

The Environmental Bi-Weekly



# High Country News

Vol. 8 No. 11

Lander, Wyoming

Friday, May 21, 1976



Photo of a Navajo woman on horseback in Monument Valley on the Navajo Reservation in Arizona. Photo copyright by Ann and Myron Sutton.

## Agriculture or industry?

# Navajo Nation faces development

by Rodney Barker

A historic treaty was signed between the United States of America and the Navajo Tribe in the spring of 1868. Along with the title of property to a reservation the size of the state of West Virginia, the government promised the Navajo Indian that if he intended "in good faith to commence cultivating the soil for a living, he shall be entitled to receive seeds and agricultural implements."

To keep its word, Congress, in 1962, authorized the construction of the Navajo Indian Irrigation Project (NIIP), a grand Bureau of Reclamation effort to sprinkler-irrigate 110,630 acres of dry but fertile

mesa-desert and overgrazed range land on and adjacent to the Navajo Reservation, south of the San Juan River and the city of Farmington in northwestern New Mexico.

It is difficult to convey the immensity of the project, but for one idea of its magnitude, imagine 110,630 acres of sparsely scattered snakeweed and Mormon tea transformed into corn, sugar beets, and alfalfa. At the on-site dedication ceremony of the Navajo Indian Irrigation Project on April 10, Secretary of the Interior Thomas Kleppe toasted "the largest agriculture project this side of the Iron Curtain."

The project lands have been divided into 11 blocks of 10,000 acres each, and it is planned that one block will be put into crop

production each year for the next 10 years, as a sophisticated water delivery system extends its services to each successive block. By now, 4,500 acres of barley and the same of milo, and 520 acres of corn are growing on Block One. After harvesting in late July, 9,000 acres of alfalfa will be planted.

### CURBING UNEMPLOYMENT

In addition to making a significant contribution to the world food supply, NIIP planners envision project feedlots in the next five years for 30,000 head of cattle and 20,000 sheep and an egg production enterprise of 300,000 layers. When it is completed, the Navajo Indian Irrigation Project will employ over 3,000 people in farming operations, and there will be substantial opportunities for over five times that number in associated agri-business, services and supply activities.

With unemployment on the reservation reaching 65% and a median income of less than \$800 per year, NIIP offers the Navajo Tribe — the largest tribe in the nation — an opportunity to develop an Indian owned and controlled economic base.

"The best of two worlds," was the phrase used by Interior Secretary Kleppe. "(Navajos) can live on the land they love and have the opportunity to work at jobs which are economically rewarding to them, and productive for the tribe and for our nation."

After the succession of speeches, a spigot connected to a line of wheel-move sprinklers adjacent the dedication site was opened so the crowd of thousands could see the "miracle" that was going to make the desert bloom. Great arcs of water whirled over the high plateaus of Navajoland that were accustomed to less than 10 inches of precipitation annually. The sight of rain-

The Navajo people could be moved into an entirely different world view, and it will spell the end of the Navajo Way.

(continued on page 4)

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## HCN Letters

### FIGHTING MICKEY MOUSE

Dear HCN,

After reading through HCN, I'm convinced I will get a lot of mileage from a subscription.

At the present, our organization has taken arms against the Disney Corporation and their plans for a multi-million dollar resort at Independence Lake, Calif. It's not too easy to fight a national hero: Mickey Mouse. But we feel it's necessary to save our country.

We're also concerned with national issues, which is why I would like to keep up to date around the country. That's where HCN comes in. Please, keep me informed!

Sincerely,

Janet A. Edson, Staff  
Sierra County Conservation Club  
Sierra County, Calif.

### RADIATION: REGULATION-FREE

Dear editors:

The implication of Wyoming's not having a State Radiation Control Act — and please note that Wyoming is the last state in the nation which has not adopted such legislation — is a 20th century tragedy in every sense of the word. Daily, Wyomingites are needlessly subjected to excessive radiation exposure from antiquated x-ray equipment and equally obsolete practices utilized to operate these machines and develop the subsequent radiographic films.

Pipeline radiographers and oil well loggers are having a field day in Wyoming

with no one spot checking their operations for safe radiological practices. Their high intensity radiation sources need careful handling and storage practices which can only be assured through a continuing regulatory effort on the local scene.

The anti-Radiation Act lobbyists will smugly say the Atomic Energy Commission — now the Nuclear Regulatory Commission — regulates radioactivity and that there is no need for a duplicative state radiation control program. A specious argument if ever there was one!

The fact of the matter is that the NRC does not regulate healing arts x-ray equipment. Furthermore, the NRC's regulatory control over federally-licensed radiation users is spotty at best considering that a handful of federal inspectors with offices near Dallas, Tex., are expected to do their job in a 14-state region for hundreds of licenses. Another misconception the Wyoming Mining Association glibly perpetuates is that federal regulation also exists for the missions of tons of radioactive uranium mill tailings being generated by its benefactors in Wyoming on an ever increasing scale.

The NRC, on the other hand, has repeatedly stated its authority over radioactive tailings ceases once the mill license is terminated and the tailings leave a given licensed site via wind or water erosion or even when carried away by building contractors for use as construction fill, whichever comes first. The NRC is, in fact, desperately seeking out mechanisms to have involved states exert regulatory authority over uranium mill tailings control matters once a given mill's ore supply is depleted and it is shut down.

The Wyoming Mining Association lobby has had repeated success in preventing the passage of such an act in spite of the fact that the state house voted overwhelmingly in January 1973 for such a proposed act. If one believes that elected representatives express the will of the electorate, the 59-3 vote for a State Radiation Control Act in 1973 shows what the citizens of Wyoming want. Unfortunately, this is not what they received but rather what the Wyoming Mining Association wanted.

Paul B. Smith  
Denver, Colo.

### EDITORIAL RAISES HACKLES

Dear HCN:

The Guest Editorial printed in HCN on May 7 (reprinted from the **Fort Worth Star-Telegram**) requires some comment.

The editorial discusses the Alaska pipeline, the pressures and promises made to get it built, and the current possibility that the oil may be surplus on the West Coast and that the pipeline may have been



"THINGS ARE GETTING BETTER. AT LEAST THIS TIME WE ARE GETTING A CHOICE."

a mistake. It concludes by stating, "There has been a growing lack of credibility among oil companies in the past few years. Do they wonder why?"

The implication that the oil industry in general is responsible for the construction of the pipeline and that the industry has somehow sold the American public a bill of goods raises the hackles on the back of my neck.

Your readers should be aware of the fact that the pressure for the pipeline came from a small group of construction companies, a very few oil companies (principally concerned with West Coast marketing), and from politicians in the state of Alaska.

Many other oil companies and many employees of the industry argued, instead, for the Canadian route as being environmentally safer, defensible, and appropriate for moving petroleum to the land-locked areas of the U.S. where it was needed. We predicted the possible glut on the West Coast and the ultimate necessity to move the oil over the mountains from the West Coast ports. We were ignored in the same manner that we were ignored when we predicted an energy crisis, and in the same manner that we are currently ignored when we predict shortages due to rising consumption.

While the oil industry presents a tempting target, it is too diverse and too competitive to roll it in one little ball and imply that it was (or is) in a position to take a uniform stand.

I don't expect your paper to be a "front for the oil companies" (referring to the reader survey reported in the same issue), but I do wish that your readers would recognize that some of "the industry" still wears the white hats.

Karl F. Anuta  
Boulder, Colo.

### UTILITY WIND POWER

Dear editors,

We noted in the Friday, May 7, 1976, issue of **High Country News** under the "Hot Line" column the item regarding the Energy Research and Development Administration requests for proposals for installation and operation of wind and alternative energy conversion systems.

We would like to advise HCN of some

recent efforts of the Missouri Basin Systems Group (MBSG) to support several of its consumer-owned member utility systems in their efforts to use alternative energy.

MBSG is assisting several of its member utilities including East River Power Cooperative of Madison, S.D.; Rushmore Electric Power Cooperative of Rapid City, S.D.; and Central Power Electric Cooperative of Minot, N.D., in the pursuit of new programs aimed at conservation of electric energy and the eventual incorporation of alternative electrical energy resources into their long range power supplies.

MBSG staff assisted the East River Power Cooperative and the South Dakota State University in preparing their application to the Energy Research and Development Administration (ERDA) proposing a windy site near Huron, S.D., for an 18-month climatological instrumentation program leading to the possible installation and evaluation of a 125-1,500 kilowatt wind energy conversion system. ERDA plans to instrument 12 windy sites around the nation leading to the installation of four experimental large capacity wind generators within the next two years.

MBSG, working with R. W. Beck & Associates, Engineering Consultants of Denver, is also assisting the staff of Rushmore Electric Power Cooperative of Rapid City and experts from the South Dakota School of Mines in preparation of a separate proposal to ERDA to examine the potential for the application of naturally occurring hot water from the Madison formation in the proximity of the Black Hills.

Possible uses include municipal heating, agricultural businesses, process heat for industry, in addition to providing new water supply. Ground water in the area to depths of approximately 4,000-5,000 ft. is naturally heated to temperatures reaching 200 degrees F. The proposed studies will examine the comparative economics of using geothermally derived heat to conserve or supplant scarce petroleum or hydrocarbon based fuels.

R. Wayne Stafford, staff engineer  
Missouri Basin Systems Group  
Lakewood, Colo.



### Navajo Nation faces development

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## Editorial

HCN

May 21, 1976 — High Country News-3

### Clean Air letters needed

The National Clean Air Coalition re-  
that Senate action on the Clean Air  
amendments is expected June 2 and  
House action a week or two after that.

The coalition is supporting the amend-  
ment offered by Sens. Gary Hart (D-Colo.)  
and Mark Hatfield (R-Ore.) which would  
give Class I protection to national monu-  
ments. As the amendments now stand,  
Class I protection is mandatory for na-  
tional parks and wilderness areas.

The coalition is opposing the amend-  
ments offered by Sen. Frank Moss (D-Utah)  
which would eliminate the protection for  
parks and wildernesses, remove the re-  
quirement for best available control tech-  
nology, and eliminate the bill's limitation  
on the overall amount of pollution that  
would be allowed in clean air regions.

Letters from residents of the region could  
still influence a few senators who seem to  
be still making up their minds, according  
to the coalition. They include:

Sen. George McGovern (D-S.D.)  
Sen. Joseph Montoya (D-N.M.)  
Sen. Clifford Hansen (R-Wyo.)

In the three states mentioned above, the  
other senator is considered to be support-  
ing strong amendments and opposing the  
Moss amendments.

Two senators who had been previously  
listed as cosponsors of the Moss amend-  
ments, Sens. Lee Metcalf (D-Mont.) and  
Gale McGee (D-Wyo.), have since said that  
they oppose the Moss amendments.

Moss asks that the significant deteriora-  
tion portions of the bill be delayed for a  
year while a study is made of their poten-  
tial effects. McGee says that he opposes  
eliminating or postponing these portions.  
He says that their effects can be studied by  
the National Commission on Air Quality  
as they are being implemented.

The coalition believes that most of the  
other senators in the region are decided —  
either for the Moss or the Hart amendment  
— although letters wouldn't hurt. Action  
for the House will be requested soon.

Anyone interested in receiving the  
coalition's newsletter should write to Na-  
tional Clean Air Coalition, 620 C Street,  
SE, Washington, D.C. 20003. —MJA



**CANADA GOOSE EGGS** are hatching from nests all across the West this  
month. At the Seedskadee National Wildlife Refuge along the Green River  
in Wyoming a goose nesting survey revealed a 15% increase in nests over the  
past three years. One Canada goose along the Payette River in Idaho can  
only be described as going above and beyond the call of duty. During a  
recent nesting survey, the nest pictured above with 21 eggs was recorded.  
The average number of eggs is about half this number. Photo by the Idaho  
Fish and Game Department.



## Guest Editorial

HCN

### Uinta timber plans need change

by Bart Koehler

The effort to protect the wilderness re-  
source lands of the North Slope of the High  
Uintas in Utah is not over — not by a long  
time. Since writing the article that ap-  
peared in the April 23 issue of **High Coun-  
try News**, I've been attending public meet-  
ings on the Forest Service's North Slope  
Land Use Plan.

Despite very strong support for formal  
wilderness study of the Bald Mountain and  
North Slope Roadless Areas, the Wasatch  
National Forest staff is becoming adamant  
in asserting that this unspoiled area "must  
be actively managed." Several key points  
have surfaced at the public meetings:

1) According to Forest Service ratings,  
Bald Mountain and North Slope roadless  
areas rank as the second and third highest  
quality roadless areas in Utah.

2) Proposed timbering operations will be,  
at best, a marginal operation. The Forest  
Service will not specify the miles of road  
that will be needed, the acres of timber  
(and location) that will be cut, and they  
have not specified the impacts these ac-  
tivities will have on water quality and  
fisheries. (The North Slope serves as the  
headwaters of the Bear River, plus the  
Smith's Fork, Black's Fork, and Henry's  
Fork of the Green River. The North Slope is  
vital to protection of the quality waters  
that benefit much of Southwest Wyoming.)

3) Wildlife conservationists say that the  
planned timbering and associated roads  
will remove bobcat, pine marten, lynx,  
most of the elk, and many moose from the  
undisturbed North Slope.

The Wasatch National Forest staff  
says, "Don't worry, timbering will only af-  
fect one per cent of the planning unit per  
year." Well, that amounts to a significant  
4,000 acres per year.

5) A federal court decision in Colorado in  
1970 known as the Parker case, estab-  
lished that the Forest Service could not

commence any action that would alter the  
wilderness qualities of an area contiguous  
to a Primitive Area that was being con-  
sidered by Congress for wilderness designa-  
tion. Congress is still considering the High

Uintas Primitive Area for wilderness, so it  
appears that the agency cannot legally de-  
velop the North Slope lands until Congress  
acts on the proposal.

The Forest Service has not yet even  
hinted at making changes in the North  
Slope Land Use Plan. Like Old Man River,  
they just keep rollin' along.

Many people have written to the super-  
visor of the Wasatch, asking for wilderness  
study for Bald Mountain and the North  
Slope roadless areas. We need many more

letters to even begin to make a dent in the  
agency's thinking.

You have until May 28th, one week, to  
fire off a letter to: Chandler St. John,  
Wasatch National Forest, 4311 Federal  
Building, Salt Lake City, Utah 84138.

Please write today. Thank you.

Bart Koehler is a representative of the  
Wilderness Society. He is based in  
Cheyenne, Wyo.



## Bulletin Board

### LOBBY MAY CONTINUE

The Colorado Open Space Council will be  
examining the environmental stands of all  
registered candidates for the state legisla-  
ture — if a fund raising drive to support the  
effort is successful. COSC, a statewide en-  
vironmental coordinating council, is trying  
to raise \$4,500 for eight months of legisla-  
tive work between the '76 and the '77 ses-  
sions. If you wish to help, send a donation to  
COSC at 1325 Delaware St., Denver, Colo.  
80204.

### AERO ANNUAL MEETING

The Alternative Energy Resources Or-  
ganization is holding its annual meeting  
June 5 at a ranch in the Bull Mountains  
southeast of Roundup, Mont. All AERO  
members and their friends are urged to  
attend. The following day the group will  
move to the Roundup rodeo grounds to  
work on a traveling alternative energy ex-  
hibit called the New Western Energy  
Show. For more information contact AERO  
at 435 Stapleton Building, Billings, Mont.  
59101 or call (406) 259-1958.

### ALTERNATE ENERGY MEET

The Aspen Energy Forum 1976, May  
28-30, will focus on alternate energy.  
Speakers include Wilson Clark of the En-  
vironmental Policy Institute, Harold Hay  
of Skytherm Engineering, George O. G. Lof

of Colorado State University and Solaron  
Corp., W. F. Yanda of the Solar Sustenance  
Project, and John I. Yellott of Arizona  
State University. Registration for the  
three-day conference is \$45. For more in-  
formation write the conference organizer:  
Roaring Fork Resource Center, P.O. Box  
9950, Aspen, Colo. 81611 or call (303)  
925-5125.

### I-470 ROUTES

The Colorado Division of Highways is  
considering five alternative routes for the  
proposed new highway, Interstate 470, in  
southwest metropolitan Denver. Com-  
ments from the public on the alternatives  
are needed before June 10 to be included in  
the agency's draft environmental impact  
statement. The draft statement is expected  
to be complete in mid-June and the final  
statement at the end of September.

### LOOK AT IDAHO'S LEGISLATURE

The Idaho Conservation League has pub-  
lished the votes of Idaho legislators on 17  
key state environmental bills in 1976. To  
obtain a copy, send a self-addressed  
stamped envelope and a donation to Idaho  
Conservation League, Box 844, Boise,  
Idaho 83701.

### TRAIL VOLUNTEERS II

The Colorado Mountain Trails Founda-  
tion is looking for volunteers to build and  
maintain trails between Denver and  
Durango this summer. Augmenting the

two-week-long work sessions will be op-  
tional university courses in environmental  
studies, biology, geography, and geology.  
College credit ranges from two hours of  
undergraduate work to as much as 15  
hours of graduate-level work. Volunteers  
provide their own food and camping  
equipment. Sessions will be run every two  
weeks from June 7 until August 27. For  
information and applications contact Gudy  
Gaskill, Colorado Trails Foundation, P.O.  
Box 355, Golden, Colo. 80401. The univer-  
sity credit coordinator is Dr. Hugo Fer-  
chau, Professor of Biology, Western State  
College, Gunnison, Colo. 81230.

### PLANNING CRUX — WATER

The Missouri River Basin Commission is  
holding a public meeting on a proposed  
planning program for the Upper Yellow-  
stone River Basin in Montana. The area co-  
vered is from the mouth of the Bighorn  
River on the main stem of the Yellowstone  
to the headwaters. The plan will consider  
both the land and water resources of the  
area. State and federal agencies, special  
interest groups, and the public are par-  
ticipating in the Yellowstone Level B  
Study. The meeting will be June 3 in Big  
Timber, Mont., at 7:30 p.m. in the Sweet  
Grass County Courthouse. For more in-  
formation contact Keith H. Corrigan, Mis-  
souri River Basin Commission, Room 217,  
32 S. Ewing, Helena, Mont. 59601 or call  
(406) 449-2872.

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# Navajo. . .

(continued from page 1)

without-clouds provided a poignant moment for elderly Navajos who swept forward with hands extended to catch and hold that life-sustaining resource in the Southwest, as though they had to make sure it was not a mirage; and it sent their children running in and out of the sprinkler showers in ecstatic waterplay.

Everyone agreed that the Navajo Indian Irrigation Project was going to have a major beneficial effect on the Navajo Tribe. But there was a consciousness present at the opening ceremony that was unable to abandon itself to celebration — out of concern that issues yet to be settled might prevent this project from growing to planned proportions.

## COMPETITION FOR WATER

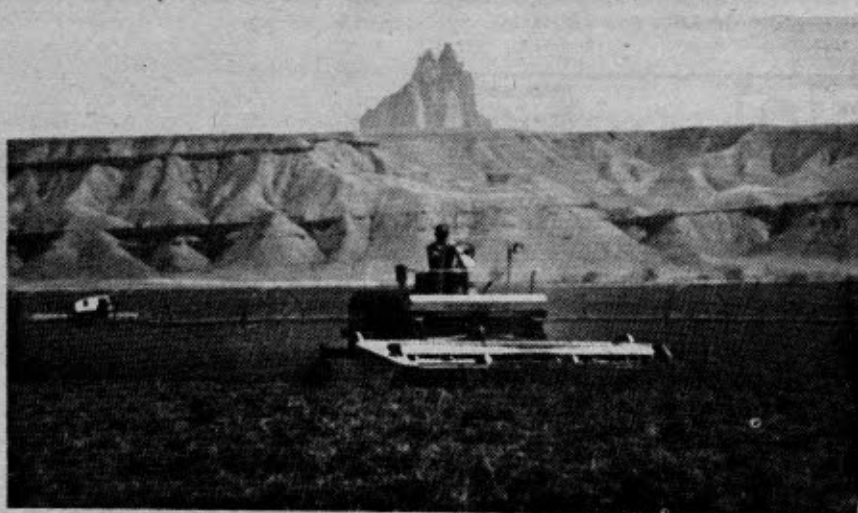
The week before, in Washington, D.C., that consciousness had been placed before the U.S. House Committee on Science and Technology in the form of both written and oral testimony against H.R. 12112: a bill to provide loan guarantees to the nation's synthetic fuels industry, including coal gasification and oil shale development.

The committee was told how the formulation of national energy policies carried significant implications for Indian people whose lands contained abundant natural resources. They were given a case in point: the plan to build six coal gasification plants on the Navajo Reservation.

And they were left with the final impression that this energy development could not come to the reservation without conflicts ensuing that not only were going to result in significant cultural and social shock to the Navajo people, but could leave the Navajo Indian Irrigation Project begging for more miracles.

Western Gasification Company (WESCO) has proposed the "timely development of our domestic resource base" via gasification. WESCO, a joint venture of Pacific Lighting Corporation of Los Angeles and Transwestern Pipeline Company of Houston, is planning to construct and operate four coal gasification plants in the northwestern corner of New Mexico, on the Navajo Reservation.

Another company, El Paso Natural Gas Co., would also like to build two gasification plants in the same area. The WESCO project is the more imminent, however, because in 1973 WESCO signed a coal and water agreement with Utah International Inc. Utah International is a multi-national firm which holds a mining lease from the Navajo Nation to 31,000 acres of coal-bearing land, and a permit from the state of



AN EXPERIMENTAL DESERT FARM near Shiprock, N.M. The Navajo Indian Irrigation Project would bring 110,630 acres of desert under the plow.

New Mexico to 44,000 acre-feet of water from the nearby San Juan River. Coal and water are the two basic feedstocks for the gasification projects, and El Paso has been unable to obtain adequate coal and water permits.

## WESCO'S PLANS

The WESCO coal gasification complex will utilize the Lurgi gasification process, which involves the reaction of coal, steam, and oxygen under high pressure and temperature to produce a crude gas which consists primarily of hydrogen, carbon dioxide, carbon monoxide, and methane. When the crude gas is cooled and scrubbed with water and delivered to a methanation unit, it creates a synthetic natural gas (SNG) with a heating value of approximately 970 British thermal units (Btu) per cubic foot. This synthetic gas is interchangeable with natural gas.

The Lurgi process is currently the only coal gasification process with proven commercial experience. The methanation process is alleged to be technically and commercially feasible, although it has only been used in small units on an experimental basis.

Each gasification plant is expected to consume about 25,000 tons of coal per day, and about 8,200 acre-feet of water annually in order to produce 250 million cubic feet of pipeline quality gas each day. WESCO's established program is to deliver a billion cubic feet of SNG every day of the year for the life-expectancy of each plant, which is 25 years. The hope is that the first plant will become operational during the winter of 1979-1980.

The synthetic natural gas produced will be used to meet the requirements of Southern California Gas Company and Cities Service. Cities Service supplies Texas, Oklahoma, Kansas, Missouri, and Nebraska. Southern California Gas is the nation's

largest natural gas distribution company, providing natural gas service to central and southern California.

In testimony submitted to the Federal Power Commission recently, the company projected that in 1979 there will be an insufficient supply of natural gas to meet all the requirements of the highest priority customers, which under the California system are the residential customers. It was also stated that by 1980, there may not be any gas available for hotels, schools, and restaurants.

This project is not to supply new or additional markets, asserts WESCO. It is just to reduce considerably the curtailments which otherwise will occur.

A WESCO fact sheet claims that the synthetic natural gas produced from gasification will provide energy to the

hold the key to future developments, are harder to get.

The first of these is a federal loan guarantee. Last year, a program that would have provided \$6 billion in federal loan guarantees to the nation's synthetic fuels industry, including gasification, was dropped from the Energy Research and Development Administration Act (ERDA). This year, a similar bill, H.R. 12112 has been introduced, with the price tag reduced to \$4 billion.

According to WESCO, this bill must be passed before its financing arrangements can proceed. Spokesmen say that credit risks of the project are too great for lenders to assume without an additional source of credit support. They point out that the estimated cost of the project (\$1 billion per plant) exceeds the combined net worth of the sponsors.

Moreover, they say that until a plant of this size and capability is proven in the U.S., lenders will require assurance of repayment "in the unlikely event the process will not perform as the engineers say it will." Lenders are also concerned, WESCO adds, about governmental interference that could delay construction, interrupt production, or impair the flow of revenues required to pay their interest and principal when due.

The loan guarantee program has met strong endorsement and strong opposition. The governor of New Mexico, Jerry Apodaca, says, "Financial incentives will be necessary for industries undertaking high-capital, high-risk ventures."

The Sierra Club, in a national newsletter, voiced the opposing view: "If this program goes into effect, taxpayers will be subsidizing the development of uneconomic

The sight of rain-without-clouds provided a poignant moment for elderly Navajos who swept forward with hands extended to catch and hold that life-sustaining resource in the Southwest, as though they had to make sure it was not a mirage.

home cheaper than electricity generated by coal. It compares the 250 million cubic feet per day of SNG with the energy output of three 1,000 megawatt electric generating plants. It claims that only one-sixth of the capital investment is required to provide a given amount of energy from coal gasification, as opposed to meeting the same energy load with electricity from coal.

The fact sheet ends: "This century, solar, oil shale, biomass, geothermal, and fusion await development and demonstration of technology. The U.S. economy cannot 'mark time' waiting for these. We must move forward on coal synfuels now to provide the energy..."

## LOAN GUARANTEE NEEDED

WESCO's development plan began in 1971, and from the start six crucial approvals were necessary. Four of these have been obtained. The Bureau of Reclamation has prepared a final environmental impact statement as required by the National Environmental Policy Act.

A certificate from the Federal Power Commission authorizing the construction and operation of the gasification plants, and the sale of 250 million cubic feet per day has been granted.

The Utah International expanded mining plan has been approved by the New Mexico Surface Mining Commission. And the U.S. Environmental Protection Agency has been satisfied that the proposed facilities will meet appropriate air and water quality regulations.

But the two remaining approvals, which

energy production technologies which will result in higher fuel bills and widespread environmental damage."

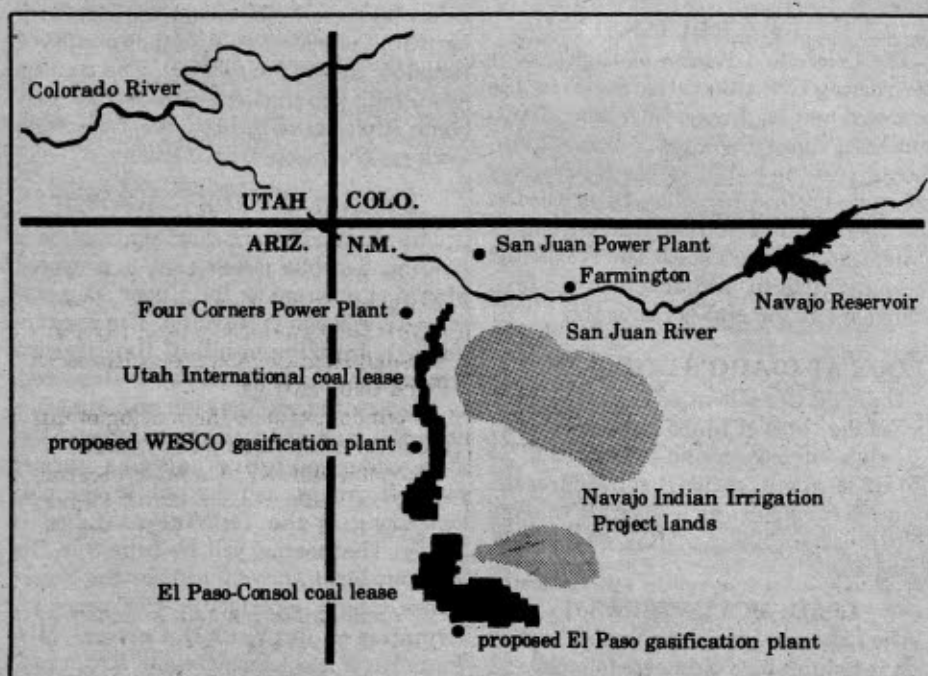
"We don't expect the government to lay out one dime," a WESCO spokesman countered during an interview with **High Country News**. He emphasized that government money would only be needed if a plant were not completed or failed to operate, and that the loan only covered the 75% of total capitalization that would be borrowed. The 25% equity (approximately \$250 million) that WESCO invested was a risk it was taking. "The loan guarantee is just to satisfy the lenders," he said.

Finally, WESCO maintained that a loan guarantee would allow coal gasification to be developed by private investment, thereby limiting direct government financial participation. It also said demonstrating the feasibility of a commercial-sized plant should make it possible to eliminate government involvement with future projects.

Without a loan guarantee or other government assurances, WESCO says their project will have to be terminated.

## INDIAN OPPOSITION

The final step in WESCO's approval process is the ratification of a lease agreement and construction permit by the Navajo Tribal Council. The lease is still being negotiated, and the details have not been made public. It is known that the lease would involve terms for royalty payments, lease of the land the plants will be built on, right-of-ways, Navajo jobs in the construction and operation of the plants, relocation



of families living in affected areas, and reclamation promises.

WESCO says it is "hopeful" that a lease agreement can be signed during the spring session of the council. However, there has been strong "grassroots" opposition to the proposed projects which balance that hope with doubt, putting the odds that a lease will be signed at 50-50.

The most vocal opposition to gasification comes from the National Indian Youth Council (NIYC), a multi-tribal Indian organization which was formed to "define problems and pose solutions in a manner consistent with the Indian culture." NIYC's stated objective is summarized as "conserving and enriching the ancient heritage of our living tribal communities."

NIYC denounces gasification as a patent example of colonial industrialization "coming on Indian lands and exploiting resources for the profit and benefit of outsiders. In the wake, these corporations are leaving destroyed land, depleted resources, polluted air and water, and a devastated native culture."

NIYC's attitude reflects a historic recognition of the fact that when Indian needs and non-Indian needs conflict, non-Indian needs prevail, and so the worst should be expected. The list of the council's specific concerns includes:

—**Toxic emissions from the plants.** NIYC believes there will be at least two deadly toxic air pollutants — lead and mercury — emitted from the plants in such uncontrolled quantities that they will inflict permanent damage to all animal, plant, and human life in the immediate vicinity.

—**A failing grade in efforts to reclaim strip mined lands.** Referring to a National Academy of Sciences report which concluded that the possibilities of restoring strip mined land in the Southwest to its original condition was virtually impossible due to scant rainfall, they believe that the Navajo Reservation will become a "national sacrifice area."

—**Threats to the developing Navajo Indian Irrigation Project.** The proposed plants will be built adjacent to the project lands, and the council is concerned that their proximity will result in a degraded crop yield. They are also afraid that another toxic emission (boron) could wipe out all the crops.

—**The influx of Anglo employees into reservation communities and towns bordering the reservation.** Estimates of a population increase vary from 10,000 to 30,000 people, and NIYC fears that this will mean strained racial tensions and social problems of a larger magnitude, which could pose a threat to the future of Indian sovereignty.

NIYC is also concerned about the social and cultural change that will result from "instantaneous industrialization," and the after-effects of a short-term boom economy. What will happen to the Navajo economy and Navajos after the coal is gone and the industries leave?

#### IS THERE ENOUGH WATER?

The Shiprock Research Center has strengthened NIYC's position with its own extensive homework. The center is a foundation-funded organization engaged in survey research aimed at assessing the

social, cultural, and economic implications that will result from planned coal gasification and strip mining activities.

In particular, the Shiprock Research Center has focused on the serious question of whether or not there is enough water in the San Juan River to take care of both the Navajo Indian Irrigation Project and the gasification plants.

Emphasizing that water is the most critical resource to all developments in the Southwest, the center has examined present and proposed water utilization schemes in the watershed of the San Juan River Basin. The issue of water availability for energy related activities is critical to the irrigation project because, according to its figures, the gasification plants will not be able to operate without drawing on water earmarked for NIIP.

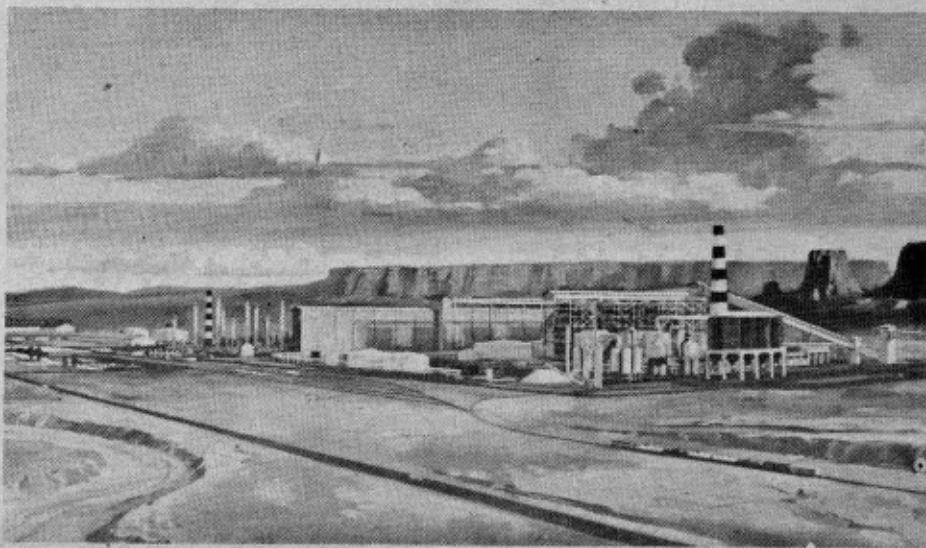
When Congress authorized NIIP in 1962, it also authorized the diversion of 508,000 acre-feet annually for the project. How much of this total will be used is unknown because data on water loss from evaporation during transport has not been gathered. What's more, the total thirst of

on significant return-flows from NIIP, no matter what amount of water is initially diverted. But determining how much return flow there will be may take several decades to determine, according to the center. In the meantime, the center feels all water diverted should be considered

**NIYC's attitude reflects a historic recognition of the fact that when Indian needs and non-Indian needs conflict, non-Indian needs prevail.**

consumptively used and not be depended upon for energy production.

The executive director of the Shiprock Research Center is Harris Arthur, a Navajo. On February 20, before the House Subcommittee on Energy Research, Development and Demonstration, he expres-



ARTIST'S CONCEPTION of the proposed WESCO coal gasification complex on the Navajo Reservation.

the project will vary with the type of cropping pattern developed, which is a matter of economics.

A NIIP spokesman explained: "It doesn't do any good to raise a crop that's not profitable, and who can say the market won't change in a few years so that a different crop than now planned would be the best?"

The first crops planted this year were designed to provide humus to the soil, and were not high water-using crops, so this will not be a representative year for projections to be made. But for some idea of the variability, at the pilot farm near Shiprock where experiments were conducted, it was found that barley required about 2½ acre-feet of water per acre, corn 3 acre-feet, and alfalfa close to 6 acre-feet.

The Shiprock Research Center points out that full development of NIIP may require a full diversion of authorized water. If this occurs, there will not be a sufficient stream flow in the San Juan to supply both proposed industrial projects and the municipal water needed for 30,000 more people in the area.

Industry, the center believes, is counting

sed his "determination that if current industrial plans, such as coal gasification plants, are carried out, the irrigation project, to which the Navajos are entitled by Treaty Rights, will fall victim to a higher priority being given to industrial uses of water, because of the billions of dollars in investments."

Harris Arthur concluded his testimony by saying: "Gentlemen, it quite simply comes down to coal gasification or a curtailed Navajo Indian Irrigation Project as far as we are concerned."

The draft environmental impact statement on the WESCO gasification plants was released in December 1974. Hearings were held in the spring of 1975, and the final statement was released by the Bureau of Reclamation this January.

The final statement listed the following environmental impacts:

—Consumption of an estimated 960 million tons of coal.

—Disturbance of an estimated 28,000 acres of land surface to extract the coal, with the possibility either that the land reclamation may be only partially effective or that it may take many years to restore the vegetation to its original pre-project state.

—The deposition of numerous substances emitted by the plants into the atmosphere or on surrounding land areas, including oxides of sulfur and nitrogen particulates, trace metals, and radioactive materials.

—The loss of water by the gasification plants to other alternative uses in the Colorado River Basin.

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—Loss of visual range and the esthetic impact of the complexes in this relatively primitive natural area.

—An adverse impact on air quality caused by emissions from the plants, even though the emissions may be less than established emission limits.

The final statement countered the claim that crops of NIIP might be susceptible to emissions from the gasification plants with the response: "There should be no impact on crops of NIIP." But it admitted "little is known about the long-term effects of lower levels of air contaminants upon vegetation."

There was concern that the water availability figure the Bureau of Reclamation was working with was badly inflated, that any conclusion based on that figure would be a false and misleading conclusion, and that estimates of water use by WESCO were low by significant quantities.

The final environmental statement said: "The Department of the Interior has determined that there is enough water for all of the projects (gasification plants and NIIP) plus the population growth which will accompany the project. The proposed gasification plants do increase the amount of water used, and consequently the possibility of shortages occurring during dry years is increased. If a shortage occurs, all water users will be required to reduce their use proportionately."

The document acknowledged that the relationship between coal gasification and NIIP is a "complicated problem," compounded by the fact that the total impact would not be manifested until well into both projects.

#### END OF THE NAVAJO WAY?

All Navajos seem to distinguish between NIIP and the power and mining developments, recognizing that NIIP was a project set up for Navajos, employing Navajos, and run by them as a tribal enterprise. Gasification is seen as an "outside corporation" eager to make a profit off Navajo resources.

But, many Navajos feel that the Navajo Nation must begin to develop a viable Navajo economy which will bring the Navajo people the maximum opportunity for choice of both style and standard of living, and that gasification benefits will help achieve this.

At the public hearings last year, a number of older traditional Navajos testified in favor of the project, saying they were concerned about the poor economic conditions and unemployment on the reservation. They feel that if the plants are built, their children would be provided with jobs close to home.

Others, however, feel that if gasification does come to the reservation their traditional and cultural base will disintegrate:

(continued on page 6)

The story of the Navajo and their struggle with their future that appears in this issue was paid for by our readers through High Country News Research Fund contributions.

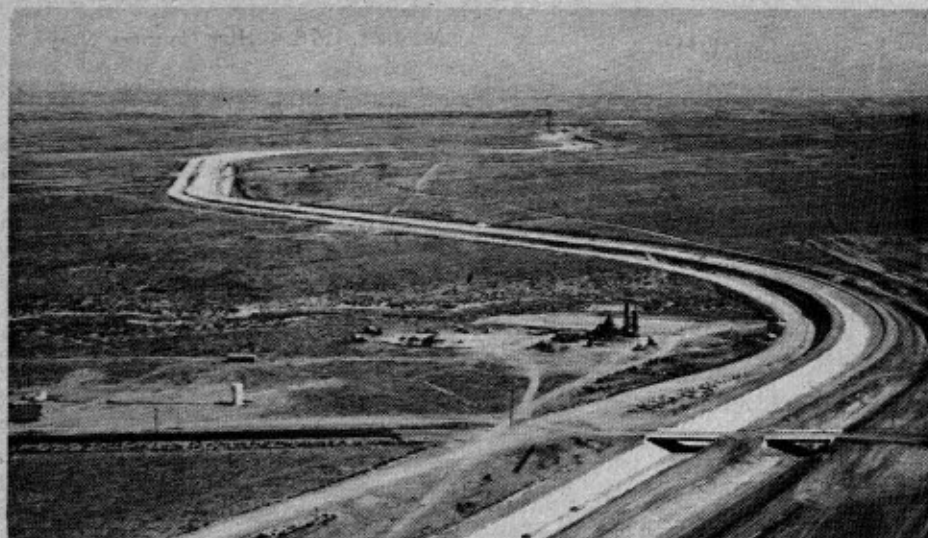
Your dollars made the writing of this story a reality. Need we say more?

If you would like to help, send a contribution to the research fund. Checks should be made out to: "Wyoming Environmental Institute — HCN Research Fund." Send your contribution to Wyoming Environmental Institute, Box 2497, Jackson, Wyo. 83001. All contributions to the research fund are tax deductible. Thank you.

Of the present economic development activities on the Navajo Nation, the Navajo Irrigation Project provides us the greatest viable hope for escaping the economic bondage in which we exist today.

—Lewis B. Etsitly  
Navajo Tribal Council Member

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**IRRIGATION CANAL** bringing water from Navajo Reservoir to Block One of the Navajo Indian Irrigation Project. Photo by the Bureau of Reclamation.

## Navajo. . .

(continued from page 5)

the Navajo people will be moved into an entirely different world view, and it will spell the end of the Navajo Way. Many of these Navajos do not trust "The Bureau of

Reclamation," and feel that Navajos are being used in an experiment in which no one knows the crucial side-effects.

Then there are Navajos who are not against "progress" or development, but who advocate the unification of Indian people towards developing their own land and resources.

Harris Arthur, in his interview with HCN, said: "Why can't we (the tribe) get a

Indeed, the legacy we leave our children, our grandchildren, and generations of Indian people yet unborn, will surely come from the kinds of decisions we make today.

—National Indian Youth Council

loan to develop our own resources? If the federal government can give WESCO money, why can't they give it to us? Because we lack the technology? That can be bought. Coal, oil, gas, uranium can turn into money. . . .

"It's not that Navajos are opposed to all development, the question is by whom, where, when, and how. That's the issue. Eighty per cent of our homes here are without electricity. Let us energize; have our own domestic energy production; meet our own needs with our own product first; and then export. . . .

"The federal government, the public sector, and the BIA (Bureau of Indian Affairs) have always said you can't do it yourselves, we have to take care of you. But the Arabs are doing it. South American countries are doing it. Third World nations the world over are doing it.

"Why can't we be afforded a decent opportunity to develop technological capabilities ourselves? We may lack the sophistication now, but it's not beyond our

reach. It's obtainable. It's something to work for and strive for. It's damn hard to build a nation, but that's what I want to build a nation."

The Navajo people are at the proverbial crossroads. No one disputes that the development of the Navajo Nation means the development of its natural resources. Which road to take is the issue, and taking everything into account, the choice is by no means simple.

The mood of the Navajo Nation is summed up by the National Indian Youth Council: "Indeed, the legacy we leave our children, our grandchildren, and generations of Indian people yet unborn, will surely come from the kinds of decisions we make today."

Rodney Barker has been the editor of several weekly newspapers. He is now embarking on a freelancing career, "even though I've been warned it's like trying to make a living as a buffalo hunter." Barker lives in Durango, Colo.

## Mexican wolf classified as endangered species

The Mexican wolf, a subspecies of the gray or timber wolf, is now officially listed as an endangered species by the U.S. Fish and Wildlife Service. Three of the subspecies of the gray wolf are now recognized as endangered in the U.S.

Only about 200 Mexican wolves — the smallest of the timber wolf clan in North America — are estimated to exist in widely scattered packs in the high country of Mexico and perhaps the Southwest U.S. These all are subject to intensive human pressure.

The animal originally ranged from southern Arizona to west Texas and throughout the northern part of Mexico except Baja California and the coastal lowlands. Although they were essentially eliminated from this country many years ago, Mexican wolves regularly crossed the border into Arizona and New Mexico through the early 1950s. Today, north of the border the species is a rare wanderer.

This wolf is protected by national law in Mexico and cannot be taken lawfully except by special permit issued by the Federal Director General of Wildlife, but the regulation is difficult to enforce and not generally applied. In Arizona it has been protected by regulation, but it has received no legal protection in Texas or New Mexico.

As recently as 1944 the animals still occurred over the greater part of their original range in Mexico, and little effort had been made by the Mexican people to elimi-

nate them. With the sale by lumber companies of extensive tracts of land to cattle ranchers, however, the situation began to change. Within a few years the wolf reportedly was eliminated from the eastern part of its former range in Mexico and was decreasing in the western portion.

The spread of agriculture and livestock, and the construction of new roads giving access to remote areas led to a decline in wild prey — deer, antelope, and bighorn sheep — as well as to intensified efforts to eradicate the wolves. They were poisoned and trapped in large numbers. A joint Mexican-U.S. predator control program under the auspices of the World Health Organization initially worked with traps and strychnine, but in 1954 a predator poison called compound 1080 came into widespread use and was distributed to stockmen by the Pan American Sanitary Bureau.

Despite intensive persecution, however, the Mexican wolf may still be holding its own in some areas and may be a promising candidate for captive propagation efforts.

An official determination that an animal is an endangered species affords it the protection of the Endangered Species Act of 1973.

This formal listing action brings the total number of animals officially listed as endangered to 428. A total of 139 of these are species found in the U.S. and its territories. In addition, the official list of threatened species now numbers 11 animals.



The Mexican wolf has recently been added to the official list of endangered animals, bringing the list to a total of 428 animals. Photo courtesy Stouffer Productions, Aspen, Colo.

## Environmentalists say they're supporting full employment, too

A new organization has formed to fight the "environmental blackmail" of corporations and others who claim that the nation must choose between environmental quality and employment.

"Environmentalists for Full Employment" say that jobs can, in fact, be created by environmentally induced change. Environmental controls and conservation both can increase employment, they say, without sacrificing the continuing growth of real income.

"As fuel prices continue to climb, capital and labor, which become relatively cheaper, will be substituted for energy in order to increase the economic output per unit of energy," the group's newsletter says. "Thus industry can reduce energy consumption and sustain economic production at the same time by increasing capital and labor intensity."

The eight-page newsletter quotes United Auto Workers President Leonard Woodcock, a Canadian economist, the

President's Council on Environmental Quality, and other publications around the country. All provide different perspectives on creating jobs.

To illustrate its message with specific examples, the newsletter cites a household solid waste recycling plan in Oregon and a recycling lawn mower business in Maryland, proving that reform can occur at the community or the individual level, too.

In most of the examples, the articles estimate how many jobs would be created if the program were initiated nationwide.

The organization is now creating a model "employment impact statement" which could be distributed on Capitol Hill, in state legislatures, and in city and county governments.

For more information or to receive the newsletter, write to Environmentalists for Full Employment, 1785 Massachusetts Ave., N.W., Washington, D.C. 20036.



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Agriculture favored over wildlife

May 21, 1976 — High Country News-7

# Idaho water plan charts the state's future

by Bruce Hamilton

Some of the most important public hearings in the history of Idaho were held this month in nine cities. The hearings focused on a proposed state water plan for the Snake River Basin, which encompasses almost all of Idaho.

The proposed state water plan is in effect a combination state energy plan, land use plan, environmental policy, agricultural policy, and industrial siting act.

The major question put before the citizens was how to allocate the state's water for irrigation, municipal, industrial, power production, and environmental needs. In a water-short state like Idaho, determining who gets water and who will have to do without it will be the key determinant governing the future of Idaho.

The hearings were held to receive public comment on a document entitled "State Water Plan — Part II: Snake River Basins," put out by the Idaho Department of Water Resources. The final public hearing was held in Boise on May 18, but written statements will be received and included in the official hearing record up until June 17.

After considering public comments, the nine-member Water Resources Board plans to adopt a Snake River Water Plan by September. Then the legislature will take up the bulk of the proposed water plan in the 1977 session.

## COMPROMISE SOUGHT

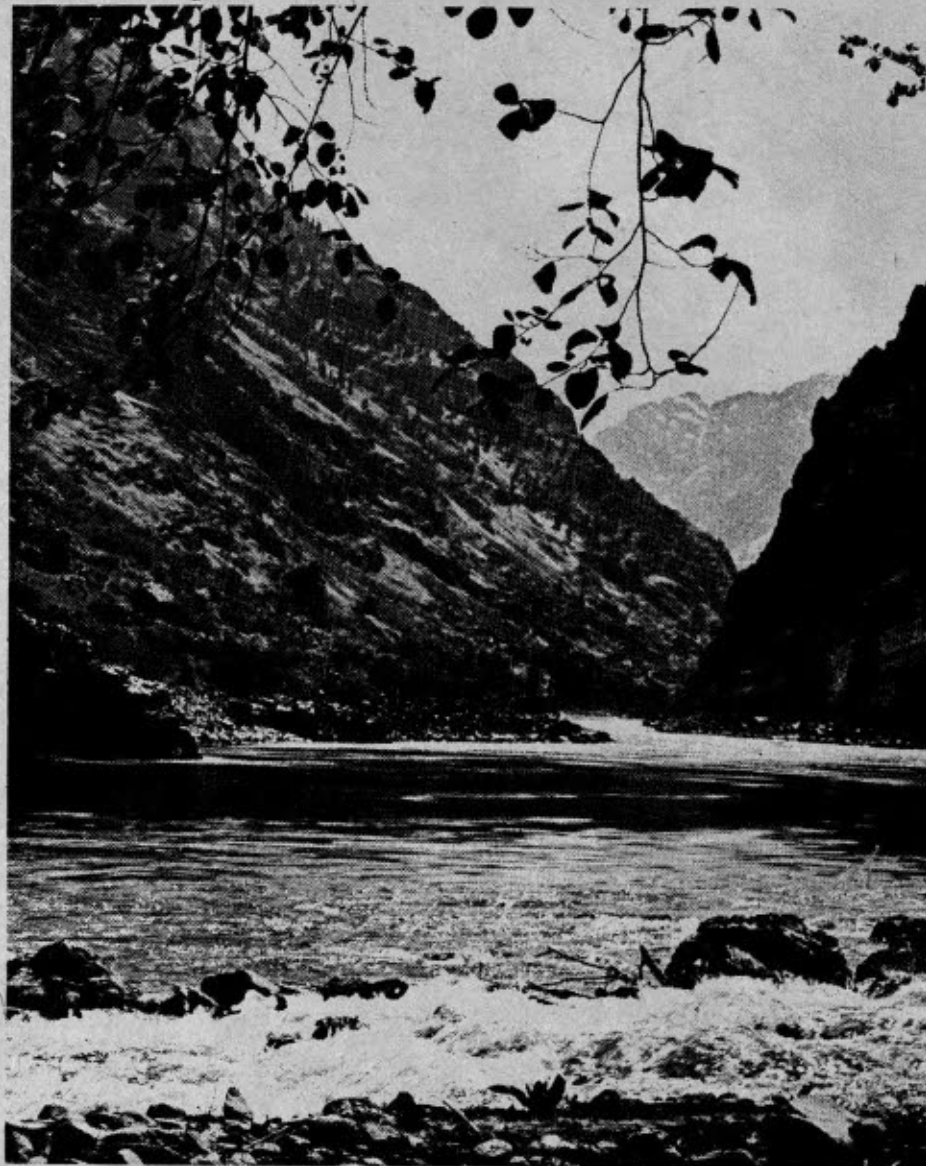
The water plan starts from the premise that "the waters available to Idaho in the Snake River Basin are inadequate for full satisfaction of all projected needs." A basic provision of the plan is protection of existing water users. From this starting point, the water plan seeks to guide and coordinate "the conservation, development, and optimum use" of Idaho water for the period 1974-2020.

The draft water plan contains 29 recommendations dealing with water supply and allocation, policy and program changes, funding, and future study areas.

The plan makes recommendations concerning minimum stream flow, flood plain management, future irrigation project development, state wild and scenic rivers, Indian and federal water claims, power plant development, and other water-related issues.

The water plan is based on the assumption that Idaho will continue to have an agriculturally-based economy for at least the next 40 years. Five alternative water allocation plans are studied with the major difference being the amount of water allocated to new agricultural irrigation projects.

The recommended plan is a compromise between the extremes of optimizing new agricultural development (by opening up 2.5 million acres of new irrigated cropland) and optimizing environmental protection (by guaranteeing minimum stream flow in all rivers). The recommended plan calls for irrigating about 1.2 million acres of new



HELLS CANYON on the Snake River. Photo by Ernie Day.

land and requiring minimum flows in the tributaries to the Snake River — but not in the main stem of the Snake River.

## CONFLICTS ARISE

The recommended allocations have raised a storm of protest, and already the Water Resource Board has announced it will rewrite portions of the proposed plan.

John Streiff, chairman of the Water Resource Board, told the Idaho Statesman that many irrigators "do not trust any change or alteration of the status quo."

"Water is so basic to their operations and needs that to disturb the flow of water in any respect is like cutting open an artery and letting the blood flow," he explained.

Streiff said the plan is written explicitly to protect existing water rights, "but a majority of those who testified were not reassured that this was our intent." He said the rewrite will clarify this point.

The Idaho Department of Fish and Game opposes the water plan as proposed because it doesn't provide for minimum stream flow in the Snake River. A minimum flow in the Snake is essential if salmon and steelhead are to survive in the river.

"The plan is setting irrigation of crops as the best single use of the Snake River's

water," says the department, "but it should be looking for a combination of uses that would yield balanced benefits.

"Fisheries, wildlife, hydroelectric power, and recreation should get equal consideration with irrigated agriculture on the Snake River," says Terry Holubetz, an environmental services coordinator with the department.

The Idaho Environmental Council (IEC), a statewide citizens group, notes that the level of development recommended will require a seven-fold increase in electrical energy production by the year 2020, and will result in a reduced output from existing hydroelectric facilities of nine per cent annually and 21% during peak irrigation periods in August. "This does not seem to be a desirable goal," says IEC.

## WATER PLAN HIGHLIGHTS

A summary of a few of the water plan recommendations follows:

**Recommendation 1.** The plan lists water allocations for "irrigation, municipal and industrial, and thermal (power plants)." Maintaining and restoring flows on tributary streams to the Snake River for fish and wildlife is recommended. Snake River minimum flows are not recommended.

The plan favors flood plain management — controlling what type of activities will be allowed in flood prone areas — to reduce flood damage. Structural flood controls such as new dams and channelization are discouraged.

The recommended allocation provides water for 1.2 million acres of new irrigated agricultural land, supplemental irrigation on 340,000 acres of existing farm land, and municipal and industrial water to support

a population of 1.4 million people. The present state population is about 830,000 people.

**Recommendation 2.** Calls for the director of the Department of Water Resources to consider the public interest when approving or denying applications for water. Present criteria include water supply availability, damage to existing water users, and financial ability — but not public interest.

**Recommendation 8.** Seeks to establish a state natural and recreational river system. This system would be equal to the National Wild and Scenic Rivers System in authority. Segments of rivers earmarked for the state system are on the Salmon River, Bruneau River, Owyhee River, Henry's Fork, Teton River, and Payette River.

**Recommendation 9.** Suggests establishing greenways and greenbelts adjacent to Idaho's rivers. Access to and along rivers would be obtained and open space would be encouraged through zoning, easements, and taxation.

**Recommendation 14.** Seeks preparation of a state electrical energy plan. The water plan predicts that energy use will grow at a rate of 4.5% per year for the next 50 years. According to the water plan, the state will have to shift from a reliance on hydroelectric power to coal, nuclear, oil, and/or alternative energy sources like solar, wind, and geothermal. Very little mention is made of energy conservation as an alternative.

**Recommendation 15.** The state is asked to consider the value of keeping existing agricultural lands in production whenever granting new water rights or ruling on a proposed change of an existing water right. This would discourage changing agricultural lands and agricultural water into subdivisions and municipal water.

**Recommendation 16.** Seeks the identification of water claims by Indian tribes living in Idaho. Reservations in the Snake River Basin include Duck Valley, Nez Perce, and Fort Hall. A complete Indian resource inventory and water development plan would be requested by June 30, 1982.

**Recommendation 17.** The federal government would also be asked to quantify its water claims by June 30, 1982. Under the federal water reservation doctrine the government claims that water is reserved with every federal land holding. Most states do not recognize these implied federal water rights and demand that federal claims be handled through the state water adjudication system. About 64% of Idaho is federally-owned, and no water claims have been submitted to the state for water for these lands.

**Recommendation 19.** Requests the state to seek administration of federal water programs in Idaho. The programs include the Corps of Engineers "404" permit system (which requires a federal permit before altering wetlands and waterways), the Safe Drinking Water Act, the federal dam safety program, and the National Wild and Scenic Rivers program.

## HOW TO PARTICIPATE

Copies of "State Water Plan — Part II: Snake River Basins" are available free from the Idaho Department of Water Resources, Statehouse, Boise, Idaho 83720.

Comments should be sent to the State Water Plan-Hearing Record, Idaho Water Resource Board, Statehouse, Boise, Idaho 83720. All comments are due by June 17.

Water is so basic to irrigators' operations and needs that to disturb the flow of water in any respect is like cutting open an artery and letting the blood flow.

John Streiff, chairman  
Idaho Water Resource Board

# The wolf's ways defy generalization

by Sarah Doll

"All generalizations are false, including this one." Probably more than any other animal, the wolf proves this statement. It has inspired many — "They're all dirty killers," attributed to an anonymous Minnesota state representative, and "The only good wolf is a dead wolf," the opinion held by countless ranchers, farmers, and hunters, to cite only two. Most of the public agreed with these notions until recently when concern over the animal's dwindling numbers started to grow.

Generalizations accepted by the scientific community itself concerning the wolf have also changed throughout this century — sometimes slowly, sometimes at dizzying speed. Earlier, it was assumed that wolves tended to wipe out desirable game animal populations. Gradually, the belief evolved that the wolf did the game animals a service by controlling their populations and culling the weak. Now some feel this view is too simplistic.

Destruction of habitat has long been blamed for the decreasing numbers of wolves. Now it is suggested that the wolf can live in settled areas as well as wilderness areas, if it is not overly persecuted by man.

A glance at some of the major scientific wolf literature reflects not only changing attitudes towards the wolf, but also changing methods of scientific study. **The Wolves of North America**, published in 1944 by Goldman and Young, provides fascinating reading about the wolf's personality and depredations, but much of it is of an anecdotal nature and cannot be accepted as fact.

Adolph Murie's **The Wolves of Mt. McKinley**, also published in 1944, presents the author's findings in a field study made from 1939 to 1941. It is a stunning factual account of the wolf's habits and interactions with other species, especially the Dall sheep.

The major recent work is **The Wolf** (1970) in which L. David Mech presents not only his own research, done in Minnesota and on Isle Royale in Lake Superior, but summarizes the findings of the rest of the



In the wild, wolves tend to be elusive and quite shy of man.

Photo by Dick Randall



Red wolf and pup. This species is threatened with extinction through hybridization with the coyote.

Photo courtesy Stouffer Productions, Aspen, Colo.



Wolf coloration varies within each black. This tundra wolf exhibits the

Photo courtesy

scientific community. It is a useful book, interesting to both biologist and layman.

There are two species of North American wolf. *Canis rufus*, the red wolf, is extremely rare and is confined to a remnant population in southeast Texas and southwest Louisiana.

All the other types are subspecies of *Canis lupus*, the gray wolf. This species is the largest member of the genus *Canis*. Other members are *Canis latrans*, the coyote, and *Canis familiaris*, the domestic dog. Gray wolves weigh from 80 to 100 pounds, although one weighing 175 pounds is on record. Their length is roughly the same as a man's height.

The red wolf is considerably smaller, more approaching the dimensions of the coyote, with which it interbreeds. In all wolves, the color varies widely from almost solid white to black, with all shades of buff and gray occurring. They are well adapted to running, both in the short sprints usually necessary to secure prey, and the long-distance trotting employed in covering their vast hunting ranges.

Since the wolf's chief food is hoofed animals larger than themselves, the wolves have evolved a system of running in packs. Pack sizes vary; 15 might be an average-sized pack, but much larger ones are often observed. Occasionally members of one pack will split and hunt separately, then regroup. Lone wolves are usually pack outcasts, older wolves which are forced to hunt on their own or to scavenge on the leavings of the pack.

The pack system is successful because of a complex "peck order" system. The dominant male and his mate (wolves tend to retain the same mate for life) make the decisions for the pack. Fighting is sometimes observed in young pups. However, once the order of dominance is worked out, symbolic dominant behavior (standing over) and submissive behavior (usually rolling over on the back) is all that is necessary to retain order within the pack. A high degree of communication seems apparent within the group.

Packs also communicate with other packs through urination on "scent posts," and through community howls.

Wolves are sexually mature when they reach two years of age, but the dominant pair often interferes with the mating of lesser pack members. Gestation is around two months, and litter sizes average from four to six, with much variation. Pups are usually raised in a den located near a lake

or river, as the nursing female needs much water. They appear outside the den when they're about three weeks old, and their social life in the pack begins. They are slowly weaned from milk, through food regurgitated by the adults, to solid food offered by the adults, and learn the useful techniques of tugging, chewing, and stripping. They appear fully grown by the age of 10 months and join in the pack's hunting activities.

There is a long-held theory that wolves often abandon a kill without eating all of it because they enjoy killing. Dr. Mech has observed this behavior in hard winter conditions when deer are weak and easy to overcome, but ordinarily the wolf must work too hard for each kill to waste it. They will leave the carcass for awhile, but they usually return to it and dispose of it quite thoroughly. They are adapted to a "feast and famine" cycle; they can go for days with no food, then consume many pounds of meat at one sitting.

Another fable is that wolves always hamstring their prey by biting through the ligaments of the back leg. Although they may occasionally practice this on a slow-moving domestic cow, it's too dangerous to attempt it near the sharp hooves of a moose or elk.

Like the domestic dog that can't chase a cat that won't run, the wolf pack seems to need the stimulus of a fleeing animal. The self-confident moose in its prime that stands its ground is often not challenged, and can usually defend itself if it is. The wolves will not usually pursue an animal for long distances. If the prey is too strong to be brought down quickly, no energy is wasted on it. Many failures are recorded for each successful hunt. Hunting efforts are concentrated on separating a calf or fawn from its mother, or on bringing down the weaker or dumber members of the prey.

Dr. Mech discusses four effects of wolf predation. First is the "sanitation effect." Prey populations are strengthened by removal of inferior individuals, and spread of disease is limited.

Next is the control effect on the prey populations, an immensely complicated subject needing more study, but of definite importance.

Third is the related stimulation of productivity in the prey: Twinning occurred among Isle Royale's moose much more frequently after wolves moved to the island than before.

Finally, wolf kills provide a source of food for scavengers, such as coyotes, magpies, and crows.

When wild game is not abundant, wolves turn to whatever is available. This is the basis of much of their conflict with man. Domestic animals are often slow, fat, and easy to kill. Their owners fight back by every means. Young and Goldman's book has a good section on the various trapping and poisoning methods. One particularly ingenious trick used by the Eskimos involved coiling a piece of whalebone, freezing it, and wrapping it with seal fat. When the wolf swallowed it, it thawed, uncoiled, and pierced the stomach.

The outstanding fact about man's war on wolves is that, except in Alaska, he has essentially won it. In Wyoming the population of about 1,000 was essentially exterminated between 1915 and 1928. The only sizable population in the Lower 48 occurs in Minnesota, where possibly 1,000 exist. Probably no more than 50 individuals inhabit the rest of the Lower 48. A search has been in progress for the Rocky Mountain wolf (*Canis lupus irremotus*). Although some exist in Montana and possibly in Wyoming, the numbers are very low.

Popular attention has been focused on the wolf in the last two years due to the

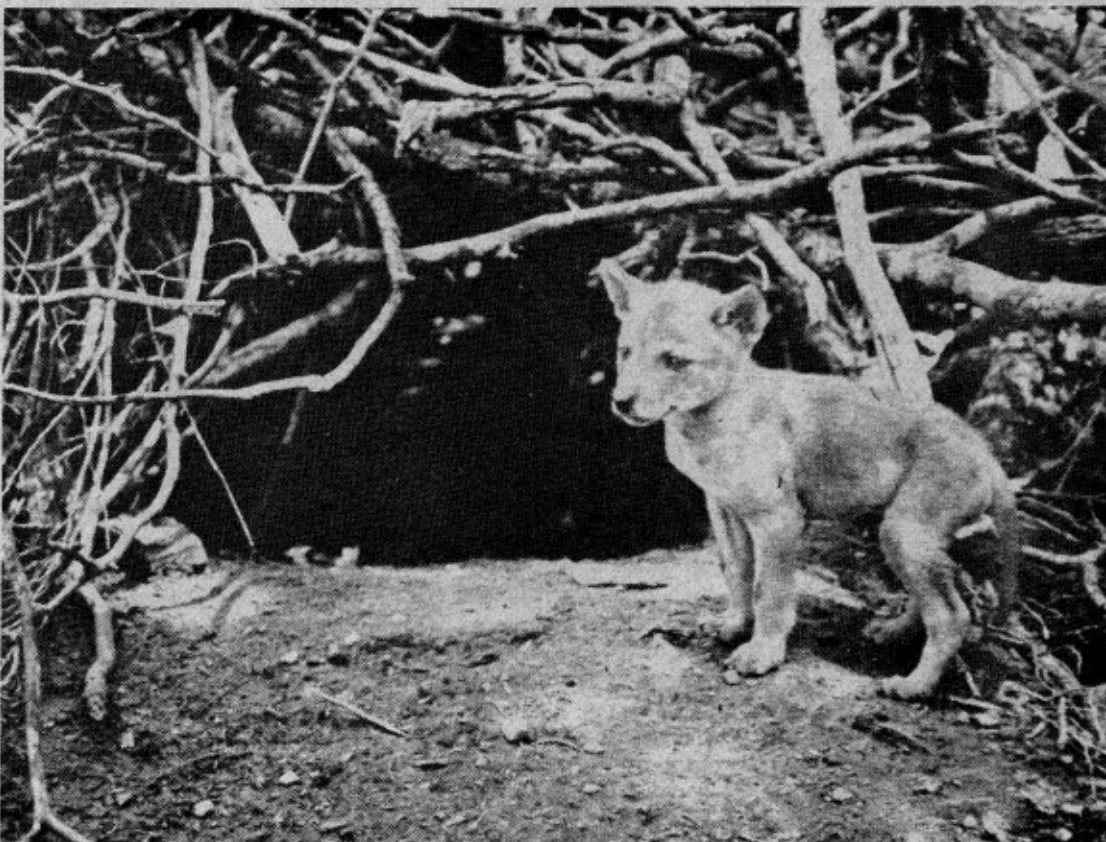


The wolf's appearance sometimes confirms the popular notion that it is an evil, sinister creature. Photo by Tom Baugh

determination of Alaska game officials to control it in some areas in order to help the sagging moose populations. Critics say the officials are blaming the wolf for man's overhunting. However, the problem is very difficult for anyone in the Lower 48 to pass judgment on. The wolf is not endangered in Alaska. Where both human and wolf populations are increasing, conflicts are inevitable, and a realistic approach must be adopted. Alaska's legislature has offered a wolf to anyone who wants one, but there

have been few takers.

While bringing the wolf back from its endangered status is desirable, a return to the populations of the colonial days is not feasible, since we are mostly meat-eaters ourselves. The best hope for their future probably lies in isolated national parks, such as Yellowstone, where predator and prey could be left undisturbed, both free from human hunting pressure. We must not lose this species altogether, but we must decide — how many do we want?



Pups appear outside the den at about three weeks of age, but don't wander far. Photo courtesy Stouffer Productions, Aspen, Colo.



h subspecies from almost white to the darker coloration.

y Stouffer Productions, Aspen, Colo.

## States fear California's power needs

Officials in both Wyoming and Colorado have expressed concern over the implications for their states of the California initiative to limit nuclear power plants. However, officials in both states have refused to take stands on whether or not California voters should approve the measure when they go to the polls June 8.

Proposition 15 on the June 8 California ballot would establish severe safety standards for operation of nuclear plants. It would require a two-thirds legislative vote saying the plants would be safe. Existing plants would be phased out if safety wasn't assured.

A recent study by the U.S. Energy Research and Development Administration (ERDA) indicates that if the initiative passes, then the state's future power needs would likely require 19 coal-fired power plants of over 2,000 megawatts each. Some of the plants could be built in California, but environmental restrictions wouldn't allow all of them there.

Colorado Energy Policy Council Director Harris Sherman told the *Denver Post* he hopes Californians will realize the importance of conservation if they do pass the measure limiting nuclear plants.

A Wyoming economic planning official, John Goodier, told KTWO News that he doesn't think it would be fair for California to export all its problems to other states. He said he didn't think states such as Wyoming would relax their own environmental standards just to allow a plant to meet California consumers' needs.

Two decisions last month in California weaken the chances for passage of the Nuclear Power Plants Initiative. The state energy commission voted 3-1 to oppose the initiative. This is the first commitment by a state agency on either side of the initiative issue.

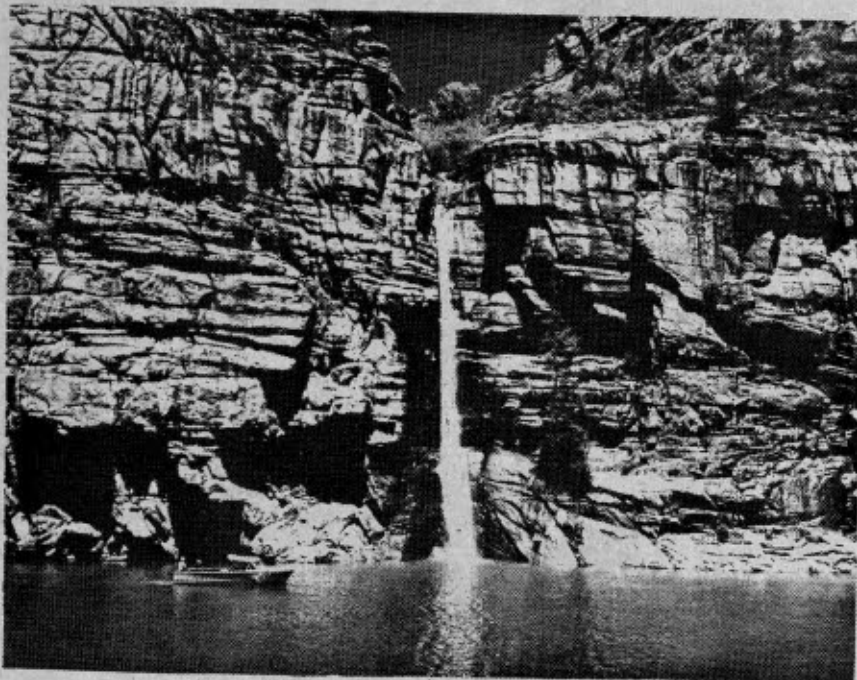
Another action which may lessen the chances of the initiative was taken by the state supreme court. The court lifted the limits on campaign spending, which may result in the opponents of the initiative

spending as much as \$4 million in their "media blitz." The supporters, backed by national conservation groups, hope to raise \$800,000.

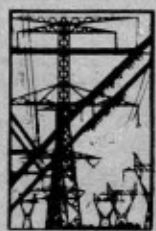
Although the initiative's chances may be weakened, three nuclear plant safety bills in the state legislature may have a better chance of passing after a recent endorsement by Gov. Jerry Brown.

The three bills are viewed as the "responsible alternative" to the initiative by

some people in the state and by the *Los Angeles Times*. They would prohibit future nuclear power plant construction in California until there has been satisfactory action by the U.S. government on methods for reprocessing nuclear fuel and providing final disposal of nuclear wastes. One of the bills would require a thorough state study on the effectiveness of siting nuclear reactors underground. None of the bills would affect existing plants or those now under construction.



**MORE POWER FROM DAMS.** The U.S. Bureau of Reclamation is considering increasing the hydroelectric generating capacity in the Colorado River Basin by as much as six million kilowatts. This would involve increasing present power plants' and other planned power plants' capacity. BuRec Commissioner Gilbert Stamm told United Press International that three studies are underway and a fourth will begin this year. One of the studies would look at the feasibility of increasing the generating capacity at Hoover Dam on the Colorado River on the Arizona-Nevada state line by an estimated one million kilowatts through installation of additional hydroelectric generators. Photo of Chipeta Falls at Morrow Point Reservoir on the Gunnison River in Colorado. Photo courtesy of the Bureau of Reclamation.



### The HCN Hot Line

energy news from across the country

**SOLAR PRIORITIES.** Electrical Marketing now accepts solar energy as an "important worldwide commercial reality." But the publication says, "As the situation stands now, it would seem the export market for solar heating equipment to a world market even more starved than the U.S. for energy may be far more important than the domestic market."

**SYNFUELS BILL MOVES.** A bill that guarantees \$4 billion in loans for synthetic fuel production and alternative energy was voted out of a House committee May 12. (See HCN, 5-7-76.) But Rep. Tim Wirth (D-Colo.) told the *Denver Post* the bill might be lost since funding requests wouldn't get into the Senate's budgeting process by May 15, as required. The bill has been opposed by environmentalists, conservatives, and some representatives of the oil industry who say that too much federal money is required and that it encourages uneconomic operations. Meanwhile, the General Accounting Office has accused the

federal government of dragging its feet in encouraging programs to convert coal into synthetic liquid and gaseous fuels. Sen. Jennings Randolph (D-W.Va.), who requested the study, supports the synfuels bill.

**'NUCLEAR WASTES SAFE.'** A new federal study says radioactive waste from nuclear power plants can be processed and stored underground permanently without danger. But in the report on the study, a Congressional committee was told the methods for storing the wastes are still being developed and sites for disposal are still being sought. The report, prepared by the President's Energy Resources Council, says that radioactive waste volume is small, when compared with other waste products. Critics of the study say the volume cannot be compared since a mere speck of plutonium, for example, could be lethal. They also point to the government's previous failures in storing nuclear wastes.

**TVA V. EPA BATTLE CONTINUES.** The U.S. Supreme Court has rejected the Tennessee Valley Authority's (TVA's) claim that federal law permits the use of intermittent controls to meet national sulfur dioxide limitations. However, TVA and the U.S. Environmental Protection Agency (EPA) still have plenty of ground for feuding, according to the *Mountain Eagle*. TVA had spent millions on tall stacks,

which the court ruling implied were inadequate. Now, at a minimum, TVA will have to buy low sulfur coal and wash and blend coal to meet sulfur standards. The *Eagle* says the low heat content of western coal and high freight costs are apt to turn TVA to Appalachian low sulfur coal rather than Western low sulfur coal. Additional scrubbers will also likely be required at some of TVA's plant.

**WEIGHTLESS STORM WINDOWS.** Nearly weightless films are now being developed which will insulate windows as much as several inches of asbestos, according to a United Press International report of an American Chemical Society meeting. The transparent heat mirrors could save as much as two per cent of the national energy budget in home heating costs, the story says.

**ALASKA CATCHING THE WIND.** Alyeska, the consortium of oil companies building the Alaska oil pipeline, is apparently not afraid of wind power competition putting it out of business. In fact, the company is installing wind generators to power a communications system, according to the *Anchorage Times*. Energy alternatives are particularly attractive in remote areas of Alaska where fuel oil, airlifted in, sells for around \$2.50 a gallon. The state of Alaska is also planning experimental wind generators in three villages if the legislature appropriates the necessary funds.

## Reckoning from Washington

by Lee Catterall

### STRIP MINING BILL LINGERS

The federal strip mining bill's obituary beginning to yellow around the edges, but its proponents insist a resurrection will occur.

The bill has been through nearly every legislative turnstile on Capitol Hill. Congress has debated the bill in every session for three years and approved it twice, but failed by a mere three votes a year ago to override President Gerald Ford's veto. Plans to try again may be stalled until next year, when proponents hope a more sympathetic Democrat will be in the White House.

"Dead, dead, dead." That was the assessment made by Rep. Sam Steiger (R-Ariz.), the bill's chief opponent, in March when the House Rules Committee blocked its consideration. The committee decided the bill was so little different from a previous version vetoed by the President months earlier that House rules dictated time should not be devoted again to consideration of the bill in the same session of Congress.

Some observers of the Rules Committee action quickly agreed with Steiger's death announcement, but Rep. John Melcher (D-Mont.) and the small band of environmentalists who have been lobbying tirelessly for the bill vowed defiantly that they would circumvent the committee.

Their plan was to obtain the signatures of 218 congressmen — a majority of the House — on a "discharge petition" and bring the bill directly to the House floor. Nearly two months later, Melcher has gotten fewer than 100 names on his petition, discovering that his colleagues are not so defiant or so emotionally involved in the issue.

The strip mining bill's coma has left two other important proposals hanging in mid-air: a bill to revise the nation's mineral leasing laws and another bill to allow coal slurry pipelines to cross other rights-of-way.

Melcher and other sponsors of the strip mining bill say it would be unwise to prepare for massive coal development in the West by passing the coal leasing and slurry pipeline bills without first enacting rigid strip mining reclamation standards.

However, as the strip mining bill's chances for approval have lessened, the impatience of advocates of the other two bills has grown. The coal leasing bill contains changes in the mineral royalty law that would bring vast amounts of money to states like Wyoming and Montana.

Rep. Bob Eckhardt (D-Tex.) is anxious for passage of the slurry pipeline bill, which would allow lines to be built to his hometown of Houston from coal fields in Montana and Colorado. Acting through the Democratic Study Group, a coalition of liberal congressmen, Eckhardt has asked Melcher to switch tactics.

Melcher has agreed to try obtaining 25 co-sponsors of the bill in the House Interior Committee, incorporating 13 changes he says would make the bill more acceptable to President Ford. Melcher then would present the bill to the Rules Committee for reconsideration.

"The feeling is that if we brought this to Rules with the 13 amendments it would be a different bill," an environmentalist explained.

Sponsor outlines bill, strip regs

# Melcher says regs don't protect water, landowners

The new strip mining regulations have been published by the Interior Department with a clause saying that states' reclamation standards will be adhered to if the states' standards are at least as tough as the federal standards. Rep. John Melcher (D-Mont.) contends, however, that Interior does not have the authority to delegate this responsibility for federal coal. Nor does he think the language of the clause is particularly reassuring to the states.

The regulations are the final draft of those proposed last December. At that time, there were many objections, and Interior has made several changes. The U.S. Environmental Protection Agency (EPA) and the President's Council on Environmental Quality both support the new regulations and say the changes are "substantial."

In an interview with HCN, however, Melcher said the regulations fall far short of the protection offered by the Congressional strip mining bill, which he is still trying to push through Congress this year (see "Reckoning" column this issue).

In addition to the state v. federal jurisdiction problem, Melcher sees four other major problem areas in the strip mining regulations adopted by Interior — problems that his bill would avoid. He says Interior's regulations do not protect either landowners or water; it's too easy to obtain a variance from reclamation requirements; and Interior cannot deny a permit on the basis of an inadequate reclamation plan.

Carl Bagge, president of the National Coal Association, also criticizes Interior's regulations in some of the same areas, but he says the provisions are too strong. He thinks the proposed rules were severely tightened, "with nearly every concession going to the environmentalists."

Until the Congressional bill successfully makes it through the Congress and past the President, Interior's regulations alone

will dictate how federal coal will be developed. The regulations do not cover state or private coal.

## WILL STATES' REGS PREVAIL?

The most significant change in Interior's new regulations provides that state laws will apply on federal land if the states' regulations are stronger than the federal.

However, Melcher points out, there's a catch. The new language says the states' regulations will apply unless the Secretary of Interior determines that they would "unreasonably and substantially prevent the mining of federal coal . . . and b) the Secretary determines that it is in the overriding national interest that such coal be produced. . . ."

Assistant Interior Secretary Jack Horton says that strip mining regulations in Wyoming, Montana, and North Dakota are all "reasonable" in Interior's eyes.

Wyoming Gov. Ed Herschler is upset with the two "loopholes" and says he is contemplating "a course of action to establish the state's inherent right in this area." Presumably this would be through court action.

Melcher, however, says the Interior Department does not have the authority to allow states to preempt federal responsibility. If a coal company took the issue to court, which Melcher believes likely, the court would have to find that Congress had never delegated that authority, he says.

## LANDOWNER RIGHTS

One of the reasons cited by the Ford Administration for vetoing the Congressional bill was the section granting the landowner veto power if a coal company wants the federal coal beneath his land.

Rep. Teno Roncalio (D-Wyo.), who is another prime mover behind the strip mining bill, says that Interior's regulations "provide only that the surface owner will

be consulted from time to time."

Laws in both Wyoming and Montana provide for landowner consent. But Roncalio says that an Interior official bluntly told him that "if any rancher who didn't want to give up his land and home tried to have a state surface owner consent law enforced, the federal government would simply go to court to have the state law overturned."

## WATER PROTECTION

Melcher and Roncalio both say water supplies are one of their principal concerns since they represent semi-arid states.

Interior's regulations say the "best practicable commercially available technology" must be used to minimize disturbance or loss of water. To Bagge, this language is too tough.

But Melcher points out that if an aquifer (a water-bearing formation) were disturbed, then it might cut off the water supply for a ranch 20 miles away. This might not be considered "practical" to prevent, from Interior's point of view, he says.

## RECLAMATION REQUIREMENTS

The regulations require that the land be returned to its approximate original contour and planted with native vegetation, or with vegetation that's at least equal in density and permanence to the original.

Bagge objects to these requirements on behalf of the National Coal Association saying they're "unreasonable."

Roncalio, however, says the section is too lenient since it says the company's liability to replant ends after only 10 years, or in some cases, 15 years. He cites the Interior Department's recent statement on a mine in Wyoming which says it might be 40 or 50 years before the vegetation could approach its present species diversity and density.

May 21, 1976 — High Country News-11



**REP. JOHN MELCHER:** Court suits challenging the legality of the Interior Department's proposed coal development policies won't stop until Congressional legislation spells out how coal is to be mined.

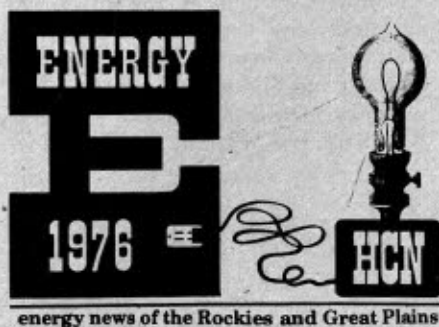
Melcher says it's too easy to get a variance from the reclamation requirements. "The variance procedure leaves a lot of unnecessary doubts. It leaves that authority too much to the whim of the Secretary of Interior," he says.

Interior has eliminated its language that originally said land would be reclaimed "to the maximum extent practicable" — language which was objected to by many critics, including the EPA. Now Interior has detailed performance standards for companies which contain variance procedures which, it says, will impose stringent controls but allow needed flexibility.

Bagge says the variance mechanism is "so tightly drawn that as a practical matter, a variance will be very difficult to obtain."

Sen. Jake Garn (R-Utah), a consistent opponent of strip mining controls, says he hopes that the regulations "will head off" future efforts to enact regulatory legislation.

However, Melcher thinks the court suits challenging the legality of the Interior Department's proposed coal development policies won't stop until Congressional legislation spells out how coal is to be mined.



**POWER TO THE PUBLIC.** A petition drive has begun in Montana to authorize acquisition of private utilities in the state. If 32,000 signatures are gathered, the question of public utility ownership will go to the voters for the November election. The effort is being organized by the Montana New Socialist Party. If passed, each county would be empowered to create a "public energy district" that would take the place of the existing private utility, according to *The Missoulian*.

**UMW MOVE WEST.** The vice president of the United Mine Workers (UMW) has been suspended after refusing to carry out a union assignment to survey the organizing needs of the UMW in the Western coal

fields. The vice president, Mike Trbovich, was suspended for 30 days by UMW President Arnold Miller. Miller says the union faces a major threat in the West from the growth of non-union coal in the area, according to the *Mountain Eagle*. "If we don't organize there, the UMW will be weakened tremendously and the bargaining power of 250,000 UMW miners will be a lot less at our next negotiations," he said.

**POWER ON THE LOOSE.** City officials in Loveland, Colo., are afraid that the cooperative electric power authority they created along with other towns may be getting beyond their control. Loveland Mayor Jean Gaines says he doesn't want to "get into the power business like Public Service Company (a power company in Colorado) where we would really be out competing with these other companies." The manager of the Platte River Power Authority says, however, that because of bond obligations that must be fulfilled, "There's no way out." Not only must the authority seek other customers for the power, he says, but they must also consider building a new power plant. "That's the way power is sold," he explained, according to the *Loveland Reporter-Herald*.

**COLSTRIP SITING QUESTIONED.** The Montana Board of Natural Resources is hearing final oral arguments on the proposed third and fourth units of Colstrip and is expected to make its decision at the end of May or beginning of June. In one of its final analyses of the project, the Northern Plains Resource Council (NPRC) says, on the basis of testimony, that the decision by Montana Power Company to choose the Montana Colstrip site was based on three considerations. First, the site represented maximum economic return to the company. Second, the site represented "minimum political hassles" from the company's point of view. Third, the site represented minimum reliance on the Burlington Northern Railroad.

**GAS LIGHTS BANNED.** Gas lights were ruled too energy inefficient to be used in Colorado. In making the ruling, the Colorado Public Utilities Commission said the energy consumed by an average gas light with two mantles is almost 23 times as much as is consumed by an electric light for the same amount of light, according to a *Rocky Mountain News* story. No commercial buildings can continue using the lights and no new gas lights can be installed anywhere.

**GUY SAYS ENERGY SHORT.** Speaking in his home state of North Dakota, William Guy recently cited the need for a strong national energy policy. Guy is staff director for the Western Governors Regional Energy Policy Office (WGREPO). He said the energy crisis will continue to plague the nation until a renewable source of energy to replace the dwindling supplies of fossil fuels is found, according to the *North Dakota Union Farmer*. Guy was speaking at the annual meeting for the Baker Electric Cooperative, Inc.

**OFFICIAL SUPPORTS LIFELINE.** Proponents of a lifeline utility rate structure have found a prominent spokesperson in Wyoming: Secretary of State Thyra Thomson. Thomson is concerned that electric rates could go up eight-fold when the costs of new pollution control equipment are charged to customers. Public Service Commission is moving toward a flat rate structure in which all users, large and small, pay the same. But Thomson says this doesn't go far enough toward alleviating the economic problems of small users. She wants to see a minimum rate for minimal use of natural gas or electricity, aimed at rewarding conservation.

12-High Country News — May 21, 1976

## Colorado

## Only 'faint hope' for mineral tax

Prospects look bleak for the passage of a mineral severance tax in Colorado. The legislature adjourned May 13, but agreed to get back together May 26 to see if compromises could be reached on the severance tax and a school finance and property-tax relief bill. They have a "faint hope" of success, according to the *Denver Post*.

The severance tax appears to be dead because of a recent deadlock which occurred in the conference committee on the bill. The House, with a Democratic majority, passed an \$18.1 million tax on mined coal, molybdenum, and petroleum. The Senate, with a Republican majority, at first wanted no tax at all. The Senate finally settled for a bill that would have generated \$8.5 million in taxes. The compromise reached in conference committee was a \$10.5 million bill, which didn't satisfy House Democrats who had agreed in caucus not to accept anything less than \$11.7 million.

The Senate changed its mind on the issue in response to the threat of a referendum on the November ballot. It was feared that a citizen vote might result in higher tax than would be approved by the legislature. Amax, Inc., which mines molybdenum in the state, apparently concurred. Sen. Joe Schieffelin (R-Lakewood) told a group of Republicans that "they said they would much rather have what they considered to be the reasonable people in this room (the Republican caucus) write the law than

have it go to the people — who would not understand the problems of the industry."

Colorado Gov. Dick Lamm (D) is spearheading the initiative drive. His plan would replace the state's three per cent food tax with corporate taxes and sever-

ance taxes.

Environmental groups in the state, which had been strong supporters of a hefty severance tax, backed off of the issue when it became embroiled in partisan politics and linked with the repeal of the food tax.

## NRAG tells how to rock boat

The Northern Rockies Action Group was formed to help public interest groups function more efficiently — so that they can effectively rock the boat when necessary. Recently the group has begun to put the skills they teach down in black and white.

NRAG has begun publishing articles on practical skills for public interest groups. The first two were on fund raising and newspaper development. Future articles are planned on such topics as constituency-building, staff training, communications, and administration of public interest groups. The series is called *The NRAG Papers*.

The papers are published quarterly. For those who wish to help NRAG become a self-supporting organization, the group offers \$25 annual sponsorships of *The NRAG Papers*. Regular subscriptions are \$12.

NRAG, which calls itself "a public interest support team," has been helping environmental and Indian groups when cal-

led upon in the region since 1972. Among the groups that have benefited from NRAG's expertise are the Idaho Conservation League, the Northern Cheyenne Landowners Association, the Powder River Basin Resource Council, and the Wyoming Outdoor Council.

For more information write NRAG at Number Nine Placer St., Helena, Mont. 59601 or call (406) 442-6615. Bill Bryan is coordinator.

Report from  
Alaska

by Greg Capito

Seventy oil companies recently assembled in Anchorage and bid \$571 million for the first of the Interior Department's nine oil and gas lease sales in the turbulent North Gulf of Alaska. One hundred and eighty-nine tracts totaling one million acres were offered. All were frontier areas never before explored by the oil industry.

Although no one knows the extent of the resource, the Interior Department estimates that there is a 95% probability for a minimum of 100 million barrels of oil and 300 billion cubic feet of gas within the sale area. The only attempt to explore the gulf ended abruptly last summer when an Atlantic Richfield Oil Co. ship was driven from the area by gale force winds and mechanical problems.

The North Gulf is the breeding ground for some of the world's most violent weather and lies in an area which is seis-

## Mining bill weak

A mined land reclamation bill that is probably weaker than existing regulations for federal lands passed the Colorado legislature in April.

No one seemed too happy about the bill. Environmental groups were disappointed, but generally supported the legislation. They said it was the best they could do this year.

Harris Sherman, director of the state Department of Natural Resources, warned, "Colorado will have to improve its reclamation law if we want it to apply to federal lands." Federal regulations permit the state to enforce its own reclamation laws on federal lands only if the state's requirements are at least as stringent as federal requirements. About 30% of Colorado's present mining is on federal lands. That percentage is expected to increase rapidly.

One major problem with the bill is that there is no appropriation to fund it. The House had appropriated \$56,000 to finance two new reclamation employees, but the Senate removed the appropriation from the final bill.

The bill has also been criticized for making mining companies responsible for surface "operations" rather than surface "disturbances," which was the original House language. As the bill now reads, underground miners are apparently freed from responsibility for subsidence or landslides which their mining might create.

mically active. It is also the home of an estimated 48 million birds and seven of the world's eight endangered species of whales. In addition, the area supports a \$100 million commercial fishing industry.

Two years ago, when the Interior Department announced an accelerated Outer Continental Shelf leasing policy, the North Gulf was rated as the worst environmental risk of 24 areas set aside for lease. There are serious questions whether the oil industry has the technical ability to drill safely in this harsh marine environment.

The lease sale came after a federal appeals court denied a request by the State of Alaska for a two-year delay so that coastal communities could prepare for onshore impacts. It is likely that storage, terminal, and pipeline facilities will be located in Yakutat, Cordova, or Seward. Without adequate lead time for planning, large scale oil development could turn these quiet fishing villages into industrial cities and hasten the disappearance of a life style that is unique in North America.

## Environmentalist meet

A conference examining rural values and energy development is set for Casper, Wyo., May 29.

The public meeting will also include workshops on alternative energy, agricultural issues, and films and slide shows. Rep. Alan Simpson, the majority leader of Wyoming's House of Representatives and a leader in land use, plant siting, and coal taxation legislation, will speak at the banquet concluding the conference.

The event is sponsored by the Wyoming Outdoor Council (WOC), an umbrella group which includes representatives of most conservation groups in the state.

Featured at the workshop will be Drs. Ann and Clayton Denman of the Small Towns Institute in the northwest; Malcolm Lillywhite, an expert on low-cost, home-built solar heaters, solar greenhouses, and wind energy systems from Evergreen, Colo.; representatives of the Alternative Energy Resources Organization from Billings, Mont.; and representatives of the

Farm Bureau, the Stockgrowers Association, the Woolgrower's Association, and other agricultural groups.

Entrance to the meeting is \$6 without the meal. With the prime rib banquet included, the fee is \$14.75, if you pre-register. At the door, fees will be \$6 without the meal and \$15.75 with the meal.

The conference will begin at 9:15 a.m. To pre-register contact WOC at P.O. Box 24, Basin, Wyo. 82410. Child care with meals is available for 75 cents per hour per child for those who pre-register.

WOC's annual meeting will be held the day after the conference, on May 30 at 10 a.m. at the Izaak Walton League Campground in Casper.

The evening before the conference, the Murie Audubon Society will host Audubon national Vice-president Charles Callison in Casper. Callison will present a program on Alaska. The program is free and open to the public. It will begin at 7:30 p.m. at the Izaak Walton League cabin.

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# Western Roundup

HCN

## Grand Canyon leases error exposed

The Interior Department, under pressure from the Sierra Club, is investigating three uranium leases granted to Exxon Co. USA in the Grand Canyon. The leases, granted last Oct. 1, are in Lake Mead National Recreation Area and adjacent to Grand Canyon National Park in Arizona. No environmental impact study was done prior to the leasing, according to Interior. An Interior spokesman told the Associated Press that his department erred by leasing without public discussion and environmental study, and it was trying to determine what, if anything, it could do about the situation. The spokesman said the leases were granted by the Bureau of Land Management after consultation with the National Park Service. Officials in each agency apparently assumed the other agency had taken care of environmental requirements, he said.

## Champion backs out of Alaska woods

Champion International Corporation has requested a release from the largest timber sale contract the U.S. Forest Service has ever let. If the release is granted, one of the Sierra Club's most famous legal battles, still in U.S. District Court in Alaska, will become moot. The 1968 timber contract was to last for 50 years. It sold Champion the timber on the entire western half of Admiralty Island in Alaska as well as acreage on the mainland at Yakutat and Stephens Passage.

The club saw Admiralty as "the last best hope for a large wilderness in the spruce and hemlock forested islands" of southeastern Alaska, says a Sierra Club Legal Defense Fund newsletter. "The Champion contract would forever destroy that opportunity."

Doubts about the contract were raised not only by the Sierra Club suit. The Monongahela decision in West Virginia overturned a timber sale where the timber had not been marked prior to sale. This ruling was heeded by an Alaskan judge who soon afterwards ruled against an Alaskan contract on the same basis. In addition, native corporations were making new claims for land in Champion's timber sale area under the Alaska Native Claims Settlement Act. Inflation and the loss of an important Japanese paper contract also took its toll on Champion, says the newsletter. "Faced with all these complications, Champion finally threw in the towel."

## Haskell says range-aid bill backfired

A bill sponsored by Sen. Floyd Haskell (D-Colo.) to rehabilitate Western range lands looks less appealing to the senator now that it has finally passed the Senate. As amended on the Senate floor, the bill "threatens to give ranchers a vested interest in the lands owned by the public," Haskell says. The bill, S. 2555, establishes an \$895 million, 30-year program to improve the quality of Western range land. To Haskell's dismay, it also would allow five-year instead of one-year grazing permits on lands administered by the Bureau of Land Management (BLM) and would allow a permit holder to deduct up to half his fees in exchange for improvements he made on the public lands. The bill would also require either the BLM or the Forest Service to reimburse a rancher for improvements if for any reason his grazing lease was terminated by the federal government. "Over the decades," Haskell says, "the intent has been that a rancher does not have a vested interest in these public lands simply because he holds a grazing permit." Sen. Lee Metcalf (D-Mont.) also spoke out against the amendments, saying that they would mean the beginning of giving a permittee a property "right" on public lands. The amendments were offered by Sens. James A. McClure (R-Idaho) and Howard W. Cannon (D-Nev.).



### TRANSPARK ROAD PROGRESSES

Despite a court challenge by environmental groups, the National Park Service has awarded a \$2.8 million contract to construct about 10 miles of road in the Bighorn Canyon Recreation Area to a Montana firm. The road would extend from Devil's Overlook near Lovell, Wyo., north to Barry's Landing. The court challenge to a transpark highway, filed by the Montana Wilderness Association and the Montana Wildlife Federation, will come before the Ninth Circuit Court of Appeals in San Francisco sometime in the next few months. The appeals court denied a motion for holding up construction of the road pending the court's decision.



### PROTECTION FOR CAPITOL REEF

The National Park Service wants most of the land in Capitol Reef National Park in Utah protected from development, according to the agency's recent statement of management objectives. The statement is the first step toward formulation of a land use plan for the park. It places 141,000 out of the park's 218,559 acres in either the "wilderness subzone" or "natural environment subzone" classifications, which would ban most kinds of development. Grazing now in the park will be phased out between 1982 and 1992. In compliance with the legislation that established the park, no new mineral permits will be given, although existing mines will be allowed to continue. The deadline for public comment on the report is June 1. It is available for review at park service offices in Salt Lake City, Utah; Torrey, Utah; and Denver, Colo. Utah Travel Council photo.

## Locals oppose moving Green to Platte

Not a single hand was raised in support of transbasin diversion of water from the Green River at a meeting held in Green River, Wyo., May 11, according to a local newspaper. The meeting was held to exchange information with the public about what the U.S. Bureau of Reclamation's Sublette Project Study might mean for the future of the Green River. About 40 people attended. The 1956 Congressional authorization which initiated the study was also the basis for the Fontenelle and Flaming Gorge dams on the river. The Sublette Study suggests that Green River water could be diverted east to the North Platte River.

The diversion was brought up most recently by state engineer George Christopoulos. According to State Sen. Robert Johnson (D-Sweetwater), who opposes the plan, it has been unearthed by lower echelon state officials who are "carrying out the policies of previous administrations and who can't be fired except for insubordination." Johnson estimates that only about 8,700 acre-feet of water would remain for transbasin diversion after "present and foreseeable" uses within the basin were considered. Christopoulos says that some 114,000 acre feet would be available.

A Bureau of Reclamation official at the meeting suggested that additional storage facilities might be necessary on the Green, whether or not water is diverted to the North Platte. Suggestions at the meeting ranged from raising the level of high mountain lakes to construction of another dam just below the existing Fontenelle Reservoir.

## More than beer is brewing in Golden

"A major battle is brewing" over the Sheephorn Water Development Project in Colorado, according to the Straight Creek Journal. The project, which would involve seven dams and three hydroelectric plants, has been proposed to bring water from the Western Slope of the state to Golden, on the edge of the densely populated Front Range. (See HCN, 4-23-76.) The city of Golden and the Vidler Tunnel Water Company are behind the project and have applied to the Federal Power Commission for a preliminary permit to continue planning efforts. Already 50 agencies, groups, and individuals have filed protests against Vidler's claims to the western water. Among them is the Denver Water Board, which would like to divert some of the same water to the Denver area. Felix Sparks of the state Water Conservation Board calls the Sheephorn Project "a harebrained scheme," according to Straight Creek.

14-High Country News — May 21, 1976

# Private, commercial river runners face new limits

by Verne Huser

One of the most serious controversies raging today among an increasing number of river runners is the conflict between private users and commercial outfitters.

Use is now limited in many areas administered by the National Park Service (Grand Teton, Grand Canyon, Dinosaur, Canyonlands), the Forest Service (Middle Fork of the Salmon, Selway, Hells Canyon), and the Bureau of Land Management (Westwater, parts of the Rogue, Desolation Canyon, the Stanislaus), whose river management personnel comprise the Interagency Whitewater Committee.

In many of the areas, detailed scientific studies are under way to help the river management agencies determine the carrying capacity of the river resource, but while these studies are being conducted, use ceilings have been imposed. These ceilings have precipitated the conflict.

It started in Grand Canyon, where Park Service personnel initiated a user-day concept to limit human impact upon the river bank in the park because the resource was suffering during peak periods of use. Based on previous use patterns, the managers allotted 8% of the user-days for private users, and divided the remaining 92% among the commercial concessionaires.

Suddenly there was a dramatic increase in private applications. The private parties turned down began to scream. A limited number of commercial outfitters screamed, too, suing the Park Service for limiting their business. They lost their suit but added fuel to a growing fire.

A big question here is this: Who is the private user? Who is the commercial user?

Many private users actually run commercial or at least semi-commercial trips. So do educational institutions, outing clubs, and scout and church groups, though they get by the technicalities by calling it an expense-sharing trip.

There are arguments that say the private user has a greater impact on the river resource; that he stays longer (twice as long, on the average, in Grand Canyon) and consequently produces more garbage and human waste; that he is less accountable, more likely to abuse the resource, break the rules; that in general he doesn't know the area as well and gets less out of the trip than if he were on a commercial trip with a qualified guide.

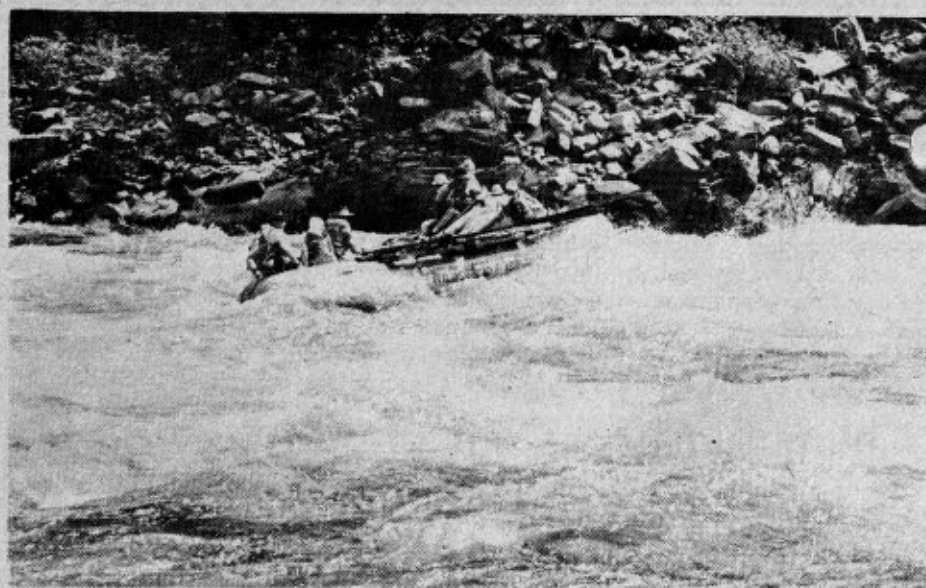
But I know a great many highly qualified and responsible and competent private users and far too many irresponsible commercial guides who don't know their geology and history, their fauna and flora, who do not deserve the name of guide. The shoe fits both feet and blisters both.

One suggestion for solving the conflict is to allow every individual to draw for a place on the river, then go with his own boat in a private party or with a commercial outfitter. But what happens if only three members of a family of five draw out for a trip down the Rogue?

Another suggestion is to limit the number of people on a river in a given week, the number of launchings per day. This may seem highly restrictive and downright un-American, especially in a wilderness, but what are you going to do with so many people trying to run rivers?

Perhaps there should be sacrifice areas where use is concentrated for the popular consumer. There are such areas today: as many as 9,000 people a week run the 7-mile stretch of the Youghiogheny River in Ohioyle State Park in Pennsylvania (that's more than run the Middle Fork of the Salmon and the Main Salmon combined during an entire summer).

In Grand Teton National Park no fewer than 75,000 people run the upper Snake every summer. Some people consider that a sacrifice area, but you still have the panoramic view of the Tetons and you see



SIERRA CLUB GROUP on a Salmon River float trip in Idaho. Photo by Verne Huser.

wildlife from elk to eagles, moose to muskrats, beaver to buffalo — and it's better than seeing them from an automobile. Let there be no doubt about it: single-day or part-day trips have much less impact on the resource than extended trips that involve overnight camping, but isn't it great to camp along the river?

Some commercial parties don't take their full allocation of user days. Should they have those unused days taken from them? Permanently? Temporarily? Perhaps the unused allocation should be added to a pool from which other outfitters and private parties could draw. The pool system in many variations has been proposed and in some areas it is being used successfully. But what of the family in Maine or Alabama that applies for a river trip permit to run the Grand Canyon during a two-week vacation? Under the present system, they might be refused in November for the following summer, then

be given a permit at the last minute. A bit awkward, but what's the answer?

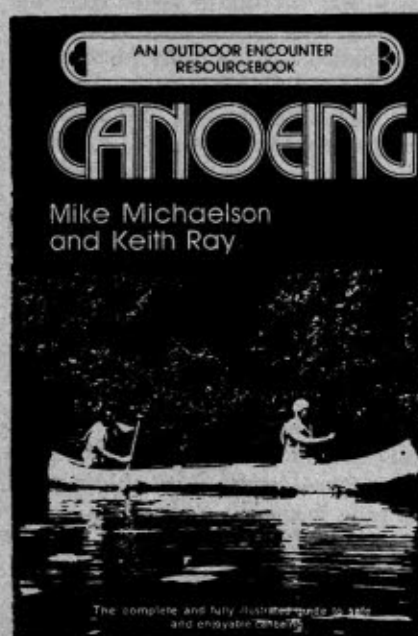
There are no easy answers, no pat solutions. Each river is unique, and every American — every citizen of the world, for that matter — should have the right to run each river, but a right carries with it certain responsibilities. Perhaps that is the answer, but how do you enforce responsibility?

By learning to care for the river resource yourself and by insisting that everyone else on the river uses it well and as lightly as possible.

Our rivers can handle a lot more use if we take good care of them, extend the season with early and late season trips, and police them in the spirit of Smokey Bear's admonition: "Only you can prevent..."

Verne Huser is a professional river guide and is the author of *River Running*.

## HCN Books



by Mike Michaelson and Keith Ray, Henry Regnery Company, Chicago, 1975. \$4.95, paperback, 154 pages. Photographs and diagrams.

Review by Peter Wild

Geography made the canoe. A glance at a map of North America shows why it was essential for many native Americans and

the choice of early white explorers. They found the network of waterways a happy alternative to the gloomy, sometimes impenetrable, forests and swamps of the continent. Swift, maneuverable in shallow or narrow streams, and light enough for one man to portage, its flexibility was a boon to the wilderness traveler.

After suffering decades of humility and decline, during which it was associated with ukeles and Sunday paddling in public parks, the canoe is regaining its traditional useful place in America. Those who prefer bicycles to motorcycles, natural foods to plastic-wrapped carcinogens, or a week of walking in the mountains to a fling in the Gomorrah of Las Vegas will appreciate the canoe. As with other things compatible with the environment, this ancient way of travel adds sensitivity and beauty to its virtues. The beginner will find his enjoyment grow as his skills develop and his faculties become attuned to the subtleties of his craft.

The old wives' tales about the dangers of canoeing are old wives' tales. As with firearms, ladders, and skate boards, the canoe is as safe as the common sense of the user allows it to be. Learning the basic skills is a straightforward process, one that the book outlines with diagrams and photographs.

The great pitfall for the novice lies in choosing equipment. One would think that a paddle is a paddle. It may be for the first mile or so, but when the canoeist propels himself and his gear on a trip he may be digging the blade into the water some 16,000 times a day.

As with boots for the backpacker, a paddle can either make or break the canoeist. Yet paddles come in bewildering combinations of sizes, designs, and materials, all with various advantages and disadvantages. Should a buyer pick a fiber glass voyageur with a pear grip or be tempted by the authentic narrow-bladed cedar Indian with a hoe handle?

It might be more exciting to be initiated by an old Maine guide, but lacking that, beginners will find *Canoeing* the next best thing. The authors go through the maze of possibilities with reassuring detail, equipping the reader to make his own decisions. Other chapters do more than explain the difference between a rib and a thwart. They enable the novice to purchase a canoe to suit his needs and pick the gear to go into it.

Then the book comes along in the canoe, explaining how to paddle, how to portage, how to read a stream. Chapters explore white-water racing, camping by canoe, and necessary safety tips. Strategic hints show that Michaelson and Ray have enjoyed all this for years and know the value of little things.

Again like the backpacker, the canoeist should travel light. The writers suggest supplies that serve multiple purposes. Baking soda, for instance, "...can be used to clean teeth, soothe a stomach, relieve tired feet, smother a small fire or stove flare-up, freshen a coffepot, scour dishes, and soften socks," a beautiful detail.

Instead of fussing with baby sitters and inconveniencing grandparents, couples should take their children with them;

*Canoeing* tells how to make a trip an adventure for the family rather than a chore. A preschooler will get an extra kick out of floating along if he can do his bit with his own miniature paddle or tow a favorite rubber duck behind on a string.

*Canoeing* has some blank spots. Hypothermia, a condition that can quickly kill a person dumped overboard, is touched on only in passing. To become the complete guide it starts out to be, the book needs an entire chapter on first-aid situations common to the sport. The section called "Ten Regional Canoe Trips" may be of help as a starter for a person oblivious to the possibilities in his area. But it would leave a foreigner with the strange impression that the United States has 10 navigable rivers, one granted by Providence to each of the regions mentioned. Thus "The West" has the Russian River, "The Northwest" the Columbia — laughable indeed in view of the scores of streams overlooked.

The book is about half the length — and the same price — of at least one other volume in the publisher's handy "Outdoor" series. One gets the chilly feeling that along the tortuous route to publication a zealous editor axed 150 pages in an effort to decrease production costs while maintaining profits. Nevertheless, the essentials escaped the hatchet job. Though the price is somewhat on the steep side, *Canoeing* has the reliable information necessary to get the beginner seated in the right canoe, proper paddle in hand, eager to strike out from noise, pollution, and energy waste for a saner, quieter world.

# Eavesdropper

environmental news from around the world

## LOONEY LIMERICKS

by Zane E. Cology

Navajos stare in the desert heat,  
At their coal gas plant — a modern feat.  
Their water's consumed,  
By industrial boom,  
They're cookin' with gas  
— but there's nothing to eat.

**KELP CULTIVATION.** Enough kelp could be grown in the open ocean to "make a dent in the energy shortage," says a team of researchers at California Institute of Technology (Caltech). Kelp grows up to two feet a day and reaches lengths of 200 feet. It may become a source of fuel and electric power when methods of converting it to methane or natural gas are perfected, say the researchers.

**PARKS IN TROUBLE.** The National Parks and Conservation Association reports "widespread decay" in the national park system. A contaminated water supply at Crater Lake, early closing of campgrounds in Yellowstone, and a skeleton staff at the new Guadalupe Mountains National Park in Texas are among the signs of deterioration cited in a study by the association staff. The study was published in the February issue of *National Parks and Conservation Magazine*.

**WATER PLANNING CHANGE.** People who have been upset with priorities of the Missouri River Basin Commission or other river basin commissions may get a chance for more input, if a bill sponsored by Sens. Frank Church (D-Ida.), Mark Hatfield (D-Ore.) and Henry Jackson (D-Wash.) passes. The bill (S. 3142) would provide for a non-federal advisory committee to give a voice for the states and the public interested in the U.S. Water Resources Council decisions. The council receives the recommendations from the basin commissions, which have been criticized as being too development oriented, and relays them to Congress. The Missouri River Basin Commission has given high priority in the past to controversial water development projects, including the Oahe Irrigation Project in South Dakota.

**CONSERVATION FUND BILL MOVES.** The House recently approved legislation increasing authorizations for the Land and Water Conservation Fund and continuing current restrictions on use of funds so they can only be used to acquire land. The fund uses outer continental shelf lease revenues to buy natural lands, which helps preserve habitat. The bill had previously been amended to allow the money to be used to swimming pools and ice skating rinks, but that change was deleted.

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**U.S. STEEL CRITICIZED.** U.S. Steel Corp. gives all industry a "black eye," according to John R. Quarles, Jr., deputy administrator of the Environmental Protection Agency (EPA). Quarles commended several industries for responding positively to EPA efforts. However, he said, U.S. Steel has a "record of environmental recalcitrance . . . second to none." Such resistance, he says, ultimately generates public demands for even harsher controls which Congress is then forced to translate into law. U.S. Steel's E. W. Mallick denied the accusation, according to *Air-Water Pollution Report*.

**ACTION ON FOREST BILL.** The Senate Interior and Agriculture Committees have approved a bill relaxing court-ordered restrictions on clearcutting but retaining general language aimed at preventing environmental deterioration. According to *Land Use Planning Reports*, the bill, as reported, is patterned after Sen. Hubert Humphrey's (D-Minn.) proposal. It excludes Sen. Jennings Randolph's (D-W.Va.) bill that was supported by a coalition of environmental groups. The U.S. Forest Service would be required to adopt regulations calling for advance environmental review of each proposed harvest. Area by area limits on the size of tracts which may be clearcut would be set. Industry representatives are generally satisfied with the bill, according to *LUP Reports*, and environmentalists are not. The House will be considering timber legislation soon.

**CLEAN UP COSTS \$15.7 BILLION.** Russell W. Peterson, chairman of the Council on Environmental Quality, says 1975 expenditures on pollution control will total \$15.7 billion. The clean up generated approximately one million jobs.

## Environmentalists, labor share many goals, Woodcock believes

The president of the United Auto Workers recently voiced his support for environmentalists, saying that the differences between working people and environmentalists have been caused, in part, by years of "environmental blackmail." Leonard Woodcock, speaking to the annual meeting of the Planning and Conservation League, said, "... major corporations have tried to hold workers, or at least their jobs, hostage against the application of environmental regulations."

Woodcock admits there are also "very real disagreements, not so much over goals, but over how rapidly it is possible and feasible to reach them." Noting areas of common interest, he says, "It is important to remember that the environment does not end at the plant gate. The air in the factory contains all the pollutants dumped outside, and then some. Workers are often the first to feel the effects of the many substances we breathe and drink. In a sense, the factories are laboratories for health effects, with workers as guinea pigs."

Both the environmental movement and the labor movement are interested in a national energy policy, Woodcock points out. The Ford Administration's present policy has the effect of maintaining oil company profits, while increasing prices for those Americans least able to pay.

Suggestions for environmentalists were included in his speech, part of which was reprinted in the January issue of *Not Man Apart*, a semi-monthly Friends of the Earth publication. Some of his suggestions:

—Labor needs allies in the political fight to set better standards for workplace contaminants. Now the allowable concentrations of pollutants are several times higher for air inside the plants than for the air outdoors, he says.

—Governmental environmental regulations should be a stimulus to industrial

development, by shocking firms into innovation and by forcing development of new abatement technologies. However, "the serious economic situation creates a greater need that environmentalists and planners take into account the loss of jobs and the need for adequate compensation, retraining, and other safeguards for workers whose jobs are threatened by regulations."

"It would free workers from the fear, skillfully played upon by environment ravaging employers, that vigorous action to protect the environment must mean the loss of jobs."

"We cannot aim at solving environmental problems by simply introducing an environmental ethic into our society or by changing attitudes. This goal implies instead that we must work concurrently on the environment, on the conditions in the places where people work, on providing jobs, and on developing the services needed to maintain health," Woodcock says.

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16-High Country News — May 21, 1976

# Don Redfearn, elk refuge manager

by Mary Inman

Anyone who has lived in Jackson Hole, Wyo., for 10 years likely feels as concerned for its future as any pioneer or native. Don Redfearn, manager of the National Elk Refuge, feels this concern. He compares the valley at the foot of the Teton Mountains with a big diamond you would not put in a setting and then clutter it up with quartz crystals. He fears unsightly land development may be cluttering up the valley and destroying its unique esthetic value.

Redfearn's assignment at the elk refuge came in response to his desire to return to field work after being desk-bound as assistant regional supervisor of the U.S. Fish and Wildlife Service. A career employee, Redfearn started working for the service right out of high school as a clerk typist at



Photo of Don Redfearn by Elizabeth McCabe and courtesy of the JACKSON HOLE GUIDE.

Bitter Lake Refuge in his native New Mexico. Since, he has served at many wildlife refuges throughout the West including the Bear River Refuge and the Ouray Refuge in Utah.

## COMPETITION WITH CATTLE

Long before the National Elk Refuge was established, Jackson Hole was the historic wintering area of the largest elk herd in North America. With the advent of ranching in the valley, competition developed between the elk and livestock interests. After some bad winters which took great tolls in the elk population, and during which ranchers did their best to aid the elk, these ranchers sent a petition by way of the state legislature to Congress for help. What they had in mind was an area where feed could be put out to lure the elk away from the ranchers' hay which they put up for their cattle.

Congress responded by establishing the National Elk Refuge under the Department of the Interior in 1912. It was begun with 4,000 acres of public domain. After donations and purchases over the next 35 years, it grew to 24,000 acres. This includes roughly 25-30% of the original wintering grounds of the valley. The Flat Creek drainage in the Bridger-Teton National Forest is closed to grazing of domestic livestock and provides additional winter habitat.

With thousands of elk confined on a wintering ground only 25-30% its original size,

wildlife managers are faced with a problem of how to supply enough food for the animals.

## SUPPLEMENTAL FEEDING

The Wyoming Game and Fish Department favors supplemental feeding — raising hay on farms and feeding it to the elk in the winter. Game and Fish has 21 feeding areas around the state, most of them in the northwest where the largest elk population is found. These feeding grounds substitute for a lack of winter habitat.

On the National Elk Refuge the state and federal wildlife agencies have a cooperative agreement whereby Game and Fish contributes up to 50% of the cost of supplemental feeding.

But supplemental feeding may not be called for on the refuge, according to Redfearn. He figures that the winter carrying capacity of the refuge is about the same now as the entire valley was before settlement — about 7,500 maximum. The wintering ground acreage is smaller, but Redfearn and his staff have made it more productive through habitat manipulation. Through irrigation and other management practices, forage growth has been enhanced by two to three times, he says.

Redfearn believes that once the habitat is sufficient on the refuge, supplemental feeding is not necessary.

Garvice Roby, a wildlife biologist with Game and Fish in Jackson, says there still isn't enough forage for the elk that winter on the refuge, and so artificial feeding should be continued. Even though the Fish and Wildlife Service has improved the habitat, several factors continue to make feeding a necessity, he maintains.

Roby says there are about 8,000-8,300 elk using the refuge — far more than Redfearn's ideal return to 7,500 elk. Another problem is that snow cover makes some natural forage unavailable.

Roby says the state and federal wildlife agencies have agreed to try to reduce the herd to somewhere around the 7,500 level which will eventually reduce the need for feeding.

## PARK ENCROACHMENT?

One of Redfearn's primary concerns this year has been the Grand Teton National Park boundary extension study. The elk refuge could benefit from certain extension options, but it could be eliminated under one option.

Redfearn is pleased with one alternative which would extend the park to include the Teton Valley Ranch subdivision adjacent to the town of Kelly. Although presently the subdivision operations do not hinder the elk migration, Redfearn believes that potential future development could block the herd.

Another alternative calls for including all of the elk refuge in the expanded park — a proposal Redfearn opposes.

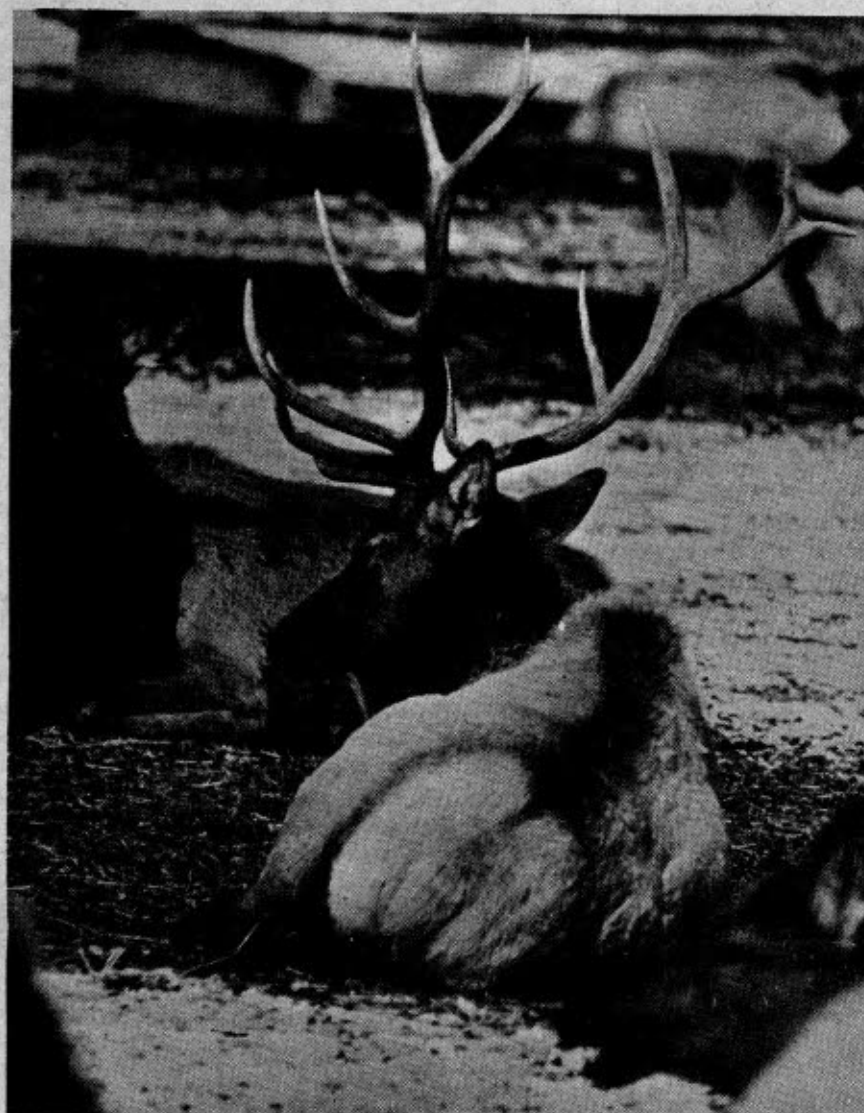
In the process of developing alternatives for a boundary study, the National Park Service must anticipate all suggestions that might come from the public, explains Redfearn. Suggestions range from "Why do anything at all?" to "Why not include everything?"

Redfearn considers merging the park and the refuge unworkable because of the difference in management objectives of the National Park Service and the Fish and Wildlife Service. This alternative has since been dropped at the recommendation of the steering committee of the boundary study.

Even though he is against a park takeover of the refuge, Redfearn praises

the historical role of the park in elk protection.

"If you look in retrospect at the situation in Jackson Hole if the park had not been established, where would the game population be today?" asks Redfearn. We always need to be looking 75 years ahead — not just two, he says. "We have options today because of people with foresight."



## Dear Friends,

"Environmental blackmail." We've all been victims of it to some degree. We adopt an environmentalist stance on an issue and hear our opponents tell us that we lack consciences — that we're forcing workers' families to be destitute just so we can enjoy a little blue sky. "Hard, unfeeling, middle class purists," they call us.

Ouch. That stings for many of us who consider ourselves social activists as well as environmentalists. No matter how loudly we try to rationalize our position opposing nuclear power plants or supporting Clean Air Act amendments, we sometimes have low moments when we wonder if maybe we have wandered selfishly astray.

Now there's a group, formed last fall, that can bolster us up and give us ammunition. Environmentalists for Full Employment is the group, and they publish a newsletter (see story).

When we tackle the B-1 bomber or the SST, we can now quote from the United Auto Workers who say aerospace workers' skills could be used to make a solar unit for every home, "people-movers" for our big cities, and new ventilation systems for noxious workplaces.

When we oppose a new power plant, we can cite the Environmentalists for

Full Employment's figures showing how electricity production is high on the list of energy intensive activities and low on the list of labor intensity per dollar spent.

And we can quote them saying: "Most energy supply systems . . . are highly automated. They employ skilled workers whose talents are already in short supply. . . . Conservation, on the other hand, requires many skills possessed by those who are now out of work. Insulating buildings, constructing new mass transit systems, and cutting energy waste in industry will give a boost to the economy where it is most needed," the newsletter quotes Sen. Birch Bayh (D-Ind.) as saying.

We've always known that our objectives would benefit the "public interest" and not just our own. But it's nice hearing someone like United Auto Worker President Leonard Woodcock say it. As F. Wallick says, labor and environmentalists could be a formidable coalition: "... Workers . . . must not bear the full cost of desirable social changes. . . . They can become allies in the struggle for a better total environment — if they are made part of a strategy for constructive change. . . ."

—the editors

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