes smoothly. A construction work force of 1,200 would be required for 42 months. Operation of the mine and plant would require 1,000 workers during the 25-year project life.

The development is expected to bring in 4,500 new residents to the area. Most of the new residents are expected to live in Milford in Beaver County. Milford population could grow by as much as 30% annually for the first few years of the construction phase. Milford has about 1,500 residents today. Most Beaver County residents are presently involved in agriculture or employed by the railroad.

Other possible domestic alternatives to foreign bauxite include high-alumina clays, anorthosite, dawsonite, and laterite. ALCOA is pilot testing recovering alumina from coal mine wastes. Iowa State University engineers are working on recovering alumina from coal-fired power plant flyash waste under a U.S. Energy Research and Development Administration contract. The alunite operation proposed for Utah is the development which has progressed the farthest.

We stand more to lose than to gain by opposing alunite development.

**Lloyd Gordon
Utah environmentalist**

Colorado Rural Housing Development Corp.

Low-income families build solar homes

Inexpensive solar heating systems and insulation may help make it possible for more low income families in Colorado to afford home ownership.

A publicly-funded housing corporation is advocating heavy insulation and a solar system that can be built for less than \$2,000. While increasing the initial costs of a home, these measures keep monthly utility costs low, the firm says. This helps make even the low-income home buyer a good risk for a loan institution.

The firm, the Colorado Rural Housing Development Corp., also teaches low-income families how to do about one-third of the construction work on their homes themselves.

This do-it-yourself, energy conservation approach produces a 900-1,200 square foot, partially solar heated home for about \$15,000.

Agustin Puente, president of the corporation's board of directors, expects the solar systems to provide about one-half of each home's heating needs. Formal testing of the 12 solar homes the corporation has helped to build in Milliken, Colo., will begin this winter.

The best way to keep a utility bill low is to insulate, Puente says. The Milliken houses have 6 inches of fiberglass insulation in the walls and eight inches of cellulose (which gives them an R value of 30) in the ceilings. To make room for the insulation, the homes are framed with 2 x 6s

rather than 2 x 4s. Since the larger studs are stronger and can be placed wider apart, the amount of lumber required to build a well-insulated house is no greater than for a traditional house. The result is a very tight structure — and much less heat loss.

Testing of the homes this winter may help the corporation over the first hurdle in the promotion of its solar program. Since no data is available on the solar systems' performance, the Farmers Home Administration will not yet include their cost in its low interest loans to low income families. Puente hopes that data gathered this winter will change all that, bringing the solar systems within the reach of many more low income families. The existing systems have been funded by grants from the Colorado Division of Housing and the



IMAGINE. Every family on this block in Milliken, Colo., has a well insulated solar heated house. Families did about one-third of the construction work themselves.

The effort was organized and directed by the Colorado Rural Housing Development Corp.

The Environmental Bi-Weekly

Section two



federal Community Services Administration.

The Milliken homeowners have put what Butch Beinborn of the corporation's Greeley office calls "sweat equity" into their homes — that is, 700-800 hours of labor over a four to six month period. The solar systems chosen by the housing corporation have proved to be no problem for the amateur builders.

The system is simple. It consists of a vertical masonry wall covered by two layers of translucent material. There is no way to store heat during cloudy periods. When the sun is shining, the solar wall works. When it isn't, it doesn't. Each house also has a natural gas backup furnace.

Cold air from the house moves up from the base of the wall, across the dark masonry to a hot air plenum at the top of the wall. The warmed air is then blown underneath the house through forced air floor registers on demand.

The solar and the natural gas systems work in concert automatically. The homeowner only has to set a thermostat. A thermometer near the solar wall determines whether the solar heated air is warm

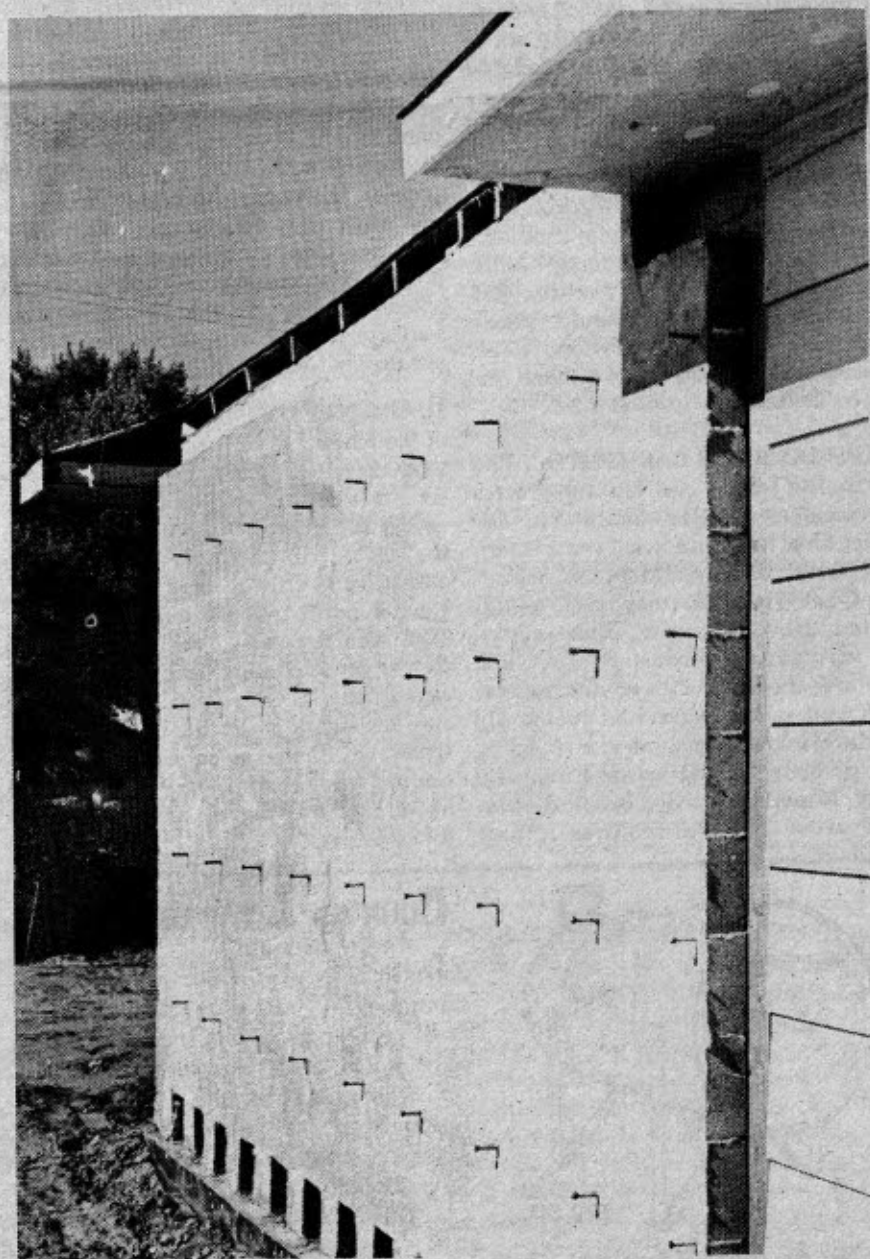
enough to be used or if the backup furnace is needed, and makes the choice automatically.

The solar wall concept was developed for a house in the French Pyrenees by Professor Trombe and architect Jacques Michel. The corporation adapted the concept to conventional U.S. homes with thermostats.

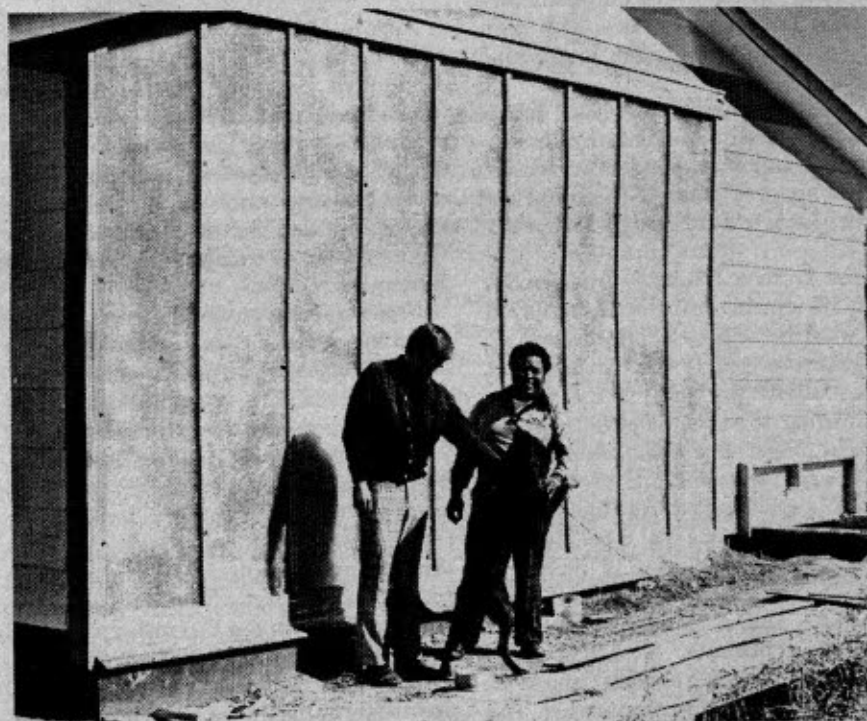
Although Ray Finney at the corporation's Brighton, Colo., office is proud that the homes are tightly built and relatively inexpensive, he says, "We're trying to tune up the machine so that we can help even lower income families." The average family he serves earns about \$7,500 a year.

"We want to see rural communities stay together. We're doing everything we can to come up with less expensive, more energy efficient, less-in-need-of-repair housing so we can truly serve low-income people," Finney says.

For more information about the Milliken homes, contact Colorado Rural Housing Development Corp., 119 Bridge St., Brighton, Colo. 80601, (303) 659-1044.



SOLAR WALL. This wall, made of 4-inch concrete blocks, has yet to be covered with two sheets of Kalwall fiberglass. When complete, the wall is expected to provide about 50% of the heat needed in a well-insulated house in northeastern Colorado.



THE STAFF. Butch Beinborn (left), project director of the Weld County self help office, and Alberto Dominguez, construction supervisor for the county, are optimistic about the solar houses they've helped to build. Dominguez says that the solar wall is so simple it is no problem for amateur construction workers.

14-High Country News — Nov. 5, 1976

Reckoning from Washington

by Lee Catterall

Those supposedly faceless bureaucrats who have much to say about how Wyoming's vast energy resources are tapped are not so faceless after all.

Many of them, according to a recent study, come from the same energy companies that have a stake in development of Wyoming's underground riches. Others come from the same kind of company and aren't likely to make a fuss over how those riches are tapped.

Common Cause, the self-styled citizens lobby, concludes from its intensive study that the government's energy agencies "are being run, to a substantial degree, by officials who used to work with private energy companies or organizations that have close dealings with the agencies." The situation, it adds, "creates potential conflicts of interest for these officials and reveals a serious imbalance with respect to the backgrounds of top policy-makers in these agencies."

The study reveals that 23 of the 66 top Interior Department officials have worked for companies involved in energy activities. Twelve of those 23 came from companies that lease federal minerals through the department or have received some other kind of contract from it.

Some of the companies who have provided top officials for Interior include Kennecott Copper (owner of Peabody Coal), Shell, Westmoreland Coal, Atlantic Richfield, and El Paso Natural Gas — all of which are engaged in energy activities in the Wyoming-Montana area.

The picture is little different elsewhere in the energy bureaucracy, Common Cause reports. In the Energy Research and Development Administration, 139 of the 184 top people are former energy company officials.

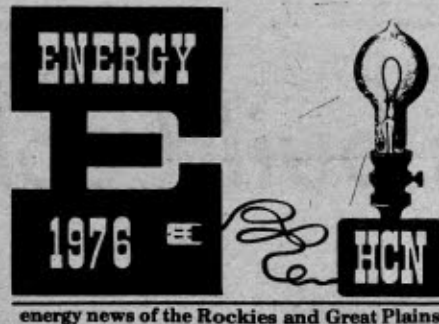
At the Nuclear Regulatory Commission, 307 of the 429 senior staffers have worked for energy companies, and 279 of those worked for companies having contracts of some kind with the nuclear agency. In the Federal Energy Administration, 51 of the 202 top people worked previously in companies involved in energy.

The conflict of interest arises, Common Cause asserts, because "former employees of energy firms might have a continuing financial relationship with these companies, through a pension or retirement plan, shared income agreement or some other arrangement."

"Second, they might anticipate future re-employment with the company, or employment with another energy firm involved with their agency," it says. "This could lead to favoritism toward prospective employers."

Advice with a Wink? — Interior Sec. Thomas Kleppe has announced the formation of what he bills as a "broadbased" advisory group on coal. It will "render advice and recommend positions" to the department "leading to increased production and use of coal, consistent with national mine safety, energy, economic and environmental goals," says the *Federal Register*.

What kind of advice will it be? Here's a hint: Of the 24 members, 13 represent energy and utility companies. Kleppe boasts that it also includes people from "state governments, environmental groups, universities, ranchers, and consumers." Wyoming is unrepresented. The only "environmentalist" is Laurence R. Jahn of the Wildlife Management Institute. Jahn says the institute is a "scientific-educational" group that doesn't engage in advocacy.



ICC SETS TRAIN PRICES. The Interstate Commerce Commission has set rates of \$10.93 per ton for unit train coal movements from certain mines in Wyoming to a coal-fired power plant in San Antonio, Tex. The rates are expected to set a pattern for future Western coal transportation prices, according to *Coal News*, and thus help determine how attractive Western coal will be to other markets. Burlington Northern proposed a rate of \$16.67 per ton and is appealing the rate setting. San Antonio had argued that \$9 a ton would be a fair rate but agreed to the ICC rate. Transportation costs will increase prices at destination by a factor of two to three times over the prices at the mine mouth, according to *Coal Week*. Quoting Richard F. Messing of the Arthur D. Little consulting firm, *Coal Week* says these transportation costs set a definite perimeter for the area which can be most economically served by Western coal.

COAL TRAINS PROTESTED. U.S. Rep. James Johnson (R-Colo.) is asking that railroads reroute lines for trains that pass through larger Eastern Slope communities in Colorado carrying coal from Wyoming. He says it is unacceptable to have trains going through these communities at high speeds all day and all night long. Rerouting the lines would be more feasible than building coal slurry pipelines, he says, according to United Press International.

STATE SUPPORTS SOLAR. The state of New Mexico is supporting solar energy research on five demonstration homes to be built near Albuquerque. The Electric Power Research Institute, which is funded by electric utilities, will build the homes early next spring. The State Energy Resources Board has allotted \$70,000 to col-

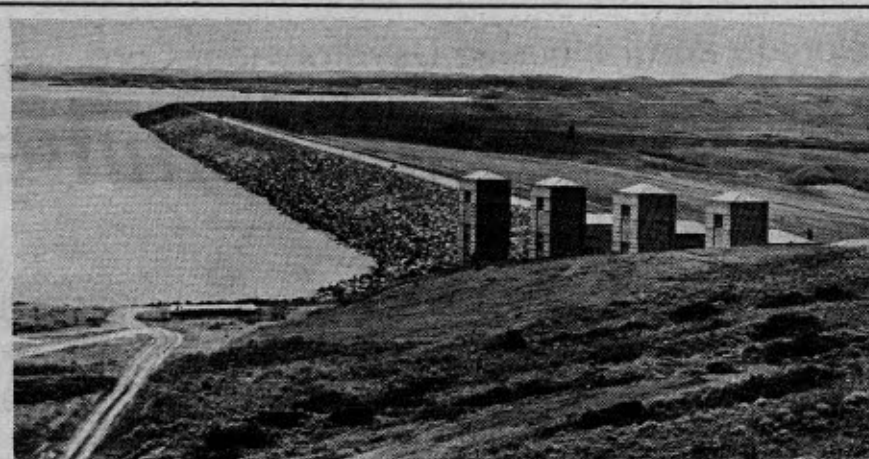
Sierra Club blocks BN railroad spur

Approval of the railroad spur that would supply coal to the power plant in Wheatland, Wyo., is being challenged by the Sierra Club. In a suit filed against the Interstate Commerce Commission (ICC) on Oct. 20, the club says there was inadequate consideration of alternatives in both the ICC ruling and in the Eastern Powder River Basin Environmental Impact Statement.

No restraining order is being sought at this time. Natalie Black, attorney for the Sierra Club, says construction is proceeding on the mainline track, but so far, this would not preclude the alternatives.

Black says the ICC ruling on the Burlington Northern spur was "extremely arbitrary." It did not consider alternatives to the line, such as using existing highway corridors or slurry pipelines. It also did not consider the impact of the increased railroad traffic which the 110 mile spur would cause beyond the Powder River Basin.

Construction of the spur was blocked previously by the Sierra Club in a separate suit that was settled by the U.S. Supreme Court in June. The club lost that suit, which would have required a regional environmental impact statement on coal development for the Northern Plains.



MISSOURI UP FOR SALE

The U.S. Bureau of Reclamation is proposing to sell up to a million acre-feet a year of Missouri River water to developers in the basin, according to a draft environmental impact statement released recently. The water would be sold through master contracts with the states, with the states subcontracting with industrial users, according to the report. However, Indian tribes have protested the proposed master contracts. Their protests could have "a significant effect on the availability of water," according to the bureau. If the coal and water resources were developed at the maximum possible level under the bureau's projections, the four state area (North and South Dakota, Montana, Wyoming) would have as many as 32 coal-related industries. One of the impacts of this level of development would be lowering air quality in the Lake Sakakawea and Fort Peck regions to below the federal Class II standard, which allows moderate degradation of air quality. Both of these areas would encompass parts of Indian reservations.

Photo of Fort Peck Dam courtesy of Montana Dept. of Highways.

lect data from the homes to determine what solar systems are economically feasible and practical for the state. A major concern is the use of solar energy devices in mobile homes, says an energy board official. The houses will be monitored for five years.

SLURRY HOT ISSUE IN COLO. A proposed coal slurry pipeline through the San Luis Valley of southwestern Colorado has water users there upset. With water tables already dropping due to increased irrigation, residents can't see how they could afford to lose 10,000 acre-feet of water a year to the pipeline. The developers, Houston Natural Gas Corp. and Rio Grande Industries Inc., say they would tap an underground water supply that isn't connected with the basin that supplies the valley's population center. But the Colorado water engineer who would issue a permit isn't sure. The slurry line would take coal from Colorado, New Mexico, and Utah to Texas.

EMARS PROCESS BACKFIRES. Two steps in the federal coal leasing process aren't meshing as well as the Interior Department had hoped in at least two western states, North Dakota and Montana, according to *Coal Week*. This may mean an unexpected delay in leasing. Some of the areas nominated by industry for leasing are outside the areas of the environmental impact statements, which had previously been determined when Interior tried to guess priority leasing areas. Since the Energy Minerals Activity Recommendation System (EMARS) requires impact

statements, the regional statements will have to be enlarged or site-specific ones will have to begin before the tracts can be leased.

NEW GROUP. Powder River Basin Resource Council, the largest conservation-oriented group in Wyoming, has inspired the formation of an opposition group called Citizens for Energy Development. The Resource Council had recently asked the Wyoming Environmental Quality Council (EQC) to prohibit exploration and mining on alluvial valley floors in the state. Organizers of Citizens for Energy Development say that they fear this request might prevent private landowners from selling coal which they own on valley floors. The Resource Council estimates that their proposed ban would prevent mining of only about three per cent of the coal reserves in the state. Both groups plan to present their arguments to the EQC.

IDAHO NEEDS POLICY. The president of the Idaho Public Utilities Commission says someone ought to be pushing energy conservation and coming up with a state energy policy, but it shouldn't come from the PUC. "I think we have a great waste of electricity in this country," President M. Karl Shurtliff told the Idaho Statesman. "But who appointed me to tell people they've got to change their lifestyles?" He says it's the PUC's responsibility to make sure the lights go on when the switch is turned on. Encouraging energy conservation and other energy policy actions should be initiated by congress and state legislatures, he says.



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Nov. 5, 1976 — High Country News-15

Slurry line stymied by railroads, water questions

by D. Sawyer Whipple

Energy Transportation Systems, Inc. (ETSI), a joint venture of Bechtel, Lehman Brothers, and Kansas-Nebraska Natural Gas, has proposed a 1,036-mile coal slurry pipeline from Campbell County, Wyo., to Maitte Bluff, Ark. The line would move 25 million tons of coal in a mix of finely ground coal and water.

The pipeline would cross the states of Wyoming, Nebraska, Kansas, Oklahoma, and Arkansas. It would use an estimated 15,000 acre-feet of water annually, pumped by 10 electric pumping stations. The system would cost approximately \$750 million and employ 335 people.

Behind this simple project description lies a myriad of environmental, economic and political questions.

ETSI's first problem has been political. In order to cross railroad tracks in the states through which it goes, the company must either get permission from the railroads or exercise the right of eminent domain.

The railroads, fearing competition from the pipeline in their most profitable business — moving coal, refused to grant the pipeline right-of-way. ETSI has gone to Congress and the state legislatures in an effort to gain either federal or state powers of eminent domain.

ETSI's efforts have been blocked at every turn. In Congress, the House Interior Committee voted 21 to 19 to table the eminent domain bill. In Kansas, a legislative committee killed the bill by a 19 to 18 vote. Nebraska tabled the bill 4 to 2 in committee. In Oklahoma, the legislation passed the Senate 33 to 10, but never came to a vote in the House.

MAY TRY AGAIN

The ETSI lobbyists will go back to Oklahoma and Kansas to try again for eminent domain power. The company hasn't decided whether to continue efforts in Nebraska, the most intransigent state so far.

The lobbying in Congress for federally-mandated eminent domain provides some interesting political contrasts. The railroads have enlisted the support of environmentalists to combat the legislation — so far, successfully. The railroads point out they have never had federal eminent domain authority, so why should pipeline companies get it? Pipeline supporters point out, however, that the railroads received massive federal land grants to build in the first place. Now they are using that position to squash other competition.

Environmental groups' position on the matter have usually not been clearly delineated. One environmentalist, who asked not to be identified, said "It's kind of funny to watch the railroads and the pipeline go after one another. And we could be in a position now to undermine the railroads' power a little with support of slurry lines."

Particularly worrisome to many is the participation of railroads in the mining of coal, as well as in the transportation. Burlington Northern has set up a coal arm, which has nominated federal lease tracts, according to Montana activists.

If ETSI fails in its eminent domain fight, there are two courses still open. ETSI has discovered that the railroads do not own all of the land they cross. So, ETSI has negotiated with the private owners and obtained easements through their property. Now ETSI is in court in several states to obtain injunctions preventing the railroads from interfering with pipeline construction. In short, they are asking for

legal clarification of what they believe to be their right-of-way.

This method, of course, will only work for a pipeline that happens to cross land with a satisfactory ownership pattern. If ETSI wants to build more than one pipeline, the power of eminent domain would speed things considerably.

ETSI's other option is to abandon the route through Kansas and Nebraska and reroute through Colorado and Oklahoma. The pipeline company hasn't taken this step yet, but, says one source, Colorado's law governing eminent domain is sufficiently vague that the company would probably win out there. Kansas-Nebraska Natural Gas, one of the partners in ETSI, has reportedly expressed interest in coal gasification along the original route. Rerouting through Colorado would affect its plans, and probably would tend to work against this alternative.

WATER

The issue generating the most controversy, however, is water. The Wyoming legislature has approved an allocation for a maximum of 20,000 acre-feet a year for the pipeline. ETSI says it will get the water by drilling a minimum of 2,500 feet into the Madison Formation in Niobrara County, Wyo., at a cost of \$400 per acre-foot. According to the U.S. Geological Survey, there are an estimated one billion acre-feet of water in the Madison, though precise knowledge of the formation is limited. USGS estimates recharge is 150,000 acre-feet annually; the Bureau of Reclamation estimates 100,000 acre-feet.

ETSI's contention is that this is plenty of water. Since the line will use only 15,000 acre-feet annually, the company says that concerns about water are groundless. In addition, the company says, there are already 14.8 million acre-feet of surface water leaving Wyoming every year. About 3.8 million acre-feet of that water belongs to Wyoming under interstate compacts.

The state legislature has imposed some fairly severe conditions on ETSI for use of the water. The company has been required to post a one million dollar bond for protection of Wyoming users of Madison Formation water. If the use of water adversely affects Wyoming users, the company must cease operations.

ETSI's western states representative,

Frank Odasz, says that water availability is partly a "smokescreen by the railroads to block the pipeline."

Some environmentalists aren't sure, however. Lynn Dickey of Powder River Basin Resource Council (PRBRC) says, "No one is really sure what the effect of drilling to the Madison Formation will be on other users. There simply isn't enough information about the flows."

Nevertheless, PRBRC supports a slurry pipeline "as long as they don't use Wyoming water." If coal is to be mined in Wyoming, then it should be exported from the state rather than burned in power plants within Wyoming for shipment of power elsewhere, PRBRC believes. Power plants use seven times as much water as a slurry



LYNN DICKEY supports a slurry pipeline to get coal out of Wyoming — if the water stays in the state.

Photo by John Soisson.

line. If half of the power produced is to be used out of state — as it is at the Laramie River Station in Wheatland, Wyo., for instance — this would be equivalent to shipping out of state three and a half times the water a slurry line would use.

The Northern Plains Resource Council

(NPRC), however, takes a different position. The council agrees with the state of Montana that water for a slurry line isn't a public use. And, says Bill Mitchell of NPRC, "the flexibility of rail transport is such that I doubt that utilities will want to lock themselves in to slurry."

Another fear is that, with a slurry line, one of the barriers to coal mining will be lowered as transport becomes easier. This would open markets further east, increasing the demand for Western coal and generally increasing strip mining in Western coal fields.

But, assuming that there will be strip mining, the only alternative to slurry is rail traffic. Railroads don't use as much water but they require more land, make noise, and disrupt activities along the rail line when a train comes through. The town of Lusk, Wyo., which would be on the Gillette-Douglas rail spur, faces the prospect of 46 unit trains per day — nearly two every hour — passing through town.

Two proposals have been made to alleviate water problems. The first is construction of a reverse pipeline from Arkansas to Wyoming to recycle the water. This is a favorite among environmentalists, but economics weigh against it. ETSI says that this would bring the cost of water to the project to about \$3,500 per acre-foot. This probably would make the project uncompetitive with rail transport.

The second proposal is pumping water from Oahe reservoir in South Dakota to the pipeline. ETSI has asked for 75,000 acre-feet of water from the reservoir and has submitted an application for an additional 20,000 acre-feet to the South Dakota Water Rights Commission for other Missouri River water.

Despite all these problems, ETSI now estimates that construction on the pipeline will begin in late 1978 or early 1979. ETSI's Frank Odasz says, "King Coal will reign again. There is no way that this can be handled by any rail system. The impacts on the state (Wyoming) of a vastly increased rail system would be fantastic. It is unfair to place the socio-economic burden and environmental impact on the people in the eastern part of the state."

By either rail or pipeline, the problems of moving coal will be substantial. It's up to the West to decide which alternative suits its needs best.



The **HCN**
Hot Line

energy news from across the country

NUCLEAR TOPS ERDA BUDGET.

Appropriations for nuclear energy research and development, including fuel research, for fiscal year 1977 are eight times as large as the appropriations for solar energy and 15 times as large as for conservation. The Energy Research and Development Administration (ERDA) figures show \$2,364 million going for nuclear, \$483 million for fossil fuels, \$160.9 million for conservation, and \$84.7 for geothermal energy. President Gerald Ford had recommended that \$130.4 million less be appropriated for solar and \$1.4 million less be appropriated for nuclear.

FEA ACCUSED OF DELAY. Reps. Tim Wirth (D-Colo.) and John Dingell (D-Mich.) have accused Federal Energy Administrator Frank Zarb of deliberately deferring implementation of a new home energy conservation program. Under the conservation act approved August 14, states are to get grants to help low-income homeowners insulate their homes. FEA was to have submitted a proposal for implementing the program by Oct. 13 but has not done so.

POWER IN A NUTSHELL. California's Energy Resources Conservation and Development Commission has put \$102,000 into the testing of a machine that uses the gas given off by burning nutshells to generate electricity. The machine, devised by a University of California professor, will be sited next to the Diamond Walnut Co.'s processing plant in Stockton, Calif. First, the gas produced will replace natural gas burned to run the boilers of the plant's refrigeration system. Six months later the agency plans to invest \$680,000 in using

the gas to generate electricity with a gas turbine engine. Waste heat from the turbines will be used to run the boilers. Diamond Walnut officials say the plant generates enough walnut shell wastes to provide the plant's entire electrical needs.

SOLAR IRRIGATION PUMP. A low-cost solar-powered water pump has been patented and the National Aeronautics and Space Administration (NASA) is looking for companies to produce it. The pump is particularly suited for charging irrigation systems in arid areas.

HOSE IT OUT. A company in Washington has been producing coal by pumping water into coal seams and extracting the slurry. Flow Research, Inc. says the method can be used to mine coal from steeply pitched or unusually deep, thick, thin, or multiple seams — without using men or machinery underground. The surface damage is similar to that of an oil rig. The system could also be used for uranium. The Bureau of Mines sponsored the experiment, according to an Associated Press report.

16-High Country News — Nov. 5, 1976

"For me and for thousands with similar inclinations, the most important passion of life is the overpowering desire to escape periodically from the clutches of a mechanistic civilization."

—Bob Marshall

by Dave Foreman

All too often, we wilderness conservationists are chided by friend and foe alike for the irrelevancy of our mania.

Our friends, both in the environmental movement and in other social causes, wonder rather self-righteously why we have side-lined ourselves into something as tangential as wilderness conservation. What about the real problems facing man and the world at this hour? Air pollution, poverty, racism, over-population, war, resource depletion, starvation, oppression, nuclear proliferation, environmental poisoning. With all of these problems facing man, how can we justify devoting our heart and soul to wilderness preservation?

And our enemies stand in amazement that our little band of old ladies in tennis shoes, backpackers, hippies, and other assorted kooks could place esthetics, grizzly bears, wildflowers, and that sort of rubbish in the way of progress, the gross national product, and the profit motive. How can we justify locking up millions of acres in wilderness areas when all of those board feet, animal unit months, and essential minerals are needed to defend America, feed the starving masses of India, and provide the modern comforts to our families?

Yes, indeed, how do we justify ourselves?

It is relatively easy to justify the wilderness concept of preserving selected parcels of land in their natural state for the maintenance of quality watersheds, scientific study, outdoor recreation of an unconfined type, wildlife habitat, conservation of natural resources for coming generations, and so on. Careful analysis reveals that actual resource conflicts with wilderness are insignificant. It is a relatively simple matter to defend wilderness in a rational argument with its enemies.

But how do we answer our friends? How do we justify selecting wilderness as our paramount value? How do we justify spending our every free moment and more than a little of our often ephemeral bank-rolls to do battle over what appear to be inconsequential scraps of ground when there are so many more important matters close at hand?

In defense of w

Let us do something unnatural for man for a moment and learn from history — in this case the history of our planet, the Earth.

Possibly the best view of man's place in history was given by Richard Carrington in *A Guide to Earth History*:

If we imagine that the whole of the Earth's history were compressed into a single year, then, on this scale, the first eight months would be completely without life. The following two months would be devoted to the most primitive of creatures, ranging from viruses and single-celled bacteria to jelly-fish, while the mammals would not appear until the second week in December. Man as we know him would have strutted onto the stage at about 11:45 p.m. on December 31st, and the age of written history would have occupied little more than the last sixty seconds on the clock."

Let us take another look at man's place in history. Scientists now estimate that man as we know him — that is, with at least rudimentary tools, language, culture, and so forth — has been present for at least two million years. For nearly that entire span of time, man has been a creature of the wilderness, eating and being eaten;

generally in harmony with the ecosystem in which he found himself. And as he did in those ancestral eons before, recognizable man in the last two million years has participated in the natural give and take of his environment.

It was in the wilderness where man developed — both physically and mentally — that was in the wilderness where man developed his opposable thumb and upright posture — because such adaptations had selective value for a relatively defenseless ground dwelling ape-like being on the African savanna. It was in the wilderness where man developed his enlarged brain and a greater capacity for rational thought — because being able to think faster and communicate with his fellows also had a selective advantage.

And as man's body and mind evolved in the wilderness, so did his culture. And man biologically and culturally was in harmony with himself and with his environment (in the sense of being in harmony with something that is dynamic).

It has only been in the last 10,000 years that man has developed cities, agriculture, states, and the other appurtenances of modern civilization. And it has only been

Ron Mamot Photos

Photographer Ron Mamot has lived in Wyoming most of his life. His father moved the family with him while he worked in highway construction. It was during these years that he developed appreciation of Wyoming nature — the wildlife, flowers, seasons in the wilderness areas, and early pioneer history. He has camped, hiked the trails, and hunted in the wilderness areas of the state.

Mamot has chosen the medium of photography to share his love of this natural beauty with others.

Mamot was graduated from St. Stephens high school and Casper Junior College. He won second place and honorable mention in the national photo competition sponsored by the School of Modern Photography in 1974 and 1976, was three times first place award winner in the third annual exhibit of Shoshone First National Bank of Cody, Wyo., in 1975, placed fourth overall in the arts and crafts exhibit at Lander, Wyo., in 1975. Some of his work appeared in the movie "In Search of Noah's Ark."

He and his family live at St. Stephens, Wyo., where he is employed as the Mission photographer.

Ron Mamot, Wyoming photographer.



Elk

Ron Mamot has made available some of his photographs to **High Country News**.

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sometimes against overwhelming handicaps to depict the hard life of the homesteader and the isolated loneliness of the homesteader's wife. He tells the story of the freighter, the sheepherder, the miner, the riverman, and the cowboy. He is recording a way of life that is passing into oblivion.

Reproductions of pen-ink by Thomas Connell

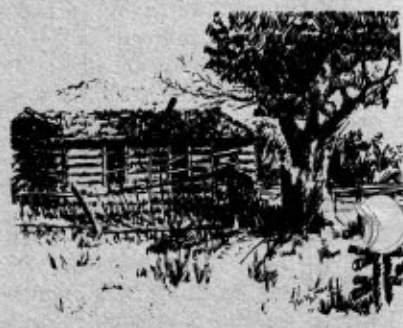
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wilderness freaks

in the last 200 years and really only in our generation that man has been able to divorce himself from his natural environment — the wilderness.

But while man's culture has been developing grandiose religions, high-sounding anthropocentric philosophies, complex political systems, labor-saving machines, and beehive cities, man's biology has been evolving very slowly. Indeed, today's advertising executive in his high-heeled clunky shoes, ruffled shirt, powerful deodorant, and elaborate hair-do is essentially the same man biologically as that half naked fellow who left his bones at Swanscombe on the River Thames 300,000 years ago.

That well-dressed lobbyist for the National Chamber of Commerce, living in a split-level ranch-style home in a Maryland suburb of Washington, D.C., with a stylish wife possessing untold hundreds of kitchen devices, two children who have never seen an expanse of country unbroken by highways or buildings, and one set of parents in sunny California and the other in sunny Florida, is still a man — a creature whose whole being is adapted to living in an extended family-pack of 40-50 individuals in

a wilderness territory of 400 square miles, running-hunting his prey while the women and children gather roots and berries, and meeting the adjacent band once a year or so to trade mates and tell stories. A creature of the wilderness like the wolf, or the eagle, or the white-throated woodrat, or...

And that is why wilderness is important. All that wild green stuff out there — those tall pines, and measureless deserts, and whispering plains, and jagged mountains — that is the *real* world. That is man's home where he was born and raised. Our cities with 10 million people going by that you never saw before and will never see again, with canyons of concrete and anodized glass, where anything green you see either has chicken wire around to keep the dogs away or is some new fingernail polish fad — they are not our home.

Man is at home in the wilderness because wilderness is man's home. The wilderness is where we became man and all the highfalutin religions and philosophies, and cities with concrete fountains and astro turf and moving sidewalks are not going to change us biologically. Only the long slow process of evolution is going to do that — and it is doubtful that a creature of

the wilderness can live in our urban civilization long enough to be able to adapt to it biologically.

Our feet need to run 20 miles a day across some dusty plain, our happiness needs the smell of unsulphured air, our eyes need the stretching of looking past the next ridge all the way into tomorrow, our minds need the exercise of planning the hunt, our glands need fear and excitement with physical reaction, and whatever nobility man has left needs the freedom and independence of the wilds — where he is a man and not a social insect.

Wise men have known this ever since civilization started its renunciation of the wilderness, from Thoreau who saw the very preservation of the world in wildness, to Bob Marshall who, in reaction to the oppressive unnaturalness of urban life, wrote, "For me and for thousands with similar inclinations, the most important passion of life is the overpowering desire to escape periodically from the clutches of a mechanistic civilization. To us the enjoyment of solitude, complete independence, and the beauty of undefiled panoramas is absolutely essential to happiness."

If we are wise, we will accept the fact that, like Esau, we cannot sell our birthright for a mess of pottage.

Dave Foreman is a field representative for the Wilderness Society. He works in the Southwest and lives in Glenwood, N.M.

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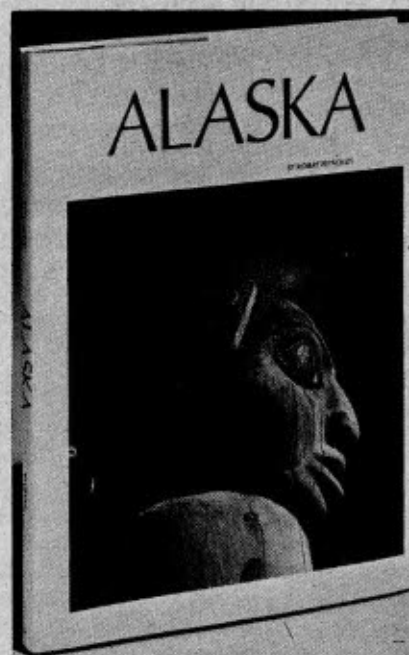


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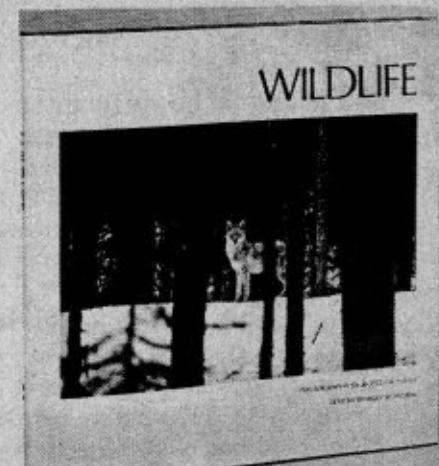
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Charles Belding and his Graphic Arts Center Publishing Company of Portland, Ore. have generously allowed High Country News to have all the retail profits from the sales of the books described here.

18-High Country News — Nov. 5, 1976

OPEN LETTER TO HIGH COUNTRY NEWS READERS

from Huey D. Johnson, President — The Trust for Public Land

The High Country News recently contacted me requesting information to write a story on our organization. I decided instead to run this letter-advertisement, figuring that they could use the income and The Trust for Public Land could benefit from the experiment.

The Trust for Public Land (TPL) is a charitable, non-profit, self-sustaining organization whose goal is to create open space for public use. Acting as an independent bridge between private and public en-



ties, TPL can often assist landowners, communities and government agencies in preserving valuable open space.

One example of TPL's favorable impact on public land acquisition is the Sawtooth Valley Recreation Area in Idaho where TPL assisted the Forest Service by pre-acquiring several critical parcels of land. In each case, the landowner-sellers were pleased with TPL's involvement. Benefits to them included cash, timing, and tax savings.

Current Opportunity — Land to be secured

Presently TPL is working to preserve 360 acres of beautiful Phantom Canyon, Colorado. Phantom Canyon is located about 20 miles south of Cripple Creek and consists of spruce, pine and aspen-covered hillsides and meadows through which Eight-Mile Creek flows

for over a mile. In keeping with its role as a private risk-taker for the public, TPL acquired Phantom Canyon from a benevolent seller at a bargain price. TPL, however, is not in a position to give this land to the public. The Bureau of Land Management (BLM) is the ap-

propriate agency to manage the land as it owns the surrounding property but has no funds for acquisition, and does not, as a practice, acquire lands by purchase. How can we solve this dilemma and others like it in the west? A trade?

The Solution — A Trade

In keeping with its management program, BLM has the authority to trade lands. TPL is aware that there are numerous landowners, perhaps HCN

readers know of one, who have wanted to acquire BLM lands. Here is an opportunity to solve three problems at once.

1. TPL owns Phantom Canyon.
2. BLM wants TPL land (but can't buy it).
3. Landowner A wants some BLM land (but can't buy it).

A New Experiment

TPL proposes a three-way trade as outlined below.

1. Landowner purchases Phantom Canyon from TPL.
2. Landowner trades Phantom Canyon to BLM for lands he desires.
3. BLM gets Phantom Canyon, Landowner gets land he wanted, and TPL retains cash to acquire additional

lands for public use.

This transaction will serve as a model for others in which TPL will be involved. The only requisite is that the values of lands traded be nearly equal.

(In this case TPL's land is estimated to be worth \$65,000-\$125,000.) Any funds which TPL received from this transac-

tion will be utilized to support further land acquisitions. If you desire more information on Phantom Canyon, please contact us at the address listed below.

An added advantage is that it puts BLM's land on the tax rolls when other land is acquired for Federal ownership.

The Future — Using gifts to aid exchange

TPL needs gifts of money, land or other assets to use in acquiring land for BLM or other public agencies in the Rockies and western states.

TPL offers landowners an alternative

to routine public acquisition, usually based on one or more of these benefits: Tax and Timing Benefits
Owner's need for immediate cash
Confidentiality

Solutions to technical problems (e.g. corporate dissolutions, life estates)
Reduction of owner's risk and effort
Flexibility — such as the trade mentioned above

Example — A Complex Transaction

A public agency planned to acquire a scenic easement over a 701-acre ranch to be included within a National Recreation Area. TPL independently contacted the owners of this ranch and found that complex technical and tax considerations were involved because this property was in corporate ownership. The project was further complicated because the corporation owned other assets and liabilities, and the owners wanted to complete the trans-

action before year end, even though public funding wouldn't be available for at least another 12 months.

TPL's solution for successfully handling this intricate transaction resulted in a bargain sale which required buying the entire Corporation, dissolving it, transferring the land to TPL, and the remaining assets to the former stockholders. This was accomplished within the short time deadline and resulted in TPL's ultimate ownership of the 701

acres and the ability to convey a scenic easement to the public agency.

Without question the generosity of the two owners who donated a substantial portion of the value of the ranch enabled TPL to devote much time and energy to acquisition within that valley. They, of course, realized that no public agency could have accomplished the key technical and timing requirements that were of utmost importance to them.

Responses to this ad should be directed to The Trust for Public Land, c/o Jake Kittle, 82 Second Street, San Francisco, CA. 94105. (415) 495-4014



HCN

Bulletin Board



LOONEY LIMERICKS

by Zane E. Cology

There once was a wild chickadee
Who hopped in our crab apple tree.
I was proud that I knew
'Til that Audubon crew
Asked, "Mountain or
black-capped?" Oh, me!

DECKER COAL HEARINGS

Public hearings are scheduled to discuss a draft environmental impact statement on two proposed Decker Coal Co. mines in Big Horn County, Mont. Hearings will be held in Billings, Mont., at the Ponderosa Inn on Nov. 16; Decker, Mont., at the Squirrel Creek School Nov. 17; and in Sheridan, Wyo., at the Sheridan Center Motor Inn on Nov. 18.

WORKBOOK FOR IDAHO'S FUTURE

As part of the "Idaho's Tomorrow" program, citizens of that state have identified goals for their future. Now a workbook has been released asking Idahoans for methods to implement these goals. A copy of the workbook can be obtained by writing to: Gov. Cecil Andrus, "Idaho's Tomorrow," Statehouse, Boise, Idaho 83720.

SOLAR ENERGY SYMPOSIUM

A Solar Energy Symposium for homeowners will be held Nov. 9 and 11 from 7 to 10:30 p.m. at the Ramada Inn, I-70 and Kipling St., west of Denver. Basic information will be presented including how solar energy works, cost analysis of solar heating, importance of proper angling, and legislation affecting solar energy. Registration may be made through the CSU Jefferson County Extension, 15200 W. 6th Ave., Golden, Colo. A fee of \$12.50 will be charged and enrollment is limited.

AMERICAN MOTORS AWARDS

Nominations for the American Motors Conservation Awards for 1977 should be submitted by Nov. 30, 1976, to American Motors Conservation Award Committee, 27777 Franklin Road, Southfield, Mich. 48034. Twenty individual awards of \$500 and bronze plaques will be presented. Non-profit organizations will also be eligible for \$500 awards. This year's winners included Clif Merritt of Colorado, Bill Meiners of Idaho, and Phil and Robin Tawney of Montana. The awards program was developed to recognize dedicated people whose work is not ordinarily in the public eye.



PHANTOM CANYON. Pictured here is a portion of the 360 acres of land the Trust for Public Lands hopes to obtain (see ad on facing page). Photo courtesy of TPL.



SUN SIGN SUBSCRIBER MESSAGE

Though you may be a Virgo or a Pisces by birth, if you have an "11-76" after your address label on this paper you're one of our Scorpio Subscribers. Every November we have to contact all you Scorpio Subscribers and urge you to send in another \$10 to renew your subscriptions to HCN.

It's hard. You Scorpio Subscribers are stubborn and keep putting off sending in your renewal checks. This forces us to send out a second reminder

notice which costs us an additional 9-cent stamp.

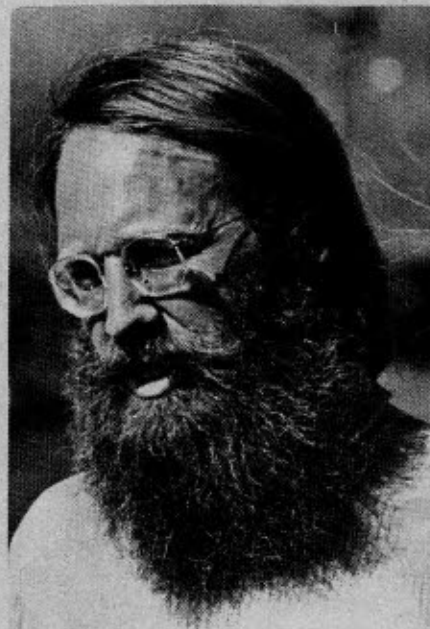
We realize our Scorpio Subscribers tend to over-indulge in work and play and often don't have the time or the money to renew promptly. But Scorpios are also known for their power to rise above worldly difficulties. So call on the positive Scorpio virtues within you and send in your \$10 renewal today.

And all you Sagittarian Subscribers — those of you with a "12-76" after your address label. We know who you are, and you're next!

Service Directory

Buck's Saddlery
Saddles by M.L. Carter
Tack Boots, Belts, Jeans, Jackets
Leather 248-H So. Center
Casper, Wyoming 82601
(307) 235-6274

SYNAPSE DOMES: Economical, energy efficient homes. Exclusive residences to greenhouses and barns erected and finished to your satisfaction anywhere in the Rocky Mountain area. All wood component panel shell kits shipped anywhere in continental USA — eight sizes. Solar heat, shakeshingles, foam insulation optional. Blueprints available. Write or call for information and prices: P.O. Box 554-H, Lander, Wyoming. 82520, (307) 332-5773.



DR. MALCOLM LILLYWHITE

DOMESTIC TECHNOLOGY COURSE

The Domestic Technology Institute in Evergreen, Colo., is holding a series of courses on passive solar energy technology. The goal is to create "community energy engineers" — course graduates who can promote energy conserving projects in their own communities. DTI emphasizes work with low-income people to promote self-reliance. The next workshop will be Nov. 7-14. Tuition is \$250 and room and board is \$98. Dr. Malcolm Lillywhite will lead students in the design and construction of a solar air heater, a solar food dryer, a solar water heater, a greenhouse, and a model methane digester. For more information about this course — or future courses — contact DTI, P.O. Box 2043, Evergreen, Colo. 80439.

RESERVE A CAMPSITE

Reservations for hiking and camping in the Inner Canyon of Grand Canyon National Park for 1977 are now being accepted. The superintendent encourages anyone interested in making these reservations to do so three to six months in advance. Reservations can be made by writing to the: Backcountry Reservations Office, National Park Service, P.O. Box 129, Grand Canyon, Ariz. 86023.

AIR POLLUTION INPUT

The Colorado Air Pollution Control Commission is formally seeking public input during the first half hour of its regular meetings now. There will be no rigid time limits. Air pollution matters that are on the regular agenda and which have been scheduled for public hearings won't be discussed during this period. The commission meets the second and fourth Thursdays of each month at the Colorado Department of Health Building, 4210 E. 11th Ave., Denver, Colo.

ALTERNATIVE ENERGY CATALOG

Alternative Sources of Energy Magazine has published a catalog of over 400 special items of interest to do-it-yourself tinkers with alternative energy. Product descriptions, uses, and suppliers are listed for eight categories: energy and resource conservation, architecture, solar energy, organic fuels, waste disposal, wind power, water power, and miscellaneous. "Spectrum: An Alternate Technology Equipment Directory" is available for \$2 from ASE, Route 2, Box 90A, Milaca, Minn. 56353.

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DISTAFF CORNER

LEAVES

by Myra Connell

How fortunate are we who live where there are four seasons in the year with definite beginnings and endings! Persons who move to California, for example, notice the lack of change and complain of monotony.

Autumn in our area was wildly extravagant this year. The riot of color in yards, along streams, and in every small gulch rivaled fabulous New England. All outdoors was a pure contrast of gold against blue as one glorious clear day followed another.

Alas, all things, good or bad, must end and one mid-October morn the leaves came showering down. The bare trees lift their arms skyward, as though glad to be rid of their burdens.

But not all of them. Many willows and others are hanging onto their still-green and yellowish leaves far past their normal time, awaiting the first fierce blasts of winter. Like Robert Frost's oak tree, they will "ravel them one by one and let them go scraping and creeping out over the crusted snow..."

Gardeners are now hung on the horns of the annual dilemma — to rake or not to rake, that is the question.

Some despise raking leaves as a tiresome chore; neither do they rejoice in sharply changing seasons. They deplore temperamental trees that refuse to molt and the neighbors' trees whose leaves fall on the wrong side of the property line.

Of what use are fallen leaves? All summer they have performed their food-making duties for the master trees. What now is their destiny?

To a child, the raked piles are wonderful places for jumping, hiding, and wading — to make rustling music. For homebodies they furnish exercise in fresh air and sunshine. Devoted gardeners see them as wonderful humus when composted. These people are horrified by the idea of burning them or taking them to the landfill.

There are persons like myself who find composting complicated by lack of woman power, space, and equipment. The solution? Sack the leaves and give them to the dedicated gardening neighbors.

One is tempted to let the leaves lie where they fall, knowing that the first hard wind will take a lot of them whirling away. Many will remain drifted around the shrubs and evergreens where they will help hold moisture through the winter, thus preventing winter-kill.

On a fine Indian summer day my habit-bound muscles propel me to the shed where the bamboo rake is kept.

The individuality of each species of tree is revealed by its fallen leaves. Those from the cut-leaf birch are like feathers and as hard to gather up. The Russian olive sheds silvery curls and pulpy berries. Under the cottonwood are broad yellow fans and under the ash, gold, rust, and brown strips of leather.

At last the kids have had their fun, leaping, wading, and tossing armfuls. Six huge bags have been filled. The wind has come charging along to claim its share. Still there are more on the ground and many still on the trees.

I think I'll just rake them under the low branches of the Douglas fir and leave them 'til spring.

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The slurry pipeline man

Railroads, water plague Frank Odasz

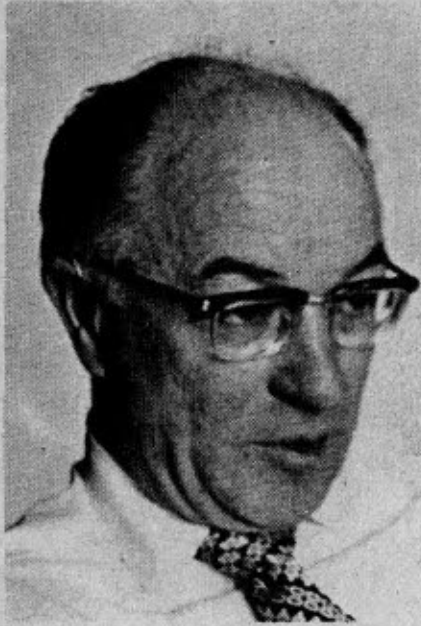
by D. Sawyer Whipple

Frank Odasz is regional manager for Energy Transportation System, Inc.'s (ETSI) effort to promote a coal slurry pipeline from Wyoming to Arkansas. Odasz has a full-time job convincing the public that his company's project won't disrupt water supplies in Wyoming or significantly undermine the competitive position of the railroads in several states. In addition, he is lobbying in state legislatures for powers of eminent domain for the pipeline.

Odasz considers himself to be in a unique position to deal with both the environmental and technical aspects of the pipeline plan. Though his primary duties now are lobbying and gentle persuasion, he is a chemical engineer by training with extensive experience in both environmental plant design and energy projects, including synthetic fuels.

In addition, Odasz is an avid backpacker, fisherman, and hunter, who says, "though I've traveled a great deal in my work, my wife and I always intended to come back to Wyoming." In fact, Odasz left a job as Director of Synfuels Processing for Gulf Oil in Houston, Tex., to take the ETSI job. He now lives in Casper, Wyo., enjoying the West's "unique lifestyle."

Odasz became involved in environmental plant design in the 1950s, before such considerations were mandatory. He helped in the design of a gas plant for Standard Oil of California in which the company



FRANK ODASZ — chemical engineer and lobbyist for Energy Transportation Systems Inc.

specified that there be zero effluents — no noise, no flumes, no plumes — that all equipment had to be the same color as the surrounding eucalyptus trees and no tower could be higher than the trees. This was fairly advanced for its day, says Odasz. "At that time, the environmental aspect was practically unheard of. There was no way of bringing the social cost into the cost of plant design. The legal standards to be met

were not nearly as sophisticated as they are today."

From the standpoint of engineering design, Odasz has mixed feelings about the current standards required for environmental protection. He says, "Any design should be designed to compensate for more stringent standards. It must have some flexibility for adapting to changing concerns."

But, are the standards in the best long-range interest of people? "Obviously, yes and no," says Odasz. "Yes, on the average and in the long-range. No, when it comes to specific sites and problems. For example, in many cities — New York, Los Angeles, Denver, and others — auto emissions standards are desirable goals. But, it is wrong to impose the economic penalties of that effort on places like Casper, Wyo."

Odasz had a brush with international intrigue during the 1960s in Germany. East Germany and West Germany were trying to put together a joint venture refinery on the Oder River in Schwedt. Odasz worked for Bechtel Corp. at the time, and helped convince the East Germans of a certain refinery design. Thereafter, he became heavily involved in the project. Every day, Odasz would cross the East German border in Berlin through the famous Checkpoint Charlie, to work on the refinery.

His stint in Germany made a lasting impression. He says now, "We have no realization of an energy shortage here. Every

day at lunch in East Berlin, the lights were all out and we ate a cold meal. From my European experiences, I've concluded that we live very high on the hog."

He says that the increasing cost of energy is having a beneficial effect on the environmental design of plants: "You can afford to put more capital into machinery and equipment to get better use of the heat produced."

As ETSI's regional representative, Odasz's two biggest problems are railroads and water. He says that the railroads have launched a vigorous campaign on all levels to block the coal slurry pipeline: "Railroad strategy is to study and delay it."

The question of water and where it will come from is also a persistent one. Before he left Gulf to take the job with ETSI, Odasz called several friends in Wyoming to get some background on the depth of the problem. "Each of my friends told me that the water issue was a serious problem and a great deal of education needed to be conducted on it." Odasz has made the discussion of water a large part of his pitch to groups, in an effort to convince them that it is not a significant problem. (Ironically, during HCN's visit with Odasz at his house outside of Casper, his own well went dry.)

Odasz acknowledges that "water will always be a question, but it's not valid. Partly, it's a smokescreen by the railroad to further delay the project."

Dear Friends,

Friends of the Earth staff and officers started a full-page ad endorsing candidate Jimmy Carter with the teaser, "Imagine! An environmentalist in the White House."

We're trying to imagine that scene now that Carter has been elected President. Should we expect the dawning of a new era of concern for the welfare of the environment? Or should we brace ourselves for disappointment when we find out President Carter can't be everything candidate Carter said he was?

Carter and his staff talked about

stopping destructive water development projects, shifting coal development emphasis from the West back to the East, giving energy conservation top priority, and holding firm on clean air and clean water laws. It's a hopeful vision of the future, if he can pull it off.

John Cole, editor of *Maine Times*, expressed similar hope-skepticism in a pre-election column. He said, "Jimmy Carter had better be good... There is so much riding on his goodness. After the shocks of the past decade, I'm not sure the nation could stand the new shock of discovering that instead of being a good man, Mr. Carter is a good organizer, a good budgeteer, a good demagogue, and a good architect of power struggles."

Full of hope, full of apprehension, but mostly full of uncertainty. How could any one person turn the American political-industrial machine around? Will the moral leadership he promises be enough?

In our mind, the best course of action is to abandon pessimism and to keep reminding the President-elect of his promises. It's time to turn Carter's own question around and ask him in

return the question he posed in his book: "Why not the best?"

One of the first environmental decisions Carter will face is a choice he will make before he takes office in January — deciding who he will appoint to be Secretary of the Department of the Interior.

Four times in a row now, we have seen this crucial post filled with ex-governors and ex-congressmen — political cronies with little background in natural resource management and the science of ecology.

Carter will probably decide on a new Secretary of the Interior in late November or early December. Dozens of names are being tossed around of candidates for the post including Idaho Gov. Cecil Andrus, Rep. Morris Udall (D-Ariz.), Audubon Society President Elvis Stahr, and National Wildlife Federation Executive Director Thomas Kimball.

The Citizens for a Good Secretary of Interior (631 Emerson, Denver, Colo. 80218) is rallying support for Dr. Luna Leopold. Leopold, a son of conservation pioneer Aldo Leopold, is a world renowned water scientist who has been with the U.S. Geological Survey until recently when he took a teaching job at the University of California.

Other strong candidates will likely emerge. Why not the best? Why not send him your ideas of the type of person you'd like to see in the post or the name of the person you feel is best qualified? Send your ideas to: Carter-Mondale Policy Planning, National Bank of Georgia Building, Suite 2811, 34 Peachtree St. N.W., Atlanta, Ga. 30303.

Let's give it a try. Imagine! What if there really was an environmentalist in the White House — and in the Cabinet? —the editors

In The News

In-situ uranium

problems with no mining.

1

Alunite in Utah

new source of aluminum.

1

Dave Wilson

artist with a purpose.

6

Four Seasons

controversial new ski area.

10

Solar walls

low income alternate energy.

13

Rock Springs

reflections on the boom.

7

STUFFING PARTY. Help High Country News mail out sample copies of the paper. Stop by the office at 140 North 7th Street in Lander, Wyo. between 7:30-9:30 p.m. on Thursday November 11. Interesting conversation (that is, if you'll be there). Refreshments to be served. Bring a friend. Entertainment.

If you want to get the job done:

Pass the Buck



Sure, we want you to pass the buck. Please pass several while you're at it. The more bucks that get passed into our HCN Research Fund the better job we'll be able to do for you. Donations are tax deductible. Make out your contribution to "Wyoming Environmental Institute — HCN Research Fund", and send it to Wyoming Environmental Institute, P.O. Box 2497, Jackson, Wyo. 83001. Thank you.

The High Country News Research Fund

air miles from the proposed development. "It's so far away from any park that it's probably an ideal Class II area," says Hank Hassell, an environmental leader from Panguitch. Class II is a national air quality designation for an area which would allow pollution levels to rise up to a point where

visibility is degraded but human health is still substantially protected. Environmentalists fought designating the Kaiparowits site Class II, and favored a Class I (pristine) designation.

Environmentalist Lloyd Gordon says the social impacts will be severe, but he's "per-

sonally resigned to let Southern Utah have one bad example." He believes that once Utahans see what boom town growth problems are like, they'll be less likely to welcome every new industry with open arms. Up until recently, there have been very few large-scale development plans for Southern Utah, and lack of employment opportunities to keep local young people in the region was considered a major problem.

Gordon says environmentalists in Southern Utah are viewed as obstructionists who are opposed to every development proposal. "We stand more to lose than to gain by opposing alunite development," says Gordon. "Ultimately, I'd like to see environmentalists in Utah recognized as responsible citizens. Right now we aren't."

HAS ITS GOOD POINTS

"Alunite development has its good points," says Gordon. "I'm pleased that the company seems so concerned about preparing the communities for socio-economic impact." Gordon says Alumet has worked with local officials to get them planning for growth. Most local politicians saw so few problems with development that they were hesitant to plan for boom town conditions.

Eberhard of the BLM says the site seems like "an ideal area" to avoid air pollution and water supply problems. He says the air pollution will be contained in a small area and the water source (deep wells in the Wah Wah Valley just north of the plant site) is not being used presently.

Eberhard says Alumet shouldn't have any problem meeting Class II standards. "The company has every pollution control device known to man proposed," he says. "They're scrubbing everything." Alumet

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COMMENTS SOUGHT ON ALUNITE

The draft environmental impact statement on alunite development is available from the Bureau of Land Management, P.O. Box 729, Cedar City, Utah 84720. Written comments are due Dec. 6. Public hearings on the impact statement are being planned. For places, dates, and times contact the BLM in Cedar City.

proposes to install a baghouse filter to remove 99% of the particulate emissions and a wet limestone scrubber to remove 90% of the sulfur emissions.

While local air will deteriorate and fluoride emissions could make adjacent vegetation toxic to animals, Eberhard says Class I standards will be met within 16 miles of the plant site under normal operation.

OPENNESS IMPORTANT

"We've tried to be open," says Alumet's Perry. "We don't think we have anything to hide."

Perry says he learned from the mistakes the Kaiparowits promoters made. "Rather than come in from the outside with flashy movies like the Kaiparowits people, I've tried to deal with the local people on a one to one basis," he says. "I try to be realistic and not gloss over problems. By facing potential problems I feel we can eliminate or minimize them," he says.



WAH WAH MOUNTAINS. Rocks in the foreground are alunite. Mining plans call for creating an open pit mine along the foreground ridge. The Wah Wah Mountains in the background are home to mule deer and mountain lion. Bristlecone pine are found on the highest peaks.

Western Governors to shed federal constraints

The Western Governors Regional Energy Policy Office (WGREPO) is approaching a turning point in its short history which may mean its death but will more likely mean some fundamental changes.

At the Oct. 7 meeting, WGREPO Chairman Thomas Judge of Montana revealed that the organization will likely lose its federal funding at the end of this fiscal year in July. Consequently, the governors must decide whether the organization warrants state funding so they can ask their legislatures for appropriations in January.

WGREPO was formed in February 1975 to help the Western states cope with the problems of energy development.

Judge said at the October meeting that he thought it "essential" to have a regional energy organization. A majority of the representatives of the 10 member states seemed to agree that the organization should continue, although some observers speculated that Nevada, Utah, and Arizona have been less than enthusiastic about the organization. Other member states are Montana, Wyoming, North and South Dakota, Nebraska, Colorado, and New Mexico.

FEDERAL STRINGS

WGREPO staff director William Guy outlined several options the governors could consider, including either joint federal-state funding or state funding. Changing the fund base would make several crucial differences for WGREPO, such as opening the possibility of a new alignment of states. Presently, the membership is defined by the states which are members of the two regional commissions that fund WGREPO, Old West and Four Corners.

If some of the states which are considered more conservative, such as Utah and Nevada, were to drop out, then WGREPO might be freed to take more liberal stands on specific issues.

Federal funding now restricts the organization to stipulations written into the WGREPO contracts — a situation which Judge said he resists vehemently. In an interview with HCN, Guy said that under contracts, WGREPO staff can't be involved in any form of lobbying activity before Congress — only the governors can. WGREPO also can't be involved in any energy matter which the regional commissions are involved in. "It's not healthy for the governors to have to pass inspection, in effect, by the federal government," Guy said. The federal funding "injects a serious element of federal control," he said.

At the Billings meeting, Guy suggested the governors could consider reducing or eliminating the WGREPO staff. If there were no staff in Denver, the governor who is chairman of the organization could provide a secretary from his own state's staff. Or, he said, the "mission of WGREPO could be shrunk" to take up only analysis of Congressional legislation and federal programs.

Presently, WGREPO's operating budget is \$321,675, about two-thirds of which goes to salaries. To give an idea of how WGREPO has functioned during the past year and a half, Guy outlined some of the staff positions and their duties.

A congressional analyst keeps track daily of major federal legislation and analyzes each for impact on the states and sends out weekly reports plus special analysis reports as needed. This person also studies federal programs, such as the

Federal Energy Administration's conservation program.

ENVIRONMENTAL LIAISON

The staff environmentalist-information manager keeps up the staff library and maintains a liaison with all the environmental organizations in the region to get their views on aspects of energy development.

The resource economist has completed a study comparing methods of coal taxation in the Western states and is doing a study with an FEA grant to determine the mechanisms that could be used in each state to return funds to impacted communities. This study should be completed Dec. 15.

The resource planner studies the social and economic impacts on political subdivisions caused by energy development.

The science advisor is now working with the Energy Research and Development Administration (ERDA) to try to establish a Denver administration center, Guy said. The purpose of the center would be to divert federal research dollars from traditional research centers, such as the Massachusetts Institute of Technology, to universities within the region and to make sure that research pertinent to energy development in this region was contracted for.

"These are the major things we're involved in but we're organized like a fire department. We're always poised to rush to a brush fire caused by legislation," Guy said.

Guy suggested that the governors put together a plan for the future of WGREPO. However, they decided to not set up a task force until after a special report on regional organizations is complete.

William Guy resigns

William Guy announced Nov. 1 that he is resigning as staff director for WGREPO, effective Dec. 31. Guy told HCN that his commitment when he took the job in April 1975 was to organize the energy office and see that it got into operation, but he never considered a career in the position or in Denver. "Frankly, I'm not a large city person, and I'm anxious to get back to North Dakota," he says. Guy has accepted a position in his home state which will be announced soon.

According to their by-laws, the governors must meet before March 1 to choose new officers, and Guy expects them to determine the future of WGREPO and the new director at that time.

In the meantime, Dr. Richard Meyer will serve as acting director. Meyer has been working as science advisor and assistant director for WGREPO since he took a leave of absence from Sandia Laboratories. Meyer earned his doctorate from the University of California at Berkeley in physical chemistry. He is the author of several scientific articles and has done research on coal gasification, nuclear safety, nuclear wastes, and volcanic magma, a source of thermal and electrical energy. He also served as the president of the New Mexico Academy of Science.

Selection of Guy as staff director created a big controversy amongst environmentalists in the region, and the public is expected to watch the next selection with interest, too.

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More skiing in Utah?

Four Seasons Resort nears approval

by Mark Peterson

Since 1965, Wilderness Associates and Four Seasons, Inc., have sought to develop a major resort in the Wasatch Mountains east of Provo, Utah. Now, with the final environmental impact statement (EIS) completed, and the 30-day public review period at an end, it appears the developers' hopes will finally be realized. The U.S. Forest Service will most likely give approval this week to the 4,500-acre year-round recreational resort known as Four Seasons.

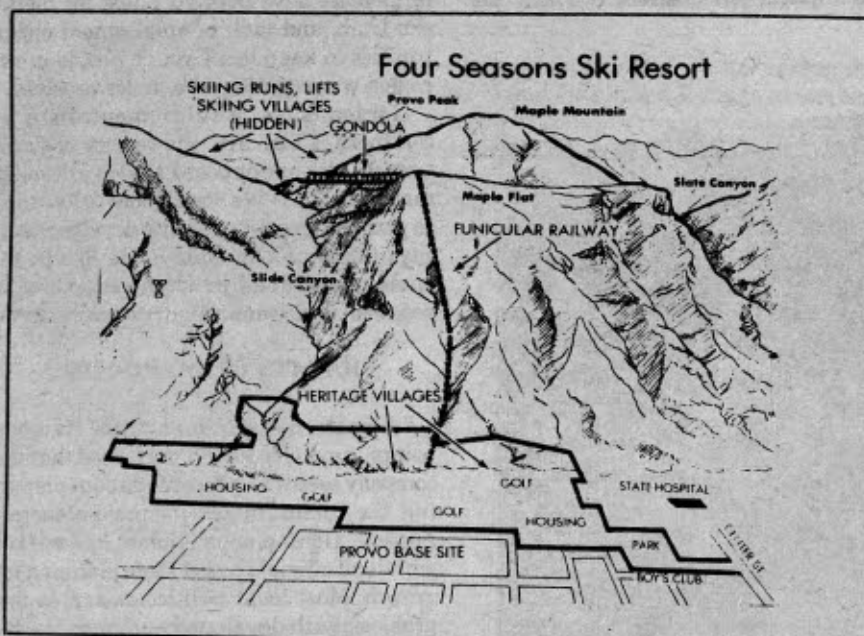
The project, emphasizing skiing, is to be built within the next two years on Uinta National Forest lands. Plans call for construction of a village at the base of Maple Mountain. The village will include hotels, housing, a golf course, tennis club, and other entertainment facilities. From here a 6,100-foot-long funicular railway will run up the side of the mountain to another village called Maple Flat. It will provide overnight facilities for skiers along with a restaurant, and a convention center. At this point skiers will be whisked away by a 2.6 mile gondola system to one of three other mountain villages and 9-10 miles of ski lifts to support 8,300 skiers a day.

INCOMPLETE STUDY?

Opposition to the development has been strong for several reasons. Many Provo citizens see the EIS as a biased and incomplete study containing many inaccuracies. Charges have also been leveled that the statement does not comply with the National Environmental Policy Act (NEPA).

W. R. Liechty, Professor of Botany at Brigham Young University in Provo, charges that, "Much of the data included in the EIS was prepared by developers and is therefore biased. Much of the data is not documentable, and some are false." He points to the report's exaggerated snowfall and doubtful length of ski season statistics as "padded" information that "should be disregarded."

According to another Provoan, Lillian Hayes, the EIS also does not adequately evaluate the cumulative and secondary impacts of the proposed action as required by NEPA. Hayes believes the environmental statement shouldn't be approved because the statement said that officials



FOUR SEASONS. Pending Forest Service approval, construction of Four Seasons Resort complex is set to begin this spring and be completed within two years. Map courtesy of the SALT LAKE TRIBUNE.

weren't going to study all the roads, sewers, and the base site. "You can't have a ski resort without a base site," she says.

Other secondary impacts which the local chapter of the Sierra Club says the EIS did not address are additional road building, air and water quality, congestion in residential areas, noise, and airport expansion. These impacts, particularly airport expansion, could have a negative effect on nearby Utah Lake, a natural feeding ground for peregrine falcons and many other species of birds and wildlife. In the final EIS, this impact is evaluated in just one sentence: "As a result of airport expansion, there could be impacts upon the environment of Utah Lake and its associated wildlife."

EROSION PROBLEM

Some also point to possible erosion problems as another example of the Forest Service's failure to examine potential impacts closely. Erosion and flooding problems became so severe on these slopes because of lumbering and overgrazing practices that in 1935 it became necessary to place these lands under national forest

status to save them. Rehabilitative projects then began to improve vegetative cover and prevent additional erosion. Critics point out the irony of this—the agency appointed to rehabilitate these lands may accomplish the opposite result by giving its approval for the resort.

Four Seasons plans to use grass to revegetate the land which they must strip of trees for ski runs. Odell Julander, a retired plant ecologist for the Forest Service states, "No revegetated plant cover can possibly provide the protection from erosion that the present tree growth provides. . . . The increased potential for erosion may be the margin between safety and disaster."

IS IT NEEDED?

Some citizens are asking a more fundamental question, "Has the need for a new ski area in Utah been demonstrated?"

Many ski areas in Utah are having financial difficulty. A resort called Solitude did not operate last year due to lack of use. Park City West went into receivership last year after losing \$24,000,000. Many others are on the brink of financial trouble.

Other Provoans have gone further to

question the economic feasibility of the large Four Seasons resort. According to the EIS, if the investors backing Four Seasons hope to make a profit equaling 14.5% of their gross fixed assets (the average profit made by U.S. ski areas last year) then Four Seasons must realize \$19.52 revenue per skier. The average revenue per skier achieved by the average successful ski area in 1975 was only \$7.92.

CONTROVERSIAL ISSUE

People on both sides of this issue feel there is much at stake. The proponents have already invested thousands of dollars into their project. Opponents believe the development of these lands would be an unforgivable and irreversible loss. The resort proposal has been the most controversial issue to divide the city in many years. Emotions were high when, on September 6th of this year, a cabin owned by Professor Liechty, and located on 40 acres of property needed by the Four Seasons project, was destroyed by TNT explosions and the resulting fire.

Liechty, an outspoken critic of the project, was shocked. "I couldn't believe that someone would do something so terrible," he said. A federal agent was called in to investigate, but the incident remains unsolved.

Provo citizens now await the final decision from the Forest Service which will determine the future of their nearby mountains. Despite all the negative impacts this plan might have for the area, opponents have had a hard time convincing decision-makers and are not optimistic. Yet they remain firmly against the proposals. Their feelings were summed up by one woman who said, "It's really ridiculous to have a ski resort on top of a temple like that."



SCENE OF THE CRIME. The scene after professionally-set explosives destroyed W. R. Liechty's cabin. Photo by Brent Ruggles

Large scale coal push 'unlikely'

A Montana University study says that very large scale development of coal in the Northern Great Plains in this century is unlikely.

The report, prepared by the Montana University Coal Demand Team, bases its prediction on several key assumptions about the future:

- Sulfur scrubbers and/or low sulfur coal will be required for all coal-fired plants;
- Electric consumption will grow at a rate much slower than in previous years due to rises in real electric prices.

- Coal will retain its 1973 share of electric generation rather than being displaced by nuclear generation; and

- No commercial gasification of coal will occur in this century.

Even less development would take place in the West if sulfur dioxide control requirements were relaxed, the study indicates, because Western coal's market would be reduced from 21 to 13 states.

The most likely level of development is indicated by current contracts, according to the study. That means a production of 136 million tons per year in the Northern Great Plains by 1980. For the future, the researchers predict production of 140-170 million tons per year by 1985 and 200-300 million tons per year by the year 2000. National Coal Association production estimates are much higher. They indicate that Wyoming alone will be producing around 160 million tons per year by 1986.

The Montana study is designed to be useful in the future, even if some of today's projections prove wrong. It highlights key variables which will determine the level of coal development in the Northern Great Plains. It also shows how much the level of development will change if these variables change. A summary of the four-volume work is available from the state of Montana.



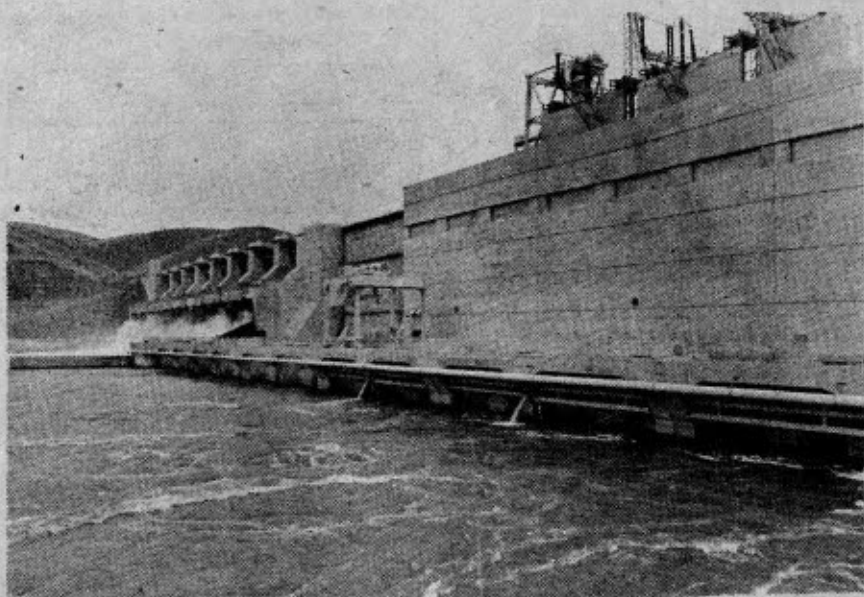
Western Roundup

HCN


IDAHOANS WANT MORE TRAILS DEVELOPED

The Fifth Annual Idaho Trails Symposium held in Boise early last month concluded with a call for more trails for bicyclists and hikers, according to the IDAHO STATESMAN. "Congress authorized the U.S. Department of Transportation to spend \$2 million in each state developing paths, but none of that money was spent in Idaho," said David Thompson, trails coordinator for the Idaho Department of Parks and Recreation. "Congress didn't appropriate the money and we would like to see that changed." Stan Young of the Bureau of Outdoor Recreation told the gathering that several national historic trails are being considered which would run through Idaho. These include the Oregon Trail (see centerspread), the Lewis and Clark Trail, the Nez Perce Trail, and the Pacific Northwest Trail. National historic trails would be a new category of national trails, requiring special legislation by congress. Presently, national trails are designated either scenic or recreational.

Photo of trail through DeVoto Memorial Cedar Grove in the Clearwater National Forest in Idaho. Idaho Department of Commerce and Development photo.



ENDANGERED CHINOOK SALMON

SNAKE RIVER fall Chinook salmon, which used to number around 100,000 in Idaho, are within 1,000 fish of extinction, according to the Idaho Department of Fish and Game. The culprit? Dams like the Little Goose shown above, which eliminate spawning areas. Congress has approved a bill which would provide money to build salmon and steelhead hatcheries to replace fish lost when dams like this one were built. The plan, called the Lower Snake Compensation Plan, will cost \$58 million. If the federal money is appropriated without delay and construction on the eight hatcheries can begin by next fall, Idaho fishermen should see an increase in salmon and steelhead by 1981, the fish and game department says.

Idaho Department of Fish and Game photo

Bureau still eyeing Grand Canyon dam

Bureau of Reclamation officials appear to be determined to keep their options open on a proposed dam site downstream from Grand Canyon National Park. The proposed Hualapai dam at Bridge Canyon would back water into the national park. Most conservationists thought the dam proposal was killed eight years ago, when Congress ordered an end to bureau studies of the site. A wilderness proposal for the area prompted a Sept. 8 bureau memorandum which breathed new life back into the proposal. The memo came from the bureau's Lower Colorado Region and was apparently directed at the Park Service. It recommended that the Hualapai site, and corridors for access and transmission lines, be excluded from wilderness consideration. "We recognize that (Public Law 90-537) as a stoppage of our study of the site," Ken Fulther of the bureau's office in Boulder City, Nev., told the *Deseret News*. "But once the thing is committed to wilderness area it is very difficult to get a change of that designation of the use of the land." A bureau official in Salt Lake City told the newspaper that the state of Arizona is interested in damming the Colorado at that point.

Colorado land planners look at tax tools

The Colorado Land Use Commission's proposals for the state's 1977 Legislature will include tax incentives for preserving prime farm land and open space, according to Gov. Dick Lamm. After living with six years worth of land use legislation, Lamm says Colorado has "a confusing and contradictory mass of regulations which, while keeping local officials busy, produces little meaningful direction in the prudent use of land," according to *Land Use Planning Reports*. Lamm is urging the LUC not to add to the current array of regulatory controls. Lamm also said that Colorado has a better reputation in land use planning than it deserves. "We do have some reason to brag, especially in terms of reinforcing local government's powers. But in other areas, such as energy and preserving agricultural land, we're weak," he said.

Garrison means 'dollars down drain'

The Garrison Diversion Project in North Dakota is an "average, run-of-the-mill worthless project," according to an article in the November issue of *Reader's Digest*. In an article called "Half a Billion Dollars Down the Drain," author James Nathan Miller says that the U.S. Bureau of Reclamation and Army Corps of Engineers project will "bring irrigation water to about 1,200 farm families that are already growing good crops without it. . . it will irrigate only 250,000 acres (about half of one per cent of the state's agricultural land)." And, Miller says, it "will literally take more land out of production than it puts into production." The only way to stop the flow of such pork barrel projects out of Washington, Miller says, is an alert citizenry. "Only if taxpayers learn the tactics behind these projects will they be able to fight them on a project-by-project basis," he says.

Meeteetse group likes Bald Mtn. as is

A group of citizens and a copper company are fighting over a valuable piece of land in the mountains near Meeteetse, Wyo. The Meeteetse Preservation Organization (MPO), joined by Friends of the Earth and the Wilderness Society, have asked the state to declare Bald Mountain and the ghost town of Kirwin areas of "unique and irreplaceable, historical, archaeological, scenic, or natural value." AMAX, Inc., has different plans for the same place — an open pit copper mine, which would eliminate the top of Bald Mountain altogether. MPO has petitioned the state Environmental Quality Council to hold a hearing on the proposed protective classification. The hearing, which was originally set for Nov. 8, has been postponed until the week of Dec. 1 to allow AMAX more time to prepare.

While AMAX hasn't yet sought a state mining permit, the company claims it has spent \$5 million developing plans. AMAX says the lands in question are "unique, if at all, for their mineral value," pointing out that in the past, as well as the present, the principal use of them has been for mining purposes. In protesting the proposed classification, AMAX will argue that its patented mining claims and private property rights would be violated. It will also challenge the constitutional right of the Environmental Quality Council to designate unique areas, according to AMAX attorney Michael Sullivan.

'Somebody' took Yellowstone's water

The Montana Fish and Game Department has requested so much water from the Yellowstone River for fish and wildlife that it would preclude any future use of the river by Montana agriculture or industry, according to *The Missoulian*. The department also opposes any dam construction along the 650-mile length of the river, from Yellowstone National Park to the North Dakota border. The request will not affect the existing rights of Yellowstone River water users, however. In fact, James A. Posewitz of the department claims that the move would establish the department as a "line of defense between (existing users) and new water users." "We're not taking all the water," biologist Larry Peterman told *The Missoulian*. "Somebody else took it already."

The Montana Department of Natural Resources and Conservation is studying all requests, including the Fish and Game Department's, for Yellowstone water. Public hearings on a natural resources department's report issued in October are being held in six cities along the Yellowstone. Input from the hearings will be used in writing a final report before the department's recommendations are presented to the 1977 legislature. A three-year, state-imposed moratorium on reservations from the river ends in March.

12-High Country News — Nov. 5, 1976



DANGEROUS TO MAN

ROGER A. CARAS



THE DEFINITIVE STORY OF WILDLIFE'S REPUTED DANGERS - COMPLETELY REVISED EDITION

by Roger A. Caras, Holt, Rinehart and Winston, New York, 1976. \$15.00, hard cover, 422 pages.

Review by Peter Wild

When we were kids we'd march into the woods surrounding our neighborhood armed with slingshots, spears, and bows and arrows. Once a farmer's alert goose made a shambles of our foray into his orchard. Once Oscar thrust his hand into a trap, skillfully fashioned from an orange crate and ingeniously camouflaged, only to withdraw it in horror, a squirrel dangling from his finger.

Such events convinced us that nature's creatures lay in wait at every turn. After all, at the movies we had seen the eagle that plucked lambs from pastures, the bear that suffered delirium tremens at bedtime unless he could slake his thirst with a draught of human blood.

Probably no eagles or bears lurked in our forest, but we knew that they might be there. We trembled with a "delicious, tingling horror" at the possibilities. Such psychology, such "need to fictionalize," is common to children and, in a slightly more sublimated form, to some adults.

Natives of India call one snake the seven stepper in the belief that after its bite the victim falls dead within seven steps. In truth, the snake can be dangerous, though no venomous creature possesses such quick-acting powers.

Here at home, billboards tempt tourists zooming across Arizona to see the most malicious of beasts, "The Thing." After paying their dollars, they shiver before the cage of a lone tarantula, perhaps a bit unusual for its hairy body, but one of the most docile and maligned of spiders.

And then of course there's *Jaws*, the "nightmare made into entertainment." No doubt about it, sharks can mean trouble, very bad trouble, but in 10 years they kill fewer people worldwide than do automobiles in the U.S. on a single Fourth of July weekend.

While examining the real or imagined menace of creatures ranging from venomous sea shells to Indian elephants, *Dangerous to Man* offers a broad comment on human psychology.

Roger Caras shares his fascination with the beauty and complexity of animals, and he doesn't hesitate to condemn humans who through ignorance or greed are pushing the cheetah, the Siberian tiger, and the red wolf toward extinction. On the other

hand, the book is a scientific study that doesn't make light of animals that can be a real menace.

The author quotes one old India hand: "Whilst at dinner, I heard voices approaching my tent . . . the people were from a village a mile and a half away, and had come to tell me that their cattle had galloped back in confusion into the village at dusk, without their herdsman. At dawn we started on the back-trail . . . we found the man's remains; only the soles of his feet, the palms of his hands. . . ." In their enthusiasm for human flesh, some renegade cats will rip open thatched roofs and claw down doors.

Still, in the U.S. at least, it is far safer to walk in the woods than to drive down a freeway. When injuries do occur, the odds are that man is the aggressor. When trod upon, the rattlesnake bites. The hunter who is gored by the deer he's just shot has little excuse for moralizing. The author drives the point home with a discussion of the "bear problem" — actually a "people problem" — in national parks. In over 100 years of park history, only six people have been killed by bears — six out of hundreds of millions of visitors, statistically an insignificant figure. In the face of constant teasing and feeding of bears by some members of the public, the animals deserve compliments for their patience.

Caras suggests that tourists learn, "... to act as adults, perhaps for the first time in their lives." He goes on to reassure readers that, "In the final analysis, bear watching in an American national park is safer than boating, skin-diving, hiking, climbing, gardening, and making love. There is almost nothing safer. . . ."

Mr. Caras readily admits that, despite his mighty efforts at accuracy, specialists may disagree with some of his conclusions. For instance, information on snakebite mortality simply doesn't exist for Bolivia and Peru, thus leaving the field open to speculation. However, those with a general interest — whether in the black widows in their back yards or the moose they encounter in the woods — will find that *Dangerous to Man* fills in many of the gaps concerning a fascinating aspect of wildlife.

Energy & Order

Review by Mark Peterson

by Mark Terry and Paul Witt, Friends of the Earth Books, 529 Commercial St., San Francisco, Calif. 94111. \$3.00.

As a former teacher I know the frustration of attempting to devise interesting, educational lessons on current issues that actively involve the students. To help overcome this difficulty, Mark Terry and Paul Witt — both high school teachers — wrote a teachers' handbook, *Energy and Order*. This short work (only 42 pages) outlines a series of presentations and activities for a complete unit on energy. Although it was developed as a 4-5 week course for 10th graders, the program can be made shorter or longer and modified for use at other levels with equal success.

The book progresses in a logical manner. It first helps teachers develop students' energy vocabulary. Then the students learn to analyze energy systems. These skills are then applied to discussions of energy issues being debated today.

Through this approach, students become acquainted with how energy works and how it is connected to food, transportation, and the world they live in.

Simple experiments using basic equipment illustrate concepts like thermodynamics, entropy, and energy-intensiveness. These are used to study interrelationships of various energy problems.

Some of the activities for the students include learning to understand their families' utility bills, calculating how much energy is actually used by ordinary appliances like refrigerators, and just how much that McDonald's hamburger really costs.

Facts are presented to allow discussions to develop. These often center around value questions such as: "What right do we have to bequeath nuclear dumps to our grandchildren?" and "Is our disproportionate use of the world's resources justifiable?"

Energy and Order need not be restricted to use within the science department. It will be successful in any class where the goals are to give students an understanding of their personal energy use, a realization of the moral nature of assumptions underlying energy decisions, and a belief that they can and should participate in choices affecting their lives and our planet's future.

From Grassland to Glacier: an Ecology of Boulder County

by Cornelia Fleischer Mutel, Land Grant Publishing Company, Boulder, Colo., 168 pages. Copies may be obtained from ROMCOE, 1115 Grant Street, Denver, CO 80203. \$5.50 plus 21 cents postage.

Review by Rob Pudim

This is one of those books someone must tell you about. If you were wandering through a bookstore or scanning a book list, the "Boulder County" in the title would be a warning flag not to buy it.

Yes, you are right. It is full of local place names. No, you are wrong. It is a useful book for information on the entire Rocky Mountain region.

From Grasslands to Glacier is both a localized and a general book simultaneously because of the unique nature of Boulder County, Colo. As David Armstrong points out in the forward, few areas in North America have as great a number of environments in such a small area. The Continental Divide comes farthest east in the Indian Peaks locale of the county. The 30 miles east to west across the county is comparable to a trip going 1,500 miles straight north. Boulder County is a natural summary of the Rocky Mountains. The sections on the mountain ecosystems apply to parts of New Mexico, Wyoming, and even Utah, Idaho, and Montana. The prairie environmental discussion can be used not only in eastern Colorado, but also in Nebraska and Kansas.

The book is not a nosebleed on the glories of Boulder County. Mutel is a straightforward writer with real technical competence — a unique combination in scientific writing. The writing is clear and concise with a minimum of jargon and a surplus of information. It is doubtful that anyone, no matter how informed, can read a section — say on quaking aspen ecosystems — and go outside and not see aspen from a new perspective. As Mutel says in the preface: "This

book should be used much like a guide to mushrooms or birds should be used. Each ecosystem is discussed in terms of its components: appearance, location, common plants and animals, non-living traits, and changes through time. However, the stress is on the ecosystem as a complex and dynamic whole. Alterations related to human use are listed for each ecosystem." This is exactly what *Grassland to Glacier* does.

The book has one shortcoming. It is too short. Because of this, some areas are given cursory inspection. There are too few references to organisms below the birds, mammals, and higher plants which are common and observable such as insects, reptiles and fungi. This is a quibble. Nonetheless, the reading list should include a section on general reference works and then sections of reading material on each of the ecosystems for the individual who wants a more intensive (and, unfortunately, jargon-filled) education on a particular life zone.

This book was written for the layperson and is intended as a guide to the Rocky Mountain region ecosystems. Mutel is refreshing: what you see in the preface is what you get.



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