

The Environmental Bi-Weekly

# High Country News



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Lander, Wyoming

Friday, November 23, 1973

## The Crisis in Energy : Water Comes Up Short

by Tom Bell

John Wesley Powell, explorer extraordinary and prophet of the West, was the first to clearly grasp the significance of water beyond the 100th Meridian. It was he who told the Montana Constitutional Convention in 1889, "all the great values of this territory have ultimately to be measured to you in acre feet."

Should Powell be able to revisit eastern Montana and northeastern Wyoming today, he would be able to savor his prophetic and visionary words. For today the world finds itself in the first stages of an energy crisis of staggering proportions. And for the United States at least, part of the solution to that crisis lies in the vast coal beds and the scarce water of the Powder River Basin.

It was Powell who first saw and appreciated the significance of the hydrologic cycle of the West. He preached the dangers of agriculture without irrigation in that vast area west of the 100th Meridian. And he foresaw the droughts and the Dustbowl of the 1930's. Many of his predictions of the failure of dryland agriculture were to come true.

Nevertheless, agriculture was rivaled for many years only by hard-rock mining as the economic base of the western states. Then oil and gas rose to prominence in some of the western states. But those mineral industries posed no problems to the water used by agriculture. Irrigated crops remain the largest consumptive users of water from streams, lakes and reservoirs.

The economy and the social structure became solidly based on irrigated agriculture. Any threats to the use of water for farms and ranches poses a threat to a state's economy. That may now be in store for the State of Wyoming, with lesser impact on eastern Montana.

### SELLING WYOMING'S WATER

Wyoming Gov. Stanley K. Hathaway has often stated publicly that he was elected with a mandate to provide jobs for Wyoming people. Whether or not he was successful can be debated for he served at a time when coal came into its own. But he can be given credit for trying, and ultimately he may be charged with overselling Wyoming's water for the sake of industry.

The story really begins in the Green River Basin. The Upper Colorado River Compact allocated each state a certain amount of water from the big river. The Green River, which rises in Wyoming, is a major tributary to the Upper Colorado.

The Upper Colorado River Compact was signed in 1948. But increasing pressures on the water of the Colorado River did not begin to appear until the 1960's. When the Central



**The Clarks Fork River (east of Yellowstone National Park in Wyoming) runs through a rugged canyon before leaving Wyoming and entering Montana. Plans for providing water for coal development in the Powder River Basin include three dams on the Clarks Fork. Two would be above the site shown here and one would be below. Another dam would go on Sunlight Creek (at left) above the confluence. Wyoming conservationists have asked for the river to be studied for a wild and scenic river but are opposed because of the plans for dams.**

Photo by Lynne Bama

Arizona Project was passed, the rush was on. Every state in the Upper Basin covetously began to eye its share of the water.

Fontenelle Reservoir was built by the Bureau of Reclamation for the various and sundry reasons which the Bureau usually extols. Wyoming contracted with the Bureau for 60,000 acre feet of the water to be stored. It immediately optioned the water to two large companies. Pacific Power and Light Co. took 35,000 acre feet for the power complex now building east of Rock Springs. Sun Oil Co. took an option (at \$5 an acre foot) for 25,000 acre feet for future use in coal gasification. Sun Oil

announced the water would be used at its coal leases 10 miles north of Rock Springs to produce 100,000 gallons of gasoline daily. It was to have the first conversion plant in operation by 1976-1978. Early in 1972, Colorado Interstate Gas Co. requested 30,000 acre feet from the Bureau of Reclamation for use in another proposed gasification plant.

The state is now in the process of buying another 60,000 acre feet of water from the Bureau from storage in Fontenelle. News releases have indicated nine large companies interested in buying the water from the state.

(Continued on page 4)

Nov 23, 1973  
**HIGH COUNTRY**  
By Tom Bell

Back in the waning days of September, 1971, I attended a conference. When I returned I wrote the following column (*High Country News*, Oct. 1, 1971, with the first two paragraphs deleted). I dug out the column because I wanted to know when I first started to write about an energy policy. And as I read it, I was struck by the historical perspective in light of the energy crisis of today. I thought you, the readers, would also be interested. It is worthy of note that we still do not have an energy policy.

The national conference was sponsored by the Electric Power Council on Environment, who footed the bill for the environmentalists, and the National Wildlife Federation. Practically every electric utility company in the country was represented, as well as citizen and environmental groups from most state and national organizations.

But the conference was more than just talk. In spite of the decisive moral victory by environmentalists in the Calvert Cliffs decision (and very possibly because of the decision), industry spokesmen were not hesitant in discussing common problems and agreeing to work for common solutions. That there were areas of common concern should not be surprising, but the depth of concern was. And the willingness of industry to work cooperatively for solutions was not only surprising but pleasing. It could make a turn-around in attitude on the part of both parties which could augur well for the future.

It wasn't all unanimity on all points of concern by any means. But there was enough agreement to provide optimism to environmentalists. And the most heartening aspect was the near unanimous agreement on a national energy policy.

If there is any one point in which we should begin agreement on basic philosophy, it should be there. Without an acceptable energy policy, we are floundering helplessly in a thickening morass of social, economic and environmental problems. Not only that but we may well be jeopardizing our whole social structure, and indeed our survival as a nation.

As one speaker pointed out, our country, constituting one-sixteenth of the world's population, uses one-fourth of the total useable energy. It seems to be an accepted hypothesis of the industry that energy demands will double during every decade. Some of us ask, how can it be possible when we do not know where we are at the present moment, where we will be next week, and have no idea where we will stand in regard to energy by 1980?

We must have an energy policy if we are to know exactly how much electricity we now have, where it is being used (and wasted), what basic sources of supply we have and in what amounts, how long each will last, and how we shall manage and conserve each source to stretch its supply to the limit.

How can we possibly marshal our forces to solve the critical social and environmental problems we now face without knowing the exact resources we can bring to bear on them? Not only that but we should be guided by the same philosophy as our arms makers - the biggest hang for the buck. As one of the speakers asked, why should we accept fossil fuel generating plants which are only 40 percent efficient? And why should we accept a loss of up to 2/3 of the useable electricity while it is being transmitted? In effect, we are operating electric generating and transmitting systems that are not much better than that devised by James Watt, Thomas A. Edison, and the other early pioneers in the game.

Which brings us to a second point of major agreement - the critical need for stepped-up research and development on newer and far more efficient systems. It behooves us to do so when our energy supplies are dwindling so rapidly, and our demands growing so prodigiously.

Another major point of agreement is one which the environmentalists cannot possibly allow themselves to be caught in default. There appeared to be nearly unanimous agreement on the need for more citizen participation in the whole planning process. The term open-planning was used over and over again.

Russell Train, chairman of the Council on Environmental Quality, listed four areas to which we must direct our efforts in relation to energy. He said we must learn more from the research and development programs. We must put into practice more efficient means for the use of available energy, such as mass transportation and better insulation of homes and buildings. He said we must accept a program of commitment to alleviate pollution, and finally, he said there is need for a proper institutional framework between power production and environmental goals - to include long-range open-planning by the utilities, with the public as a participant.



## Letters

Dear Sirs,

When I spoke recently to Mr. M. Brooks FitzGerald of Frontier Films in Billings, Mont., he recommended that I subscribe, and told me of some of the fine work you have been doing in regard to informing your readers of the ecological situations and problems out there. Having grown up in Wyoming and Montana, I have remained most interested in the entire area, and have become increasingly alarmed over the developments of the past several years. When I witnessed on TV last fall the very area I had lived in during my teens being annihilated by strip-mining, I came close to a fit of hysteria.

For the past eight years, I have been actively involved in volunteer work for and with the American Indians. Knowing their close identification with the land and with nature in general, I realize most vividly the tragedy and devastation the strip-mining projects will be evolving for them.

Mr. FitzGerald is such a dedicated man, I only hope that some way can be found, immediately and before it is too late, for him to complete his film on this particular problem. He has made a good start on the film, but lacks the funds necessary to complete it. It seems terribly important to me that the public be made aware of the crisis and the necessity for immediate action. Why must the destructive forces in our society always be the affluent and powerful ones?

Sincerely yours,  
Carol Bennett  
Jackson Heights, New York

Editor's note: Your final question is a most poignant one. I don't know. Now, for Frontier Films and Brooks FitzGerald, he is doing an important film on coal stripping and he does need help. If anyone knows of possible funding for a worthy effort, you can contact him at 2223 Spruce St., Billings, MT 59101. His phone is 406-259-0513.

\* \* \*

Dear Editor,

I am disturbed by the frequent comments these days in the news media stating that interest in clean air and water is waning. We must

make sure that the public in general is not sold on this and come to believe that the ecological movement is a futile pursuit. Let me assure you there are many of us who feel more convinced than ever particularly with the outlook for relaxation of standards brought on by the fuel shortage.

Yours very truly,  
Howard W. Dellard  
Wilmette, Ill.

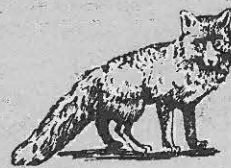
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Dear Tom:

The *News*, you and your enlarged staff are very beautiful and special. You do a vigorous, compassionate, incisive and professional job in a time and place which is so vulnerable. We are all vulnerable. The *News* is a mirror to ourselves. Its content and process bring me close to the source. The *News* breaks my heart and gives me inner peace. The typical paradox of clarity in the late twentieth century. You help me comprehend where we are, what we are becoming, and what needs to be done. Thank you for that.

We are becoming (almost literally) immersed in the Alaska condition. Full of hope and despair. And so another paradox.

Be with peace,  
Doug McConnell  
Ketchikan, Alaska



Dear Mr. Bell:

I just finished reading an article in *Audubon* in which you told of the exploitation of the great state of Wyoming by the various coal companies, etc.

My wife and I had the pleasure of driving through your state last year as well as this year. Unfortunately, we did not get to see much of the state. We drove along U.S. Highway 80 from Cheyenne to the Utah border. It was our



# Guest Editorials



Reprinted from THE IDAHO STATESMAN, Boise, Nov. 6, 1973.

## Dams Decrease in Value

The federal reclamation program is described at low ebb, stalled by economic factors and environmental concern. On the whole, it's a good thing.

Even in Idaho, proposed dam projects no longer receive knee-jerk approval. People can see that streams are a diminishing resource, while there is a relative abundance of still water behind reservoirs.

Idaho has 100 acres of reservoir for every mile of good fishing stream remaining. By a sizable majority, Idahoans have indicated they prefer stream fishing.

The burden of proof ought to be on dam promoters to show beyond a reasonable doubt that

a project is essential. The beneficiaries should also pay for the project, and interest charges should be realistic — not an artificially low subsidized level.

One reason that the reclamation project has been stalled is that most of the better projects are built. The remainder on the drawing boards are largely "leftovers" that weren't economically attractive earlier.

Thus the projected cost of the Mountain Home project a few years ago was \$1,500 per acre of new land to be irrigated — more than the land would have been worth with irrigation. Half the land was class three and four.

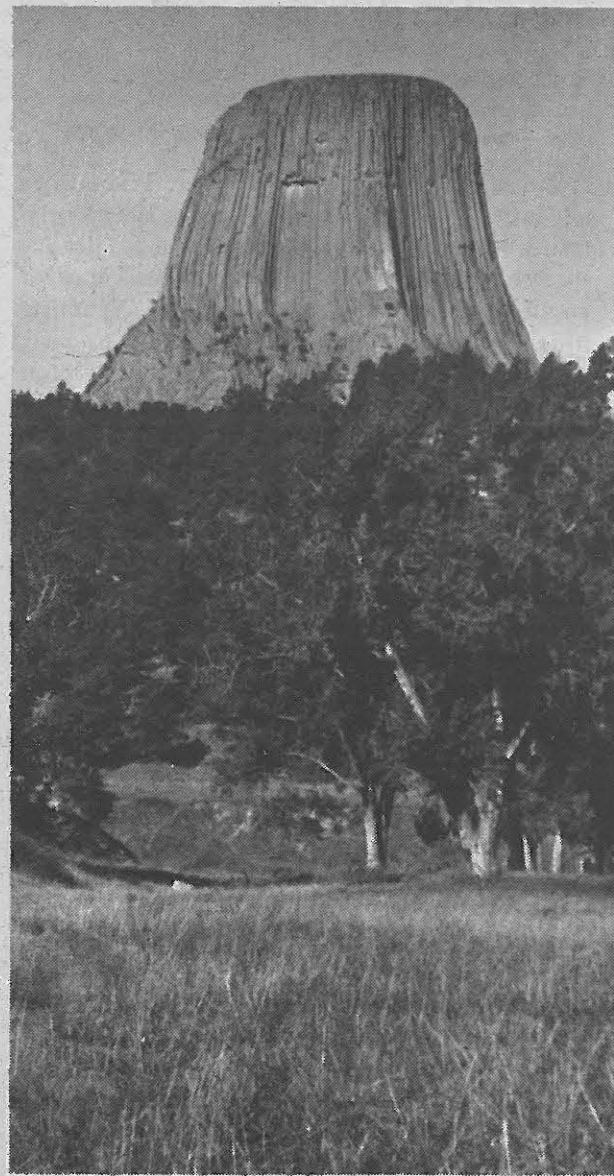
The worst problem with most pending irrigation projects is not their environmental damage — which is almost always serious — but their economics. Most of them aren't worth building.

For half a century the food produced on U.S. farms has been increasing by leaps and bounds, while the number of acres in production steadily declined.

The food supply situation has changed, but farmers are still fearful of overproduction as idle land is returned to production. A story from Twin Falls about farmers turning out 450 sacks of potatoes per acre is an omen. The University of Idaho has projected yield increases of 80 per cent or more for most irrigated crops in the next 50 years.

Some who fret about the demise of the federal dam-building program ought to give equal attention to the loss of good quality farm land, to sprawling urban development.

Much of that land already has the irrigation



delivery systems paid for. It doesn't make much sense to try to pump new life into uneconomic tax-subsidized dam projects while we chop up our existing agricultural land base with hopscotch subdividing.

Reprinted from THE BILLINGS GAZETTE, Montana, Nov. 1, 1973.

## Montana Water in Jeopardy

The real danger to Eastern Montana's long-term future and its quality of life looms largely in the threat to exploit precious water resources by the energy companies.

The warning of this danger is being sounded time and again, not only by Montanans but also by scientists who look at the matter with critical detachment, not a view to immediate returns to the investor.

Lt. Gov. Bill Christiansen, who is not opposed to orderly development of Eastern Montana's coal fields, has been speaking throughout the state, sounding the warning that we must protect our water resources and not permit an industrial wasteland to replace the lush meadows and rolling hills.

A national voice, that of the National Academy of Sciences, gives firm support to the warning.

The key works in the scientists' report are: "Although we conclude that enough water is available for mining and rehabilitation at most sites, not enough water exists for large-scale conversion of coal to other energy forms (gasification or steam electric power) . . .

"We recommend that alternate location be considered for energy-conversion facilities and that adequate evaluations be made of the options (including rehabilitation) for the various local uses of the available water."

The National Academy of Science's report says a lot more, too, such as the danger of ground water disruption and harm to traditional sources.

In all, it sounds a warning to the people of Montana and this region that unless they act to protect their water supply the future welfare of the area is in jeopardy.

This does not mean the coal cannot be mined, that the land cannot be reclaimed. It does advise in the light of current technology that a proliferation of coal-fired steam electric generation plants and gasification plants here be discouraged.

This can be done through realistic air pollution standards for new plants and restrictions on diversion of water.

Without these actions, the quality of life as we know it in the Big Sky Country will go up the stack and down the pipeline.



Individually and collectively, we must make adjustments in our energy policies, priorities and values as a down payment toward meeting our energy needs tomorrow.

Sen. Gaylord Nelson



first trip West and our first trip through Wyoming. We were amazed at the rolling splendor and beauty of the state: it was breath-taking. We fell in love with the land we had read to be desolate.

I am in full sympathy with your stand against the stripmining. I think it is a disgrace. I have neither lived in the city nor in completely rural areas, but I have the greatest respect for ranchers of cattle and sheep as well as the native Americans living in that area.

I would like to subscribe to your newspaper, and hopefully someday my wife and I will become residents of the beautiful state of Wyoming. We are both school teachers who would like to live in a rural environment.

Please keep your stand on the above mentioned matter and we hope your influence spreads throughout the nation as well as the Rocky Mountain region.

Sincerely yours,  
Mr. & Mrs. Pete LeRoy  
Hilliard, Florida

### HIGH COUNTRY NEWS

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# Water . . .

(Continued from page 1)

But with all this use of water, Wyoming's allocation still shows a surplus. The 1971 Legislature appropriated \$100,000 for a feasibility study of the Green River. The study was to cover possible diversion to other parts of Wyoming (read Powder River Basin).

That study was done by a Denver firm, Tipton and Kalmbach, for a contract price of \$94,000 but an actual cost of \$135,104. The conclusion of the study was that a Great Plains Reservoir near Farson, Wyoming, would provide storage for 361,000 acre feet of water and a dependable yield of 191,000 acre feet per year. It also concluded that "most of the water yield of the Plains Reservoir Project will be consumed by plants converting coal to fuels and energy." And finally it concluded that it would be feasible to export 100,000 to 150,000 acre feet per year.

The export would go to the Powder River Basin, via either the Sweetwater River into the North Platte or across southern Wyoming and into the North Platte upstream from Seminoe Reservoir. It would then go from the Platte north into the Powder River Basin (see map page 4). An alternate route would be from the Sweetwater River into a tributary of the Wind River and downstream to Boysen Reservoir or the Yellowstone River system.

In historical perspective, it is interesting to note two meetings which took place in 1968. The first was a meeting of Governor Hathaway, the Wyoming Natural Resources Board and other state officials with then Bureau of Reclamation Commissioner Floyd Dominy. Mr. Dominy told the group he was impressed by the number of industrial people wanting industrial water from Yellowtail Reservoir, that there was a lot of irrigation development on the Yellowstone River but industrial uses may be more valuable. And then he said the industrial and agricultural uses are incompatible if the water is totally consumed by industry. He told the group the Bureau was then working on transbasin diversion studies.

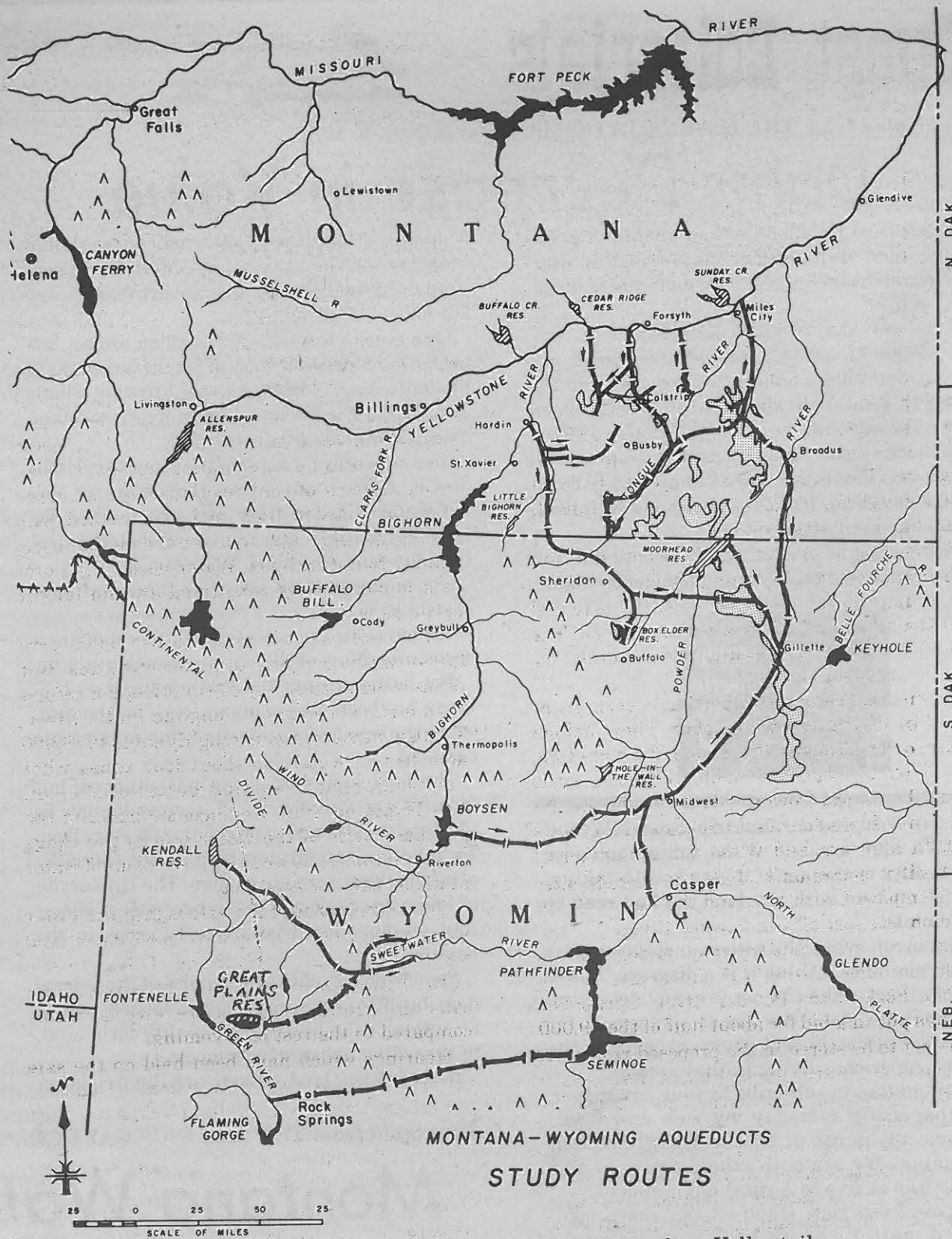
When questioned about sale of water from Boysen Reservoir, he said Sun Oil Co. and Atlantic Richfield Oil Co. had both requested water. It was pointed out to Mr. Dominy that water pricing by the Bureau made water cheaper below Yellowtail Reservoir than out of Boysen, and that this put Wyoming in competition with Montana for industry. He said the state should put its argument in writing.

At a meeting of the Wyoming Natural Resources Board in March, 1968, the Board prepared a statement on a wild and scenic rivers bill then before Congress. The statement was in reference to the inclusion of the Green River. The governor was present at the meeting. The statement said, in part, "Wyoming is working vigorously to attract new industry and help already existing industry to expand. Water is the key to much of this development. . ."

## THE WYOMING WATER PLAN

Fears for the loss of any Wyoming water to a downstream state led to a Wyoming Water Planning Program in 1967. The first comprehensive report, on the Green River Basin, came out in February, 1969. Similar reports were published on the Platte River Basin (Sept., 1971), Northeastern Wyoming (April, 1972), and the Big Horn Basin (Oct., 1972).

Through each of these reports runs a recurring theme — surplus water and how it could be used in the Powder River Basin. The only river basin in Wyoming without any surplus water is the Platte. And there the report talks



MONTANA-WYOMING AQUEDUCTS  
STUDY ROUTES

of augmentation from the Green, with the Platte River or its tributary the Sweetwater used as a conduit.

Plans are already being discussed for possibly enlarging Seminoe Reservoir. Raising the height of Seminoe Dam by as much as 20 feet would permit an additional estimated 340,000 acre feet of water to be stored. Opponents of the enlargement have pointed out the reservoir has only been filled twice in 24 years. So serious consideration of enlarging the reservoir could only be tied to water imported from the Green River.

Wyoming's Bighorn Basin is drained by a river complex composed mainly of the Wind-Bighorn and the Clarks Fork. Within the Basin are three, large Bureau of Reclamation reservoirs. Boysen Reservoir is on the Wind River, Buffalo Bill Reservoir is on the Shoshone River, and Bighorn Lake (Yellowtail Reservoir) is on the main stem, as the Bighorn River flows into Montana.

All three reservoirs figure heavily in future coal development in the Powder River Basin. Enlargement of Buffalo Bill Reservoir could provide some 74,000 acre feet of water. Bureau of Reclamation sales of water from Boysen and Yellowtail Reservoirs already total 708,000 acre feet. Sales contracts indicate 365,000 acre feet have been sold from Yellowtail for use in Wyoming and 85,000 acre feet from Boysen. Another 218,000 acre feet have been sold from Yellowtail for use in Montana. Bureau of Reclamation officials estimate as much as one million acre feet may eventually be available for use

by industry from Yellowtail.

Long-standing surveys for dams on the Clarks Fork River in Wyoming may come to fruition with the advent of coal. Three sites on the main river — Hunter Mountain, Thief Creek, and Baldrige — would store a total of 344,000 acre feet and another site on Sunlight Creek would store 50,000 acre feet.

But Wyoming has a problem with Bighorn Basin water. It all flows into Montana and once across the line it becomes Montana water. Wyoming hopes to work out an agreement with both Montana and North Dakota to let Wyoming water go down the Yellowstone River and then be piped back into the Gillette area. This would call for a revision of the Yellowstone River Compact between the three states. So far neither Montana nor North Dakota have shown any interest.

Water allowed to go into Montana could be returned in either of two main pipelines, the Hardin aqueduct or the Miles City aqueduct.

Wyoming's water plan envisages no agreement with the other states. In that case, it proposes to go it alone. Wyoming could divert up to 375,000 acre-feet per year (assuming no new irrigation) from the Clarks Fork to the Shoshone River. This water would go into Yellowtail Reservoir. Water could then be diverted from Yellowtail through a 202-mile pipeline (including a 16-mile tunnel under the north end of the Bighorn Mountains) to Gillette. Another alternative includes a diversion of 175,000 acre-feet from the Nowood River, piped 117 miles (including a 40-mile tunnel under

the Bighorn Mountains) to Gillette. The Nowood River is on the west slope of the Bighorn Mountains.

The Bureau of Reclamation has already considered a diversion of 175,000 acre-feet per year from Boysen Reservoir to the Gillette area.

The state estimates that it also has about 50,000 acre-feet in the Little Bighorn drainage. This could be tapped by the pipeline coming through the north end of the mountains. The Bureau of Reclamation has proposed a Little Bighorn Reservoir just inside Montana.

### POWDER RIVER BASIN

Powder River is said to be a mile wide and an inch deep. That signifies the dryness of the area through which it runs. Even so most of its water comes from the east slope of the Bighorn Mountains. The area around Gillette, and through the length of the area of strippable coal, has very little run-off.

Lake DeSmet is a natural lake between Buffalo and Sheridan, Wyoming. Reynolds Metals Co. bought up the water rights of the lake and additional water from ranches in the area. The lake level was raised and provides storage for 60,000 acre-feet of water.

Numerous reservoir sites have been identified in Wyoming's water plan. They include a dam on the Tongue River near the state line, as well as others upstream. Moorhead Reservoir would be on the Powder River just below the state line. It would cover ranches and coal beds in both Montana and Wyoming. A number of other sites upstream include the Arvada site, the Pumpkin Creek site, and the Lower Crazy Woman site just off the Powder River.

Ranchers and industry may go together to build the Hole-in-the-Wall Reservoir on the Middle Fork of the Powder River. Carter Oil Co. has put in a bid for about half of the 49,000 acre-feet to be stored in the proposed reservoir. Ranchers in the area are looking at the possibility of a Wyoming state farm loan for the \$6 million cost.

The state is also looking at smaller reservoir sites at scattered locations in northeastern Wyoming. One of these is on Beaver Creek near Newcastle. It could supply about 15,000 acre-feet of water per year. Wyoming planners say it might be more feasible to have coal by rail than to pipe water the 50 miles west to the coal fields.

Altogether, the Bureau of Reclamation has identified 48 potential reservoir sites in Wyoming, Montana and North Dakota. Wyoming has 15 (in the Bighorn, Powder and Cheyenne River drainages), Montana has 22 and North Dakota has 11.

The greatest potential for industrial water is, of course, the massive diversions proposed by the Bureau of Reclamation. The Montana-Wyoming Aqueduct Study outlined several possibilities. A 173-mile pipeline would carry 694,000 acre-feet of water per year from near Miles City, Montana, to an end point near Gillette. Some 382,000 acre-feet would be delivered to Wyoming. The pipeline system is estimated to cost \$564.3 million.

Under another plan, a 180-mile pipeline would deliver 694,000 acre-feet of water per year to various points in Montana and Wyoming. It would take water from the Yellowstone River near Hardin, Montana, drop off water near Sheridan, Wyoming, and at Lake DeSmet, and deliver 312,000 acre-feet to the Gillette area. It is estimated to cost \$547.2 million.

The depth and severity of the energy crisis could quickly dispose of any problems associated with the Yellowstone River Compact. On the other hand, alternatives of hauling the coal to such water-abundant areas as Fort Peck Reservoir, Lake Sakakawea and Lake

Oahe for conversion of coal to gas and liquids could foreclose the need for huge water diversions.

### TAKING WATER FROM THE LAND

What has already happened on the Platte, though, may be a forerunner of things to come for other areas of Wyoming. Panhandle Eastern Pipeline Co. has announced it will build a \$400 million coal gasification plant. The plant will process about 25,000 tons of coal per day and produce about 90 billion cubic feet of pipeline gas per year. Panhandle has an agreement with Peabody Coal Co. to supply the coal. Peabody has extensive coal leases in southern Campbell County, adjacent to the Arco south lease (see map of proposed railroad page 11). The plant is proposed to be in operation by about 1980.

Gasification of coal requires large amounts of water. Carbon from coal is combined with hydrogen from water to make the methane gas similar to natural gas. Water used in the process is completely consumed and no longer exists as water.

Panhandle says it plans to use 6,000 acre feet of water per year to produce the gas. But it has contracted to buy 37 cubic feet per second from a ranch company along the Platte River. That amount of water is roughly equal to 23,000 acre feet of water, or about four times what Panhandle says is required for its initial plant. The Wyoming State Engineer's office said the purchase price of the water was in the range of \$1 million. That would put the price of water at about \$40 per acre foot.

The significance of the sale is that the water was bought from "highly developed" farm land south of Torrington, Wyoming. This is in one of the better farming areas of Wyoming. Both soils and growing seasons are very favorable compared to the rest of Wyoming.

Hearings which have been held on the sale of the water and transfer of use from agriculture to industry produced opposition from other farm and ranch interests.

Just a few miles west of Torrington, Basin Electric has bought several ranches near Wheatland, Wyoming. Basin Electric is a cooperative electric generation and transmission company with headquarters in Bismarck, North Dakota. It says it plans to build a 1,200-megawatt steam generating unit.



The company has already approached the Wheatland Irrigation District with an offer to pay \$15 per acre foot for needed water. But its research indicates it could get enough water from wells and unused water in the lower Laramie River.

Carter Oil Co. has already entered into negotiations with ranchers along the Middle Fork of the Powder River for water from the proposed Hole-in-the-Wall Reservoir. The company has announced it will build a \$400-\$500 million gasification plant near Gillette. Carter, a subsidiary of Exxon, also has an option to buy 50,000 acre feet of water per year from

Yellowtail Reservoir.

Atlantic Richfield has also indicated it is considering a gasification plant for its Arco north lease south of Gillette. (See map page 11.)

### THE MAGNITUDE OF THE PROBLEM

Recently, Montana Lt. Gov. Bill Christiansen said Montana could be bled dry of water unless the state carefully evaluated all requests for the development of the water resource. He told the Montana League of Women Voters, "With the exception of those who expect to reap huge profits, most Montanans are not seeking coal development. It is seeking us and our way of life, and our grazing land and our water supplies. We also have justifiable fear for the quality of a sparkling airshed."

No such fears have been expressed by Wyoming officials. And yet Wyoming has more to fear than Montana. A deep and prolonged energy crisis could promote the sale of water from agricultural lands throughout the Bighorn Basin, along the Platte drainage as far south as the Colorado line, and from the Green River of western Wyoming. Spokesmen for the gasification industry have indicated that water priced as high as \$150-\$175 an acre foot would be no deterrent to development. As fuel prices go higher, that figure could also go higher.

If the projections of the North Central Power Study and the Bureau of Reclamation's Aqueduct Study are realized, huge amounts of water would be consumed. As the Aqueduct Study says, "project water requirements show that about 2.6 million acre-feet may be required annually to meet a development level that may be attained in less than 30 years." That report did not anticipate the Middle East war and the Arab shut-off of oil. The size and the timetable of potential development now must be re-evaluated.

A good assessment of the projections was made in August, 1972, by the Environmental Defense Fund. In an evaluation of the North Central Power Study, EDF said, "Water use of this order of magnitude in a semi-arid region that received only 14 inches of annual precipitation will have significant environmental impacts. Extreme reduction in river flows and the transfer of water from agricultural to industrial use will drastically alter existing agricultural patterns, rural lifestyles and riverine ecosystems in northeastern Wyoming and southeastern Montana."

Finally, it can be noted that a recent report by the National Academy of Sciences—National Academy of Engineering has some foreboding words on the projected coal development. In the report, entitled "Rehabilitation Potential of Western Coal Lands," it says, "The shortage of water is a major factor in planning for future development of coal reserves in the American West. Although we conclude that enough water is available for mining and rehabilitation at most sites, not enough water exists for large scale conversion of coal to other energy forms (e. g., gasification or steam electric power). The potential environmental and social impacts of the use of this water for large scale energy conversion projects would exceed by far the anticipated impact of mining alone. We recommend that alternate locations be considered for energy conversion facilities and that adequate evaluations be made of the options (including rehabilitation) for the various local uses of the available water."

In this article, a narrow view has been taken. The development of water for coal development in Wyoming alone is a complex subject with staggering implications. But water is the key element in future industrial development, and what happens to Wyoming water will determine what happens to Wyoming.

# Water Headed for Coalfields

by Lynne Bama

**Buffalo Bill Dam is an integral part of the economy of the northern Bighorn Basin. It provides irrigation for over 80,000 acres (as of 1967); has created the towns of Powell, Ralston, and Deaver; generates electricity from two power plants; and is a tourist attraction that draws 500,000 annually.**

Last March the Bureau of Reclamation held a public meeting in Cody, Wyo. about the possibility of raising Buffalo Bill Dam. It was announced that Bureau research indicated that the spillway of the dam, just west of town, was too small to handle a "maximum theoretical flood." Should such a flood occur, the dam would be overtopped and would very possibly break.

A proposal was made to enlarge the spillway, at a cost of \$5 million. For an additional \$16 million, it was suggested, the dam could also be raised 25 feet and a new power plant built. The financial benefits from the sale of the new water and power would pay for the whole project. Some minor irrigation developments could also be added for the Cody area.

Improved river flows below the dam would be an incidental benefit of the project. Other possibilities included a visitors' center at the dam site and dikes to control the dust problems created in the new drawdown areas.

Public opinion at this meeting was in favor of raising the dam especially since some irrigators were evidently concerned that siltation of the reservoir might eventually affect their water permits if more storage space were not created. (Buffalo Bill Reservoir has lost 18% of its capacity since its completion in 1910.)

The Bureau continued to study the project, and on the morning of July 19 another meeting was held in Cody. The meeting time and the fact that there had been very little advance notice probably contributed to the fact that few people other than the members of the project planning team attended.

At this second meeting the safety reasons for modifying the dam were dismissed: further research by the Bureau had established that even if the dam were overtopped in a flood it would not, after all, break (although \$1 million of damage could occur).

A Bureau official also explained for the first time that the reservoir still had enough reserve capacity (sediment space) to absorb the effects of siltation without affecting local irrigators.

However, the proposals to raise the dam, enlarge the spillway, and build a new power plant had not been dropped. Instead, a more detailed analysis of the alternatives was being offered.

The Buffalo Bill Dam Project is being conducted as a test case for what the Bureau terms "multi-objective planning." This is a direct result of the Water Resources Planning Act passed by Congress in 1965, which was aimed at developing better standards for evaluating BuRec projects. The resulting new guidelines for planning include environmental and social as well as financial considerations, and also provide for more participation by state and local agencies and the public.

On October 30 a final planning meeting on the project was held in Cody.

The latest form of the Buffalo Bill Dam Project presents three major alternatives, all of them calling for raising the dam and modifying the spillway. A new supply of 74,000 acre-feet of municipal and industrial water would be available annually. A new 20 megawatt power plant and a visitors' center would be built, and fisheries flows below the dam would

be improved.

Two of the alternatives stress environmental quality; one adding to the plan for dust-control dikes and some fish and wildlife impoundments; the other with the further addition of a fish and wildlife development in Oregon Basin, southeast of Cody. Some of the other possibilities mentioned but not yet discussed in any detail are building a new power plant only, and doing nothing at all.

Some additional water (15,000 acre-feet) would be reserved for the Cody area with or without the modifications. No new irrigation developments are now included in the project.

As the Bureau's planning process has continued, it has become more apparent that the northern Bighorn Basin will receive very little from this project. The additional power generation will go into a regional grid for marketing, and present plans call for 90% of the municipal and industrial water to be transferred to Bighorn Lake and from there to northeast Wyoming. While there will be a minor increase in local water supplies, by far the greatest part of the marketable new storage is being committed to another region.

There are also some minor drawbacks for the local area — the flooding of 2,100-2,200 acres of private land, inundation of almost eight miles of roads, and the loss of part of Buffalo Bill State Park around the reservoir.

All the major alternatives drawn up by the Bureau have one thing in common — to get large amounts of water to Wyoming's coalfields. While the sale of this water pays for the project, it is also obvious that it is the reason for the project. Interestingly, the Bureau has been unable to find any significant environmental benefits in leaving the dam at its present height. But its environmental analysis covers only the local effects of the project. Not alluded to are the environmental consequences of the municipal and industrial use of the water in northeast Wyoming. And although the benefits from this part of the project are so vitally important to its success, neither the projected users nor even the types of uses envisioned have been identified.

The effects of the loss of this potential water supply may not be felt in the northern Bighorn Basin for some time. But the economy of the area is heavily dependent on the oil and gas industry (two of the three largest producing fields in the state are located here), and future projections indicate that there will be a decline in production over the next 30 years. According to a forthcoming R C & D project plan for the Bighorn Basin, there is even now a shortage of employment opportunities and a need for

**Wyoming, unlike other parts of the country, generally does not have a significant air pollution problem. Our concern then should be in using every means at our disposal in making sure that Wyoming's air stays as clear and clean as it is now and we do not allow its degradation.**

**This means that there is a need to have: effective legislation to make sure our air doesn't get worse, a commitment to that legislation in terms of money and staff to implement the law, and public awareness and support for clean air.**

**American Lung Association  
of Wyoming**

more small industry. There is also much potentially irrigable land. Water is certainly going to be a factor in the ability of the area to adjust to changing conditions.

A BuRec Regional Director's report, with a recommendation, is expected to be issued by December, and a draft environmental impact statement will probably be released for public comment in late spring or early summer of 1974. At that time a public hearing on the project could be held.

## Areas of Action

Letters to President Nixon are needed to stop some of America's largest pork barrel projects. A veto of the Rivers and Harbors Bill is vital to the protection and preservation of America's streams and rivers.

The House has passed the Omnibus Rivers and Harbors Bill (HR 10203). The Senate is expected to pass a similar measure. The House version would authorize a number of environmentally disastrous water projects. Furthermore, it sets the discount rate for federal water developments at 5½% for new projects and 3¼% for projects authorized before 1969.

These discount rates are unrealistically low, thereby giving economically unjustifiable projects a high benefit-cost ratio. The Water Resources Council set a discount rate of 6½% in its **Principles and Standards**. This was signed by the President and was to go into effect Oct. 25, 1973. **Principles and Standards** would be undercut by the Rivers and Harbors Bill.

The law requires that economic benefits exceed costs in federal water projects. With a 6½% rate applied to backlogged water projects, the Corps of Engineers estimates that 53% of its pending construction could not be built because the work would violate the federal benefit-cost stipulation. Only with the added shot in the arm of a ridiculously low discount rate could these projects be brought off the shelves.

It is vital that every effort be made to convince the President that he should veto the Rivers and Harbors Bill. Write: Mr. William E. Timmons, Assistant to the President, The White House, Washington, D.C. 20005. He will be counseling the President on this issue.

\* \* \*

The U.S. Environmental Protection Agency is seeking public comment on a pesticide manufacturer's request to register a coyote control product which uses the poison sodium cyanide. The product, called the M-44, is a spring loaded tube containing a sodium cyanide capsule which is ejected into a coyote's mouth when it pulls on a piece of scented material on top of the tube. The product's manufacturer — the M-44 Safety Predator Control Company, Midland, Texas — claims the scent which attracts the coyote does not appeal to other animals.

Under Federal law, the M-44 using sodium cyanide for control of coyotes must be registered by EPA before it can be sold in this country in interstate commerce. After October 1974, any intrastate sale will also require EPA registration. At present, no pesticides containing sodium cyanide for use against predatory animals, such as the coyote, are registered by EPA.

The request for comment does not indicate a decision by EPA on the registration application.

Persons interested in commenting upon it should address comments to the Director, Registration Division, Office of Pesticides Programs, EPA, 401 M Street, SW., Washington, D.C. 20460.

# You Can't Fool All the People

Oct. 7

Editor, Laramie Boomerang  
314 S. 4th Street  
Laramie, Wyo.

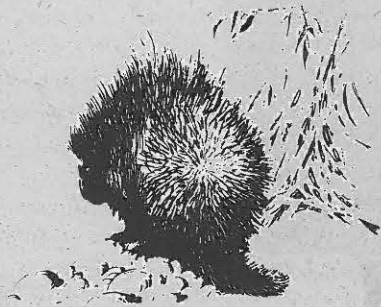
Dear Sir:

Just a note to let those responsible know how much I enjoyed the half-time show at the recent Wyoming-College of Pacific football game. I thought the theme, "Energy Development and Wyoming's Future," was developed with intelligence and imagination. When the Cowboy Band, in a tribute to our beloved power companies, kneeled, took off their hats, formed a dollar sign, and sang "God of Our Father," I was profoundly moved. But the formation that really knocked me out was when the band formed a gigantic open pit strip mine into which the whole west side of the stadium collapsed while the DEPAD Glee Club sang "Sixteen Tons." Congratulations to all for a job truly well done.

Yours truly,  
Robert L. Perry  
903 Sanders  
Laramie, Wyoming



The Laramie Boomerang also gives short shrift to opposing points of view, even when expressed in letters to the editor. The following is an example. The author, Mr. Robert L. Perry of Laramie, says, "I'm sending along a letter I tried unsuccessfully to get published in the Laramie Boomerang. I sent the letter about a week ago. Would you be interested in printing it? By the way, this is not the first time that the Boomerang has refused to give space to unpopular views, as you undoubtedly know. Six months ago I sent them a letter which pointed out that a U.S. Dept. of Health study of the geographical incidence of various cancers showed that Albany County had an incidence of uterine cancer far above the national average. Evidently the editor felt that the dissemination of this fact might harm Albany County's tourist industry or something . . . I really don't know."



Reprinted from the CASPER STAR-TRIBUNE, Wyoming, Aug. 24, 1973

## Penalty for Rancher

Score one for the environmentalists.

The decision of a federal appeals board in Virginia to penalize the Diamond Ring Ranch near Casper for unauthorized sagebrush spraying undoubtedly stems from the growing pressure of environmental groups.

Wyoming environmentalists have been clamoring for years to penalize ranchers by denying grazing privileges on public lands, for any violations of Bureau of Land Management regulations. They "blew the whistle" on the Diamond Ring three years ago.

It should be noted that the sagebrush spraying actually improved forage on the 3,600 acres of BLM land, for both livestock and wildlife. Earlier, a federal administrative judge only "slapped the Diamond Ring on the wrist," by suspending the three-year denial of grazing rights.

The fact remains that the spraying had not been approved at the time that the private contractor flew over the area and released 2,4-D chemical. The act also violated the BLM agreement to discuss spraying applications with the Wyoming Game and Fish Department to make sure that wildlife habitat is not destroyed. Environmentalists were concerned over disturbing nesting areas for sage grouse.

The penalty applying to more than 26 sections of grazing land seems somewhat severe in view of the fact that the Diamond Ring sprayed only 3,600 acres of public land.

In any event the big pasture known as "Horse Heaven" along the flanks of the Rattlesnake Mountains will get a good rest for three years. Perhaps some "wild horses" may still be around to benefit from the lush grass, in addition to antelope and deer.

The grazing suspension is believed to be the first such penalty in the western states, and serves notice on ranchers that BLM regulations will be strictly enforced. It marks a departure from former free and informal days a decade ago when it was often the practice for a rancher to begin a conservation program before all of the federal red tape was completed.

The historic decision confirms the growing

belief of western ranchers that "security of tenure" on public lands is a fragile thing today, yet it will probably have no adverse effect on ranch prices which continue to climb. These are often based on the amount of public land which a ranch controls through grazing leases.

\* \* \*

August 24, 1973

Editor  
Casper Star-Tribune  
Casper, Wyoming

It's somewhat surprising that the Tribune editor should rise so rapidly, apparently with little thought, to the defense of a rancher penalized for willful violation of the conditions upon which his use of public land for grazing was granted to him. Other, but smaller ranchers, have had grazing rights terminated for far less flagrant violations with no editorial recognition whatsoever. The Star-Tribune reputed to stand for law and order, but for whom? Does the Star-Tribune now openly advocate one kind of law for money and power and another for common people?

But there is no surprise whatever in the same editorial giving false implications to the public, first in ignoring the record of past defiance of BLM regulations by this same rancher, second in intimating the illegal spraying by this rancher "improved" the wildlife habitat. The highly trained game biologists, expert in their field made it very plain in testimony in this case that wildlife habitat was damaged. The appeals court was fully justified in reversing a lower judge who obviously went against the evidence presented. But playing fast and loose with fact in editorial policy directed against conservationists is nothing new for the Star-Tribune.

The bias of the editors in this is far better known to the public than the editors may realize. You can't fool all the people all the time.

A free press must be a responsible press. A press dominated by special interests is not free.

Ed Will  
Lander, Wyoming

Wyoming's larger newspapers are not noted for their Pulitzer prize-winning characteristics. They are noted for much special interest bias. The livestock industry has always been a darling of the press in the Cowboy State, especially that part of the industry represented by the big guys — the barons. The cozy relationship antedated the Johnson County Cattle War. It persists to this day.

Herman Werner was one of the biggest "barons" of the present era until his death in August. Van Irvine was his son-in-law and between them they wielded vast political power. Neither could do wrong in the eyes of the Casper Star-Tribune. If they were found to be in violation of federal regulations, the Star-Tribune would confound its readers by charging "bureaucratic" ineptitude which led the ranchers astray. If they built illegal fences on public lands, it was to ease their economic plight. If they sprayed sagebrush on public lands, it was to "improve" management.

The Casper Star-Tribune editorial of August 24, 1973, reprinted here, is illustrative. The reader can draw his own conclusions. One reader expressed his indignation through a letter to the editor. The Star-Tribune never printed it. We have allowed three months to elapse before giving it room here.

For the reader's information, some background is needed. The Diamond Ring Ranch, owned then by Herman Werner and Van Irvine, fenced off a large pasture in an area west of Casper. Known as "Horse Heaven," it was an important antelope summer range and an important area for deer. Once fenced, it was posted against trespass to hunters. The fence encloses some 21,000 acres of which 85% are publicly owned. The fence was built illegally on federal, public lands for the most part. Altogether, the ranch was found to have built 64 miles of fence on public lands. The ranch was never required to remove it.

Some six years later, in 1971, the Diamond Ring Ranch illegally sprayed an area of about 4,000 acres. Some 3,600 acres were public lands. The Bureau of Land Management, the federal agency charged with managing the land, requested that the ranch be penalized. A federal appeals board upheld the BLM and triggered the editorial of August 24.

The reader should also keep in mind that ranch owner Van Irvine pleaded no contest to charges of killing antelope out of season and loading the carcasses with poison earlier in 1971. He was fined \$679 on 29 counts of game violation.

Ranch owner Herman Werner was charged by the federal government with killing 363 golden eagles, three bald eagles, and seven Canadian geese. He died before he could be brought to trial.

As a sequel to the BLM denial of grazing privileges on the Horse Heaven pasture for the next two years, the Diamond Ring Ranch has brought suit. The ranch filed suit earlier this month against the Secretary of the Interior and the BLM. The suit claims the denial is unconstitutional because it denies the ranch the use of its own private lands within the fenced pasture.

An uneducated Indian could have told us a century ago that we couldn't go on treating the earth the way we are and get away with it.

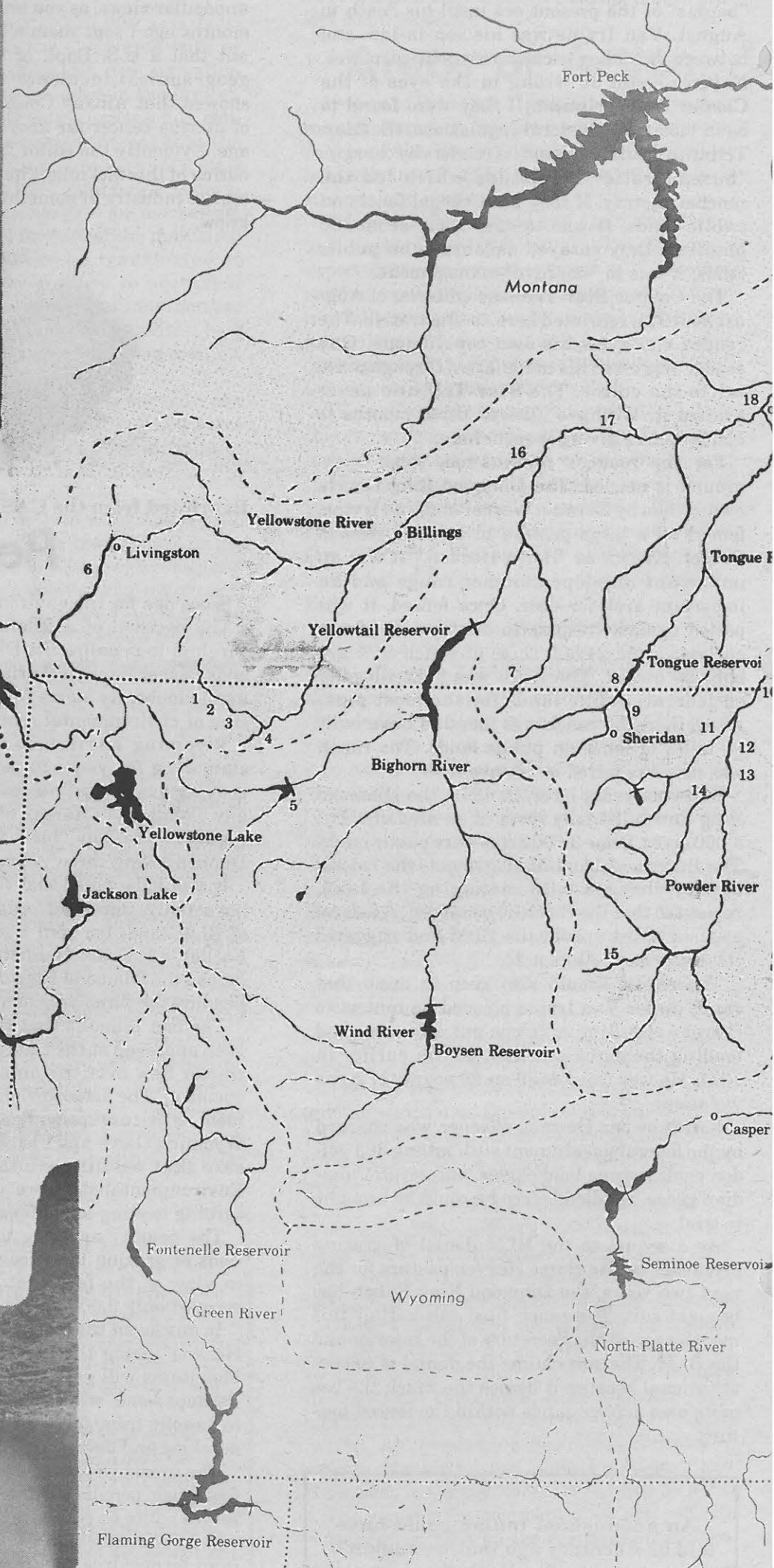
Fletcher Knebel

# Water... Key

The maze of rivers and streams shown on this map hold the key to vast developments for energy. Centered in Wyoming's Powder River Basin and northward into Montana are some of the greatest coal deposits in the world. There is not enough water in the Powder River Basin to begin to supply the needs of projected industry. So water may be



Buffalo Bill Dam



Boysen Reservoir

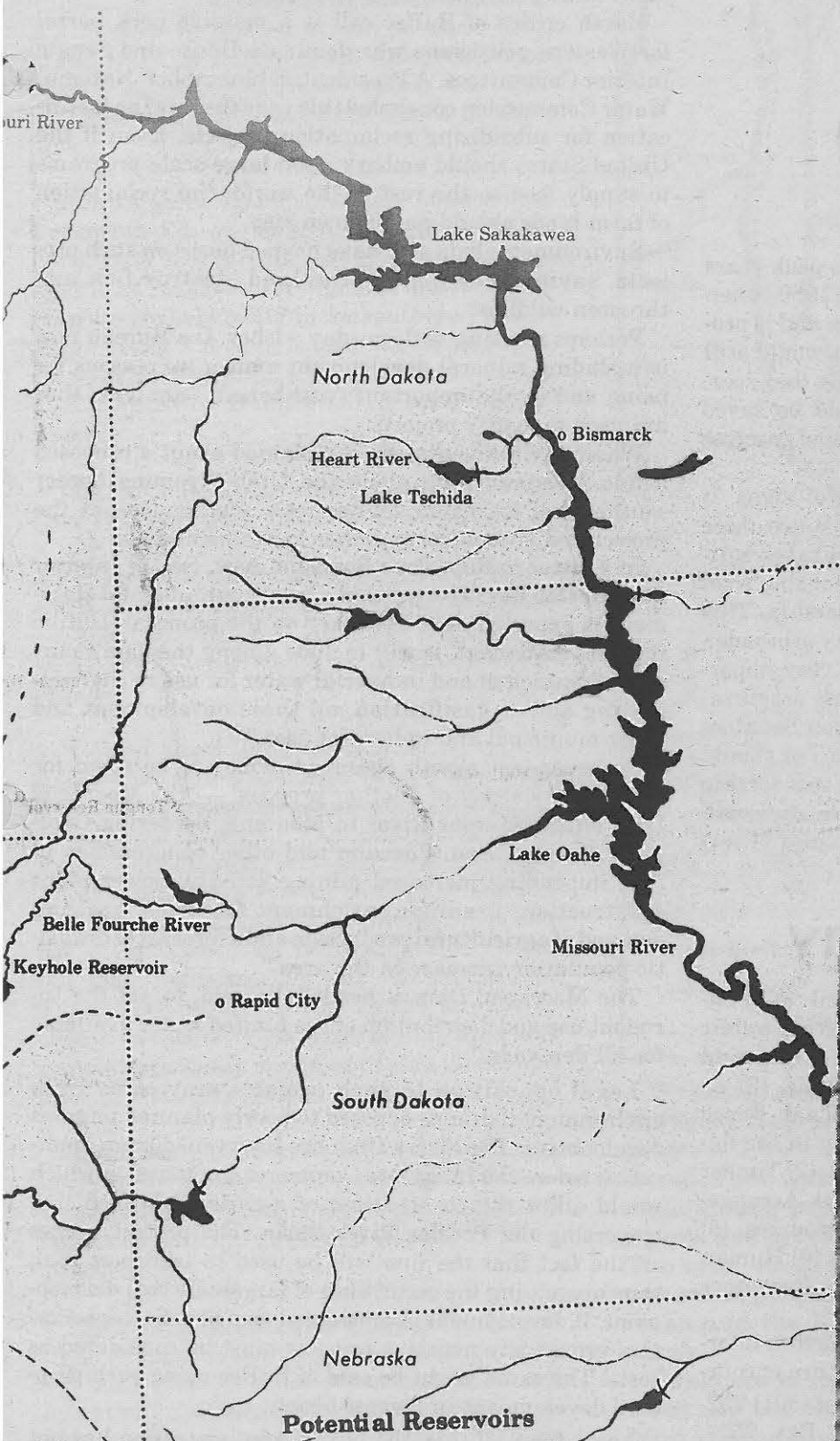


# Energy Development

diverted from the Green River, the Platte River, the Bighorn River, and the Yellowstone River. Water has already been optioned from Boysen Reservoir, Yellowtail Reservoir, Fort Peck Reservoir, Lake Sakakawea, and Lake Tschida. Before it is over, there will be many more water developments with all pipelines leading to coal.

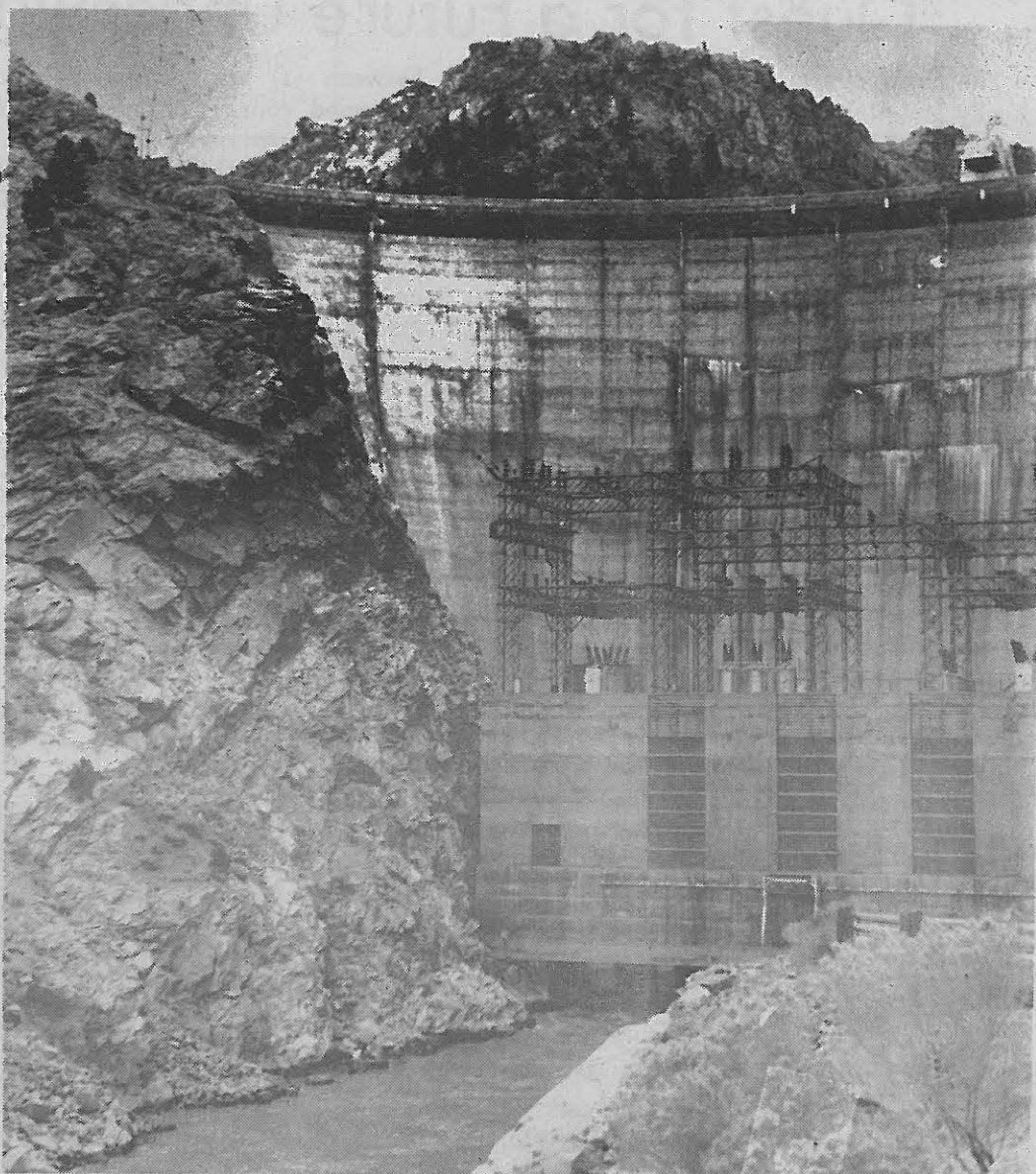


Yellowtail Reservoir (Bighorn Lake)



**Potential Reservoirs**

Name of storage site	Stream and location
1. Hunter Mountain	Clarks Fork, Wyoming
2. Thief Creek	Clarks Fork, Wyoming
3. Baldrige	Clarks Fork, Wyoming
4. Sunlight	Sunlight Creek, Wyoming
5. Buffalo Bill enlargement	Shoshone River, Wyoming
6. Allenspur	Yellowstone River, Montana
7. Little Bighorn	Little Bighorn, Montana
8. New Tongue	Tongue River, Montana
9. North Prairie	Prairie Dog Creek, Wyoming
10. Moorhead	Powder River, Montana
11. Lower Clear Creek	Clear Creek, Wyoming
12. Arvada	Powder River, Wyoming
13. Pumpkin	Powder River, Wyoming
14. Lower Crazy Woman	Crazy Woman Creek, Wyoming
15. Hole-in-the-Wall	Md. Fk. Powder River, Wyoming
16. Buffalo Creek	Offstream, nr Custer, Montana
17. Cedar Ridge	Offstream, nr Hysham, Montana
18. Sunday Creek	Offstream, nr Miles City, Montana



Seminole Dam

## Tax Endorsed

by Ron Wolf, environmental reporter  
STRAIGHT CREEK JOURNAL, Denver,  
Colo.

Colorado Senator Peter Dominick introduced a bill into the Senate last month which would establish a stiff tax on new automobiles giving poor gas mileage. Any car getting less than 20 miles-per-gallon would be subject to the tax.

Under the terms of the bill, a car which gives 15 mpg would be taxed an additional \$392. A car which gives 10 mpg would be taxed \$1175. A car giving 7 mpg, like some of the worst of the new models, would be taxed a whopping \$2185.

Says Dominick, "I am now convinced that the best approach to encourage a cutback in fuel consumption is a tax on the fuel-consumption rate of the automobile."

The Dominick bill is the outgrowth of a lobbying effort earlier this year by the Coalition to Tax Pollution, an umbrella organization of environmental groups including the Sierra Club, the Friends of the Earth, the Wilderness Society and Zero Population Growth.

Coalition to Tax Pollution obtained a copy of a Treasury Department study early last summer on the auto-tax scheme and circulated it among Congressmen including Dominick. In addition to the Dominick bill, similar legislation was also introduced by Rep. Charles Vanik (D-Ohio), Sen. Frank Moss (D-Utah), Rep. John Saylor (R-Pa) and Sen. Charles Percy (R-Ill).

Leonard Lane, spokesman for the Coalition says, however, that the Dominick bill is the "toughest and best" because "it's the first bill to contain a tax-rate schedule that is high enough to force Detroit to produce more efficient cars."

At the higher schedule favored by the Coali-



tion, the revenue from this tax in its peak years would be \$2.78 billion per year. By 1980, when the industry has adjusted to the tax and is producing more efficient cars, the tax would still draw about \$600 million per year. By that year, 1 million barrels of gasoline would be saved each day, which is the entire estimated gasoline output of the Alaska Pipeline.

Lane says, "Despite these hopeful signs, it is obvious that we must generate much more Senate support for the proposal to be taken seriously there. Sen. Dominick will probably soon be circulating his bill for cosponsorship. This will provide an excellent opportunity to broaden our base of cosponsors there. It is very important that all members of cooperating organizations who have not yet written to their Senators in support of the Fuel Consumption Tax should do so now. Letters should urge cosponsorship of Dominick's S. 2595. When possible, the Coalition would appreciate receiving copies of any replies."

## Quest for a Future Underway

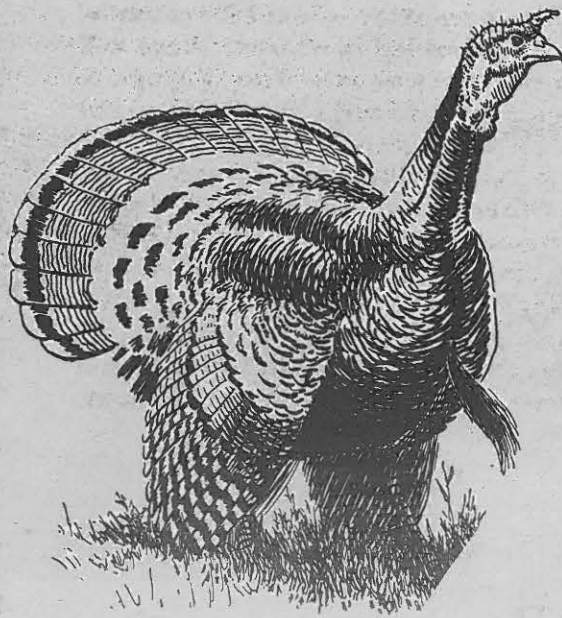
The natural resources and amenities of the Rocky Mountain region are becoming increasingly valuable to the urbanized, industrialized, leisure-rich populations of the United States and Canada — and increasingly vulnerable to careless exploitation and irreversible misuse. In many cases, heavy influxes of people into the lesser developed areas are rapidly destroying those natural amenities — scenic beauty, open space, clean air and water — that originally attracted them. Yet, the Rocky Mountain region still has many development and preservation options available to it; many alternative futures from which to choose.

It was an understanding of this situation which prompted the formation of Rocky Mountain Environmental Research — Quest for a Future. A collaborative effort between The Eisenhower Consortium and The Institute of Ecology's Committee on Future Environments (COFE), sponsored by the U.S. Forest Service, the Environmental Protection Agency, and the National Science Foundation, the project has several immediate goals. They are: (1) identifying and evaluating current and future problems associated with the growing interaction of people, natural environments, and policy-making and operating agencies in the region, and (2) establishing research priorities to provide necessary information for environmentally sound land management on public and private lands.

The project will be under the direction of Dr. John M. Neuhold of Utah State University, Dr. David Herrick, U.S. Forest Service, and Dr. Duncan Patten of Arizona State University. This Directorate will serve to coordinate

between (1) an Advisory Council of well-informed, concerned individuals from public agencies, universities, private firms and organizations, and the general public, (2) an Executive Committee, and (3) Task Force Leaders. The latter will be working in the following areas: (1) Recreational Uses, (2) Timber and Forage Uses, (3) Institutional Arrangements, (4) Mineral and Energy Resources, (5) Residential and Second Home Uses (6) Human Needs and Responses, and (7) Water Resources and Uses.

Those individuals interested in further information or in directly participating are encouraged to contact Dr. John Neuhold at (801) 752-4100, Ext. 7411 or Susan Brown, Ext. 7577.



## Reckoning from Washington

by Lee Catterall

Smitten by the wish of death, the Bureau of Reclamation may be receiving a new breath of life by being plugged into the energy crisis.

For 70 years, BuRec has been busily building dams and irrigation systems to turn arid Western prairies into productive farm land. Perhaps recoiling from an onslaught of recent criticism, the bureau now cites mineral development among its reasons for existence.

Harsh critics of BuRec call it a massive pork barrel for Western politicians who dominate House and Senate Interior Committees. A Presidential blue ribbon National Water Commission concluded this year there is "no justification for subsidizing reclamation projects. Even if the United States should embark upon large-scale programs to supply food to the rest of the world, the reclamation of farm lands should pay its own way."

Environmentalists also have heaped barbs on such projects, saying they disrupt the land, destroy fish and threaten wildlife.

Perhaps reacting to doomsday wishes, the Bureau now is including mineral development among its reasons for being and in the important "cost-benefit" analyses that are used to justify projects.

When environmentalists complained about a proposed China Meadows Dam along the Utah-Wyoming border southeast of Evanston, BuRec took another look at the project and is considering other locations nearby.

In a letter to Rep. Teno Roncalio, Asst. Sec. of Interior Jack Horton has reported that a new environmental statement is expected next February on the proposal. Unlike the first statement, it will include among the dam's purposes "municipal and industrial water for use in coal processing and-or gasification, oil shale development and other municipal and industrial uses."

Congress last month approved money to be spent for a feasibility study of another proposal — the Moorhead Dam on the Powder River in Montana, bordering Campbell County, Wyo. Roncalio told other congressmen of "the impending increased mining activity, power plant construction, uranium enrichment facilities, growing demand of agricultural production and a forecast of dramatic population increase in the area."

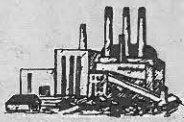
The Moorhead Dam is needed, he said, to aid the "prudent use and distribution of the limited water available for all demands."

Legal opposition to such projects may come from environmental groups opposed to poorly planned mineral development. The Sierra Club has intervened in an application before the Interstate Commerce Commission which would allow the construction of a railroad branch line traversing the Powder River Basin. The protest hinges on the fact that the line will be used to transport coal, thus presuming the occurrence of largescale coal development. If development is considered as a benefit, conservation groups say negative impacts must be considered as costs. The same might be said of BuRec using such proposed development in its cost-benefit ratio.

Apart from all this, the Nixon Administration has not discarded the National Water Commission's report. The commission recommended that farmers and companies using BuRec water begin paying for all of project construction and, an Administration source said, "it is our intention that we will move in that direction." Users now pay about 20%.

The Water Resources Council, made up officially of cabinet members but actually of their representatives, will meet in the next month or so to decide how much it thinks users should pay for new construction. The council, headed by Wyoming native Horton, reportedly wants users to pay a low percentate, while the Office of Management and Budget, charged with cutting government spending, wants users to pay much more. Legislation may be proposed by the Administration by the end of this year.

Horton's office said that such increases in cost-sharing would affect future users of proposed extensions of existing projects, which include China Meadows (Lyman Project), Moorhead (Pick Sloan Missouri Basin) and Park County's (Wyoming) Polecat Bench (Shoshone Project).



# Emphasis ENERGY



Near Marysville, Montana, some 20 miles northwest of Helena, may be one of the hottest spots on the earth's surface. The rocks are so hot beneath 600 acres that a National Science Foundation study estimated a possible \$25 billion in electric energy sales could be developed from the area. However, the solid volcanic rock has to be fractured in order for the heat to be utilized. One of the possibilities being discussed is a nuclear detonation similar to those used in gas stimulation. Studies indicate geothermal energy may be present under nearly four million acres along the Continental Divide in Montana.

Mono Power Co., a subsidiary of Southern California Edison, has joined Union Pacific Corp. in a \$16 million program to develop uranium reserves for nuclear power. The reserves are held by UP in the southern Powder River Basin. The area is near the largest open pit mine in Wyoming, a uranium mine owned and operated by Humble Oil, a subsidiary of Exxon.

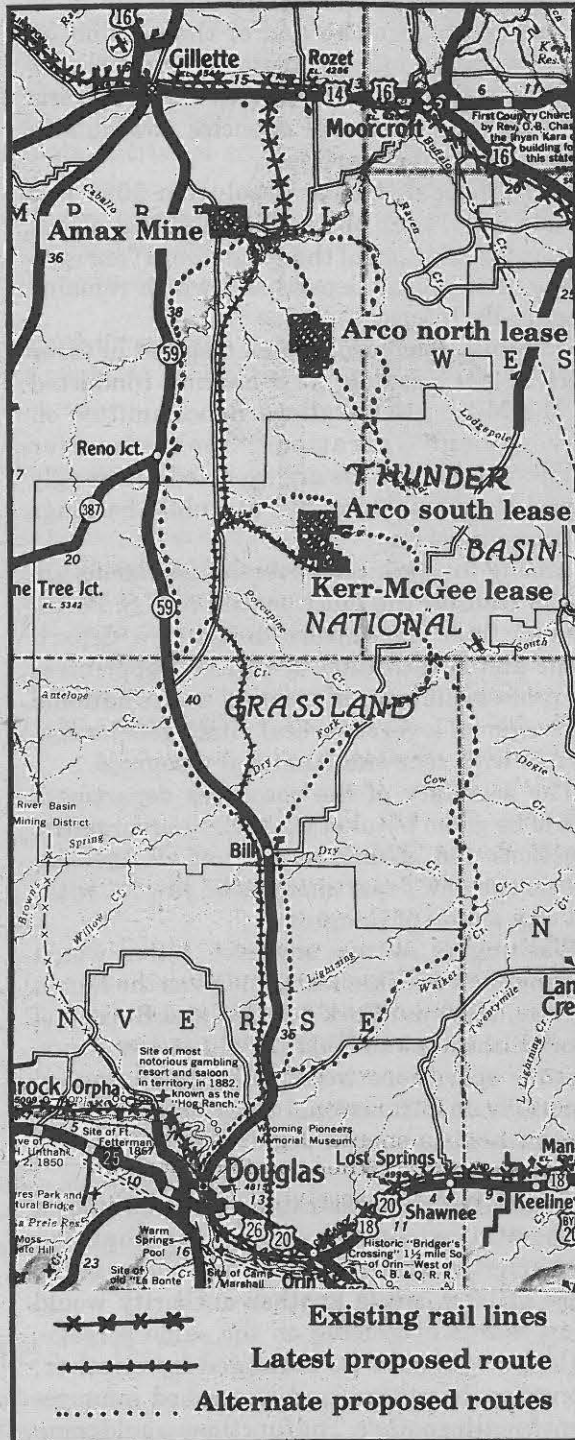
The huge Kaiparowits powerplant near Lake Powell in Utah may still rise Phoenix-like in the desert. Utah Sen. Wallace F. Bennett says possible new sites are being explored north and west of the original site. The alternate sites are about 15 miles away from the original site which was turned down for environmental reasons.

Worried about the impending social impact in Colorado's oil shale area, Gov. John Vanderhoof is "insisting" on advance funding for the affected counties. Vanderhoof has asked Rogers C.B. Morton, Secretary of the Interior, to come up with a system through which the oil companies interested in development can pay advance royalties. It might be 1981 before the shale industries get into full production. Vanderhoof points out that in the meantime, cities and towns in the shale mining area will grow substantially and need to plan ahead and start providing facilities.

Idaho State University at Pocatello is going to try to reduce its use of energy by 25%. Students and staff members are cooperating in the project as switches go off and warmer clothing goes on.

The Montana State Land Department says that reclamation may become a serious problem for the Decker Coal Co. if their strip mining operation in southeastern Montana continues. The area being mined has large concentrations of saline-alkali soils which are a threat to revegetation of the mined land, according to a draft environmental impact statement issued by the department. The Decker mining plan calls for stripping 70 acres of land each year for the next 20 years. At this rate the company can send 17,000 tons of low-sulfur coal per day to utilities in Chicago and Detroit. The draft statement said there is no proof that plant species capable of revegetating the area exist.

Colorado Gov. John Vanderhoof believes the Upper Colorado River Basin states will be called upon increasingly to build and run energy facilities to power the lower basin states of California and Arizona. Vanderhoof says fairness dictates that the water used in energy production for this purpose should be deducted from the lower basin states' share of the river, not the upper basin states' allotment.



Wyoming ranchers and the Burlington Northern Railroad are still at odds over a proposed new connector line between Douglas and Gillette. Recently, landowners unanimously passed a resolution opposing a proposed spur off the main proposed line. The spur would go some 14 miles through one ranch property to reach the Arco south lease and the Kerr-McGee lease (shown above).

Ranchers in the area favor payments of a royalty tax on coal hauled across their land rather than damage payments for right-of-way. They have also pressed for survey damages at the rate of \$200 per mile.

Still to be decided is whether there will be two railroads or one. The Chicago & Northwestern Railroad has petitioned the Interstate Commerce Commission for a separate line. The ICC has not issued a permit to either. In the meantime, Wyoming Congressman Teno Roncalio has said he will ask the ICC to grant a joint right-of-way for a single line to serve both companies.

A Burlington Northern spur already goes 18 miles south of its main line Gillette. That spur serves the Belle Ayr Mine of Amax.



The "energy man" brings to the average American family's doorstep each day nine gallons of oil, seven gallons of natural gas, 46 pounds of coal, one-half pint of nuclear fuel, and one gallon of hydro-power. Remember that the next time you flip a switch.

DOWN TO EARTH  
by David Ross Stevens  
Louisville Courier Journal & Times

## The Hot Line

The Arab oil cutback is being felt around the world. Foreign countries more dependent on Arabian oil than the U.S. are taking energy conservation steps that may foreshadow events to come in this country.

No place is feeling the pinch more now than the Philippines, which is pro-Arab itself but gets its oil through U.S. oil firms. In Manila, schools have been ordered closed for two months. Gasoline is being rationed at a rate of 50 gallons per family per month and airline fuel sales have been cut 30%. Government employees are now on a four-day week.

Europe's pro-Arab neutrality has not helped its oil predicament. In Britain, oil companies began rationing supplies to gas stations. Private vehicle gas rationing tickets are printed up and ready for use. In Belgium, the National Auto Rally was canceled. The Belgian government also requisitioned all oil stocks and installations to ensure continued supplies and ordered a ban on Sunday driving. Holland was the first country to ban Sunday driving. The gas savings have been appreciable, but the hotels and restaurants reported a \$5.4 million drop in business in one day.

Japan's economy may be seriously crippled if the boycott continues. Japan imports 99% of its oil, 40% of it from the Arabs. Industrialists predict drastic cutbacks in Japan's chemical, steel, car and electrical machinery industries.

The San Francisco Bay region has an untapped energy resource. According to Robert Bernicchi, a consulting engineer for a number of sewage districts in the area, the equivalent of nearly 10 million gallons of gasoline per year is readily available in local sewage. It is literally going to waste. Bernicchi says the region's five million persons produce five million cubic feet of potentially useful methane gas per day. The city of Los Angeles already uses methane from sewage to power its entire sewage system and has some left over that goes to a city power plant.

Joseph E. Moody, a counselor to the American Petroleum Institute, is advocating regional energy centers. "Plants at these sites would convert our most abundant fuel — coal — into synthetic gas and oil. These synthetic fuels would then move through networks of pipelines to consumers in the region," says Moody. Rather than producing energy at the load center, he recommends situating the energy centers well away from heavily populated areas. This would have a minimum impact on the environment according to Moody.

An Atomic Energy Commission official says that more money might bring usable power from nuclear fusion early in the next century. Such early production would require spending \$1.9 billion instead of the \$275 million presently allocated for research over the next five years, according to Robert Hirsch, AEC director of fusion research. At the higher level of funding, Hirsch says, a demonstration reactor could be in operation by 1995. The other alternative is for our fusion program to continue as essentially a laboratory physics exercise, Hirsch indicated.

## Rocky Mountain Report

by Verne Huser  
Utah Environment Center

Speaking at the First Annual Awards Dinner co-sponsored by ROMCOE and the Utah Environment Center (UEC), Senator Bob Packwood (R-Oregon) criticized uncontrolled growth and urged Utahns to develop their state tastefully and carefully. He said, "There's no advantage per se in bigness." The West, he suggested, does not need to be without growth to avoid the disasters of Eastern urbanization "so long as we do not adopt the adage that growth for the sake of growth is worthwhile."

More than 300 people attended the UEC fundraiser to hear Senator Packwood's comments and to witness the presentation of the Center's Nature's Trustee Award to Robert Barker, manager of the Ideal Cement Company plant in Weber Canyon (near Devil's Slide between Echo and Ogden), for initiating air pollution controls at the plant "long before there was an EPA." The plant spent more than two million dollars on the clean-up program before state compliance was required.

Co-chaired by Dr. Kenneth B. Castleton and Mrs. Calvin L. Rampton, the dinner brought together representatives from business and industry and environmental groups

Mrs. (Lucybeth) Rampton highlighted the evening when she spoke of the UEC's attempt to reduce the polarization of viewpoints that will lead to reasonable solutions to some of our environmental problems. She said, "You can't shake hands with a clenched fist."

Answering questions from the floor in a 20-minute exchange, Packwood said "I believe that every woman should have the right to have a child or not; it should be up to her," in response to a question about his stand on abortion.

The Senator also said in no uncertain terms that we can meet our energy needs "without desecrating the landscape if we realize there is no more cheap energy." We must pay the true costs of energy consumption, he suggested, and we can meet our needs, even in the face of the present crisis, without lowering our standards of air quality control. We've got to cut back on our waste of energy.

Packwood has recently introduced, with California Senator Alan Cranston, the Solar Heating and Cooling Demonstration Act of 1973. It calls for "a major demonstration of the feasibility of solar heating and cooling in various climatic regions of the country" to save traditional energy resources.

The Oregon senator is a champion of the preservation of Hells Canyon on the Oregon-Idaho state line. Hearings on his bill to establish a Hells Canyon National Recreation Area will be held next month. Hearings will be in LaGrande, Oregon, Dec. 6, and in Lewiston, Idaho, Dec. 14-15. In the light of the energy crisis, there may be heavy pressure once again for more hydro-electric dams in Hells Canyon. The canyon is one of the few remaining free-flowing stretches of the Snake River.

**We... need one more thing: a purge of the environmental movement in order to thread out both the myopic environmentalist, the one incapable of seeing the larger, all-encompassing picture, and his more dangerous peer, the marxist stimulator, whose objective may be - through this movement -- something with more deadly national objectives.**

**J. Wes Blakely  
Editor, Coal Mining and  
Processing**

# Dredging Up An Old Wolf

by Ernest H. Linford

Congressional hearings are expected to be completed before the end of the session on administration bills to create a Department of Energy and Natural Resources and transferring functions of several agencies now outside Interior to that department.

The proposal (House Resolution 9090 and Senate 2135) is an old wolf in sheep's clothing. New is the addition of the magic word "energy" to the name of the department which remains essentially Interior.

Administration spokesmen testified in favor of HR 9090 last July at a hearing conducted by the Military Operations Subcommittee on Government Operations. Spokesmen for environmental groups are expected to strongly oppose sections of the bill at public hearings getting under way.

Among the most controversial provisions are one to transfer the functions of the U.S. Forest Service from Agriculture to the new department and substitution of political appointees for professional administrators at the national and regional level of several vital agencies concerned with renewable natural resources.

The secretary of the resources department would be given blanket authority to reorganize functions and abolish bureaus of all agencies within the new department as he saw fit, without any action of Congress.

Washington sources say such action would destroy such well-known agencies as the Forest Service, National Park Service, and Bureau of Sport Fisheries and Wildlife within two years. Agency operations would then be regrouped gradually on a "functional basis" mainly under the administrator of land and recreation resources.

"Functional administration," according to an authoritative source would mean that one authority would manage timber on a given piece of land, while another authority would be in charge of grazing on the same acreage. Wild game would be managed by another, recreation by others, and watershed management by still another. The functions would come together only under a regional or national administrator.

Such a plan would pit various functional administrators in competition with each other, resulting in chaos and inefficiency. Presently a district ranger or supervisor undertakes to manage a geographic area under a multiple-use concept, balancing one use with others.

While forest management has not worked very well in recent years, due mainly to the demand for timber and White House orders to increase the harvest of trees, the alternative as provided in HR 9090 would worsen the situation, making resource management a complete absurdity. Multiple-use decisions between competing functions must be made by a local administrator according to regional and national guidelines. The reason this has not worked better in recent years has been due to pressure from Washington with timber interests receiving considerations far beyond their importance, to the detriment of watershed, wildlife and recreational management.

The solution to present mismanagement and unbalanced use of renewable natural resources is not to put the protection of such resources in complete charge of politicians but to improve professional conditions, including bolstering of authority, providing more funds for balanced administration — notably for safeguarding the resources and improving recreational facilities.

A recent move in Washington to make U.S.

Forest Service conform to the "standard" regional organizations was blocked by public opinion. Among other things the plan called for eliminating the regional offices in Ogden, Utah; Albuquerque, N.M., and Missoula, Mont., and assigning their functions to other offices distant from many forest management problems. It also would have shattered the regional research functions so important to watershed and recreational management and other functions.

Agriculture Secretary Butz is quoted by Washington sources as saying that the same things can be accomplished under the reorganization bill.

The Forest Service long has been considered a model for decentralization, with district and regional foresters keeping in close touch with local conditions and people. Making it necessary for a forest user in Pinedale, Wyoming, for example, to go to Denver or San Francisco to get a problem adjusted would be no service to people accustomed to dealing with officers in their own community, or close by. It is an irony that an administration which preaches against centralization in government is seeking to take these important governmental services further away from the people.

The Missoula, Mont., Chamber of Commerce recently proposed alternatives to HR 9090. It recommended a new Department of Energy, and Mineral Lands, replacing Interior, and that the department be given authority and responsibility needed to meet the energy crises. "But leave natural resources and the Department of Agriculture alone," it added.

There is nothing sacred about the arrangement of having the Forest Service in the Agriculture Department, but the fact that Interior and its friends have failed to wrest this agency away after 50 years of trying speaks volumes.

The Agriculture Department has its political arm, but it has permitted the Forest Service, Soil Conservation Service and Agriculture Research Service to function with a minimum of political interference, at least up to now. Never has a chief of the Forest Service been replaced as the result of a change in political administration. Every Forest Service chief has been a career professional forester. In contrast, political casualties have been always a way of life for resource agencies in the Department of Interior. Every head of every renewable resource agency in Interior has been replaced by the Nixon administration.

Concerned environmentalists should shift their attention momentarily from strip mining, oil shale and land development and get hold of copies of HR 9090 or Senate 2135. Then let your congressional delegates know your feelings on the matter.

## Waste Recovered

Connecticut's Department of Environmental Protection has come up with a plan for solid waste recovery which is expected to increase by about 1200 percent the amount of waste that will be re-cycled by 1985.

The 20-year waste recovery plan will eventually re-cycle about 60 percent of the state's solid waste. Presently, only about 5 percent of the waste is recovered. According to the plan, the state will build ten "resource recovery plants" by 1985. Those plants will separate bulk wastes into re-usable aluminum, glass, and ferrous metals. The bulk waste will come from 45 garbage collection sites to be built around the state.

The entire program is expected to cost the state almost \$300 million. : : EARTH NEWS

# Western.....Roundup

## Land Use Bill Under Fire

Citizens and industry representatives alike are attacking a preliminary draft of Utah's land use bill. The bill, prepared over the past two months by a 17-member Blue Ribbon Task Force came under fire for failing to provide any enforcement power on the state level. Critics want to force implementation of planning by local governments in critical areas of more than local concern.

One of the bill's loudest critics was Ian M. Cumming, president and chairman of the board of Terracor, one of the state's largest development firms. "This bill is in my opinion a little toothless," he said. "It doesn't address itself at all to enforcement."

"Everyone in Utah ought to be mightily concerned about land use planning," said Cumming. "And if you aren't, you ought to go look at Los Angeles. Or go to Denver. It's becoming a disaster area."

Cumming concluded, "We're planning land use right now by not planning it. We have in Utah the opportunity to address ourselves to the problems now and stop them before they start."

Mrs. Eleanor Olsen, a task force member and the legislative chairperson for land use planning of the Utah League of Women Voters, explained the bill's weakness this way: "After the disaster that met Senate Bill 130 last year, we had the task of writing a bill that would have more luck in the legislature."

## Ski Area Causes Controversy

The U.S. Forest Service is letting the state decide whether or not to use public land to expand a ski area in Marble, Colorado. In an environmental impact study of the proposed 624-acre expansion, the Forest Service predicted that the impact would be "minimal." Individuals, county officials, and state agencies disagreed. They pointed out that below the lifts, on private lands, developers had planned facilities for 25,000 people. As a result of the controversy, the Forest Service says it won't consider the permit until the state takes a position on the matter.

State agencies and Pitkin and Gunnison Counties must "provide controls and set acceptable limits on the private land for air pollution, geologic hazards, roads, sewage treatment, water pollution, wildlife habitat, and domestic-use water rights," says Thomas Evans, Supervisor of the White River National Forest.

The Colorado governor's land use advisor, John Bermingham, says he thinks the state Land Use Commission could give the Forest Service the kind of decision it is seeking — if the Commission chooses to exercise its powers.

## Development Candidates Elected

Voters in Hailey, Idaho elected candidates who want a large-scale development in their community. All three of the winners in the city election this month supported annexing land held by McCulloch Properties, Inc. The proposed McCulloch development might quadruple Hailey's population of 1,425. Opponents of the project fear the demand for services created by this new community would overwhelm Hailey and neighbors 12 miles up the road in Ketchum and Sun Valley. Hailey's sewage treatment plant is already running at 70% of its capacity.

## BLM Restricts Vehicles in Desert

J.R. Penny, Bureau of Land Management director in California, has declared that off-road vehicle use in the desert has reached "an emergency stage." He said 140 persons were killed and 2,000 others seriously injured in ORV desert accidents last year.

In order to facilitate management, cut down on ORV accidents and protect the fragile desert ecology, the BLM has issued a plan to restrict ORVs. The plan opens about six per cent of the desert area to unlimited use. It closes off or sharply restricts ORV use on the remaining 94% of the desert area.

ORV users have reacted with a court challenge. The California Association of Four-Wheel Drive Clubs filed suit in federal court in San Diego. The suit alleges that the authority cited for the plan was unconstitutional and that public input was insufficient.

California's Lt. Gov. Ed Reinecke said the plan represents "the cold, harsh hand of federal bureaucracy." He feels there must be a better way to preserve the ecology of the desert and still allow recreational use with ORVs. "After three years of study," he said, "the agency has for all practical purposes stopped the recreational use of about one-eighth of our state's land mass."



Photo by Art Fawcett

High Country News-13  
Friday, Nov. 23, 1973



Industry and opponents of wilderness have made an all-out push to resist making the Cloud Peak Primitive Area in Wyoming's Bighorn Mountains any bigger. At the recent wilderness hearing in Sheridan, they were far out-numbered by those favoring a larger wilderness. Now, the opponents have asked for a second hearing to be held on the west side of the Bighorns. Already large areas of the Bighorn National Forest have been dedicated to timber production (above) and large reservoirs have been built in mountainous canyons. The hearing record on the Cloud Peak Area will remain open until Dec. 10. Please write to the Regional Forester, U.S. Forest Service, Building 85, Denver Federal Center, Denver, CO 80225. Tell him you support the citizen proposal, as outlined in HIGH COUNTRY NEWS, Oct. 26, 1973.

## Aircraft Generate Haze

Those who support air travel as a form of mass transit that frees the environment of automobile pollution should take note of Dr. Thomas Cahill's testimony on the Jackson Hole airport extension in Grand Teton National Park. Dr. Cahill, an Associate Professor of Physics at the University of California at Davis, estimates that a single landing-take off cycle of a Boeing 737 is equivalent to at least 63,500 automobile vehicle miles as far as fine particulates are concerned. Fine particulates in the air are the main cause of poor visibility. The corresponding figure for a Boeing 727 is at least 144,000 automobile vehicles miles. Cahill concludes, "In the conditions peculiar to Grand Teton National Park, aircraft are thus a major and, potentially, dominant factor in generation of haze in the valley. Cahill noted that some observers are already complaining about the valley's haze, and added that he feels "the situation is grave." Cahill was recently a guest of the Teton Science School for an air sampling project in Jackson Hole supported by local organizations.

## Briefly noted . . .

If you haven't already got a natural gas hookup in Aspen, Colo., you're out of luck. The Rocky Mountain Natural Gas Company has called a moratorium on new connections in Aspen and in the other western Colorado communities of Glenwood Springs, Delta and Montrose. Gas company officials say they need to expand their drilling operations before they can provide for growth. The company expects to be able to serve all of its old customers during the coming winter.

\* \* \*

The state of Wyoming sold a 280-acre tract of land to the Jackson Ski Corporation early this month. What had been called a giveaway price, the state's \$252,000 appraised value of the land, was upped to \$376,000 in a public auction. A planned sale of the tract to the corporation last spring had been halted by a lawsuit, on the grounds that the state's appraisal was too low. Independent estimators had claimed that the state land was worth as much as \$1 million. The tract is adjacent to the existing ski development at Teton Village, near Jackson Hole.

\* \* \*

The Teton County (Wyo.) Commissioners passed a resolution which will give them 120 days to get a handle on growth in their community. The "emergency measure" will slow down development for the next four months by setting the maximum density of all single and multiple family dwelling units at three units per acre. The resolution will go into effect pending approval by Gov. Stanley Hathaway. While the resolution is in effect, the Commissioners hope to make a "comprehensive plan for the development and growth of Teton County."

## Thoughts from the Distaff Corner

by Marge Higley

I had a 125 mile trip to make, and a bit of mental arithmetic told me it would take me only 25 or 30 minutes longer if I drove at 50 miles an hour, instead of at last summer's pace of 60. No law about that, as yet, but the nation has been asked to slow down to preserve precious fuel. I'm sorry to report that, in spite of the energy crisis, traffic didn't seem to have slowed down very much. During the entire trip I passed only one vehicle — a highway department tractor creeping along the edge of the road at about 10 mph. Everything else passed me by. Large cars, small cars, pickups, heavily loaded trucks, and yes, even campers and trailers.

I really didn't mind at all. At my leisurely pace I had time to appreciate the ever-changing pattern of cloud shadows moving across the brown hills. I saw a hawk caught in a sudden gust of wind. For a moment he appeared to hang motionless in the air, then the gust passed and he soared gracefully up and out of sight. Had I been cruising along at 70, I would probably not have noticed the antelope on the ridge, but my slower speed enabled me to see them briefly silhouetted against the sky.

As car after car whizzed past me, I wondered about that extra half-hour which they would gain. Is thirty minutes really so important, or is our way of life geared to a fast pace merely by habit? What if gas rationing or speed limit forced those motorists to slow down? I rather suspect that many of them would find, as I had found, that a trip is more enjoyable when you take time to see more than just the road ahead.

Gas rationing. My thoughts went back to World War II. Tires and gasoline were rationed, and the national speed limit was 35 miles per hour. Lots of other things were rationed, too. Sugar, meat, cheese, butter, — even shoes. What wasn't rationed was usually in short supply. But somehow, the American people rose to the challenge. They learned to substitute, or do without. They rode in car pools to save gas and tires. Most important, they all pulled together, because the war was a national crisis. The bombing of Pearl Harbor had pointed the way to a unified effort.

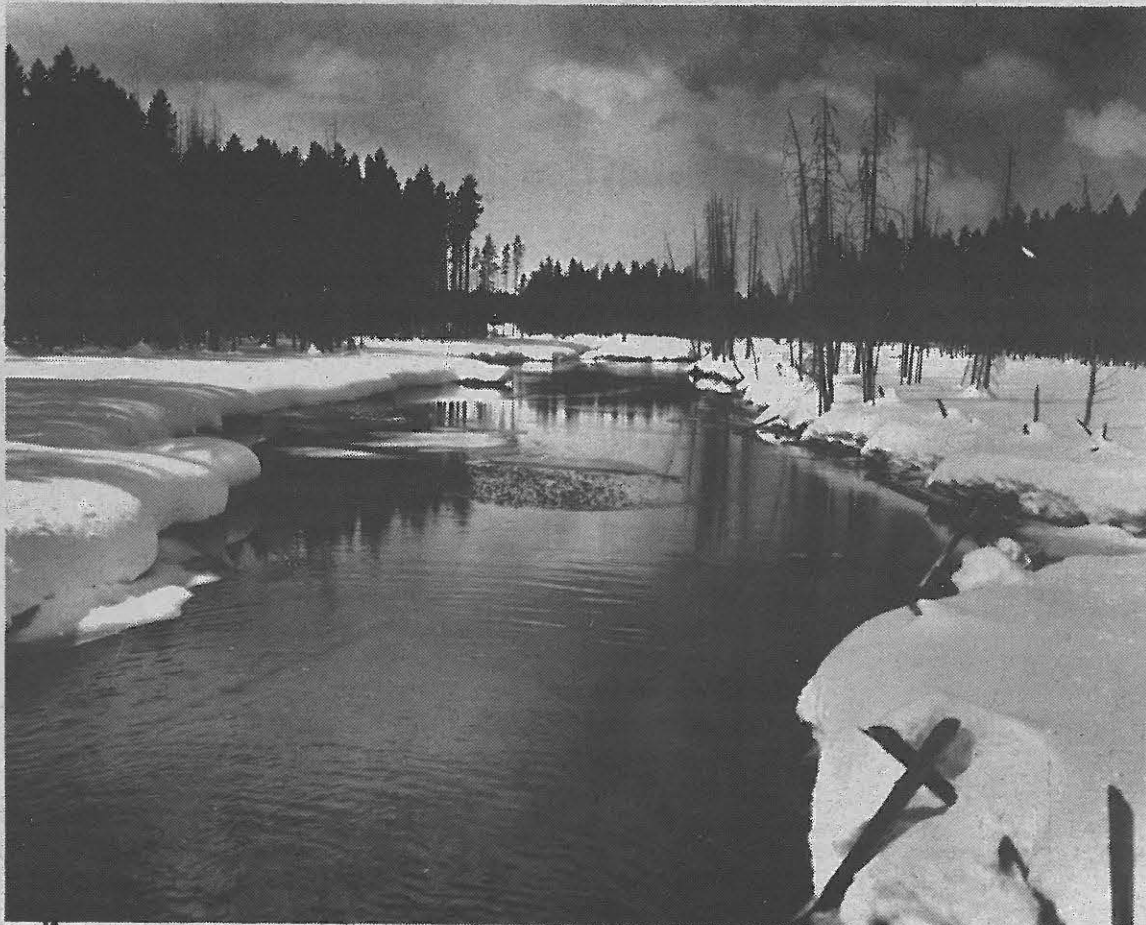
As I turned into the driveway, I was still puzzling about it. The energy shortage is just as much a national crisis, so how come all those speeding motorists? How come those over-heated shopping centers, those neon display lights, and those brightly lighted empty office buildings? What kind of a bomb will it take to convince people that the energy crisis is real, and is NOW?

Later that evening I turned on the TV to watch the news. The President of the United States was addressing a group of businessmen. Among other things, he mentioned the energy crisis. As he spoke, he stood at the base of a huge replica of the flag — each star and stripe glittering brilliantly, by means of hundreds of electric light bulbs!

I wonder how many blackouts it takes, to equal one bomb?

The Denver Audubon Society needs articles about the natural history of Colorado to submit for publication in the state's newspapers. Contributions should be 500 words, on 8½ by 11 inch paper, typed and double-spaced. They will be subject to editorial acceptance and revisions and will not be covered by copyright. They should be sent to Ms. Emily Hamilton, 3800 S. Pierce, Englewood, Colo. 80110.

"We welcome articles about plants of all types, animals of all shapes and sizes, geology, and ecological concepts," says Hamilton. "We feel there is an urgent need for all people to know and understand their environment."



For beauty being the best of all we know  
Sums up the unsearchable and secret aims  
Of nature.

ROBERT BRIDGES: The Growth of Love

## Newspaper Logs Heat Houses

Cheer up! You can use all those newspaper stories about doom and the energy crisis to heat your house this winter. That is, if you have a fireplace or a Franklin stove.

An environmental impact officer at the University of Utah has devised a way to convert newspapers into "logs." The papers burn as cleanly and warmly as wood. With just a half-hour of labor, David E. Lofgren says, you can provide yourself with fuel for a three- to four-hour fire.

Lofgren has experimented for two years to make a newspaper log that doesn't smolder, pop, or send ashes flying up. Here's his method:

Divide the day's paper into sections and fold them to about 12 by 15 inches, one-half inch thick. Place the piles in a tub of water and soak overnight. Or add one-sixteenth cup of detergent to a laundry tub of water and soak for an hour or two. Then roll the wet sections

### Bulletin Board

Do you watch birds and keep records of what you see? **American Birds**, published by the National Audubon Society in conjunction with the U.S. Fish & Wildlife Service, may be interested in your observations.

The magazine reports seasonally on bird population fluctuations and changes, rarities, and population problems and threats. If you live in the Northern Rocky Mountains, send your information to the Regional reporter, Hugh Kingery, 10 Emerson No. 503, Denver, Colo. 80218 by Dec. 10, for the fall migration season (Aug. 1 to Nov. 30).

\* \* \*

A 20-part television series on wilderness is being broadcast by NBC between Nov. 19 and Dec. 14. Sample topics include: The Aquatic Wilderness; Wilderness Economics; Wilderness and Health; Wilderness in Literature; Wilderness and Music; and Wilderness History. The 30-minute programs are being broadcast weekdays, just prior to the TODAY show.

individually on a one-inch rod and squeeze out the excess water. Smooth the surface edges. Then slide the rolls off the rod and stand them on end to dry. The log should be about a foot long and two to four inches in diameter. Use when completely dry.

Lofgren says the average week-day paper will make two or three logs. The Sunday edition will make seven.

## Lichen Is Vegetable

High Country News ran an article "Lichen Is A Mineral?" (Oct. 12, 1973) which has brought some clarification from the Bureau of Land Management in Colorado. The article told of placer claims being located on Whipple Mountain near Telluride. The following article should help clarify the situation:

Moss rock, or rock covered with moss-like lichen (a combination of algae and fungi), is not locatable under existing mining laws. Dale R. Andrus, Colorado State Director of the Bureau of Land Management (BLM), said that BLM sells moss rock to any applicant from special "common-use" areas at the fair market value. This, he emphasized, is according to the 1947 Materials Act which "authorized the disposition of vegetative and mineral materials not otherwise expressly authorized or prohibited by Federal law."

What BLM designates as "common-use" areas are those of normally unconsolidated or broken rock and where, in the removal of this rock, there will be little or no surface damages. To sell moss rock from other areas of public lands generally takes a considerable length of time because of the requirements of the National Environmental Policy Act. Andrus warned that anyone taking moss rock from public lands without a contract is guilty of trespass and is liable to penalties arising from stealing public property.

Persons wishing to purchase moss rock from public lands should contact their nearest BLM District office.

# Eavesdropper

LOONEY LIMERICKS

by Zane E. Cology

Does man think, perhaps, that God made a mistake  
As He placed each river, stream and lake?  
Man plans to construct  
An aqueduct  
To MOVE all that water — for energy's sake!

The Lung Association of San Diego-Imperial Counties in California is distributing cards for motorists to display to service station attendants. The card says, "Don't Top Off My Tank." The Lung Association says it is a simple, effective, and no-cost way to reduce air pollution. It could even save money for the motorist and energy for the country, since topping off all too often ends in spilled gasoline.

A 1973 Chevrolet Impala, modified with a Honda Compound Vortex Controlled Combustion (CVCC) engine, passed air pollution tests with flying colors. The Honda engine in the standard car passed two out of four emission standards tests. The standards are those set for 1975 and 1976.

Michigan Gov. William Milliken has established a 15-member Environmental Review Board. The board is to provide a means for a "continuing review of state policies and actions" that have an impact on the environment.

Almost one-fourth of the respondents in a survey taken in Riverside, California, said they would like to move away. They cited smog as the reason. Almost one-half said the city should not attempt to attract more industry, and more than half said tourism should not be promoted.

All of Oregon's highway billboards are slated to come down. The state estimates it will have to pay about \$6.5 million for compensation on 2400 billboards.

In the hardwood forests of the Midwest and South, walnut tree "rustlers" are making in-roads on prized black walnut trees. Good lumber from the trees may bring up to \$5 per board foot. Single trees may be worth as much as \$1,200.



Running Bull Trout Rapids on the Middle Fork of the Salmon River in the great Idaho Primitive Area. Photo by Ernie Day

## How Much Less Wilderness?

Timber, mining and other industry groups have offered their blueprint for Idaho's potential Salmon River Wilderness. According to Ken Robison, Editor of the *Idaho Statesman's* editorial page, they request that we, "open the primitive area to roads and logging, bulldoze roads down the canyons, log the primitive areas, mine them, and keep the Salmon River available for dams."

The Forest Service proposes a 1.5 million acre wilderness and wild river complex for the Middle Fork of the Salmon region in central Idaho. Gov. Cecil Andrus favors a 1.8 million acre preserve. The River of No Return Wilderness Council and other conservation groups advocate a wilderness complex encompassing 2.3 million acres.

Robison writes, "The question is not how much more wilderness, but how much less. Less and less actual wilderness is left each year as roads are pushed into more areas. The 'ex-

tremist' wilderness advocates would like to retain at least two or three per cent of the land of the U.S. as wilderness. We now have 2.9 million acres in wilderness or primitive area classification in Idaho, but we have considerably more real wilderness. We will never have as much. The question is how much less we will have in the future."

The time has come to stand up for the formal protection of the largest de facto wilderness in the lower 48 states. For more information on the Idaho Primitive Areas and the Salmon River see the October 26 issue of *High Country News*. You can send a written statement to the Regional Forester, Federal Building, Ogden, Utah, 84401, up to January 7 and it will be included in the hearing record. Your support for this superb wilderness is urgently needed.

## City Makes Mass Transit Work

Stockholm, the capital of Sweden, wants to eliminate autos from its streets. As the first step in its campaign, the Public Transportation Department now offers a \$10 monthly pass, good for travel anywhere and any time on Stockholm's subway, buses, trains, and trams, to a distance of 40 miles outside the city. Under the pass system, commuters save as much as 50 percent on their monthly transport expenses.

Soon after the passes went on sale, Stockholm's buses and trains became significantly more crowded, the motorways less so. The Transportation Department, which had been losing passengers at a rate of 2 to 4 percent a year, plans now to add supplementary vehicles.

Stockholm's buses may be more crowded at present, but they also move faster. Since about 80 percent of bus passengers now offer passes instead of cash, the time spent on fare collection has been reduced from about two minutes to forty seconds per bus stop in the central city.

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## WESTERN PORTRAIT

# Dick Prouty, Environmental Editor



"I don't know why I put up with the city," says **Denver Post** environmental editor Dick Prouty. Prouty winds his way through seven miles of city every day bicycling to work.

Once at his desk he has to make hard choices about which environmental stories to track down. When the choices are made, he still finds too much to investigate and too little time. His schedule is often filled with public meetings to attend.

"I always have to walk out before they're over," Prouty says.

Despite these problems, Prouty usually comes up with copy that gives the reader a good overview of environmental problems in Colorado. The **Post** won the Rocky Mountain Center on Environment award for excellence in media coverage in 1972.

Prouty came to the job with a biology background and journalism experience. He was graduated from Beloit College in Wisconsin with a B.S. in biology. After a stint with the Institute for Enzyme Research at the University of Wisconsin, he decided that he wasn't going to be a professional scientist.

He bicycled in Europe for five months. Then he came home and took a general reporting job with the **Arizona Daily Star**. His job and his training finally overlapped when he joined the **Denver Post** staff as their federal reporter. The federal courts and agencies led him to stories about natural resources. He moved into the environmental editor's job in July of 1969.

Over the past four years he says he's seen "sentimentalism give way to hard thinking" in the environmental movement. He thinks their power will show in the next election.

If he could concentrate on any one issue, Prouty says he'd choose water.

"It's vital to everything." The fate of oil shale, coal gasification, those charming hayfields, and urbanization depend upon it, Prouty says.

Prouty calls the Denver Water Board "absolutely blind."

"They have a role dictated by history to take — but they don't want to take it — they don't see what's going on outside the money-earning world," Prouty says.

He thinks that efforts within the environmental movement on the water issue tend to be fragmented.

"If something comes along, they'll do a pretty good job. But it will be a reaction to a crisis."

In general, "agencies are still development oriented," Prouty says. He finds the Environmental Protection Agency's attitude especially disappointing.

"The EPA is drifting away from its environ-

mental constituency. It won't accept the responsibility for clean water, clean air."

In the **Post's** Sunday "Land, Water, Air, Man" section, Prouty tries to encourage environmental awareness. He is generous with space for the activities of environmental groups, because he thinks people should know what they are doing. And he's looking for new ideas "whether I think they have merit or not — because they stimulate other people."

He receives the most response to articles that

aren't worrisome — the ones about golden mantled ground squirrels and fall colors. A story on natural history by Prouty is featured in nearly every Sunday section.

Prouty paints appreciative pictures of the natural life around us. He has taken time to enjoy the land, water, and air in Colorado firsthand.

"The battles will eat you up if you don't. You lose perspective. You have to get out," Prouty says.

## Clear Cutting Ruled Illegal

A far-reaching, landmark decision by a U.S. District Court Judge in West Virginia may effectively stop all clear cutting on national forests. Citing provisions of the Organic Act of 1897, the decision says the Forest Service went beyond its authority in going to clear cutting as a silvicultural practice.

The court held that the Organic Act "constitutes a clear directive from Congress, to the persons charged with the administration of the national forests, that trees can be sold and cut only if they are 'dead, matured or large growth' and then may be sold only when the sale serves the purpose of preserving and promoting the younger growth of timber on the national forests."

The court referred to the history of forestry practices in the United States and to the legislative history of the Organic Act. The Organic Act of 1897 formally established the national forests, and the U.S. Forest Service as the administering agency.

## Aussies Develop Solar Power

While U.S. government and oil industry officials complain loudly about the decreasing stocks of natural gas, propane, and gasoline, other countries are developing alternative means of energy. In Australia, the government's Commonwealth Scientific and Industrial Research Organization has been working on solar energy for more than a generation.

Scientists say that Australia is likely to be the first country in the world to make large scale use of solar energy. That's no idle boast — 10,000 Australian homes are already using sunlight for hot water and heating. It's estimated that solar heating saves the country 14-million kilowatt hours of electricity a year.

All new government employee homes and many private houses in Australia's semi-tropical Northern Territory are being equipped with solar hot water systems. Scientists say that the solar heaters will pay for themselves in electrical savings within four years.

The Australian scientists are now working on larger units — for factories and for salt-water conversion plants.

But, even more impressive, the Australian scientists have been working on extracting the living cells that store solar energy in trees and other plant life. It normally takes millions of years before such cells develop into oil or coal and can be used. The scientists hope to shorten this process to hours by extracting cellulose and converting it to "synthetic petrol."

While Australian scientists admit that a vast amount of research still must be done, they claim they will have an economically feasible conversion process within a few years.

: : EARTH NEWS

The Court then said, "Congress has consistently refused to abdicate its legislative control over the harvesting of timber from the public domain. It has from time to time kept the public forest current to the demands of the nation. It has never retreated, however, from its commitment to the ultimate preservation of the forests by controlling the woodsman's axe, now seen in the form of the remarkable power saw, the awesome tree-log skidders and log loaders of a highly sophisticated logging industry."

H. Anthony Ruckel, Sierra Club Legal Defense Fund attorney in Denver, says "This decision strikes hard at the destructive practice of clear cutting . . . (It is) a practice which strips practically all timber from each acre cut, impedes natural forest regeneration, disturbs water regimes, and harms the soil base. (The decision) will encourage a return to less destructive timber practices such as selective cutting and thus better assure aesthetic and ecological protection to our forests. . ."

The suit was brought by the West Virginia Division of the Izaak Walton League of America, the Sierra Club, the Natural Resources Defense Council, The West Virginia Highlands Conservancy, and one individual, Forrest Armentrout. It was brought against the Secretary of Agriculture and the U.S. Forest Service.

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