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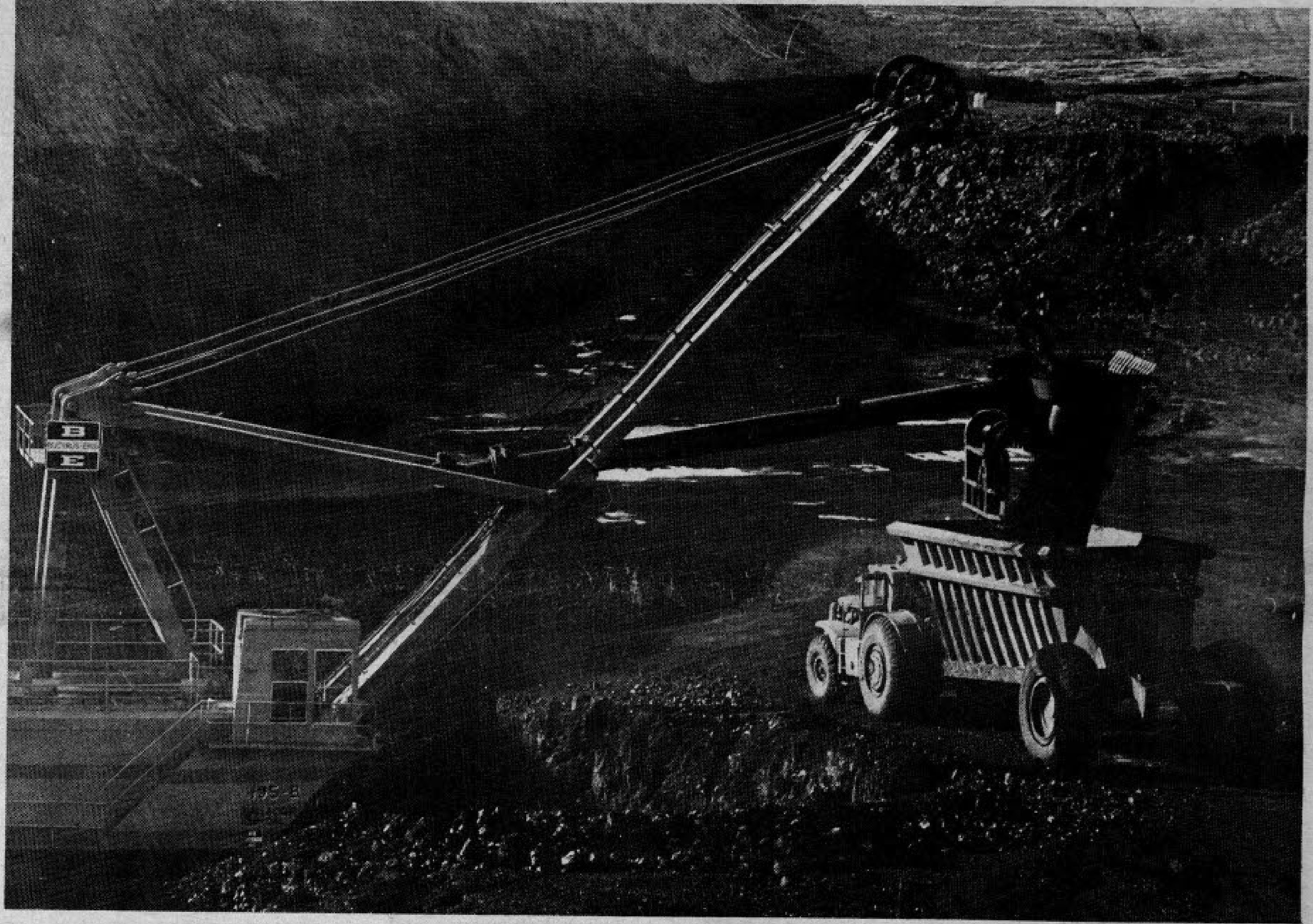


Photo by Terry Moore

The ease of stripping huge deposits of low-sulfur western coal has led to a dramatic shift in coal mining from East to West. Such a shift portends significant social and economic changes in the regions affected. The shift could be slowed by a tough, federal strip mining act and a restricted federal coal leasing policy. The photo above is of the Decker Mine, situated on one of the largest deposits of low-sulfur, high BTU coal in Montana. The mine is just north of Sheridan, Wyoming.

The Crisis in Energy : Coal Shifts to West

by Tom Bell

A curious thing is happening on the way to energy independence. We are hauling coals to Newcastle. An east-to-west shift in coal production is actually going to be putting western coal into powerplants in West Virginia and Ohio. And West Virginia has more potential BTU's of energy still underground than Wyoming and Montana have with both state's strippable reserves put together.

We have come to this paradox through that Holy Grail of American business — big profits — and a galaxy of side issues. If allowed to come to full fruition, parts of the West could be devastated and parts of the East and Midwest could be left in economic chaos. Consumers will pay the bills.

The integration of the energy producing complex began in the early 1960 s. It was then that the large oil companies began acquiring coal companies and coal properties, both in the East and the West. It was already apparent to the oil companies that oil and gas were finite resources.

Coal was pushed aside as a sort of step-child following World War II, and as result return on capital investment was low. Research and investment in new mining technology was virtually nil. Few new mines were opened and the older mines continued to take a toll of human life and health. Strip mining began to replace deep mining as the cheapest way of producing coal.

The Environmental Policy Center points out that there is quite a difference between the two methods. It says, "There are two distinct industries which produce coal, the underground and the surface coal mining companies. The former is a mining industry and the latter is an earth excavation industry. Each uses entirely different labor skills and machinery. One cannot appreciate the importance of developing a long-range coal mining policy without having an understanding of this distinction. Surface mining utilizes bulldozers, drag lines, power shovels and earth scrapers, all of which are used on highway construction projects. Whereas, underground mining requires specialized coal cutting and hauling equipment. Mining engineers

(Continued on page 4)

HIGH COUNTRY

By Tom Bell

The time has come for parting. It is with a sense of almost total unreality that I think of this as my last issue as editor of **High Country News.** To be sure I will be here in spirit for as long as there is a paper. And I will continue in an active way to help guide the paper and keep it going. But that is not the same as being in on the day-to-day business of putting a paper together. There is something exciting and exhilarating in creating each new issue of a paper. Once you are over the dread of meeting deadlines, it is one of the most rewarding and challenging experiences open to the human spirit.

A paper is not just a mechanical method of putting words together. It is a mirroring of the human experience, with all of the warmth and kindness and depth of character which marks Man. And, too, his darker side of greed, ambition, selfishness, and shallowness.

The power of the printed word is an awesome thing. Just working with that power is an humbling experience. If I have ever once over-stepped the proper bounds of that power I held as editor, I ask forgiveness of God and that person whom I have wronged.

One of the most rewarding sides of being an editor is the people whom you meet and come to know. Not the least of these are the people who make up your staff. I think it must be a rule of thumb that the staff does all the work and the editor gets all the credit. Certainly, I have been blessed with loyal, dedicated and hard-working cohorts who stuck by me through thick and thin. I am deeply grateful.

High Country News is not an ordinary paper. Founded in adversity (and seemingly thriving on it), it developed a corps of readers and friends who would not let it die. As I look back to those dark times when there seemed to be no hope, there was always someone to whom I could turn. And I am at once awed and humbled yet by what happened back in March, 1973. The response to what I said was the end of the paper was an overwhelming and resounding reply to the contrary. The paper was put on solid ground which holds firm yet today. (We have no debts except to donors and stockholders and still have $10,000 in a time certificate of deposit.)

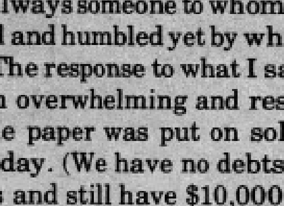
There are those who helped in no apparent but yet a very real way. Our local bank was most patient when we had loans out. And it is thanks to that bank, Central Bank and Trust, that we have on loan from it the excellent, reliable addressing equipment so important in getting a paper mailed.

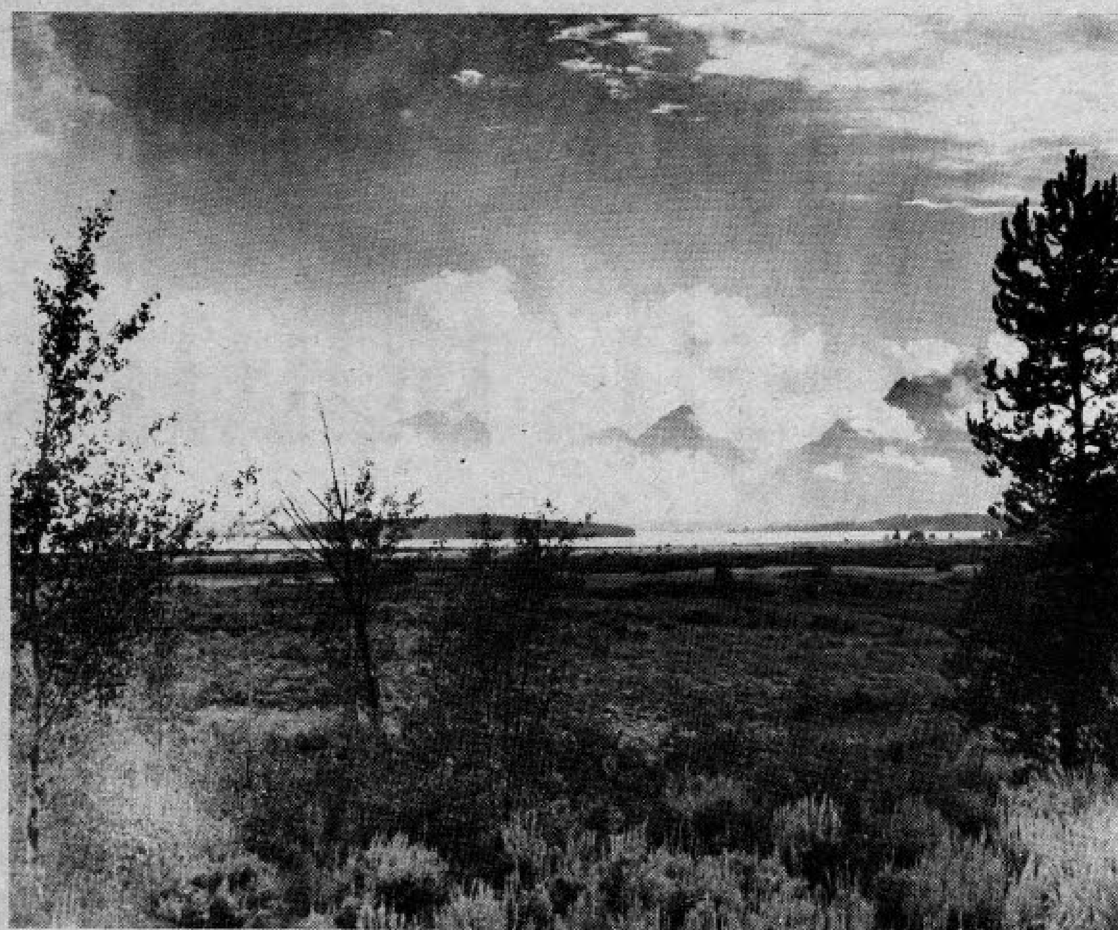
Our printers, The Wyoming State Journal here in Lander have been most kind and helpful throughout. Had they pressed for bills unpaid or refused to print until we paid them promptly, we would probably have not survived. And they have given us every break possible on costs and prices. To these two firms I give my heartfelt thanks.

Down deep in my heart is a warm and thrilling feeling of the basic goodness of so much that is America. With all of our short-comings and with all that seems to be going wrong, the vast majority of our people are still basically warm and generous and open-hearted, and horror-stricken by the abuse and misuse of power. I will be eternally grateful for having come to know, through the pages of **High Country News,** so many of the beautiful people of this great country.

I am sorry for not having answered so many of your personal letters, or thanked you for your support in whatever way, large or small, which you gave so generously that **High Country News** might continue.

This is not goodbye, just so long until you hear from me in Oregon.





Letters

Editor:

In the Casper **Star-Tribune** recently I saw a few lines from Tom Coston, Teton-Bridger Forest Supervisor at Jackson, saying the environmental impact statement on the Moccasin Basin Timber Sale was published. There would be no hearings, but public input was invited until Sept. 2. There was no hint as to where John Q. Public could find that impact statement. I began to get hot under the collar. This is a timber sale with definite economic, social, and ecological consequences affecting all Dubois (Wyoming) residents for good or ill. The timber is on the back side of Lava Mountain and the sale is administered from Jackson: this is our only chance to say anything about it; and is the Forest Service giving us the run-around?

When I asked him about it, Jack Heaton, Dubois Forest Ranger, said he had no idea people would be that interested; he was just sending the one copy he had back to Cody (but he didn't; I borrowed it). It is a very well-done statement, but it leaves a creepy feel. That area (between Lava and Two-Ocean Mountains, and including Beauty Park, Tripod Mountain, Calf Creek, Pappose Creek and Moccasin Basin) has never been timbered. It is a fine residence ground for elk — quite a few of us have hunted there. The Wyo. Game & Fish Department says there are three well-known calving grounds. The Forest Service has contracted to sell U.S. Plywood 15 million feet in 46 areas to be clear-cut. The logs will come out to the Dubois mill by a permanent road 12 miles long, opening up this up-to-now remote area just as Wiggins Fork was opened up years ago.

Mr. Heaton will get more copies for the Dubois office. I will lend mine. Laney Hicks has a copy, so has the Chamber-of-Commerce, and George Blevins; or write Tom Coston, U.S.F.S., Jackson. Maybe speaking one's mind won't do any good, but here's our only chance. At the very least, we owe it to ourselves to know what's going on.

Mary Back
Dubois, Wyo.

Dear Mr. Bell,

It just struck me that we are the antithesis of Don Quixote. Instead of fighting windmills, we are fighting for windmills.

We may beat those oil and coal hungry so-and-sos yet.

Harriette E. Cushman
Bozeman, Mont.

HIGH COUNTRY NEWS

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Editorials

Another Cover-up?

We have long maintained here at **High Country News** that huge industrial development and the attendant "boom town" conditions in small Wyoming communities would lead to social deterioration. Now, our contention appears to be borne out.

The **Los Angeles Times** (July 5, 1974) carried a long article under the headline, "U.S. Tries To Close Up 'Wide Open' Wyoming." The kicker says, "Believed Center of Western Crime Ring."

The **Times'** story alleges that federal investigations have uncovered a loosely knit organization of various criminal activities in Wyoming. Rock Springs is pointed to as a possible center for gambling, prostitution, and narcotics dealings. The **Times** says prostitution may be a $3.6 million a year racket in Rock Springs alone.

The **Times** also says, "One sprawling cattle ranch has been turned into a rustic gun club and hunting spa for known figures in organized crime who frequently fly in to escape the 'heat' and pressure." And it quotes one federal agent as saying that, "People there mind their own business, so nobody asks too many questions, and the guy's got it made. Nobody's likely to call a cop because that's not the way to do things."

All of this brings to mind a new criminal and narcotics investigation division under the State Attorney General's office. It was launched with a great deal of hoop-la and fanfare. But where is it now and what is it doing? An even better question can be asked of former attorney general and now candidate for governor, Clarence "Bud" Brimmer. As chief law enforcement officer for the State of Wyoming, where was he in all of this?

The **Times'** story quotes Governor Stanley K. Hathaway as saying, "For many years there have been, intermittently, indications of prostitution and gambling in Rock Springs... I have asked the attorney general's office on several occasions to bring pressure on local law enforcement to clean up prostitution and gambling. Since Rock Springs is now a boom town with many construction workers, I suspect these vices may be present again, and I will ask the attorney general's office to investigate."

It makes one wonder why the attorney general's office has to be requested to do its job, and it also makes one wonder why such a law-and-order attorney general as Clarence Brimmer had to be requested. Citizens of Wyoming may well remember that Mr. Brimmer was self-righteously outraged at the gathering of the Rainbow Family near Lander last year. And he has delighted in going around the state since that gathering showing slides of members of the Family in the buff. The same slides shown at the neighborhood theater would be condemned as pornographic.

Mr. Brimmer had a staff directly responsible to him in the form of the new criminal investigations division. What has that staff been doing? A check with several law enforcement people around the state results in some puzzling answers. They don't know what the state people have been doing, or they question how effective the state people are. One said they have caught a lot of small fry but no "big fish."

In view of the very serious allegations made by the **Los Angeles Times**, pointed directly at the state of Wyoming, I think the people of this state deserve some answers. The **Times** story says, "Some participants in the (federal) investigation believe that the Wyoming end of it is moving much too sluggishly because of the political overtones."

It is within the memory of this writer that a former Republican governor campaigned on a pledge to clean up gambling in Jackson and Dubois — and he did. What has the present governor to say? And of even more importance, what has the former attorney general and now candidate for governor to say?

The **Times** also says, "Nevertheless, this being an election year (Wyoming primaries are not until August), politicians of both stripes are walking on tip-toes because of the investigation." Dare we ask if another cover-up is underway? —T.B.

Reprinted from The Billings Gazette.

Your Problem

Four words, just four words, pretty well sum up how the exploiters of Eastern Montana's coal fields look at the social and economic problems which will face the people of the area.

"That's your problem, gentlemen."

Those were the words spoken by the director of the environmental system's study firm brought in by the Montana Power Co. consortium to make possible "the best for Montana."

That was the way J.H. Wright, Westinghouse Environmnetal Systems Department director, answered a question as to how Colstrip school district could be expected to find the money to finance an exploded school population brought about by the construction of four massive power generating plants..

"That's your problem, gentlemen."

Despite all the pretty pictures painted of how much money is going to flow into the area, how much economic bustling and hustling there's going to be, when it got down to the hard facts of social and economic impact and who was going to pay for it, the answer was clear:

"That's your problem, gentlemen."

Oh, Director Wright said more than that as he unfolded the $1.5 million study of the environmental impact. Asked about what would happen at Forsyth, where the school population will increase without any appreciable tax base, Wright was equally candid:

"That is beyond the scope of our study. We cannot plan the world."

You can interpret the longer statement to mean the same as "That's your problem, gentlemen."

There were a lot of other unanswered questions when the impact statement was revealed. As far as Eastern Montana residents, and that can go for Wyoming, too, are concerned, beneath all the frosting they got the message:

"That's your problem, gentlemen."

You'll pardon us, Mr. Expert, we think not. The problems caused by development of the area's coal will be just another ripoff unless the full costs are met by the exploiters.

The social and economic bills are every bit as much of the true cost of development as is restoration of the land.

It is time the coal exploiters face the facts. It is their problem, too, and a bill they must pay in full.

The 50 cents tax per ton on the coal as once proposed appears smaller all the time.

Farewell Bell Picnic

Attention readers who'd like to wish Tom Bell and his family well before they leave for Oregon. The Wyoming Outdoor Council is sponsoring a Farewell Bell Picnic on Sunday, August 4th.

Well-wishers will gather for lunch at the Duncan Mine, about half way between Atlantic City and South Pass City, Wyo.

"Anyone who knows and loves Tom is invited," says picnic organizer Bruce Ward. "Special mention will be given to anyone who can persuade Tom not to leave in the first place."

Bring your own picnic lunch, plus one extra dish. A limited amount of soft drinks and beer will be furnished.

"Speeches will be tolerated," Ward says.

For more information call Ward at 234-8905 (office) or 234-6853 (home) in Casper — or call Joan Nice at the **High Country News** office in Lander, 332-4877.

Coal Shifts. . .

(Continued from page 1)

and designers must have a knowledge of rock stress mechanics, tunnel support, blasting techniques in confined areas, etc. By the nature of the highly specialized tasks of underground miners, it would take many years of education and training to establish a labor force and rebuild an underground coal mining industry in the event it is phased out and replaced by a surface coal mining industry."

Long-term projections of energy demand (self-fulfilling prophecy for the most part) had already thrown the spotlight on the vast reserves of easily stripped western coal when the Arab oil embargo occurred. But when that happened, the rush was on.

Huge earth-moving equipment, perfected and developed for mining midwestern and eastern coal, opened up magnificent vistas of profit in the untapped western coal fields. That and the relative strength and reliability of western railroads has presented an opportunity for profit which big companies can hardly wait to exploit. Besides, two of the railroads, Burlington Northern and Union Pacific, own tremendous reserves of coal themselves. They stand to profit handsomely from both the mining and the hauling.

It is against this array of potential profits that the whole aspect of the shift from east to west must be considered. And it is in the context of potential profits that the present controversy over a federal strip mining act, a federal coal leasing policy, a proposed federal siting act for energy facilities, and demands for weakening the Clean Air Act must be considered.

A weak strip mining act will be a green light for the companies to proceed with their ambitious schemes for the West. But in order to further consolidate their position in the West, the companies maintain they must have more coal reserves. Therefore, they are calling for an unrestricted renewal of coal leasing on federal lands.

Because of the power of the oil and coal lobby in both the executive and legislative branches, the energy industry wants federal siting legislation which would override such tough siting acts as Montana has. The industry would then be free to locate powerplants, gasification and liquefaction plants, and other energy facilities in just about any location they wanted. And as Joe Browder of the Environmental Policy Center points out, the energy industry could turn into the same type of "pork barrel affair" as defense bases, Corps of Engineer projects, etc.

Demands for pulling the teeth out of the Clean Air Act are strident and insistent, and becoming more so every day. The no-degradation clause will have to give way if industry is to get its way in placing large energy installations in the West's clean-air regions. Rather than cleaning up the coal or the stack-gas emissions, the energy industry seems bent on using its power and influence in getting changes in the Clean Air Act. That can readily be seen in the multi-million dollar advertising campaign of the American Electric Power Company.

Ironically, it is also the Clean Air Act of 1970 which first gave impetus to the westward movement. Forced to look for low-sulfur coal, the companies seized upon the huge deposits of sub-bituminous and lignite coals of the West. What has been overlooked is that western coals are of much lower heating value than eastern coals. It takes more coal to produce the same amount of heat.

COAL WATERED DOWN

Still another factor is moisture content of coal. A study done by staff consultants for the House Interior and Insular Affairs Committee elaborates. It says, "The issue of whether western coal is preferable to eastern coal, due to its low sulfur content, is confused by the use of data based on the sulfur content of coal on a tonnage, rather than on a BTU basis. When one considers that substantially more western coal will have to be mined, shipped and burned to produce the same amount of heat value as a smaller amount of eastern coal, the tonnage figures become meaningless." (But these figures are meaningless only in regard to the sulfur. The Congressional Research Service states that western coal costs 1¢ per ton per mile to ship east by unit train. Most coal from Montana and Wyoming contains an average of 25% water. That means that a quarter of the cost of shipping western coal thousands of miles east is for water!)

The staff report continues, "Western coal contains up to ten times more moisture than eastern coal. It must be dried before burning. In the process of drying, the per-ton sulfur content of western coal is appreciably raised. Thus, if one compares the sulfur content of western coal at the mine mouth with that of eastern coal, the lower sulfur content of western coal is more apparent than real. Western coal, as burned, has a sulfur content approximately equal to that of eastern coal, but with a lower BTU content. Thus, there are equal or greater sulfur oxide emissions from western coal on a per BTU basis.

DANGEROUS EMISSIONS

"Furthermore, the ash content of western coal is often higher than that of eastern coal, significantly increasing particulate emissions into the atmosphere. This is obviously a factor which must be weighed before the two types of coal can be honestly evaluated. Another factor which may be of importance in the use of western coal is that certain deposits, especially those of Utah, contain traces of uranium. (The staff report overlooked the fact that Wyoming's Powder River Basin is not only a coal region but also an important uranium-producing region. The largest open-pit uranium mine in the world is operated by EXXON north of Douglas.) The effect of releasing this radioactive material into the atmosphere surrounding large eastern population centers has not been fully assessed."

Much of the information for the congressional staff report came from a study done under a grant from the National Science Foundation. It was done by Michael Rieber at the Center for Advanced Computation at the University of Illinois, and although it was published last November it has not been widely circulated.

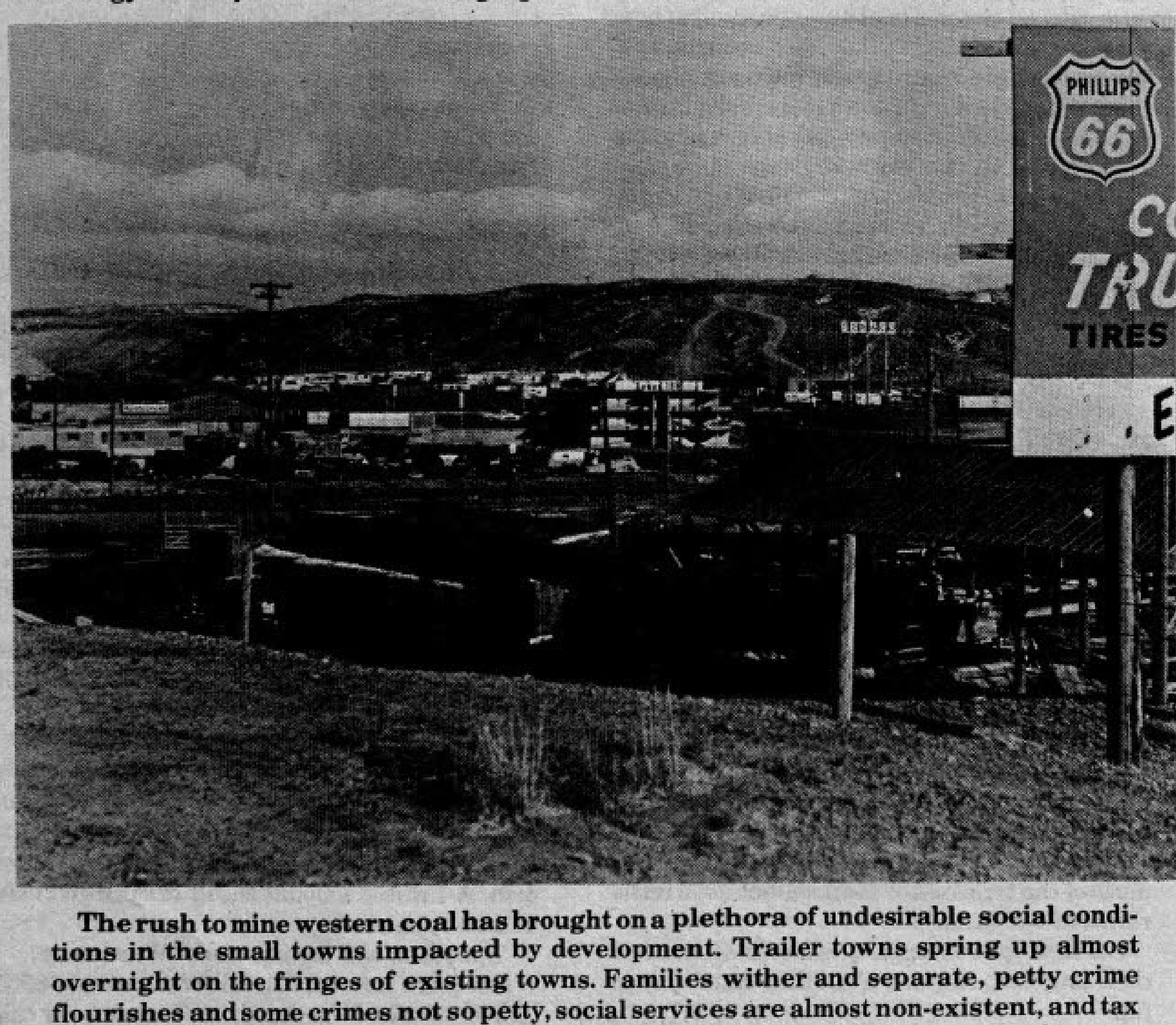
Rieber's study has additional implications. He says that because the "effective sulfur level" of western coal reserves is much higher than what has heretofore been considered, the actual recoverable tonnage of low-sulfur coal is about one-fourth of what we have been told. This, he says, leads him to conclude that, "The current situation is one of a serious shortage."

The National Coal Association has not disputed Rieber's conclusions. And, in fact, the organization says the study underscores its contention that the Clean Air Act must be amended to allow for the use of more coal.

REASONS FOR SHIFT

But the East to West shift is far more complex than merely the quality of coal. In an analysis done for the House Interior and Insular Affairs Committee, staff consultant Norman R. Williams cited five apparent reasons for the shift. Those were: labor problems, obsolete underground mining equipment, transportation problems, psychological problems, and thin coal seams.

The labor problems involve several factors. Some industry spokesmen point to a lack of skilled, trained miners. In West Virginia, vocational schools have discontinued courses of training in underground mining. But most industry spokesmen say instability in the labor movement is the chief cause. New, tough requirements in the Federal Mine Health and



The rush to mine western coal has brought on a plethora of undesirable social conditions in the small towns impacted by development. Trailer towns spring up almost overnight on the fringes of existing towns. Families wither and separate, petty crime flourishes and some crimes not so petty, social services are almost non-existent, and tax loads burden the local property owners.

Safety Act cost the mine operators money. Arnold Miller, president of the United Mine Workers of America, says his men will walk out of any mines that are unsafe.

Miller also says the position of the miner's union in relation to other unions has deteriorated. He wants sick pay benefits and increased contributions to the Welfare and Retirement Fund. Miller backs up his demands by pointing out that "the energy industry will survive any recession financially, and that some units of the industry will profit extraordinarily from the increased demands for domestic fuels."

Industry wants to avoid those costs at any rate, as well as mine health and safety equipment, and payments for black lung benefits.

The costs of equipping a large strip mine in the West and opening an underground mine in West Virginia are about the same. But whereas a million-ton mine in the East may require a 400-man labor force, a comparable strip mine in the West would require only 20 men. And those 20 men would very likely be affiliated with the Operating Engineers Union of the AFL-CIO, rather than the UMWA.

AN EQUALIZER

In order to somewhat equalize costs between the labor intensive underground mining and the machine intensive strip mining, Ohio Rep. John Seiberling proposed an amendment to the House strip mining act. His amendment would have imposed a $2.50 per ton reclamation fee on all coal mined. It would have also created an Abandoned Mines Reclamation Fund for repairing already devastated strip mined lands.

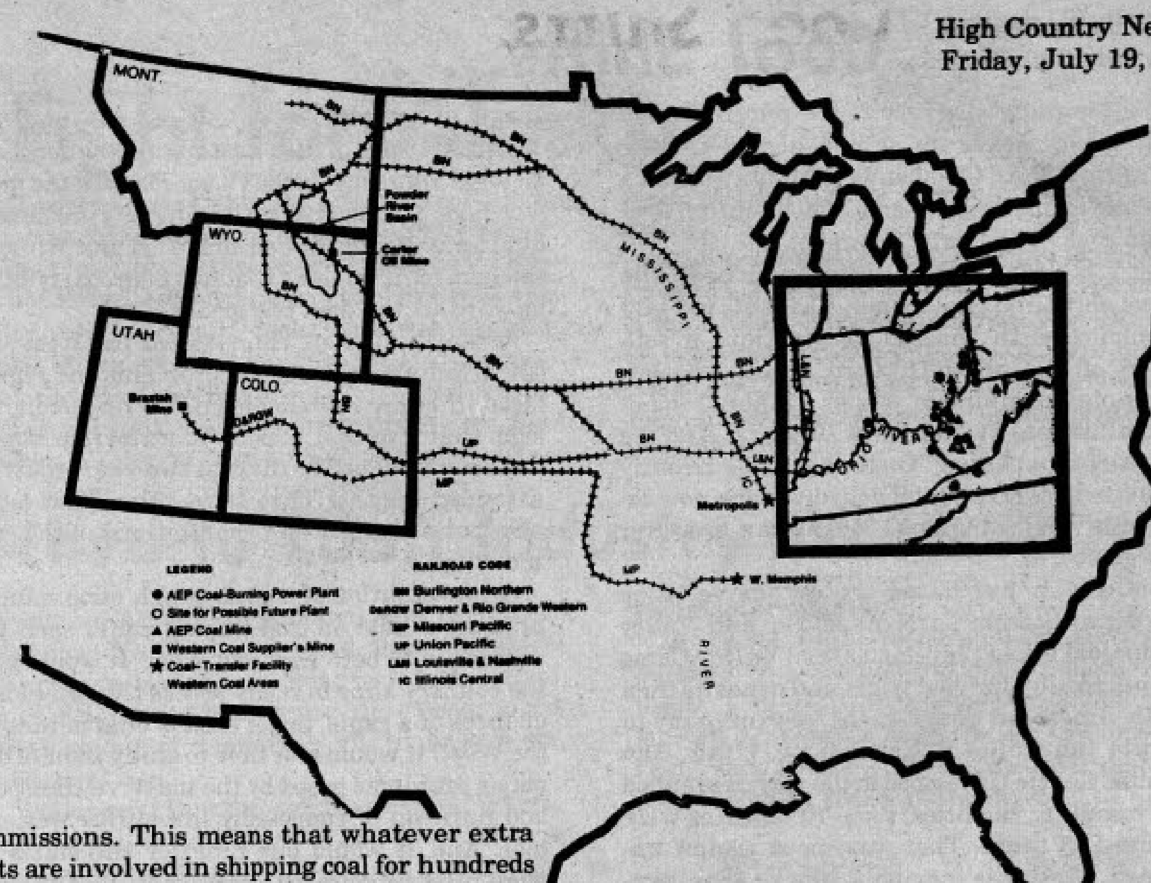
From the $2.50 per ton fee, the companies would have been able to deduct the cost of strip mine reclamation activities. Underground mining companies would have been able to deduct the costs of complying with the Federal Coal Mine Health and Safety Act, in contributing to the Black Lung Benefit Program, and in backfilling mined-out tunnels. Seiberling felt his amendment would have gone a long way in reducing the economic penalties on the deep-mine coal industry resulting from the 1969 health and safety act. His amendment lost in committee but he hopes to get it reinstated in House floor debate on the bill.

Because of conditions in the coal industry since World War II, deep mining technology has not kept up. Carl Bagge, president of the National Coal Association, says deep mine production has declined since 1969, caused in part "by the simple aging of coal mining technology which has remained relatively static since the 1950s."

As the Williams report points out, "The major energy corporations such as Eastern Gas and Fuel Associates and Consolidation Coal Company appear to have adopted a policy that production in the East could more profitably be replaced with western production. The risks involved in increasing eastern production in relatively thin seams of coal, through replacement and upgrading of wornout underground equipment, are not attractive when compared with the enormous, thickseam coal deposits offering longterm development possibilities in the West."

Oddly enough, western railroads are financially and mechanically more sound than eastern railroads. They are better able to take up the slack in shipping large tonnages of coal from remote western areas to West Virginia than the eastern railroads are to take coal from West Virginia to adjoining states.

But there is an even more overriding reason for utilities and the railroads to "cooperate" in getting western coals back east. Most utilities can take advantage of an automatic pass-through of all transportation costs without going through their respective public service



commissions. This means that whatever extra costs are involved in shipping coal for hundreds or thousands of miles, that cost can be automatically passed on to the consumer without the consumer having any say-so in the matter. The utility pays no financial penalty for shipping coal long distances.

As an example of how the "pass-through" works, it is estimated that low-sulfur West Virginia coal might cost $16.65 to $17.15 per ton delivered. Western coal is estimated to cost $6 to $9 per ton at the mine but will cost $19 to $22 per ton delivered. The difference between the two prices is what the consumer pays in terms of an automatic rate increase. It can easily be seen that utilities do not seek, nor are they required, to obtain the cheapest or most efficient fuels.

Another reason for not seeking the low-sulfur eastern coals is what Williams cites as a psychological factor. The eastern low-sulfur, high BTU coal has normally been used to produce steel, and not for making steam in a power plant. Therefore, Williams says, "The notion is widely held that 'metallurgical' coal should be used only to produce steel . . ." But, Williams points out, ". . . some bituminous coal for which American Electric Power has signed contracts in Utah seems to be the same quality coal deep mined by Kaiser Steel Corporation for use in steel making in the West."

The fifth reason cited by Williams for the western shift is that much of the low-sulfur coal in Appalachia lies in thin seams (36 inches or less) and large blocks are held by mines which are "captive" and therefore not available to utilities. Carl Bagge, president of the National Coal Association, has pointed out that energy companies are able to obtain and control large blocks of land in the West, containing literally hundreds of millions of tons of low-sulfur coal. They obtain the land from the federal government for a lease of a few dollars per year. This is contrasted to the East where, as the Environmental Policy Center points out, an attempt to gather huge coal reserves ". . . would require the investment of huge sums of money to buy up the coal rights held by many owners." EPC adds that, "Large banks and investment firms, who have invested in western surface mine operations, are reluctant to loan money for the development of any coal deposit, other than those in the West." Kathy Fletcher of the Environmental Defense Fund says this factor alone can determine the course of the industry.

AEP SHIFT

The American Electric Power Company is a good example of the shift of utilities to the West. AEP is the nation's largest privately owned electric power system. As a utility, only TVA is larger. It operates Wheeling Electric, Ohio Power, Appalachian Power, and companies in Tennessee, Indiana, Michigan, and Kentucky. It owns six mining companies and one railroad.

The company recently announced that it had acquired or intended to purchase over $80 million worth of towboats, barges, and railroad hopper cars to deliver western low-sulfur coal to its plants in the Ohio Valley. A company report said it had ordered 2,000 new railroad cars. The 100-ton cars are scheduled for delivery over a period ending late 1975, and will be used in unit trains of 100-110 cars. For transporting coal from the river transfer points to its plants, the company is operating 11 towboats and 248 barges. It says it has placed orders for an additional 16 towboats, and 240 barges to be delivered by late 1977.

The company report said it had acquired a site on the Ohio River at Metropolis, Ill., for the construction of a major coal-transfer facility to handle coal coming from Montana and Wyoming. The facility is being planned to eventually handle up to 20 million tons per year. Coal coming from Utah will be transported by rail to the Mississippi River at West Memphis, Ark., where a facility will be built for transferring it to barges.

The Williams report says, "AEP has only one existing plant on the Ohio River. None of the other plants in Indiana and Michigan are on navigable waterways. The only other power plants which could use this coal, as delivered by barge, are in Ohio and West Virginia. AEP claims that more plants are to be constructed to use this western coal."

AEP is not only investing in the basic equipment for delivering coal, it is acquiring coal lands and leases in the West. A recent company report says, ". . . we have purchased 40,000 acres in the Powder River Basin (of Wyoming) having proven reserves of about 900,000,000 tons of Federal low-sulfur coal. We have also optioned additional acreage, as well as Federal and state leases, in the same general area. And we have entered into a purchase agreement with a major producer of low-sulfur coal in northeastern Wyoming. This is the Carter Oil Company (a division of Exxon), which is to supply 5,250,000 tons per year for 30 years, beginning in 1976, from a new mine to be opened for this purpose. Also, we are in final negotiations with another major supplier in this area for the delivery of 200,000,000 tons of low-sulfur coal over a 25-year period."

(Continued on page 6)

Coal Shifts. . .

The company also reports the purchase of a coal lease covering 4,500 acres in the Livingston-Trail Creek area of Montana, and a lease covering 18,500 acres of deep-mine, low-sulfur coal near Craig, Colorado.

But it is the Utah agreement which bears the closest scrutiny. Last month, AEP entered into a contract with Braztah Corporation, a subsidiary of McCulloch Oil Corp. of Los Angeles, to supply a minimum of 130 million tons of low-sulfur coal over the next 20 years. And the company report says, "On the basis of currently estimated reserves, total deliveries are now expected to amount to some 250 million tons over a longer term."

McCulloch purchased the extensive, deep coal deposits from Carbon Fuel Co. and Valley Camp Coal Co. of Cleveland, Ohio. Valley Camp had purchased the coal mines and deposits from North American Coal Co., the last company to operate the mines at Castle Gate, Utah. And because Castle Gate stood in the way of planned coal handling facilities, some 70 families were required to move. That movement is now underway. Most are moving to the nearby community of Helper.

As a result of the re-opening of the deep coal mines in Utah, including those of Braztah Corporation, the state is planning to train some 2,700 miners by 1978. Besides McCulloch and Valley Camp Coal Co. which own properties in Carbon County, three of the world's largest coal companies have bought deep coal deposits in Emery County directly to the south. Those companies are Peabody, Consolidation, and Island Creek Coal Companies. It is in Emery County that Utah Power and Light Co.'s huge Huntington Canyon power plant is located.

But while Utah considers the training of miners, West Virginia has to consider what is going to happen to its important mining industry. And that may be one of the bigger ironies of the energy crisis. According to a West Virginia Legislative study, that state has some 47.5 billion tons of low-sulfur coal. It is mainly West Virginia and Kentucky coal that is being replaced by the Utah coal.

Earlier this year, **The Mountain Eagle** of Whitesburg, Kentucky, aired its views on the consequences of the shift. It said, "Not only will Appalachian mines lose two of the nation's biggest coal users (AEP and Texas Gas Transmission Corp. of Owensboro, KY), but Midwest railroads like the C & O, the N & W, and the L & N will lose a big bulk of their coal-hauling revenue.

"And in Washington, Congress is rushing through a $1.4 billion bill to 'bail out' seven bankrupt railroads.

"Meanwhile, the Corps of Engineers is continuing its program of building high-lift dams on the Ohio and Mississippi Rivers and adding numerous up-river reservoirs on tributaries to store water to keep channels full nearly to bank-top on the two big rivers so barge lines can compete tax-free against the railroads.

"Appalachian coal mines will suffer, more railroads may go broke, and thousands of families will be uprooted from their farms to make way for more reservoirs. . ."

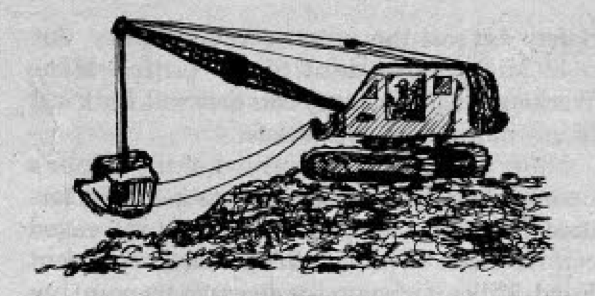
Just at this very moment, a call comes in from Washington. Tomorrow, debate begins on HR 11500, the House strip mining bill. It is under massive attack by the energy industry and the industry minions. It is strongly supported by Russell Train, administrator of the Environmental Protection Agency, and John R. Quarles, his deputy. Federal Energy Administrator John Sawhill speaks for the rest of the Nixon Administration in opposing it. The Executive Board of the United Mine Workers of America has barely endorsed the bill. Telegrams are needed.

The fortunes of both East and West may ride on what happens on the House floor in the next few days. If a tough strip mining bill is enacted, mining will continue in the West but without the pell-mell impetus that has been carrying it forward in the past few months.

Recently, Russell Train visited the West and saw firsthand some of the problems the region faces in energy development. To his credit, he said that the coal leasing moratorium which has been in effect for the past two years must be extended another 12 to 18 months. That could also put a damper on the ambitions of the coal industry.

A combination of a good, tough strip mining act and a hold on coal leasing could spell the difference to both East and West. It would give the country time to really assess the full consequences of a rapid, major shift of coal mining to the West. It would give time to study some of the major problems posed by the massive transport and burning of supposedly low-sulfur western coal. And it would buy time for the states to more fully prepare for a certain shift of at least some energy development to the West.

When anyone tells us that urban growth is good because it broadens the tax base, we should laugh in his face. Ask him how many American cities that have a growing tax base also have a declining tax rate.
Daniel B. Luten



Decision on Slurry Line

A decision on a $2.2 billion coal slurry pipeline from Wyoming to Arkansas could be made within a month. Wyoming's State Engineer Floyd Bishop said he would give the company building the 1300-mile pipeline a decision within that time. But South Dakota Gov. Richard Kneip has asked Wyoming to withhold the decision because of concern for that state's underground water resource.

The 38-inch line would carry off some 15,000 acre-feet of water a year while transporting 25 million tons of coal. The water would come from deep wells near Lusk, Wyoming.

The water has become a controversial issue, not only because of South Dakota's concern, but because of the political issue during this year's gubernatorial campaign in Wyoming. State Sen. Malcolm Wallop, one of the candidates, says the state engineer cannot make a decision in favor of the pipeline company since the water has proved to be of higher quality than anticipated. The company claims to have already spent $800,000 in test drilling. Total investment in Wyoming is anticipated to be $204 million if the company is given approval to go ahead.

In Bondage to the Moguls

by Phil Corathers

On observing the economic blight which besets West Virginia, I can't help but wonder what more the energy moguls might want. They have us in bondage already, and adding insult to injury won't make business any better for them. I'm not talking about the oil industry, I'm making reference to the electric power companies.

The structure of regulations governing these monopolies guarantees them a set profit, but still they seem unsatisfied with this.

It appears an obvious attempt to manipulate the fuels industry with inflationary tactics which would make our electric bills higher, then turn around and collect a slice of a larger yearly gross income.

More simply stated, I'm talking about the utilities' trend toward stripping the Western prairies cleaner than a chickenbone, then shipping the coal Eastward by unit trains and barges to our minemouth power plants, at great cost to electric consumers.

The power companies have been telling the press that they are being forced to pay high prices for coal from nearby sources, and that they can buy Western coal and ship it cross country more cheaply.

But, behind our backs, they file monthly reports with the Federal Power Commission which tell what they are actually paying for this coal. On the basis of price-per-million-BTU, the cost of coal for a test burn of Utah coal used in the John Amos plant at Winfield, W.Va., was **more than twice-as-much** as a comparable West Virginia fuel.

One unit of Southern West Virginia coal from nearby cost $.55, while a unit of coal of comparable quality from a Utah mine cost $1.13.

This was a test burn. That means the utility is considering using the coal if it will successfully burn in that particular burner. The cost of this experimenting was borne by us, the consumers. The coal was actually used to produce saleable electricity, and it was reported to the FPC as part of the fuel gobbled up by this behemoth generating plant in December.

The public used that electricity, and paid for it at the prevailing rate, which is controlled by a tricky little devil known generally as the 'fuel cost multiplier.'

This is an escalation clause which permits the utility to charge higher rates without any rate adjustment hearings. Electric rates may vary from month to month depending on the source of the utility's coal.

Profits are set at 6½% of the gross annual expenditure of the utility, if they spend millions of dollars importing coal, then for them, it means bigger dividends. For us, it means bigger electric bills.

It doesn't really matter where the coal comes from, or how much it costs, because it doesn't really cost **them** more. It just makes them more money.

I, myself, don't really care so much about Florida, or New England, or Hawaii, but I am concerned about Appalachia, where a coal industry feeds a power industry, and somewhere in between, the money which changes hands feeds me.

The desolation of economic blight these moguls offer my state is two-fold.

First, they want to turn completely away from the Appalachian coalfields in their expediency for quick, 'cheap' energy, forcing thousands of men who know only coal mining into the unemployment lines, and secondly, they advocate a program of energy development which will have inflationary repercussions not only here, but across the entire Eastern seaboard.

Well, maybe we could **eat** coal.

Editor's note: Phil Corathers is editor of the **Daily Sentinel**, Grafton, West Virginia.

Last Untouched Frontier

The Fight for Alaska

America's last untouched frontier of wildlife, forests and crystal-clear lakes, the "great Alaskan jewel," could be lost and forgotten if the public does not join the fight to support plans for protecting it, warns the National Audubon Society.

In an article that fills the entire July issue of **Audubon** magazine, Robert Cahn depicts all aspects of the conflict between conservationists who want to preserve Alaska's magnificent wealth of resources for generations to come, and the development-minded who want to rush Alaska into the 20th century. These are lands where, according to Cahn, "one can still hike or float or fly for hundreds of miles without a real sign of civilization and where thousands of caribou still migrate in mass movements that have been going on for centuries."

Cahn, a former member of the U.S. Council on Environmental Quality, has had an inside view of the struggle for Alaska. He says that after initial balking, the Department of the Interior prepared some fairly good proposals for land preservation under the Alaska Native Claims Settlement Act of 1971, though key elements were still left out. The 1971 law provided lands and funds to settle conflicting claims of the Alaskan native and the state. It also reserved 80-million acres of outstanding public lands for national parks, wildlife refuges, forests, and wild and scenic rivers, "though there are actually far more than 80-million acres in controversy," Cahn says.

Bills acceptable to conservationists are now in Congress, says Cahn, and are more complete than the Administration proposals. They would offer greater protection for the Yukon Flats National Wildlife Refuge, site of the "greatest density of duck nests in Alaska," and the majestic Gates of the Arctic Park. They would also protect the Wrangell-St. Elias National Park, which without the conservationist-supported Chitina Valley is "like having a Yosemite National Park without a Yosemite Valley," Cahn says.

Cahn welcomes the 5-year period given Congress to act on these proposals under the terms of the Alaska Native Claims Act. The time can be used for massive public education on the issues and "a proper job of land use planning." Cahn urges extensive public hearings and citizen participation.

Mother Earth News Finds Mass Audience

After only four years of publication, **The Mother Earth News,** is a tremendous financial success as well as a boon to environmental education.

Mother is a homey magazine for those who have left, or want to leave the confines of cities — and for people who are concerned about the deterioration of the planet. When editor John Shuttleworth and his wife put out the first issue in January of 1970, they managed to attract only 147 subscripti ns. Today **Mother** has a staff of 60 and a readership of 200,000 — and she's still growing.

A **Los Angeles Times** article says the publication has begun to resemble "the first conglomerate of the counter culture." Recently **Mother's** ventures have expanded to include a weekly radio program aired by 300 stations, a mail-order merchandise store specializing in hand-crafted products, the publishing of two books, an almanac and a guide to homemade power projects, an "ethical" get-rich-quick correspondence course, a syndicated newspaper column and a research-and-development laboratory. Last year's revenues were more than $2 million.

"All we're doing is trying to change the world," says Shuttleworth. Recent issues have described homesteading in Canada, raising goats, and home-sized solar energy systems.

State to Loan Industry Water Money

Wyoming Republican gubernatorial candidate Malcolm Wallop has charged that the State Farm Loan Board is considering lending eight million dollars of low interest state funds to aid development of a reservoir slated mainly for industrial use.

Wallop said that through his walking Wyoming campaign he learned of the proposal that the Farm Loan Board lend eight million dollars to a construction company to build the Hole-In-The Wall Reservoir for Carter Oil Company. Tentative approval for the loan, said Wallop, has been granted "if certain legal and technical difficulties can be solved."

"Realizing that a very small proportion of the storage is for agricultural use and that portion should be funded by Farm Loan money, I absolutely cannot see that a capital-short state needs to be lending low interest money to a corporation that has nationwide finance sources available it," said Wallop.

"On top of that, I cannot see this state using its capital to finance major industrial developers in their use of our water! It is Wyoming's people, Wyoming's business, Wyoming's agriculture and Wyoming's towns who need this water so badly yet cannot afford it."

Wallop charged, "That old phrase — 'sold down the river' will soon take on a new meaning in Wyoming if the state's government fails to recognize its real priorities. Northeast Wyoming is a drought disaster." And he adds, "So are many other areas of the state. Yet ranchers who refuse to sell their land for this project have been threatened with eminent domain proceedings. They are part of the so-called 'legal and technical problems.' "

"A fat lot of good that will do in attempts to balance Wyoming's economy between water users. The legislature never intended those monies to support industrial water speculation," said Wallop, "and I, for one, object — especially in times of real drought."

Clean, Quiet Car

While U. S. auto-makers seem to be concentrating their research on methods of cleaning up their polluting, internal-combustion engines, researchers in West Germany are following a different path. Both car manufacturers and a power company are doing extensive research on quiet and non-polluting electric cars.

A huge German power company — RWE — is spending several million dollars on testing the commercial feasibility of different electric vehicles. They've contracted for 20 small electric Volkswagen trucks, along with 35 other electric trucks from Mercedes-Benz and another German auto manufacturer. The trucks would be used for deliveries in cities, where they would only travel short distances, well within the 70 mile maximum range of the electric trucks.

Meanwhile, the power company also has on order 20 standard-size electric buses. Those will be run on regular bus routes in Munich and Duesseldorf next year. Volkswagen is so confident about the electric trucks that they expect them to make up 10 per cent of VW truck production within 10 years.: : **EARTH NEWS**

Bulletin Board

LEASING BOOKLET

The Powder River Basin Resource Council has compiled a booklet on coal leasing in Campbell, Johnson, and Sheridan County in Wyoming. Their publication lists the lessee, the size and general location of private, state and federal leases in the three-county area. The group plans to supplement the booklet later with information on surface land acquired and water appropriated. To buy a booklet, write the Powder River Basin Resource Council, Box 6221, 3 North Main St., Sheridan, Wyo. 82801. It costs $1 for council members and $3 for non-members.

A LOOK AT WYOMING'S FUTURE

An analysis of coal and uranium development in the Powder River Basin is available from the state of Wyoming. The report, authored by the state's Department of Economic Planning and Development, paints three pictures of development based on various levels of development. To receive a copy of **Coal and Uranium Development of the Powder River Basin — an Impact Analysis,** write to DEPAD, 720 W. 18th St., Cheyenne, Wyo. 82002.

EQUILIBRIUM

Equilibrium is a quarterly concerned with growth management and with equitable and productive ways of living within environmental limits.

The July issue features an article by Oregon's Governor Tom McCall. In the article McCall strikes at the heart of American values. "No longer can the average American live for the 'bigger and better' life. He can no longer set as his ideal the owning of an individual house on a tract of land," McCall says. "The lack of land, coupled with the great amount of fuel used in constructing, heating and cooling individual dwellings makes it economically impossible to continue constructing single family dwellings at the present rate."

The McCall prescription promotes dense but flourishing urban living, as opposed to exurban sprawl. It includes new land-use controls, revitalization of blighted areas and structures, improved mass transit, a possible increase in "social regulations to curb crime," incorporation of many services within neighborhood areas, and incentives for energy-efficient cluster living.

Copies of **Equilibrium** are available from the Center for Growth Alternatives at 1785 Massachusetts Avenue, N.W., Washington, D.C. 20036 for $1.00 postpaid, or at lower bulk rates.

Looking northwest from Fremont Peak. Gannett Peak is at the extreme right. **Photo by Finis Mitchell**

Young Finis and a trout he caught in the Wind River Range at the base of Kendall Mountain. This photo stirred Mitchell's interest in photography — and he's been taking pictures ever since.

MITCHELL'S MOUNTAINS

Finis Mitchell and his family came to Wyoming from Missouri in 1906 with a span of mules, a wagon and a cow. They settled on the East Fork River bottom near Boulder, Wyo., where "the sagebrush was so high you couldn't find the cow in it."

Two childhood events shaped Mitchell's life. In 1909 on a hunting jaunt with his father, he discovered that he liked the view best from the tops of hills. Later when somebody took a picture of him with a whopper trout, he decided he liked photos, too. Mitchell has been moved by the mountains and the art of recording them on film ever since.

If you're in the market for a Wyoming postcard, chances are you'll buy a Finis Mitchell creation. If you need to know a bit of Wind River lore, chances are Mitchell can help you. "I love explaining," Mitchell says. "I really enjoy telling people all about the wilderness."

He's climbed 195 mountains including Gannett Peak, the highest mountain in the state (13,785 ft.). And at age 72, he's still at it. Most of the people who walk with him, no matter what their age, can't keep up.

Since his first camera, a box model that he borrowed from his mother in 1920, he has experimented with equipment. Today he has 26 lenses, including one 600 millimeters long with 12 power magnification. He always backpacks with two cameras — one wrapped in foam in his pack in case the other breaks down.

Mitchell's favorite subjects are bighorn sheep. He has over 3,400 photos of them and vivid memories of times with sheep when he couldn't worry about taking pictures. On one two-week trip, hiking from Dubois to Pinedale, Mitchell was caught in a vicious snow storm high above timberline on Ram Flat.

"I learned long ago from observing wildlife that they are smarter than man when in their own environment," Mitchell says, so he followed a small band of sheep down a series of ledges to seek protection from the storm. They led him to a place where 60 to 80 sheep were holed up in protected pockets between the ledges. He spent three days and nights there, sheep feeding all around him. In that time Mitchell says, he learned more about sheep than he had in all of his life before.

He's earned a close range look at many other forms of wildlife, too. "If you get down on your hands and knees and crawl like a badger, animals will come up and look at you," he says.

Mitchell calls his life and photography in the mountains a "hobby" because, up until 1967, he had to fit his first loves into a full time working man's schedule. He worked for the railroad in Rock Springs as a carman and a foreman for 44 years.

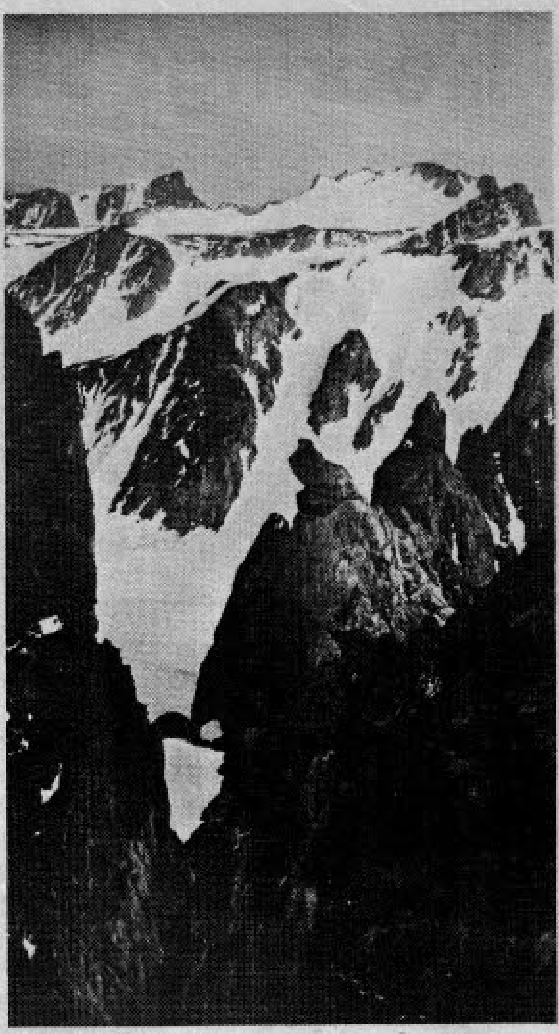
For a brief time during the depression he was able to make a living in the mountains by "pioneering in the recreation business." In 1930 he set up an operation called Mitchell's Fishing Camps on the Pacific slope of the Wind Rivers in the Big Sandy River opening. As he puts it, "We bought a 16 by 20 foot wall tent, borrowed 10 head of old horses and three pack saddles, and we started a business." The fee for the use of these amenities was $1.50 a day. Mitchell kept a dollar, and he gave 50 cents to the horses's owners. He charged his clients an additional 50 cents for meals.

"If I hadn't been a trapper we'd have starved." He held a trapping permit, and during the winter he and his family lived off coyotes, mink, muskrats, badger and beaver. In 1939 he went back to work for the railroad.

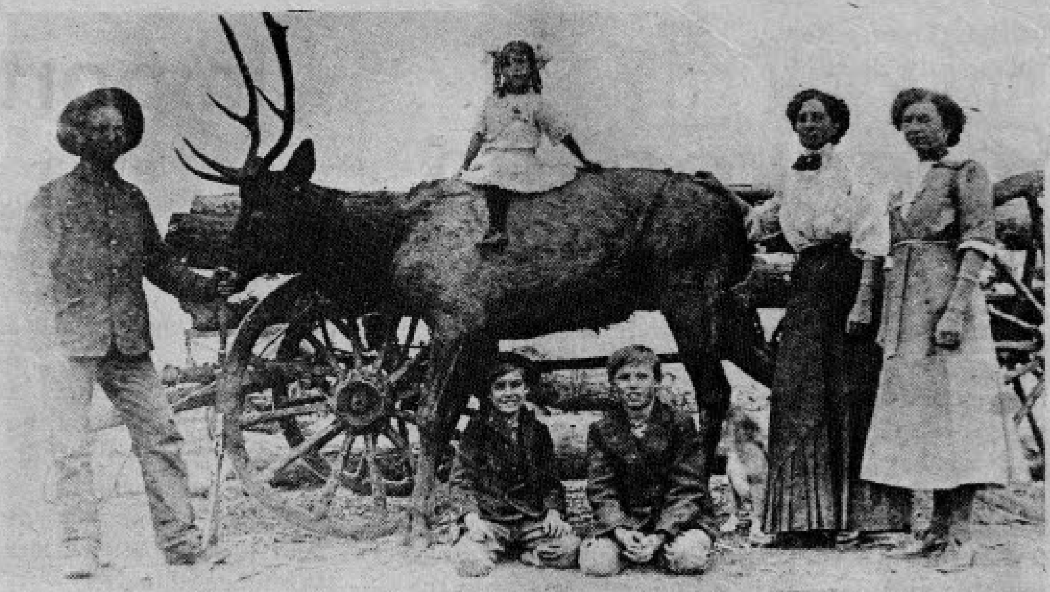
In recent years Mitchell has become an active advocate of wilderness. Busy writing route descriptions, letters to the editor, photo captions, and an autobiography, Mitchell says he wears out a typewriter ribbon once every three weeks.

"We need more wilderness," he says. His reasons for the need include one item that is essential to man's survival — water.

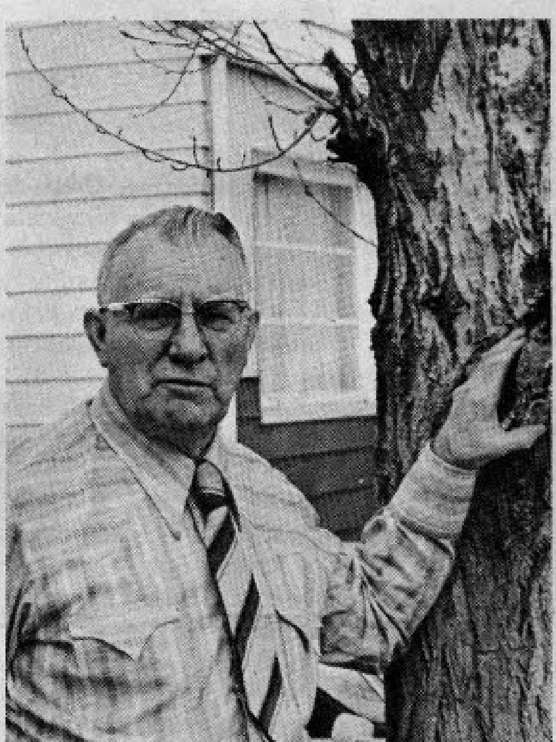
"While only man is capable of preserving this



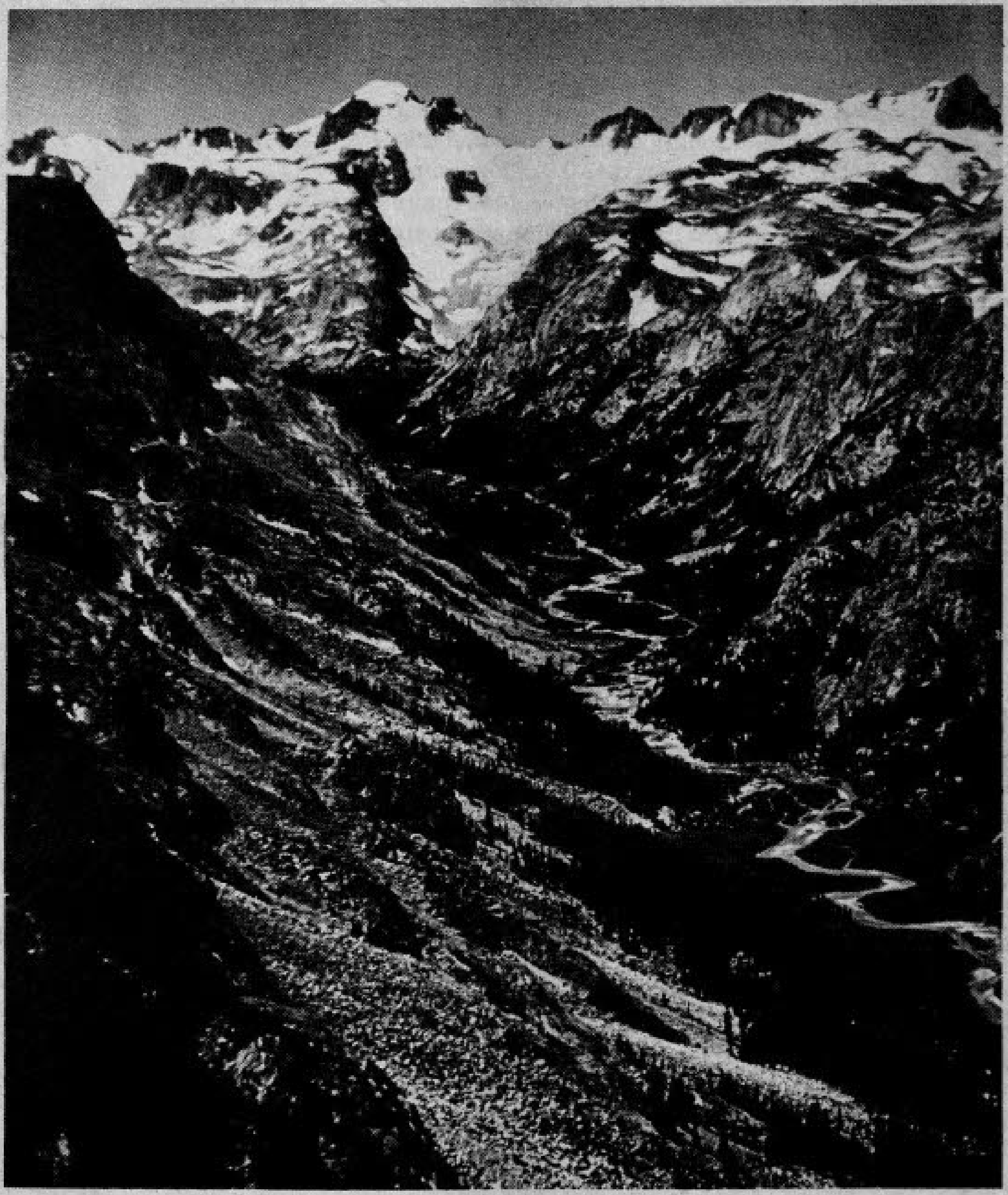
The Bull Lake glacier system from Dinwoody Peak.
Photo by Finis Mitchell



The Mitchell family at their home on the East Fork River near Boulder, Wyo. From left, Finis's father, Henry R. Mitchell, his sister, Jewell (on top of the elk,), his mother, Fay, and his sister, Mary. Finis is sitting below the elk (at right) next to his brother, Dennis.



Finis Mitchell at his home in Rock Springs, Wyo.



The view from Horse Ridge, overlooking Dinwoody Canyon to Gannett Peak (13,785 ft.).
Photo by Finis Mitchell

most important ingredient, I feel he is sadly neglecting his duty in the matter. Man should preserve and protect this precious source in its highest sanctuaries," Mitchell says.

One of Mitchell's projects on behalf of wilderness is slide presentations which he shows, "anywhere, any time, and always free." He has 93,642 color slides, probably the largest collection in existence on the Wind River Range.

"With my shows I endeavor to tell people what our wilderness really is, that we should not only preserve it for ourselves, but should teach others to do likewise," he says. "That man may retreat from the tensions of progress, from polluted water and air, from his own civilization in general, God made the mountains." —JN

Reckoning from Washington

by Lee Catterall

Both sides of the strip mining debate are looking cautiously beyond the upcoming floor fight in the House of Representatives to a conference in which a small group of senators and congressmen will try to put together a final bill.

When differences exist between bills passed by both chambers and dealing with the same subject, a few members of each chamber are appointed to meet together and make the bills identical. Afterward, the final bill is returned to be approved again by each chamber.

Environmentalists and the coal industry alike are beginning to look ahead to that conference, where they'll each try to retain or remove certain parts of the two versions.

A congressman can vote for the House bill, although disagreeing with parts of it. He can hope those parts are removed later, in the conference.

That rationale occurred in the Senate. Sen. Clifford Hansen voted for that bill, which passed 82 to 8 last October, although he strongly opposes a section that would ban strip mining on private land for federal coal and questions another part that would require land to be restored in most cases to its "approximate original contour."

Hansen last month asked the coal industry to quit opposing the House bill, because the Senate version — without the parts he dislikes — would be a good "vehicle" to use in the joint conference.

"It is in the national interest that a good surface mining law be enacted," Hansen told the coal people. "I believe the Senate-passed bill provides a basis on which to work."

Environmentalists regard the House bill as too weak and plan to lobby to toughen it on the House floor. But they, too, are looking to the conference to get their way on things.

For example, they vehemently oppose an important section that would set relatively weak land reclamation standards for a three-year period until tougher rules ar imposed on the coal companies. Removing that section on the House floor would be difficult at best. The task would be much easier in the joint conference, since the Senate bill contains no such provision for long interim standards.

This is not to say the lobbyists are playing dead for the House floor debate. The two sides are fighting bitterly on Capitol Hill and in the media.

Despite Hansen's plea, the coal industry is trying hard to defeat the bill, and would be happier with a tame substitute bill sponsored by Rep. Craig Hosmer (R-Calif.). But it, too, is forced to plan ahead for the conference, where Hosmer plans to "doggedly insist upon a balanced bill or no bill."

Most legislators, as evidenced by the lopsided Senate vote, agree there should be a federal strip mining law. The debate is over the specifics. That is why — barring an unforeseen major shift of opinion — the House is expected to not repeat the action it took recently in rejecting a land use bill that was as heatedly debated as strip mining.

The land use debate revolved around the bill's very nature — to control development of private land, something that rubs against the grain of many people with deep feelings about property rights.

The strip mining debate has dealt with smaller and more specific proposals, which are subject to change at any number of points along the long and complicated route from a bill's inspiration to its final passage.

Important Hearings Slated

The Federal Energy Administration is scheduling ten regional public hearings on the Project Independence **Blueprint.** The first will be held in Denver (Post Office Auditorium, Rm. 269, 1823 Stout St.) from August 6-9. The first day of the hearing will concentrate solely on "Western Regional Resource Development, Including Coal, Oil Shale, and Synthetic Fuels." The remaining days of the hearing will be open for testimony on all other aspects of Project Independence, including energy conservation, domestic resource development, energy research, international energy policy, and environmental impact.

Other public hearings will be in New York City, Boston, Seattle (Sept. 5-7), Chicago, Kansas City, Houston, Atlanta, Philadelphia, and San Francisco (Oct. 7-10).

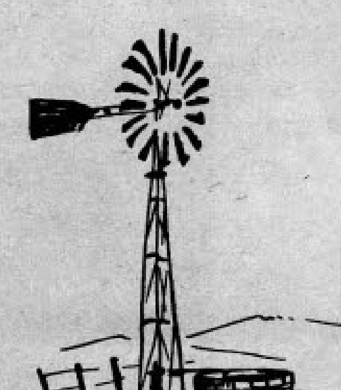
The hearings are intended to enable the American public to make a substantive contribution in developing the Project Independence **Blueprint.** Information presented at the hearings will be used in evaluating national energy-policy options.

Here is an opportunity for all concerned to express their feelings on whether the United States continues on its wasteful, consumptive ways with attendant environmental and social problems (strip mining, degraded air, consumed water, destroyed and dislocated social systems, etc.) or whether we are willing to change our personal life styles to conserve energy.

If you wish to submit written comments, write: Federal Energy Administration, Benjamin Franklin Post Office Station, Washington, D.C. 20461, ATTN: Project Independence.

A society that blindly accepts the decisions of experts is a sick society on its way to death. The time has come when we must produce, alongside specialists, another class of scholars and citizens who have broad familiarity with the facts, methods, and objectives of science and thus are capable of making judgments about scientific policies. Persons who work at the interface of science and society have become essential simply because almost everything that happens in society is influenced by science.

Rene Dubos



Bottle Bill Is Promoted

Environmental Action has launched a war against throwaways.

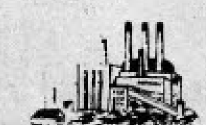
The group's approach to the bottle battle is two-pronged. First, they have been pushing for a federal deposit law based on Oregon's bottle bill. Second, they have helped to write a larger solid waste bill. The bill would create a new federal agency to review and establish product standards.

"The government would be able to take a close look at any product or process and make a ruling based on that product's impact on the environment," says Peter Harnik of Environmental Action. "If the environmental impact was judged greater than the societal benefits, the government could restrict or even prohibit the product's use."

The group's first goal, a federal law banning throwaway bottles and cans, has been indirectly endorsed by the Nixon administration. Indicating that he was speaking for both the Environmental Protection Agency and the administration, John Quarles, deputy administrator of the EPA, recently approved the idea of a federal bottle law. He said that it was time to reverse "a no-deposit-no-return attitude about our resources."

The EPA hasn't endorsed the bottle bill before Congress this year (S. 2062) however, because it lacks a specified phase-in period, Quarles says.

Environmental Action is at Room 731, 1346 Connecticut Ave. NW, Washington D.C. 20036.



Consolidation Coal, an eastern coal company which may move west, is under criminal investigation for possible fraud in falsifying coal dust data that is designed to protect miners from black lung disease. Consolidation is a subsidiary of the Continental Oil Company.

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The **National Park Service** may use the **sun** to heat and cool a visitor's center in Lovell, Wyo. The $50,000 system is planned to provide 70% of the heating and 80-90% of the cooling needs of the structure. Final construction funds are yet to be appropriated by Congress. Wirth Associates of Billings have a contract to design the building.

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No Utah company or municipality has been guaranteed a single watt of electrical power from the billion-dollar **Kaiparowits power plant** proposed for Kane County, Utah. "Utah must bear whatever air and environmental damage are created by the Kaiparowits project," says a **Deseret News** editorial, "So Utah ought to get some of the electricity generated by the project."

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Gov. Arthur Link has appointed eight North Dakota scientists to a new, advisory Mined Land Reclamation Task Force. The Task Force will have the responsibility of advising the governor on legislative, regulatory, and research needs in surface-mined land reclamation.

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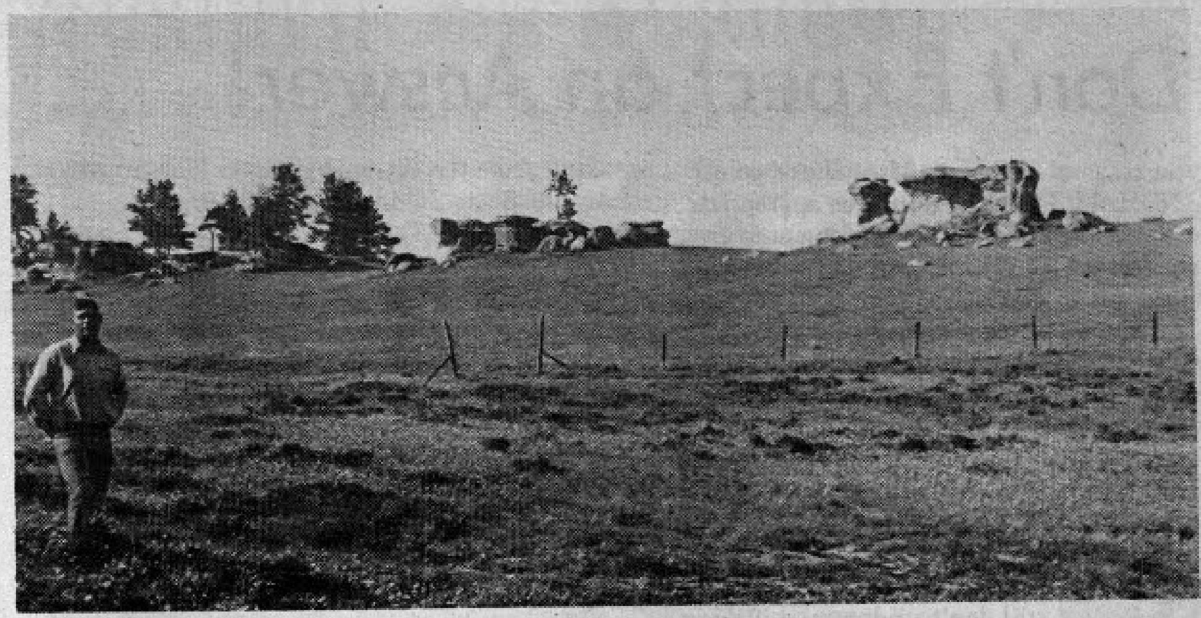
A **solar fence** will help heat and cool a **Colorado Springs** home this summer. Fence panels are made of black sheet metal covered with glass. Water is pumped through copper tubing on the metal and back to a storage area from which the house can be heated. The fence was designed by Energy Systems Corp. for the James H. Sinton home, 3901 Janitell Road.

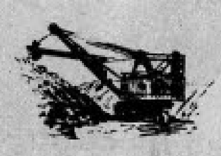


Sarpy Coal Leases Void?

Just as Westmoreland Resources shipped its first coal from a strip mine in Montana's Sarpy Creek Basin, the Crow Indian Tribe declared the Westmoreland lease and all other leases and permits for mining tribal coal null and void. The Crows contend that the Department of Interior, the Bureau of Indian Affairs, and other federal agencies have not acted in behalf of the tribe. They claim that the leases and permits were illegally obtained through the federal government in violation of the Crow tribal constitution. Tom Lynaugh, the Crow tribal attorney, says the next step will probably be to file a petition before Secretary of Interior Rogers C.B. Morton. Despite the Crow declaration, Westmoreland Resources says it will continue coal mining operations.

Meanwhile, white ranchers who own the surface rights in the Sarpy Creek Basin are fighting the Westmoreland strip mining operation in their own way. The Sarpy Creek country and rancher John Redding are pictured above. Redding is one of the plaintiffs in a suit which claims that ranchers will be damaged by the off-site effects of Westmoreland's mining. Groundwater in the area is especially threatened, the plaintiffs say. Initially, a Montana judge ruled against the ranchers, but the suit is now pending in the Court of Appeals in San Francisco.

Emphasis ENERGY



in the Northern Rockies and Great Plains

State Sen. Malcolm Wallop, a candidate for governor of Wyoming, says claims that the state has adequate reclamation laws to cope with large-scale strip mining are "misleading." Wallop says the law is too broad with too much discretion left to an appointed board to draw up specific standards. Wallop advocated a tougher state strip mining act in both the 1973 and 1974 sessions.

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The editor of a Chicago mining publication says that **Montana's attitude toward coal development** is "extremely provincial and inhibitive." The publication, **Coal Mining and Processing,** ran an editorial in its June issue which explained that Montana's "simple but firm reaction to the critical national need for coal is 'If the people of New Jersey won't allow off-shore drilling for oil, why should we be any different when it comes to coal?"

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Utah Power & Light Co. has told the Utah Legislature that it anticipates building at least six new powerplant units of the 400-430 megawatt class by 1985. And if oil shale and industrial expansion demands more electricity, the company is planning an additional four units for a total of 10.

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North Dakota Gov. Arthud Link says there is little information available on the effects of **trace elements** emitted by coal-fired power plants. He says the state has applied to the Old West Regional Commission for money to fund a study of trace elements.

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Richard Pearl of the Colorado Geological Survey told a legislative committee that Colorado has the second highest **geothermal** potential in the country. California is rated first.

A geophysicist and mining hydrologist studying **water problems** associated with strip mining says poisons may be going into the Tongue River in Montana. Dr. Moid Ahmad of the University of Ohio says water monitoring should be done on the Tongue to determine if arsenic, cadmium and lead are being leached into the river from the huge Decker strip mine in southern Montana. Ahmad said water pumped from the mine into the river "is high in total dissolved solids" which could be harmful to crops irrigated with Tongue River water.

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The **Burlington Northern Railroad** says about 15 unit trains, each carrying 10,000 tons of coal, are moving out of Montana and Wyoming each week. That number is to increase to 21 a week when mines in the Sarpy Creek area of Montana begin to produce. The coal is going mostly to Minnesota, Wisconsin and Illinois.

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A subsidiary of American Electric Power Co., Indiana and Michigan Electric Co., has signed a long term contract to buy a minimum of 140 million tons of **low-sulfur Utah coal** from Braztah Corp. Braztah, a subsidiary of McCulloch Oil Corp., operates underground mines near Helper, Utah. The coal will be delivered over a 25 year period starting at 800,000 tons per year and peaking at 6.5 million tons per year in 1982.

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An **Idaho** official has predicted the possibility of four large **thermal power plants** in that state by the year 2000. Steve Allred, director of the Idaho Water Resource Board, says one of the plants could be a 1,000-1,500 megawatt plant by Idaho Power Co. near Mountain Home. Allred says the people of Idaho will have to make the decision if they want the plants.

The Hot Line

across the country

The largest coal-transfer facility on the Mississippi-Ohio River system is planned by the **Burlington Northern Railroad** and the **American Commercial Barge Line.** The facility will eventually handle 28 million tons of low-sulfur western coal a year destined for utilities along the rivers. The $20 million installation, to be completed by 1976, has the backing of the St. Louis County Business and Industrial Development Commission. ACBL is a part of the Inland Waterways Services Division of Texas Gas Transmission Corp.

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John C. Sawhill, federal energy administrator, says Colorado, Wyoming and Montana will get hit hardest by the impact of energy development as the nation strives for energy self-sufficiency. At the same time, he said there would be no special aid programs planned to help alleviate the impact. Sawhill made his comments at a press conference at Vail, Colo., following an address to the Interstate Oil Compact Commission.

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Consumers Power Co. of Michigan has canceled construction plans for two major nuclear generating units. The units were valued at $1 billion. Company costs have already amounted to $13 million. At the same time, **Boston Edison Co.** said it was deferring planned construction of a nuclear generating unit. It said its customers' conservation efforts made the utility's growth and needs uncertain. Consumers Power cited difficulties in raising capital. This has led to speculation on the part of some analysts that the nation's capital investment system might not be adequate to meet demand in energy.

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The largest industrial enterprise headquartered in Massachusetts, the **Raytheon Company,** has saved more than 30% in fuel oil and 20% in electric power and natural gas in the past three months. The company, an electronics manufacturer, has made a list of 131 ways to save energy. The company's 51,000 employes in 45 major plants have managed to live by most of the energy saving maxims.

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The **Atomic Energy Commission** will not enter into any new contracts to supply **nuclear fuel,** an AEC official says, because it is near production capacity. Rep. Chet Holifield says the cutoff could jeopardize President Nixon's nuclear agreements with Egypt and Israel — and could leave a number of proposed U.S. plants without fuel.

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A new set of problems have opened up for the **geothermal power** industry. In the Geysers area of Northern California a radioactive gas called **radon 222** has been found in the underground steam used to generate electricity. The levels of radon are "well within the present state regulation" for radon concentrations, Pacific Gas and Electric Company says. PG&E's tests give little indication of how much the decayed products are building up in the surrounding environment, however, or the effects of an expanded industry.

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Public funding for **public participation in nuclear power plant licensing** hearings would be provided under a bill introduced by **Sen. Edward Kennedy** (D-Mass.). Presently public interest intervenors in Atomic Energy Commission hearings are privately funded and the cost is nearly prohibitive. In introducing S. 3547 Kennedy said, "I firmly believe that full public participation in the licensing process is not only required for the protection of the public interests, but for the future of nuclear power as well."

Moral: Don't Expect an Answer!

Sierra Club representative Laney Hicks turned the tables at an important public hearing in Casper last month by asking the hearing panel to answer a series of questions about coal development's effects on land, water and human health.

The public had gathered to comment upon the government's draft environmental impact statement on development of coal resources in the Eastern Powder River Coal Basin in Wyoming. Hicks contended that the statement did not provide answers to crucial questions.

The draft statement "doesn't come to grips with a precise description on the changes which will occur to air, land and water from the proposed single or regional development," she said. "Perhaps even more critical, I cannot gain an understanding on what would be acceptable limits for degradation in terms of human health, future land productivity and usable quality waer." Hicks, of Dubois, Wyo., said she has spent the major portion of her time over the past three years studying coal development in the Northern Plains.

After reading the five-volume statement she said she drew two conclusions: "Either the agencies do not understand the impacts, or they do not want the public to understand them."

After her opening remarks, Hicks requested an opportunity to ask questions of the hearing panel, composed of representatives of the inter-agency team which wrote the statement. Her request was granted, but the answers that she sought did not seem to be available.

A few of Hicks' questions and the panels' responses, transcribed from a tape recording of the proceedings, are printed below:

LANEY HICKS: One of our most basic concerns is with the toxic and trace elements which I find mentioned several times in the statement. I never really get a clear idea of what is significant. I can read on one page in Atlantic-Richfield's mining plan that there are no toxic levels of these trace elements in the overburden and then I go about ten pages further on and come across a table of overburden showing several places where there are probably toxic levels and I wondered if you could tell me just what are the standards, what is the maximum human tolerance for these trace elements in air, land, and water?

ROBERT BROWN: I'm not sure who, there may be several people on the panel that could respond to that and none of them may have that specific answer. Does anyone on the panel want to respond? Does anyone have that specific answer?

JOHN ALLINGHAM: Bob, I think in time we can give an answer to it. But this is a controversial area that we're into, both from a scientific standpoint and social-economic standpoint. I think it would be well to defer this to a later date, to the time when we revise the impact statement.

HICKS: Could I understand better what the controversy is? I mean, in order for me to understand a statement, I need to refer it to something that I can relate to — something in other terms besides parts per million or percentages and so forth. It just doesn't click and I don't know what it means. I did try to contact several specialists — they told me that several of the levels are dangerous levels. I feel I want to know what's going to come out of the stack when they burn these. What's going to happen when you irrigate a reclamation (spoil) pile? Where are these trace elements going to go?

HEARING OFFICER: For the record, let me state that the last response just preceding the last comment by Miss Hicks was by John Allingham of the Geological Survey. Mr. Allingham, can you respond further to Miss Hicks' point?

ALLINGHAM: I think it would be appropriate in the revision of this impact statement to give you sources which you can refer to or perhaps we could get in correspondence with you and find the sources which you could ascertain, you know, what are the toxic levels. To my knowledge, the best of my knowledge, there are no toxic levels of material or the intent (extent?) whereby we know they might accumulate to a toxic level.

HICKS: Does it . . .

ALLINGHAM: Does that directly answer your question or do you want to go further?

HICKS: Well, I still don't understand if there has been established an upper level of human tolerance for some of these . . .

ALLINGHAM: There really hasn't in many areas and this is why I say that this is best deferred until we can find you the sources and you can determine for yourself.

Laney Hicks, Northern Plains representative of the Sierra Club.

HICKS: Maybe for the record I would like to say I realize that you didn't have time to put all of this material together, but in putting it in the final statement, it sort of denies the public the chance to comment on various of these problems when it comes out in the final statement. And that's why we're asking, that perhaps it could be rewritten so that the public has a chance to comment before the final statement comes out. I would like to ask just one other question, and I probably am going to get into it with Morton May here. I was very confused on the five-year time given to return spoils to a grazing use. And I wondered if somebody could explain to me exactly on what basis this estimate was given?

HEARING OFFICER: Would you identify yourself before you respond, sir?

BILL MOYER: Bill Moyer, Bureau of Land Management. Let me get a copy of the environmental impact statement.

HICKS: Perhaps while you're doing that, I could ask a question on water? I'm wondering where the 85,000 acre feet from the Platte River, I noticed it was included in water availability, and I couldn't find a source on that. Is there 85,000 acre feet available in the Platte?

HEARING OFFICER: Jim?

JIM WILSON: I'm Jim Wilson of the Geological Survey. I'm at a disadvantage in not being the person who wrote that section. I'm not really sure what the answer is. There is someone who might know — Warren Hodson — do you know the answer to that question? Where that figure came from?

WARREN HODSON: I believe that that figure came from the Wyoming Water Plan prepared by the State Engineer of Wyoming.

JIM WILSON: This would have been my guess, from the State Engineer's Office.

HICKS: I guess I was somewhat confused, I've been participating in the citizens' committee on the North Platte and there's quite a bit of confusion there because they don't know how much water is available and I couldn't understand whether it meant new reservoirs or just what.

HEARING OFFICER: Mr. Hodson, for purposes of the record would you identify yourself, sir?

WARREN HODSON: Warren Hodson, United States Geological Survey, in Cheyenne, Wyoming.

HEARING OFFICER: Thank you.

JIM WILSON: I believe that, its my impression, that there isn't very much water, if any, available in the North Platte, so that we'll check that and find out where the source is and if its true, we'll verify it for you.

HICKS: Do you want me to ask one more question on water or go back to . . .

HEARING OFFICER: Well, perhaps your range question can be responded to now.

HICKS: OK.

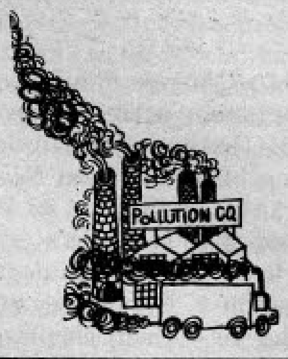
BILL MOYER: You asked a question as to where we got the five-year time needed for proper restoration or rehabilitation of mined lands and these are what we felt or assumed would be necessary to rehabilitate the mined land area. And it contains several steps that have to be gone into, and it could be shortened with the addition of irrigation water or immediate topsoiling after rehabilitation.

HICKS: But this estimate was based on some type of experiments that have gone on in the area or is this based on rehabilitation of rangeland?

BILL MOYER: These are, well, these are not based on any rehabilitation efforts in the Powder River Basin because not too much has been done. I can go through those step by step with you if you wish.

* * *

After Hick's testimony, it was decided to allow no more questioning of the hearing panel.



The West need not become the utility backyard for the rest of the Nation. Proponents of greatly expanded strip mining are 'ooking for an easy way out of the energy crisis. Coal is not going to be the single answer for the next 60 years. Let us expand and perfect deep mining of coal. This provides greater employment and little disturbance of the surface... What is going to happen to the vast quantities of mineable coal in the eastern part of the United States? Will a major shift to the West bring about serious unemployment in the Appalachian region? Will there be a major shift in industrial plant relocations closer to the major sources of energy? These are questions my eastern colleagues should consider.

Sen. Mike Mansfield, Montana
February 7, 1974

Western Roundup

Park Enlargement Bill Before House

The Grand Canyon National Park enlargement bill is up before the House Interior Committee this month. All eyes are on a proposal to transfer a quarter of a million acres of public lands to the Havasupai Tribe through the legislation. Of the land to be transfered, 180,000 acres would come from the existing Grand Canyon National Park and Monument. The Southwest Office of the Sierra Club in Tucson, Ariz. states the following reasons for its opposition to the land transfer:
— it would establish a precedent which could threaten the entire national park system.
— it would end public control over "what is undeniably a priceless part of our natural heritage."
— it would do little or nothing to solve the pressing social and economic problems of the Havasupai Tribe.
— it would encourage requests for Congressional review of over 400 Indian land claims which were settled by the Indian Claims Commission.

Dam builders also have their eyes set on the canyon — on a portion that was labeled potential park land by the House Subcommittee.

The Southwest Office of the Sierra Club urges citizens to support the enlargement bill as it was reported out of the National Parks Subcommittee, to oppose deletions of lands from the existing park, and to oppose amendments which would allow or encourage the construction of any dams in the canyon.

Administration Sabotages Hells Canyoı

Nixon Administration agencies told a Senate subcommittee hearing last week that only limited legislative protection should be given the Hells Canyon-Middle Snake River area. The Administration proposes that the Snake River be designated a wild river from Hells Canyon Dam downstream a distance of 68 miles. Robert W. Long, an assistant secretary of agriculture, said, "We do not believe it is necessary to designate the larger canyon area or other adjacent lands as a national recreation area or as a national forest parklands. . .We urge that no wilderness be designated within the Hells Canyon-Middle Snake area at this time."

A bill sponsored by the four senators from Idaho and Oregon would designate an 834,000-acre Hells Canyon National Recreation Area. The bill would also designate 101 miles of the Middle Snake River as a wild river, designate some lands as wilderness, ban any dams in the Hells Canyon area, and de-authorize Asotin Dam. Sen. Frank Church of Idaho, chairman of the Senate Interior subcommittee on parks and recreation, said he did not think the Administration stand would hurt chances for a strong comprehensive bill on Hells Canyon.

Nature Beats DDT to the Punch

The lowly aphid has saved the day in the battle against the tussock moth in parts of the Douglas-fir forests of the Northwest. Proposed spraying with both DDT and bacterial agents has been scaled down following the natural collapse of the moths. However, some 335,000 acres had already been sprayed with DDT. And small test areas in Montana had been sprayed with Sevin, another pesticide. The U.S. Forest Service said those tests proved extremely successful.

The aphids secreted a sticky substance which the caterpillars of the tussock moth avoided. The sticky excretion also attracted ants which attacked the caterpillars.

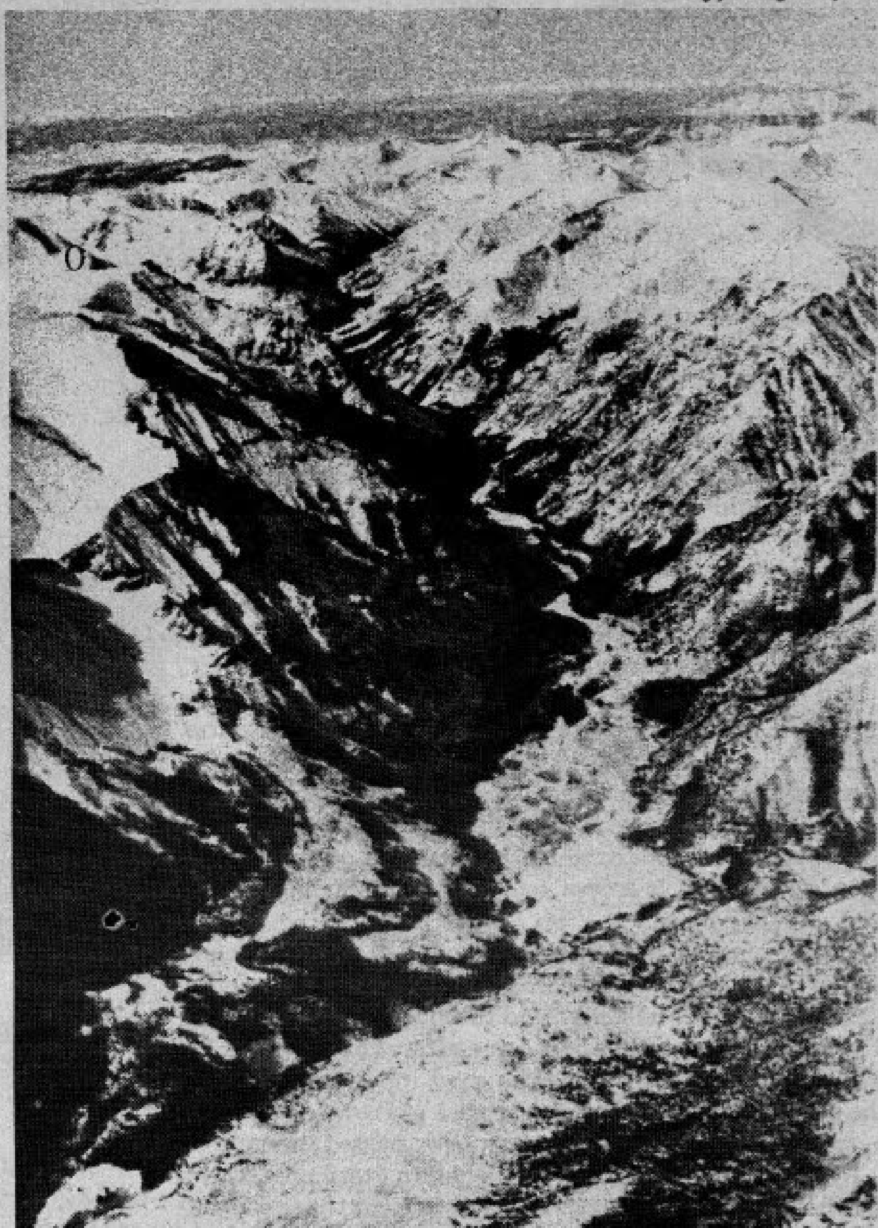
A test spraying of bacterial virus on 27,000 acres of the Coeur d'Alene Forest in Idaho was canceled when the moth population collapsed.

Bulldozers Temporarily Stayed

The Bureau of Reclamation will have to prepare an environmental impact statement for their vegetation removal programs along the Rio Grande and Pecos Rivers in New Mexico. At first the Bureau resisted, but a suit brought by the New Mexico Citizens for Clean Air and Water led to a court decision requiring the assessment. At issue was the bulldozing of water-consumptive plants along the waterways, called phreatophytes. The Bureau claimed the plants wasted water and their removal posed no significant environmental damage. The judge ruled otherwise.

Developer's Hopes Dashed

A developer's hopes were dashed this month when Marble Ski Area officials turned over their real estate license to the Colorado Real Estate Commission. That move apparently ended plans for a controversial ski area project that would have brought 20,000 people to the Crystal River valley in western Colorado. By surrendering the license, Marble officials relinquish their right to sell land in the 2,000 acre development. The state has been conducting an investigation into possible violations by Marble Ski Area Inc. of land development codes.



The Wood River Valley is located in the Absaroka Mountains of northwestern Wyoming. The photo above is looking westward toward the Wind River Mountains on the distant horizon. Dubois, Wyoming, would be located approximately at right center above the white, pointed peak (Wiggins Peak) visible against the darker background at top. At approximately where the dark 0 is located at left, top, there is a large deposit of low-grade copper and molybdenum ore. American Metal Climax (AMAX) has been probing the ore body for several years. Now, the company says it will make a decision by Jan. 1 as to whether to proceed with mining. The mining operation would involve an open pit, with crushing and concentrating done at a site near the mine. The ore body lies at elevations of 9,500 to about 10,500 feet. Taking a mountain apart for small amounts of ore involves huge amounts of waste material. The wide meadow on the Wood River (lower, center) may be the tailing pond site unless an alternative site can be located. At a recent meeting, a company spokesman said he thought the mine would operate for a minimum of 20 to 25 years and possibly as long as 30 to 40 years. Meeteetse is the nearest town. It is 34 miles northeast of the mine and has a population of 459. It would be more than doubled in size by the work force anticipated. Some workers may have to live in Cody, 70 miles north. The mining area is in an important elk and big horn sheep area in the very scenic Absaroka Mountains.

Briefly noted . . .

Public hearings on potential wilderness in Canyonlands National Park in Utah will be held in Monticello and Moab next month. The Park Service has proposed that 250,700 acres of the park's 337,258 acres be included in the National Wilderness Preservation System. The hearings are on Aug. 12 in Moab and on Aug. 15 in Salt Lake City.

* * *

The Environmental Protection Agency has made its debut in the world of Colorado air pollution enforcement. The federal agency stepped into the state this month to propose a $7 million clean-air plan for the CF&I steel plant in Pueblo, Colo. EPA says the action is necessary to bring the plant into compliance with the Clean Air Act by July 1975.

* * *

A rising Great Salt Lake has prompted proposals to pump water into a 390-square-mile former arm of the ancient Lake Bonneville. The new artificial lake would be west of Great Salt Lake. Rising waters are threatening a number of extractive industries located on the present lake shore.

Thoughts from the Distaff Corner

by Marge Higley

"The Hahns Peak Area Historical Society will meet Saturday, July 13 at the schoolhouse. Covered dish supper, followed by a business meeting and program."

The item printed above obviously belongs on the society page of a small-town newspaper — or does it perhaps belong in another niche?

One hundred years ago the village of Hahns Peak was a booming gold mining camp. For a few years, during its prime, it was the county seat of Routt County. There was a court house, jail, boarding house, store and livery stable. There was no church, nor was there at that time a school house. The children attended school wherever there was a vacant room or house available.

But the mining fever died down, and the county seat was relocated thirty miles south, at Steamboat Springs. As the miners moved away, homesteaders and farmers moved into the area. These settlers were families with children, so, soon after the turn of the century, they built the little one-room school house which became the center of community activity. It served as school, church, dance hall, and meeting place.

The long harsh winters took their toll of the homesteaders. While some remained, many moved on to where the growing season was longer and the hardships less severe. The village of Hahns Peak became almost a ghost town. In winter the deep snow made the road impassable. During the summer months, sheep and cattle grazed the area, and autos left long plumes of dust as they passed through.

In the 1940s, the sleepy village began to stir once more. The beauty of the country was discovered by the seekers of second homes. The more sturdy of the old buildings were purchased and worked over. Others were replaced by new modern cabins. The little one-room school house once again became a community social center, and the meeting place for the Hahns Peak Civic and Social Club.

In the 1950s and 60s the great recreation boom had come to pass, and in the immediate area, lakes and campgrounds sprang into being. In more recent years, developers have left their mark. Hahns Peak village is no longer a ghost town — it's almost a boom town again.

The Hahns Peak Civic and Social Club has become the Hahns Peak Area Historical Society. They meet twice a month, and they have fun. They also have a goal — to preserve as much as possible of the history of the area. By the art of gentle persuasion, they have talked the county school board into giving them the school house and the land it sits on. By diligent research, letter writing, and trips to Denver, they have had it placed on the National Register of historic sites. (This to protect it against future intrusions of "progress.") The school house, by the way, is not their only goal — it's the most immediate one.

I went to the meeting Saturday night. I saw old friends, and met new ones. The program was a talk, and question-and-answer period, presented by a charming member of the Colorado Historical Society, who had made the trip up from Denver for the meeting.

I looked across the room at the interested, intent faces — about 45 of them. In age, they ranged from the teens into the 80s, perhaps. Some of the real old-timers were children and grandchildren of those early day miners. Some belonged to the families of the homesteaders. Some had come into the area in the era of the sheep and cattle — others had come later. There are some who live elsewhere in the winter, and there are some hardy young people who live here all year, because they enjoy the beauty and the simplicity of the life.

Somehow the difference in age, or background, or in the reason for being there, didn't matter at all. These people have a common interest which binds them together in harmony — they all desire to retain for future generations some links to the past.

I'm glad I went to the meeting. I really don't think it belongs on the society page at all — it almost belongs on a page of history!

Wyoming ranch in the Powder River Basin.

Reprinted with permission from the Union Farmer

Putting a Price on Wyoming

by Gail O'Haver
Sundance, Wyoming

An early spring thaw in Wyoming, with its sounds of snow melting and things growing. Domestic and wildlife babies are seen here and there.

Summer sunrises turning the world to green, gold, and pink. Dew on the grass, trees, and shrubs; and spider webs glistening like newly-cut diamonds.

Heat waves shimmering on the open country. Comfort of a murmuring fishing stream under the shade of huge cottonwoods, pines, oaks, and numerous other trees and bushes.

Quick, refreshing thunderstorms that bring the smell of clean wet earth, fragrant sagebrush, pines and forest trees.

Quiet, peaceful sunsets on our small towns, farms, ranches, and all the scenic mountains, buttes, hills, valleys, bluffs, canyons, peaks, lakes, and rivers.

Haying, harvest, shipping, and all the satisfaction of a good Wyoming growing season. Hunting in the hills, prairies, and mountains among some of the most beautiful fall colors Mother Nature and God creates anywhere.

Snow storms, with all the magnificient beauty of a peaceful world. Space for all Western winter time doings or just a romp in the snow.

Friendly people, near neighbors but not so near they suffocate you. Room — room for growing, roaming, prowling, shouting, running, walking, or any other soul-cleansing activity.

These are just a few of the better things of our Wyoming world. After all, our most adverse weather conditions are not as extreme or extended as much of the rest of the earth.

How much is it worth to each of you? Some of your answers may be — "Priceless, money can't buy it."

A PRICE ON THE PRICELESS

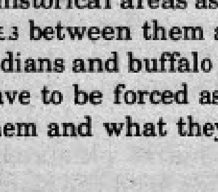
We're letting oil companies put a price on it — its total, absolute, irreversible distruction.

Terry L. Shorb in the May 31, 1974 Montwyo News says it all in his editorial, quote: "I drew a firm conclusion at the beginning of the development nightmare, based on an alarm that clamored persistently inside my mind. The warning was clear. This entire development rush is bigger than us all. It is destined to explode in boundless proportions, encompassing our beloved land, our precious water resources, and our quality of life here in the West. They want that coal, and nothing — absolutely nothing — is going to stand in their way. People, traditions, ways of life, laws, local, state and federal authorities crumble at their Herculean pressure tactics.

"Cessation of the relentless development machine is impossible. But controls are not. Controls must be instituted. By the people. Political circles are too amenable to corporate pressure and many state level legislatures buckle under the intense lobbying squeeze forced upon them by energy utility interests.

"We must not sacrifice our futures by refusing to resist, lest we one day wake up to an Appalachia in our very backyard."

It's not a very comforting thought that there are 150 million energy hungry people east of the western coal states. They look upon us, our homes, ranches and farms, businesses, recreational and historical areas as so much overburden that lies between them and cheap energy. Like the Indians and buffalo were to our ancestors, we have to be forced aside because we're between them and what they want.



I conceived that land belongs to a vast family of which many are dead, few are living, and countless members are still unborn. . .

A Nigerian chief

A CONSERVATION PORTRAIT: Richard Sill and Pyramid Lake

by Thomas Michael Baugh

"I hereby resign from the Board of Directors of the Sierra Club effective immediately. . . .As you know, I believe very strongly that the Club must be a democratic volunteer organization with power lying in the hands of the members. I am disturbed that points of view within the Club, conflicting with those of the Club's establishment, have been ignored and even suppressed and that important decisions have been made by the Club hierarchy in secrecy or by fiat." With those words, Dr. Richard Sill, physicist and long time environmentalist, resigned from the Board of Directors of the most powerful volunteer environmental organization on the world scene.

Resignation from the Board of Directors did nothing to temper Dick's belief in the mission and purpose of the Sierra Club, however. "Only in the Club do I see solutions to the many problems facing our civilization, and I don't want anything to obscure those solutions." Dick Sill is a man who resigned in order to hammer home the message of rational cooperation in a democratic society.

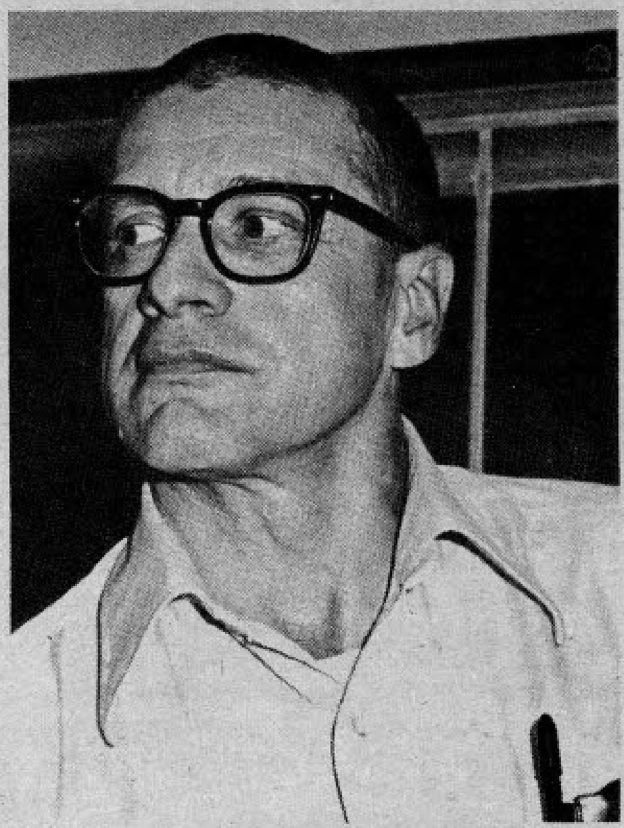
Dick became an environmentalist long before a majority of people were aware of the meaning of the word. He joined the Sierra Club in 1944 during a period of time when the world was awakening from the terrible ravages of the greatest conflict experienced by mankind. The awesome destructive force of the atom had been released a few short months earlier.

In 1961, he became the Chairman of the Reno, Nevada-based Toiyabe Chapter and shortly after, in 1964, was named a member of the Sierra Club Council. In 1967 Dick began to serve his first term as a member of the Club's National Board of Directors. Several months before the end of his second term, on January 17, 1973, he wrote his letter of resignation.

Dick's resignation from the Club's National Board of Directors had little, if any, effect on his work as an environmentalist. He has continued as a rank and file member of the Sierra Club and as Chairman of the vitally important Sierra Club Pyramid Lake Task Force.

The Task Force was created in 1971 and assigned the responsibility of researching the water situation in nominally arid western Nevada. Waters of the Truckee River, originating in besieged Lake Tahoe, travel for almost 100 miles through rocky canyons and desert sands to eventually reach Pyramid Lake.

Shortly after the turn of the century, the massive, although poorly planned, Newlands irrigation project was conceived and built. The purpose of the project was to utilize Truckee River waters to provide irrigation for the Lahontan



Dr. Richard Sill, a physicist and environmentalist.

Valley area.

The construction of Derby Dam and other water diversions interrupted the lifeblood of Pyramid Lake. Once great migrations of trout began to decline as the water level of the Lake lowered. It became readily apparent that the great desert lake would suffer seriously from the interrupted flow of the Truckee River.

In 1948, the Stillwater National Wildlife Refuge was created from "surplus" and "runoff" waters from the Newlands project. The level of Pyramid Lake continued to decline and the unique cutthroat trout fishery suffered drastically. The lake is part of the Pyramid Lake Indian Reservation, and in the latter 1960s tribal representatives began to voice strong opposition to the water situation.

By 1971, local members of the Sierra Club, including Dick Sill, initiated action which led to the formation of the Sierra Club Pyramid Lake Task Force. The Task Force was faced with the accomplished fact of water mismanagement which included the rapidly growing population of western Nevada, the Newlands project, a Lahontan Valley agri-business complex over 60 years old, the Stillwater Wildlife Refuge and the core of the problem: Pyramid Lake. Legal action and court decisions on the part of the Tribal Council, agriculturists and over 13,000 downstream water users have greatly compli-

(Continued on page 16)

"Through the years Dick has maintained a deep conviction and belief in participatory democracy."

Eavesdropper

LOONEY LIMERICKS

by Zane E. Cology

For coal we're shifting East to West.
The hog's share of energy is our quest.
The profits will be greener,
But the air will be no cleaner
If we strip the West and leave the rest.

Camping in recreational vehicles is the least desirable kind of tourist activity, reveals a study done for the state of Maine. The report argues that the vacation-spot must absorb major environmental and social impacts of the people and their vehicles without receiving many dollars in return. An out-of-state tourist in a motel spends $32.52 per day, while out-of-state campers spend $10.79 per day. The report concludes that campers in recreational vehicles should be discouraged or taxed by the state.

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Zero Population Growth (ZPG) has called for cutting immigration quotas by 90%. ZPG says legal immigration accounts for a quarter of U.S. population growth. Illegal immigration may range as high as 75% of normal population growth. ZPG is a privately funded group concerned with overpopulation.

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Formal hearings on the cancellation of certain uses of 2, 4, 5-T were cancelled by the Environmental Protection Agency. Wisconsin Sen. Gaylord Nelson immediately protested. Nelson pointed out that the chemical herbicide was used in the U.S. military defoliant, Agent Orange, in Vietnam until scientific evidence of harmful effects was discovered. EPA has already cancelled use of the herbicide around the home and garden, in recreational areas, and where water could be contaminated. Nelson says it should be banned for use in national forests also.

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A group of 25 South Carolina duck hunters, members of the famed Santee Club, have donated 25,000 acres to the Nature Conservancy. The prime water fowl habitat, valued at $20 million, is said to be the most valuable gift to conservation ever made in the United States. Besides being a choice waterfowl area, it is a sanctuary for two endangered species, the bald eagle and the American alligator.

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Desert tortoises in the Mohave Desert of southern California are being run over and generally decimated by people in Jeeps, dune buggies, and motorcycles. As a result the Bureau of Land Management has set aside a desert tortoise preserve and members of the California Garden Club are selling desert tortoise pins for $1 to raise money for a 22-mile fence.

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The Mexican Health Ministry says at least 5,000 women a year die from the effects of illegal abortions. That shocking statistic and fears of over-population have led to open discussion of voluntary family-planning programs in Mexico. In hopes of curbing the 3.5 per cent annual birth rate, President Luis Echeverria has made birth control a national policy and has created a National Population Council.

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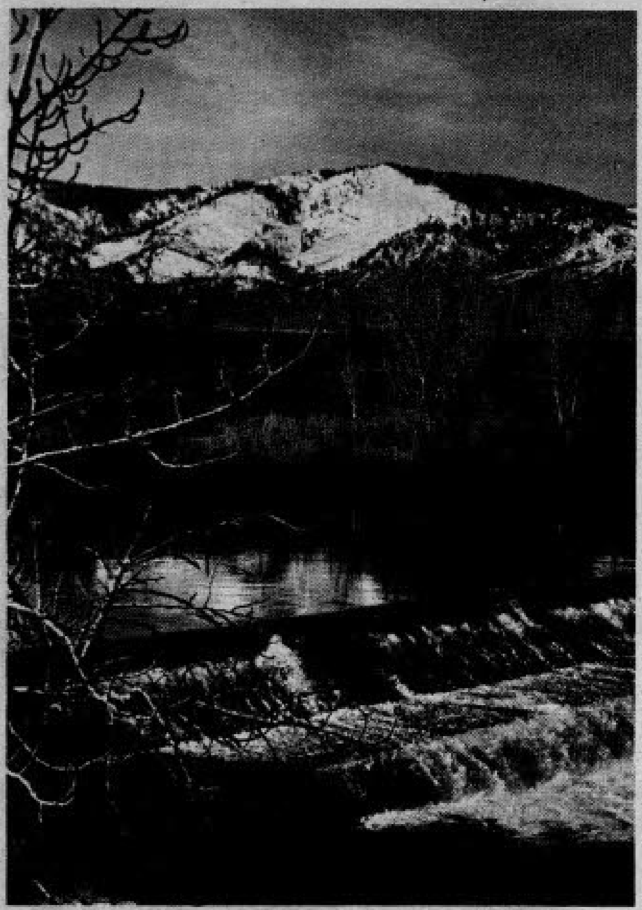
Forty-one endangered Aleutian Canada geese were recently released into the wild on Agattu Island in the Aleutian Island chain. The geese were from a small captive flock held at the Patuxent Wildlife Research Center in Maryland. Only about 300 individuals of the sub-species are left in the wild, on Buldir Island in the Aleutians.



The waters of the Truckee River originate in Lake Tahoe and are the life blood of Pyramid Lake. Photo by Baugh

Richard Sill . . .

(Continued from page 15)

cated the search for a rational solution. The tangle of litigation and mismanagement was further complicated by a bi-state (California-Nevada) Federal Task Force report.

Under Dick's direction, the Sierra Club Task Force gathered the data necessary to evaluate the critical water situation facing the area. The Task Force addressed itself to a broader range of topics than that of its government predecessor. Slowly, over the months, it became apparent that the demands on Truckee River water had to be treated as a system.

On August 28, 1972 the Task Force presented its progress report. "It would have been easy," says Sill, "to do what the government report did and deny that Stillwater and Lahontan Valley had any right to Truckee River water."

The Task Force didn't take the easy course.

"In dealing with the real world, we should have a vast body of facts and information in common with our adversaries, although each side will have its own interpretations of these facts and its own position based on these facts."

Its exhaustive, wide range study pointed out essentially that enough water was available to supply all of the present needs. "We treated water demands as a system" says Sill. The crux of the report is the realization that water mismanagement rather than lack of water is the key to the issue.

The report states, "We believe that a viable way to protect Pyramid Lake is not necessarily detrimental to the other values we recognize as having significant validity. Regardless of the Paiute ownership of the water, we recognize certain other values that can be considered: a. The significant role played by the Stillwater Wildlife Management Area in the Pacific Flyway for migratory birds. b. The productive value of the agricultural complex of the Newlands Project. c. The recreational role of both Pyramid Lake and Lahontan Reservoir."

In the final analysis Sill states that the Sierra Club report arrived at similar, but broader, conclusions than those arrived at in the federal report. The investigation indicated that canals in the Newlands project should be lined and some irrigation impoundments phased out. Additional water should be diverted from the Carson River watershed into the Stillwater Wildlife Management Area and in addition the canals and conduits leading to Stillwater must also be upgraded and lined. Recycling of water was also stressed in the report. These and other recommendations will, in the opinion of the Task Force, allow the perpetuation of Pyramid Lake and the continuance of all of the important recreational, agricultural and wildlife values of the areas served by western Nevada's water resources.

Throughout all of the uproar, acrimonious debate, and legal action, Dick Sill has maintained the rational objectiveness and the willingness to work together with others which have characterized his years as an active environmentalist. He chose carefully and surrounded himself on the Task Force with men of known commitment and character. Dick maintains that, "In dealing with the real world, we should have a vast body of facts and information in common with our adversaries, although each side will have its own interpretations of these facts and its own position based on these facts." In his letter of resignation from the Sierra Club Board of Directors, Dick felt called upon to make a plea for the same rational course of action and attention to detail which obviously has been present in his own environmental work.

Referring to the effort of the Task Force he states, "Here is an example of a conservation effort where money should have been available to supplement the efforts of volunteers. We need to be able to hire professional hydrologists, engineers, and wildlife biologists — not to make decisions, but rather to provide the professional consulting services our opponents have access to. Money spent in such symbiosis would have the greatest benefit-cost ratio for our purpose. As it is, our efforts can be faulted, even though our approach is more imaginative and more viable than any other proposed."

Through the years Dick has maintained a deep conviction and belief in participatory democracy. He continues to feel that an enlightened and alert citizenry can effect changes in the world situation which will eventually lead to a more healthy environment. He is convinced that these changes can be attained through active participation in the political process and he continues to work in the hope of seeing many of these beneficial changes within his lifetime.

The salvation of Pyramid Lake also means the salvation of the largest rookery of white pelicans in the United States.

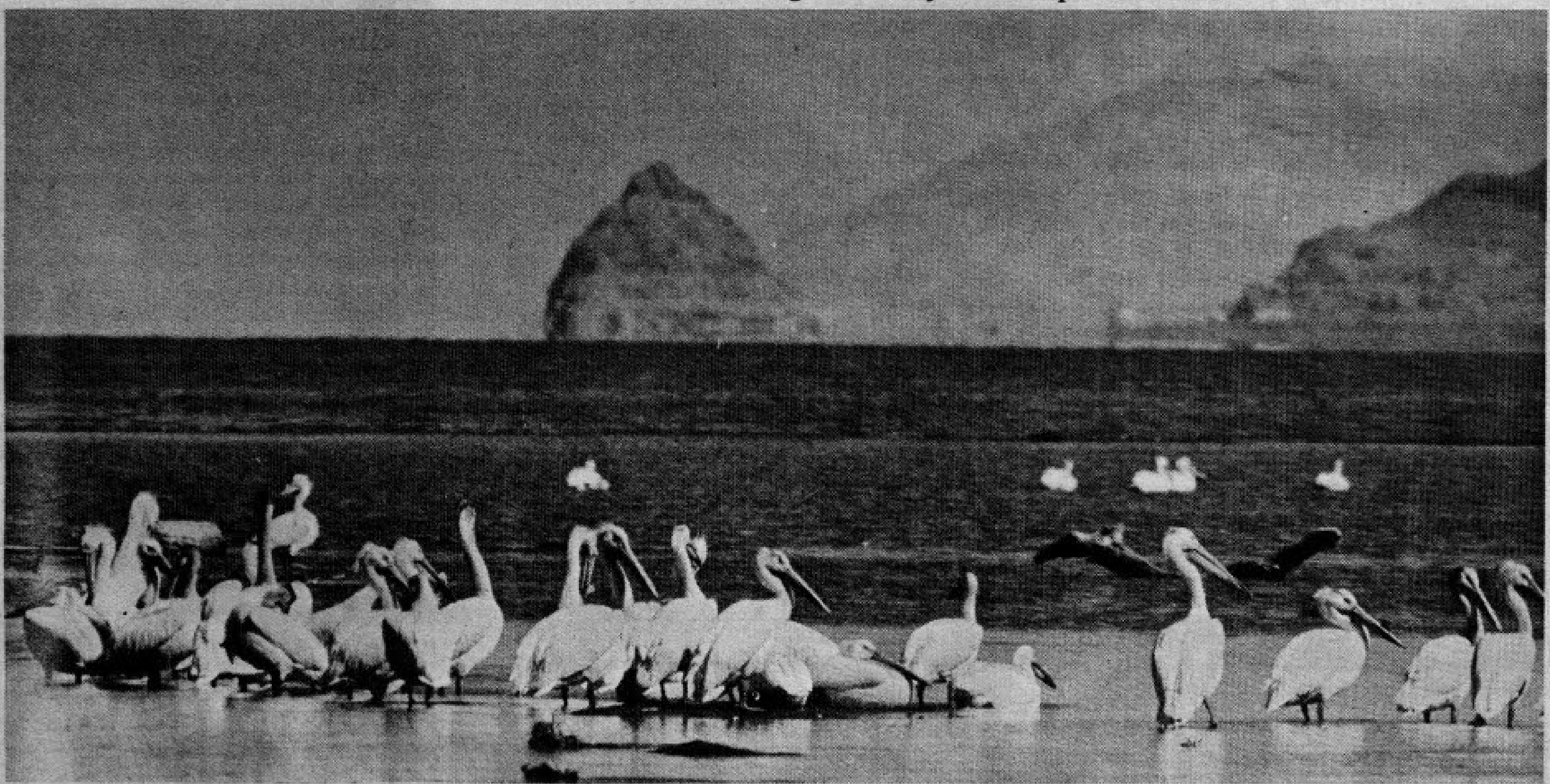


Photo by Thomas Michael Baugh