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The Environmental Bi-Weekly

High Country News

Vol. 9 No. 1

Friday, January 14, 1977

Lander, Wyoming

BLM's new scheme

Rest-rotation range plan — panacea or problem?

by Bruce Hamilton



Photo by Ron Mamot

The U.S. Bureau of Land Management has initiated a major drive to improve the deteriorating range on public lands in the West through a grazing system known as rest-rotation. Critics say this proposed action could bring about "a disaster" by destroying fish and wildlife resources and accelerating range deterioration. Ranchers and environmentalists are asking BLM to modify its rest-rotation plans. Critics inside and outside BLM believe many agency employees who are trying to implement rest-rotation do not understand it.

Rest-rotation was first developed in 1948 and has been recognized as one way to manage certain grazing lands. Most critics realize rest-rotation is a valid system of grazing management but object to BLM's plans to apply it to all public lands as a panacea for range ills.

Rest-rotation is only one range management tool, says resource consultant and retired BLM employee William R. Meiners, but it is being offered "as the only solution to any and all problems and situations. . . . A panacea it is not, and a disaster it will be" if it is adopted throughout the West indiscriminately.

BLM revealed its preference for rest-rotation management when it released an environmental impact statement on its national grazing program. Now BLM is in the process of preparing 212 impact statements on specific grazing areas as a result of a suit filed by conservationists. The first

site-specific EIS on the Challis Unit in Idaho — a model for the 211 EISs that follow — recommends instituting rest-rotation in most areas on the unit.

POPULAR IDEA?

The Natural Resources Defense Council (NRDC) one of the environmental groups which sued BLM to make it prepare site-specific grazing EISs, says some observers believe "BLM gives lip service to rest-rotation grazing in order to ward off public pressure to reduce the numbers of stock on the public range. The theory that BLM can allow heavy domestic grazing and at the same time protect the range has undeniable political appeal." This observation was made in NRDC's comments on BLM's draft programmatic grazing EIS.

BLM argues that intensive management such as rest-rotation is needed to improve misused range. Rest-rotation is a proven effective method for improving range without removing livestock, BLM range managers say.

BLM had hoped to have rancher backing in its attempt to switch to rest-rotation. The agency hoped the promise of improving the range without reducing stocking levels would appeal to those livestock operators who have grazing permits for public land. But many permit holders are highly critical of the proposed change.

Rest-rotation involves fencing the range into pastures and moving livestock between the pastures to prevent overuse of

(continued on page 4)

The theory that BLM can allow heavy domestic grazing and at the same time protect the range has undeniable political appeal.

DeVoto, the writer most Utahns can't forgive

© 1977 by Peter Wild

Many years later, he would be one of the Rocky Mountain's most effective conservationists, but at the age of 23 Bernard DeVoto sulked in home-town Ogden, Utah, convinced he was a failure.

True, he had served as a lieutenant in the Army during World War I. He had graduated from Harvard. But now he wanted something romantic for a career; he wanted to be a novelist. Unsure of his talents and uncertain of how to accomplish literary fame, he returned home after college to stew, " . . . in his own lethargy and

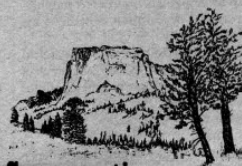
Ogden's torpor . . .," as Wallace Stegner puts it. He had watched his mother die; migraines, insomnia, and listlessness plagued him. The writing wouldn't come. Sometimes, sweating, full of doubts, he couldn't face the task of crossing a street.

Finally, in a painful effort to break the ennui, the young DeVoto boarded the Overland Limited in the fall of 1922 for a teaching job at Northwestern University. Gloom dogged him as the train headed east into the Wasatch Mountains past his grandfather's farm. As it gathered speed across the bleak Wyoming Plateau, he felt he would never leave the car alive. Yet he

did reach Northwestern. If depression followed this son of a Mormon mother and an apostate Italian Catholic, it was a mood he eventually harnessed to drive his creativity and become one of the most controversial writers, one of the most effective conservationists, of the mid-century.

And if at times the young instructor of English had to wrap his feet around the legs of his chair to keep from running in a cold sweat from the classroom, the students didn't notice. As hard as he was on them, they liked him, so much so that the administration held him suspect for his popularity. He married the prettiest girl in his

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Conservation
 pioneer series

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HIGH COUNTRY

By Jane Bell

The year 1977 may be the year of new beginnings—the year of the breakthrough into a new era. The signs are hopeful.

President-elect Jimmy Carter has taken the bull by the horns in a way that Nixon-Ford could never approach. The reason could simply be the feel for leadership in that area. Regardless of political party, the American people are ready to accept the stringent measures necessary to keep our society viable. But they yearn for leadership.

Industry, almost without exception, awaits an energy policy. Without that policy, they are reluctant to move. As a consequence, industry has not been willing to make an all-out commitment to any energy development option. The U.S. Energy Research and Development Administration (ERDA) reports that 140 American corporations have begun work on 17 alternative energy technologies. But ERDA says that "with a few exceptions... corporations are waiting for the government to take the lead in whether and how to pursue them."

The former staff director of the Western Governors' Regional Energy Policy Office (and former North Dakota Governor) William Guy told a Farmers Union conference that conservation should be the "main pillar" of a national energy policy. There are many who would agree. The International Energy Agency says the U.S. has the second worst conservation record of all advanced industrial nations.

Sweden has a high standard of living, yet in 1971 that nation used about 60% as much energy as the U.S. to produce each equivalent dollar of output. The Swedes did it by having homes and buildings heated twice as efficiently as ours, by 25% less use of energy per ton of industrial output, and by driving automobiles that average 24 miles per gallon. Estimates of savings in our own energy use run as high as 50%, simply by a number of changes in lifestyle.

Carter has broadly outlined the energy policy he would like to see followed. He would like to limit oil imports to 40%. We are now importing 42%, with demand rising. He said he favors decontrolling oil and gas prices. That measure will take political courage, but it is necessary if for no other reason than to bring about conservation because of higher prices.

There are many areas where outspoken leadership could make a difference. A national bottle bill has been languishing in Congress for several years. Various reports have rebutted every claim of the industries opposed to such a bill. When finally enacted, it will save energy and create jobs.

Trends in agriculture show more and more big industry muscling into food production areas. Yet, these industries are energy intensive at the expense of family farms and farm labor markets. On the other side of the coin, organized farmers can produce a dollar's worth of food with only 40% as much energy as "conventional" farmers. And on an acre-for-acre basis the organic farmers derive as much income as their energy-intensive counterparts.

Carter favors de-emphasizing nuclear power and putting more emphasis on solar power. Public acceptance of such a policy seems all but assured for several reasons. Even the industry giants are getting into solar technology.

However, industry is reluctant to shelve the nuclear aspect because of the huge investment already made. And labor appears to be short-sightedly following the industry line.

A re-alignment of policy may be far more

in the public interest. Nuclear power plants are almost prohibitively expensive now and are sure to be more so as more safeguards are required.

A study was recently done by the Stanford Research Institute for the Sheet Metal Workers Union. It predicted \$2 billion per year worth of additional jobs by 1990 in converting to solar heating and cooling.

A firm push from government seems to be all that is necessary to get solar power off and running. Tax credits for energy-saving devices and solar equipment would do much to create a mass market and bring down prices. The credits should extend not only to private homes but to industry and all other sectors of building.

Experts agree that mass markets for solar components are near at hand. And current research may bring breakthroughs in such areas as solar cells and more efficient batteries for storage of electricity and use in small non-polluting autos.

Each day, it is becoming more apparent that our dependence on non-renewable resources is a dead-end street. The shift in direction now indicated by the incoming Carter Administration may be one of the most significant developments of the third century which our country now enters.



HCN Letters

SYNFUELS ALIVE IN WICHITA

Dear HCN,

Since Dec. 1, when the news leaked out of the National League of Cities meeting in Denver that the city of Wichita was planning on building a new "experimental" coal gasification plant, we have been barraged with Madison Avenue Salesmanship trying to sell the proposed \$1,250,000,000 plant to the people in southcentral Kansas.

The plant will be built in partnership with Panhandle Eastern Pipeline Co. and financed with industrial revenue bonds issued by the city of Wichita. (This new plant will surely cost \$2 or \$3 billion when completed.)

This proposed plant will use over 30,000 tons of coal each day — shipped by rail or floated in a pipeline from Wyoming.

The city fathers in Wichita are determined to proceed with this plant and are unwilling to listen to criticism.

On Nov. 29 at the big meeting in Denver, Dr. Barry Commoner addressed the assembled city fathers and advised them to turn to solar energy and practice conservation — but the city fathers of Wichita came back home with plans for a multi-billion dollar dirty coal which will probably help to make an Appalachia out of Wyoming.

Your advice or comments will be appreciated.

Our industrialized and technological society is, indeed, a gluttonous consumer of our finite natural resources and a polluter of the environment.

We have not yet harnessed the Windy Kansas Winds.

We have not yet developed Solar Energy in Sunny Kansas.

Daryl Glamann

Box 157

Cheney, Kansas 67025



"DON'T MATTER IF YOU DON'T KNOW HOW TO DRIVE. THIS HERE BABY DRIVES ITSELF."

SEEKS INFORMATION

Dear HCN,

We are currently involved in an embroilment with state water resources and irrigators in regard to water rights for domestic uses. The new irrigation wells are less than two years old and already many negative effects have surfaced. Wells have gone dry, the water table in creeks and stock dams has dropped dramatically, flowing wells have ceased to flow, yet we were told the aquifer would recharge rapidly.

As a general rule we can expect only about 10% of the general average rainfall to migrate to the deep subsurface and become part of the underground water supply. If you have an annual rainfall of 20 inches for this part of the state the best you can expect for recharge would be two inches — hardly enough to make up for the more than two feet of water many irrigation systems currently pump.

The willingness of our society to trade off one of our resources — water — for a few lousy dollars greatly disturbs me. Since I do not have any input from other states in regards to the negative effects of pumping from deep wells, I wonder if you and your readers could supply me with as much information as possible.

I understand Western Kansas, Colorado, Nebraska, and Texas have all had problems.

Please send information to:

A. W. Redlin
Summit, S.D. 57266

MONEY SPEAKS

Dear editors of High Country News:

A consultant for the Denver Water Board in a panel discussion at a recent environmental conference spoke the following words as a true believer with point-blank sincerity: "Water goes where the money is." It has also been widely published that the United States loses 8,200 acres of prime agricultural land every day; land going where the money is. After briefly tracing the implications of the

above one immediately sees increasing pressure on every untrammelled area to produce in economic terms. Put more concretely wild plants and animals and the freedom for me that they preserve do not equate to much money; therefore, they have low priority in America's scheme of things. In fact even agriculture (in Colorado) at present stands lower in priority for water than either industry or suburban bluegrass.

In my opinion population and technological growth are pushing us all fast to the brink — the logical, insane conclusion that the axioms of our system seem to imply: if not total self-destruction, then mere survival in a dreary, unfree world.

Standing tall with heads above the smog are a few mountains in our culture with feet firmly planted in the belief that the most worthwhile facets of life have nothing to do with money, that wild beings need to be in abundance, that man should use his creative imagination to understand and become one with the glorious wild world. I

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hope that one of these mountains continues to be the High Country News.

If you are ever in danger of extinction for want of money appeal to the people who love the natural world and its freedom. Though we are not "pure" we should have laundered our money sufficiently to remove any soiling it may have had in the hands of those who would imprison us in a money-culture.

Take a lesson from the Nature that seems to know the most about survival. Support from many strong-willed entities united in a common cause is far more stable than support from a few momentarily strong, possibly self-imposing giants who of a necessity stemming from their own beliefs would rather see you dead than alive.

Happy New Year and keep an eye on the rappers and scrapers in 77,
Martin E. Walter
Boulder, Colo.

SUN SIGN SUBSCRIBER MESSAGE



Aquarius subscribers (by our definition, subscribers with a "2-77" or a "3-77" after their address labels) are no problem when it comes to renewal time.

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So far, contributors to the HCN Research Fund have paid for 34 stories which have appeared in HCN. That's two stories per issue. The fund pays for photographs, some writers' travel expenses and freelance writing. Some of this year's material includes: Jeffrey City, by Mary Trigg; Butterflies, by Rob Pudim; Never Summer Mountains, by Mark Peterson; Solar energy in Colorado, by Joan Nice. Contribute to the research fund and be instrumental in improving the content of your newspaper.

Send your tax-deductible donation to "Wyoming Environmental Institute — HCN Research Fund," P.O. Box 2497, Jackson, Wyo. 83001. (Please make out checks to "Wyoming Environmental Institute — HCN Research Fund." Thank you.)



Editorial



Deserve praise — not schooling

Last month the North Dakota Public Service Commission got only fleeting local attention when it ruled on reclamation of fences at the North American Coal mine at Zap, N.D. (see HCN, 12-31-76). The event deserved our attention — not because of the offenses, which one could easily assume are not uncommon, nor because of the penalties, which were mild.

What is noteworthy is the fact that miners at the mine exposed their employer's transgressions. At the risk of their jobs, the miners called a press conference last April to dramatically call attention to their concerns. They described how North American Coal had instructed one miner to drive a seed drill around in front of Gov. Arthur Link — without any seeds in it. And how the man whose duty it was to remove top soil was told to get out of the way because he was slowing the strip mining.

The miners signed statements describing in detail several transgressions that they had witnessed.

Asked why they considered the issue important enough to take such risks, the miners explained that they loved their state and would have to live there after the mining was completed. They realized that unless the reclamation requirements were met, the mine site could be a wasteland where nothing but sagebrush and thistle could grow. With compliance with state laws, they had at least a hope that the land could become productive again — a place they could be proud to call part of their state rather than a blotch they would turn their eyes away from, remembering they had once mined there. They also said that when bigger mines are opened in the state, they want to have set a precedent for strict enforcement.

They also no doubt realized that others who love the state, and who may have helped push the reclamation requirements through the legislature, have no compara-

ble opportunity to oversee the mining.

At the press conference, they displayed pride, knowing that what they were doing was defiant and brave. In the eight months that passed between their press conference and the PSC decision in December, these feelings no doubt faded with frustration. When they finally learned of the PSC decision, their frustration erupted into anger. The PSC admitted that the company had broken the law. For punishment, it said the company must hire reclamation specialists and start a reclamation education program for employees.

The outraged miners asked why they should have to take an education program when they apparently understood the regulations better than the company.

The PSC said it had no alternative since the 1975 legislature had stripped it of any authority to levy fines. The only power it has is to demand that the company forfeit \$1,500 per acre bond and forbid it from mining again in the state, which it considered too harsh a penalty.

Whatever the rationale, to the miners, it looked as if the PSC were scoffing at the seriousness of their charges. The miners could easily think that the PSC didn't take the job of protecting the state's lands nearly as seriously as they did. Their defiance and their pride were dashed — and along with theirs every other miner's who might have been quietly watching the situation with the thought of taking similar action.

We're forced to accept the PSC's word that it was not coddling North American by choice. Assuming it had only one option for penalties, we hope that the 1977 North Dakota legislature will act quickly to rectify the situation. And we hope it's not so late that other potential watchdogs have already given up hope of helping to guard the resources of the state.

—MJA

Rest-rotation

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Soke.

(sok) n. Soke in early English law dealt with jurisdiction over territory.

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(Ask for a sample copy.)

4-High Country News — Jan. 14, 1977

Grazing. . .

(continued from page 1)

any one area. (For a more complete explanation see separate story in this issue.) Ranchers say this intensive management will cost them more and won't bring about any better results. Building and maintaining new fences and water developments will be expensive and herding livestock from pasture to pasture will take more time and cause weight loss in the animals.

Many ranchers would prefer to keep existing grazing management systems in effect. BLM says change is needed because in many areas the range condition is deteriorating. In some areas where BLM says the range condition is improving, rest-rotation is being proposed anyway to help the range improve faster.

NRDC says many range ecologists believe "rest-rotation grazing and other intensive management systems can contribute to better range management only on the best range areas and only where substantial supervision is given. Their view is that intensive management is 'inappropriate on much, if not most, of the public lands, given their physical and topographical conditions.'"

Ranchers who use Wyoming's Red Desert for grazing agree with this assessment. Under rest rotation, one pasture is intensively used by all the livestock while another pasture is rested. The ranchers say the desert won't tolerate this periodic heavy use.

UNDERSTANDING THE SYSTEM

Rest-rotation is a complex system which requires intimate knowledge of soils, vegetation, climate, and other natural resources of an area. A rest-rotation system which works in one area may not work in another. There are many possible variations, and once a rest-rotation "treatment" is chosen, it must be continually monitored and modified to meet changing conditions.

NRDC told BLM in its comments on the draft programmatic EIS that rest-rotation systems have "very severe practical impediments because of the complexity involved in determining proper rest and rotation periods based on varying plant physiology, soil, and climate conditions and the lack of sufficient skilled personnel to initiate guide, and monitor such systems. . . ."

One critic of BLM told HCN: "Top bureau people are not adequately informed on rest-rotation management and do not understand it. In fact, they have passively resisted it. They have given little support to the program in the field."

The bureau has developed its own type of rest-rotation grazing, a hybrid based on concepts from conventional and rest-rotation grazing management. This type of grazing is passed off as rest-rotation grazing in the Challis report. The two-pasture systems and the four-pasture systems called rest-rotation (in the Challis EIS) are such systems in name only. . . .

An in-house BLM report on grazing in Nevada revealed similar ineptitude on the part of agency range managers. A study titled "Effects of Livestock Grazing on Wildlife, Watershed, Recreation, and Other Resource Values in Nevada" (April, 1974) uncovered numerous examples of



MIRACLE TREATMENT. Before (above) — badly eroded and overgrazed range in Harvey Valley, Calif. in October 1951. After (below) — the same view in October 1975 after use of a rest-rotation grazing system that started in 1952.



Photos by August Hormay.

rest-rotation grazing plans that did not conform to the principles of rest-rotation.

Grazing systems called rest-rotation were set up incorrectly by BLM so that the range and other natural resources would probably deteriorate. One "rest-rotation" system was set up so that a pasture was grazed all year long — a practice sure to damage the land. Another was set up with the treatments in the incorrect order so that the plants could not recover.

The Nevada report concluded: "In numerous instances, designed grazing plans reveal a lack of full knowledge of the principles of rest-rotation grazing management, or lack of ability to interpret and/or apply the principles, or a lack of faith in achieving objectives by the total application of the principles of rest-rotation grazing management."

BLIND FAITH

In the Challis EIS — BLM's "model" grazing impact statement — the agency admits that natural resources in the unit have been degraded as a result of past livestock grazing. The agency recommends a net increase in the amount of livestock use once rest-rotation has improved the range. NRDC is skeptical about the range's miraculous predicted recovery. The EIS

"concludes that rest-rotation grazing will solve virtually all resource management problems in the Challis Unit within 15

BuRec blamed for Teton Dam collapse in Idaho

The U.S. Bureau of Reclamation used an "inadequate design" at a "very difficult site" when it planned the ill-fated Teton Dam, according to the independent panel investigating the collapse of the Idaho dam.

The panel, appointed by Interior Secretary Thomas Kleppe and Idaho Gov. Cecil Andrus, released a 400-page report this month which attributed the failure to "a combination of geological factors and design decisions. . . ."

The controversial dam, opposed by environmentalists, collapsed during construction on June 5, 1976, causing 11 deaths and \$1 billion in property damage.

"In final summary, under difficult conditions that called for the best judgment and experience of the engineering profession, an unfortunate choice of design measures together with less-than-conventional precautions were taken," the report said.

A member of the panel, Idaho Water Resources Director Keith Higginson, told the Idaho Statesman that the Bureau of Reclamation's decision to use a brittle clay-like material alone to seal the foundation of the dam was the "major error."

The panel concluded that the direct cause of the failure was piping — a process

years, but it fails to substantiate this conclusion," says NRDC.

The EIS considers six alternative grazing plans. Two — removing all livestock from the unit and letting existing management continue to degrade the range — are labeled unrealistic by NRDC. The remaining four all rely on some degree of rest-rotation management. For some parts of the unit rest-rotation is the only system considered.

BLM "advocates the implementation of rest-rotation . . . but fails to present any rationale for its selection," says NRDC.

NRDC points to numerous cases where rest-rotation appears to be a poor management system to choose. For example, in the Lake Basin Pasture of the Herd Creek Allotment in the Challis Unit, BLM says the area is "in poor range condition with a critical soil erosion condition." BLM's rest-rotation plan calls for "slightly more than three times the present (livestock) use" in that pasture.

Others are critical of BLM's plans to include big game wintering areas and fragile streamside habitat in rest-rotation pastures. If these areas are heavily grazed every few years, the removal of most of the vegetation may cause erosion which could damage the fishery. Also, the fences required for rest-rotation could block wildlife movement.

NRDC says the Challis EIS "concedes that implementation of the system will cause significant adverse impacts to the unit's resources in the first six to nine years thereafter, but wholly fails to justify the system's major premise: that giving these lands and resources a year of rest from livestock use every two or three years will not only compensate for these adverse impacts, but will also enhance current resource conditions."

NRDC concludes: "Rest-rotation grazing is not a panacea. It cannot be applied indiscriminately to all grazing lands and will not solve all range problems. It is merely one of several available grazing systems."



by which a leak in an earthen dam quickly erodes away a channel through the dam itself.

Higginson told the Statesman, "a dam could be safely built at the same site," but he added that the ruptured dam would have to be abandoned and a new dam built in its place.

Wallace Chadwick, chairman of the panel, said a new dam could be built to replace Teton Dam, "but the one condition is it might cost more money than you want to pay for it."

When environmentalists challenged Teton Dam in court they argued that the cost of the dam exceeded its benefits. If more costs were added to the price tag to make a replacement dam safer, the benefit-cost ratio would be even lower.

Gov. Andrus, now President-elect Jimmy Carter's choice for Interior Secretary, says, "The blame has to be placed squarely at the door of the Bureau of Reclamation." As Interior Secretary, Andrus will oversee the bureau. Andrus told the Statesman that the panel's report on Teton Dam will "obviously bring about some changes" in the bureau.

Andrus has remained uncommitted on the issue of rebuilding the dam.

A BLM study uncovered numerous examples of rest-rotation grazing plans that did not conform to the principles of rest-rotation.

Hormay tells how rest-rotation works

"White man allowed too many of his grazing animals to use the range. He overstocked the range almost from the start. How else explain the depletion of the range by more than half?"

The Western Range, 1936

Most people believe overstocking is the main reason for range deterioration. To improve range, livestock use must be reduced.

August L. Hormay, the father of rest-rotation grazing and a range management advisor to the U.S. Bureau of Land Management, says this view is too simplistic. In fact, it is possible to improve overgrazed range without reducing livestock numbers, he says. The way to improve range is to use grazing as a management tool.

"The assumption that plants can be grazed to a proper level through regulation of stocking is unrealistic because of the grazing habits of livestock," says Hormay. "Livestock graze the range selectively, by species and areas. They consistently graze the more palatable plants and accessible areas closely and, invariably, beyond proper-use level.

"The pattern of use is very uneven, but much the same from year to year," he says. "Plants grazed closely one year tend to be grazed closely the next. So under continuous grazing at any stocking level, the more palatable and accessible plants are gradually killed out. Livestock then graze on less desirable plants. This process leads progressively to ever enlarging areas of deterioration. Unfortunately, the best plants and best grazing sites are destroyed first."

Hormay's solution to this problem is periodic resting of the range from use. "Only by this means can the main objectives of grazing management — maximum production of vegetation and high-level yield of livestock and other multiple-use values — be realized," he says.

Grazing in and of itself is not harmful to plants, says Hormay. "There is a stimulating effect on plants when the old growth is removed and the plant starts anew."

NEED FOR RESTING

"An understanding of why plants are killed by grazing is essential for development of satisfactory grazing methods and maintenance of the range resource," says Hormay. "Plants, like animals, require food for growth and sustenance. Animals obtain their food by eating plants or other animals. Plants make their own, mainly in their leaves and only when the leaves are green.

"In perennials, some of the food materials made by the plant each year are stored for future use. Enough food is stored to last for several years. So even if the plant is defoliated, for a year or two, it does not die. Under continuous close grazing year after year during the green period, however, the plant cannot make and replenish reserves. Consequently, reserves are ultimately depleted and the plant dies. . . . The better forage plants and all others can be maintained however by periodically resting the range from use."

Allowing rest so plants can replenish their root stores is only part of Hormay's rest-rotation scheme. "To improve the land you have to do more than just continue the plants that are there," Hormay told the *Western Livestock Journal*, "and this means improving the vegetation through natural reseeding. Now this can't be done if

livestock graze down the tops of the plants before seed is produced."

Hormay tries to determine the "seed-ripe time" of the species most valuable to livestock as feed. Then, part of the rest-rotation plan is to let livestock into certain areas only after the plants have gone to seed. With the seed scattered on the ground, the stock trample the seed into the earth and bury it much like a seed drill.

PASTURE SYSTEM

To practice rest-rotation grazing management it is necessary to divide the range into pastures or units — usually with fences. "Each pasture is systematically grazed and rested so as to provide for the production of livestock and other resource values and, at the same time, improve and maintain the vegetation and soil fertility," says Hormay.

A pasture or unit of range is rested from use after a season of grazing to:

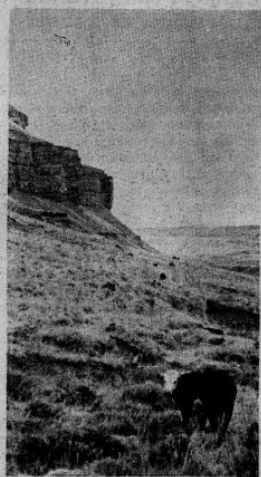
1. Allow plants opportunity to make and store food — to recover vigor.
2. Allow seed to ripen.
3. Allow seedlings to become established.
4. Allow litter to accumulate between plants.

"The amount of rest needed for these purposes depends on the plants involved, character of the range, and objectives of management, so it is determined for each range individually," says Hormay.

The sequence of grazing and resting treatments for an area is set forth in a formula. "The range manager must prepare the formula to fit his specific range. The results obtained are determined by the formula. So grazing management is as effective as the manager makes it," Hormay says.

Field results indicate that a minimum of two years of rest are needed to restore plant vigor after one year of grazing and that one year of rest is sufficient for seedling establishment.

This amount of rest can be provided in a three-treatment formula (see diagram).



SOME RANCHERS question whether rest-rotation will work in arid desert land in the West. Photo of a BLM rest-rotation experiment area near Lander, Wyo.

Two years of rest for vigor are provided with treatments B(1) and C. Treatment C also allows litter accumulation. Seed implantation is produced with treatment B(2). The formula calls for three pastures.

The management area is divided into three pastures of about the same grazing capacity. Two pastures are grazed and one is rested each year. Different pastures are grazed and rested from one year to the next.

In a given year the pasture with treatment A is grazed season long, or only until seed ripe time, if desired. The pasture with treatments B(1) and (2) is rested until seed ripe time and grazed thereafter. The pasture with treatment C is rested season long.

Livestock are grazed in the pasture with treatment A from the beginning of the season on and in the pasture with treatment B after seed ripe time. This calls for movement of livestock from treatment A pasture to treatment B pasture — one time during the season.

Forced moving or herding of livestock is not advocated in rest-rotation grazing because it reduces livestock weight gains. "Under rangeland conditions, livestock moved from pasture invariably gain less weight than livestock grazed continuously on one area," says Hormay.

Weight gains comparable to those under continuous grazing can be obtained under rest-rotation grazing by laying out fences, gates, and other management facilities with respect to topography, water, and natural routes of travel of the livestock so the livestock can move into new pastures by themselves. Gates are opened at the appropriate time. "This mode of handling livestock on the range is a principal feature of rest-rotation and is exceedingly important in practical management," Hormay says.

FLEXIBLE SYSTEM

The above describes the three treatment rest-rotation system. "The number of treatments in a formula depends on the amount of rest needed at various times," says Hormay. The number may be as high as eight, but good plant vigor, seed production, seedling establishment, and litter formation cannot be realized with less than three treatments. The number of pastures is equal to the number of treatments.

"The range manager must prepare the formula to fit his specific range," says Hormay. The manager needs to analyze the soils, vegetation, weather, wildlife, and other natural resource values and adjust the plan accordingly, he says.

"In rest-rotation grazing some or all of the rested pastures may be opened to use in years of critically low forage production," says Hormay. "Pastures may be used ahead of schedule if necessary. The grazing formula may be compromised entirely in a



AUGUST HORMAY, BLM range specialist and the father of rest-rotation grazing.

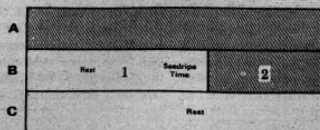
given year. . . . More animals may be grazed in scheduled pastures in years of high forage production. In more normal years grazing is resumed according to formula and schedule."

Stocking levels under rest-rotation management are determined by studying the weight gain of livestock and the trend in the condition of the range. Stocking is adjusted upward or downward depending on responses.

"To date we have never had to reduce the number of cattle on an allotment after going into this system on a BLM range," Hormay told *Western Livestock Journal* in 1975. Hormay developed the system in 1948.

"Management ultimately rests with people immediately involved in the preparation and application of management plans. Good management depends on their knowledge and wisdom," he says.

Editors' note: Much of the information for this article was taken from *Principles of Rest-Rotation Grazing and Multiple-Use Land Management* by August L. Hormay, Sept. 1970. It is available from the U.S. Government Printing Office. Ask for 1971 O-412-995.



GRAZING

A TYPICAL THREE-TREATMENT REST-ROTATION PLAN

6-High Country News — Jan. 14, 1977

DeVoto. . .

(continued from page 1)

freshman English class and, envied by colleagues, began publishing articles on Western history.

A first novel, *The Crooked Mile*, set a future pattern by capitalizing on his love-hate relationship with the West, as symbolized by Ogden, the town of Windsor in the book. However, despite the growing security of Northwestern, DeVoto longed for his alma mater, which offered not only the research materials he would need for anticipated studies on Western history, but also the genteel academic noses which he could alternately polish and tweak. With little more than faith that he could support himself with writing, DeVoto moved to Cambridge. By the mid-1930s the results, especially *Mark Twain's America*, gained him recognition as an authority on literature and Western history.

Yet, though he maintained a home in Cambridge almost continuously until his death in 1955, to its own loss Harvard shied from granting him full status as a faculty member. He lacked the academic credentials of a bona fide scholar. Viewing DeVoto through its own reserve, the Cambridge community tended to look on him as a "professional Western Wild Man . . . the illegitimate offspring of H. L. Mencken and Annie Oakley," as Stegner describes their reaction. Perhaps more importantly, President James Bryant Conant judged the production of short stories, mediocre novels, and broadsides against the ills, illusions, and corruptions of society — including those of the literati — as not quite in form. Admittedly, much of his output was hackwork, but it was work that DeVoto could do well — he bragged that he could sell anything he wrote — and it brought the regular income that his more serious writing could not provide.

Be that as it may, the serious writing, *The Year Of Decision: 1846* (1943), *Across The Wide Missouri* (1947), and *The Course Of Empire* (1952), brought the Ogden-Cambridge author the Pulitzer and Bancroft Prizes and a National Book Award. Their popularity and acclaim by scholars helped establish history of the American West as a permanent study in the curriculum of the nation's universities. The books went beyond authoritative research. Rather than present narratives in the usual method, chronologically, they dealt with parallel events, weaving the stories into valid synergisms of history. They presented Western characters — Jim Bridger, Joe Meek, Sir William Stewart — in the round, fleshed out, full of energy, raw visions, and foibles. DeVoto had learned much from writing mediocre novels.

Though after 1927 Cambridge became the writer's adopted home, the great bulk of his work, whether written for money or love, continued to focus on the West. Unlike some authors, he didn't tolerate Westerners' delusions about themselves — their rugged individualism, their romantic cowboy culture learned from movie screens, their boosterism. The expatriate son was a stickler for using facts as the underpinnings of judgments. He was quick to sympathize with the rawboned pioneers, to praise the clear skies over the Rockies and the enormous natural potential of the

plains. However, he was just as ready to remind his countrymen that, like most frontiers, the West encouraged conformity, that more often than not its rugged individualists had ended their lives swinging from vigilante ropes — that cowboy hats imitated a pattern originally used by Yankee swineherds.

Most Utahns couldn't, and still can't, find it in their hearts to forgive the state's most celebrated writer for wounding their pride with the truth. So he sat like a rejected lover, looking back on the West

and-bust pattern that had dominated the region since the fur trade brought the beaver close to extinction in the 1830s. The new massive assault for quick gains would be the last boom, ending in a permanent bust.

A trip he took with his wife, Avis, after World War II brought DeVoto to a white heat. As Wallace Stegner says, "When he finally came West in person, he came like Lancelot."

What shocked him was the same postwar process that continues to the present, the

public resources to the businesses they represented. And he chided the average citizen for being duped by the banner of states' rights held by those "hellbent on destroying the West." The stockmen and politicians who were already counting easy profits from the plan reeled back in disarray at the accuracy of his attack and the resulting outcry across the nation.

Though conservation won out on the immediate issue, the profiteers had money and PR men and Congressional influence in proportion to both. Timber, stock, and mining corporations pooled their energy for a prolonged battle. Year after year they came back to Congress with an array of bills in an attempt to emasculate the Forest Service and Bureau of Land Management, to chip away at the National Parks in order to liquidate the natural legacy for their own short-term gains. At the time, environmental organizations consisted of a few thousand citizens ineffectively scattered across the country. They braced themselves for the slaughter.

However, fighting on the side of the underdog made DeVoto frisky, if not exuberant. Though running low on money, he laid aside regular writing projects to organize an information network of columnists, politicians, and naturalists, most of them old friends. He accepted an appointment to the Advisory Board for National Parks. Most importantly, he had the broad audience that environmentalists, with their local mimeographed broadsides, lacked. For decades the public had read and trusted DeVoto. Now from the leading opinion-makers of the day, from the *Saturday Evening Post*, *Reader's Digest*, *Colliers*, *Fortune*, he revealed the stratagems that the plunderers were trying to keep out of the news. In a burst of enthusiasm Oregon's Senator Neuberger called him the most effective conservationist of the century. Arthur M. Schlesinger, Jr. credited him with single-handedly saving the government's reserve system.

Because of his success, the landgrabbers tried to silence DeVoto by pressuring the magazines into refusing his articles. The card is a powerful one to use against a writer, but it was the wrong one to try on Bernard DeVoto. He had clout with editors by virtue of the reputation he brought to their publications. He informed them that he wouldn't back off and reminded them of their responsibility to the public. "You don't mount the barricades until noon and then go out for a three-hour lunch," he lectured them.

He stayed on the barricades until his death, writing 40 articles prodding Congressmen to react to their god consciences, while pointing out that he was reminding the public of election time if they didn't. When he died in November, 1955, conservation lost a powerful voice. No writer has quite replaced it.

The following spring Chet Olsen flew along the Idaho-Montana border; the old Forest Service friend scattered DeVoto's ashes over the Bitterroot Mountains near Lolo Pass, where Lewis and Clark broke through the cordillera to the Pacific.

Bernard DeVoto. Photo courtesy of Stanford University Libraries.



He harnessed depression to drive his creativity and become one of the most controversial writers and one of the most effective conservationists of the mid-century.

through New England's elms and the superb collection of material in Harvard's Widener Library. With the objectivity that can come with distance, he probed the phenomenon of the frontier, trying to explain its role in the nation's development, perhaps as much to himself as to his readers.

His love of the West made him one of its most severe critics and avid conservationists — to him activism was a healthy side of patriotism. He began writing the "Easy Chair" column for *Harper's* in 1935. From the monthly forum, among other things he informed the public that while it drowns special interests were busy stripping, overgrazing, and clearingcutting the West's birthright, the natural heritage of America. It was an economics of liquidation. Westerners welcomed industry, but they were gulled by Eastern capital, selling their land short in the same boom-

building of needless dams, the ruin of watersheds by overgrazing, the unnecessary butchering of America's once magnificent forests. In particular, he caught wind from Chet Olsen, a friend in the U.S. Forest Service, of a conspiracy on the part of large grazing interests to twist public lands away from the government by Congressional action. According to the scenario, the lands would be turned over to the states and eventually sold cheap to the stockmen for as low as 10 cents an acre. At such prices they could afford to abuse the ranges as they wished for quick profits, then abandon them, eroding and worthless to future generations. As a Westerner, DeVoto sympathized with the problems of small ranchers, but he recognized that the plan touted to be for their benefit would mean their ruin.

He was a man who waited for his shots and, when the time was right, leaped out with both barrels blazing. After his rage cooled a bit and he could complete the proper research, he came from the bushes blasting away at the exploiters with "The West Against Itself," a classic statement of the West's schizophrenia in the January, 1947 issue of *Harper's*. He documented Western Congressmen's scheme to give

The Easy Chair collects a variety of DeVoto essays, ranging from gentle humor about America to public outcry. In *Bernard DeVoto* Orlan Sawey analyzes the importance of the frontier in his work. Wallace Stegner's recent *The Uneasy Chair* is a delightful revelation of DeVoto's personality and writings by a close friend and fellow Utahn.

Most Utahns couldn't, and still can't, find it in their hearts to forgive the state's most celebrated writer for wounding their pride with the truth.

BLM projects high growth from coal

Bureau of Land Management planners in Buffalo and Casper, Wyo., are currently assessing the future course of coal development in Campbell and Converse counties. Their findings, which will be discussed with the public about a month from now, could significantly affect the future character of eastern Wyoming. For instance, coal development in these two counties alone could result in estimated population growth ranging from 23,000 to 51,000 additional people by the year 2000, according to BLM Casper District Manager Bob Wilber.

Wilber said the lower figure is based on development of only existing coal leases in those counties; the higher figure is based on development of all identified economic federal coal reserves in the two counties.

About 54% of the known economic coal reserves in Wyoming are located in Campbell and northern Converse counties, enough to meet the nation's coal needs for the next 122 years at present demand levels. The majority of that coal is federally owned.

Private industry has proposed increased development of some of that federal coal. These proposals include the mining of: a) coal reserves leased to corporations years ago; b) coal reserves not yet leased but committed to corporations that have established a "preference right" to them based on their past investments in successful exploration activities; and c) coal reserves not yet leased, but proposed for leasing by industry under the Interior Department's new coal leasing policy.

In Campbell and northern Converse counties pending coal actions carried over from the old leasing system include: 30 existing leases for which no mining plans have been submitted; 19 applications for prospecting permit extensions; 7 competitive lease applications, some of which could be leased to meet immediate needs for energy production; and 46 existing preference right lease applications.

FUTURE UNSURE

Wilber, in discussing the pending coal actions said, "At this time we are not sure what will happen on these applications. While some of them may not meet present environmental and economic standards, it is possible that a great many could ultimately result in coal development."

Up to this point BLM planners have not identified any resource conflicts with coal that could not be resolved through use of current mined land reclamation practices or other measures. "In other words, based on our existing data, we can see nothing that would prevent coal leasing in Campbell and northwestern Converse County," said Wilber.

He stressed, however, that BLM does not know how much additional growth the local communities can support.

PUBLIC INPUT NEEDED

BLM has developed data that predicts population growth arising from various levels of additional coal development. Now they need to know what the residents of Campbell and Converse counties think about such growth.

The public will have an opportunity in early February to provide that information. BLM plans to hold public meetings in Gillette on February 1, at 7:00 p.m. at the Campbell County Recreation Center, and in Douglas on February 2, at 7:00 p.m. at the St. James Parish Hall, 243 S. 5th St. "We are now at the point when the first

major coal leasing recommendations will be made. For those who want to have a say in the future of eastern Wyoming, this is their opportunity."

Written comments and recommendations on potential lease areas must be submitted to BLM's Casper or Buffalo offices by March 1, 1977, in order to meet the planning schedule set by the Department of the Interior.

BLM is preparing an information packet that outlines the planning activity and specific areas in Campbell and Converse counties with high potential for coal leasing and development. The packet will be available at the BLM offices in Casper and Buffalo and at the Douglas and Gillette Chambers of Commerce about January 20, 1977. The Casper BLM address is P.O. Box 2834, Casper, Wyo. 82602.



HOW MUCH GROWTH? While BLM planners say there are no resource conflicts with coal development in Wyoming's Powder River Basin, they admit that they do not know how much additional growth surrounding communities can support. Above, an example of the kind of expansion occurring on the outskirts of Gillette, Wyo., in the heart of the coal boom. This trailer court is owned by Pacific Power and Light Co.

Cheyenne ask for air authority

The Northern Cheyenne tribe is asking the U.S. Environmental Protection Agency (EPA) for authority to review any new sources of air pollution which are proposed for southeast Montana — on or off the reservation.

The tribal council had asked last May that its reservation be redesignated as Class I, the strictest air classification possible under EPA's regulations. Since that time, the tribe has been conducting studies of its present air quality and of the economic and social effects of changing to the Class I designation in preparation for a public hearing which will be held Jan. 17 in Lame Deer, Mont., on the reservation. The tribe was the first land manager in the country to request reclassifying air to

Class I under the Clean Air Act.

The resolution passed by the council says that because of this experience in reclassifying, the tribe and its agents have developed "one of the most extensive and comprehensive backgrounds in the regulations." The resolution also says the Northern Cheyenne nation has no substantial economic interest in the surrounding area but the state does because of its tax system and natural resource holdings, which may represent a conflict of interest.

Under EPA regulations, states can ask EPA for authority to review new sources, but the Northern Cheyenne want to reserve this authority for themselves in their corner of the state.

Chaos controls tribe after vote

The Bureau of Indian Affairs (BIA) and many Crow tribal members are challenging the decision last month to suspend the tribal chairman, Patrick Stands Over Bull. As a result, the tribe has been able to conduct no business since the Dec. 22 vote, according to tribal officer Ellis Knows' Guns. Coal companies seeking leases on the reservation are immersed in turmoil as the tribe tries to determine who has the authority to negotiate with the companies.

The tribal council, composed of all tribal members of voting age, voted 317-0 to suspend Stands Over Bull on Dec. 22 after he had been accused of negotiating independently with Shell Oil Co., whose offers the tribe had rejected on four previous occasions.

However, BIA Area Director Jim Cannon said the vote was not legal since the suspension had not been listed on the agenda, which is required by the tribe's

constitution to be sent out to tribal members at least seven days prior to a meeting. Another meeting was held on the suspension on January 8 with proper notification, but that vote is also in question. Stands Over Bull's opponents are considering a legal appeal of the BIA decision, according to Knows' Guns.

Stands Over Bull's supporters say the vote was 356 to 338 in favor of him at the second meeting, according to Ted Hogan, tribal personnel director. Hogan says Stands Over Bull had been authorized to negotiate with Shell.

Two other coal companies are also in the dark about whom they should be dealing with. Hogan says his faction questions whether group of tribal members who were appointed at an earlier council meeting — called the Coal Authority — has the right to negotiate with AMAX and Westmoreland.

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Reckoning from Washington

BACK TO THE FREEZER?

by Lee Catterall

Idaho Gov. Cecil Andrus will be hard put to ignore the advice of Jimmy Carter's transition team to reimpose the moratorium on federal coal leasing; it is merely a mild version of a campaign promise.

The transition team's advice is contained in a briefing book prepared for Andrus, who has been nominated by Carter for Interior Secretary. The book suggests that Andrus reimpose the moratorium until the department's coal leasing program "can be reassessed and reformed, with full involvement of the public."

Carter used stronger words during the campaign, intimating that he was against further coal leasing in the West, reformed or otherwise.

"I support the strip mining bill," Carter told the League of Conservation Voters in the Fall of 1975, "but not the coal leasing bill because I am not convinced that demand for coal is great enough to justify massive development of nonrenewable public resources for energy production."

Campaigner Carter chided "the leaders of both parties (who) have taken as gospel the coal industry's advice that we must ignore the low sulfur coal reserves of the East and develop instead the federally controlled coal reserves of the West."

The moratorium on federal coal leasing lasted five years before Interior Sec. Thomas Kleppe announced its end nearly a year ago. A court decision forced the freeze for a year of those five and a Supreme Court decision was needed to lift it.

The coal leasing bill became law last August when Congress overrode President Ford's veto of it. While Carter regarded it as an opening up of federal coal reserves, Ford complained that the opening was too small.

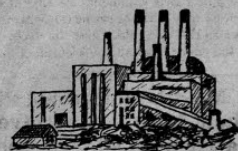
Andrus has predicted "some use of Western low-sulfur coal" but has added little about how he would allow it. He is likely to be pressured to freeze further leasing at least until Congress has enacted a federal strip mining bill.

Strip mining legislation tops the agenda of the House Interior Committee. Hearings will be held and amendments proposed to toughen the bill that was twice vetoed by President Ford. Environmentalists insist that leaving the bill in the same shape as it passed last year would be "rewarding" coal interests for persuading the President to veto it, after congressmen had tried to include compromises suitable to industry.

While Andrus will be hard put to be attentive to the new advice given him, he may be afforded an out — Jimmy Carter.

While Carter did make those campaign statements, and his transition team did follow through on them with the kind of policy it has forwarded to Andrus, that doesn't mean it will happen.

Carter can always change his mind.



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Photos by Stephen Trimble



Overwhelming Rock

by Stephen Trimble

Rock.

It dominates your view of the canyon country.
Naked, ungiving, overwhelming rock.

Perhaps the feelings that this arid land arouses depend on that—
the scarcity of life, the immensity of bare and broken rock.
Each touch of green, each bold dash of a lizard means much more here.

Yet the rock itself has great variety — almost personality.
Diversity in color and form.
Hard rock, soft rock, smooth rock and rough.

To us, the cliffs and domes seem timeless, static.
But they all are constantly changing,
eroding sand grain by sand grain,
eroded mostly by water, which,
when it comes to this land, comes suddenly, with great power.

Potholes etch their curves into bedrock
as after-storm flash floods grind away at the sandstone,
whirling water and rock through the pothole and down-canyon
to a wash,
a creek,
and, finally,
a river.
In places,
with time,
water and rock combine — slowly, ever so slowly —
to drill right through,
finally cleaving loose a last great block of stone
as a crucial line of weakness gives way,
and blue sky gleams through an opening:

a natural bridge stands free.

Where water flows year-round,
its life-giving power, almost magical, brings beaver and heron,
toad and kingfisher, to narrow ribbons of lush greenery
threading the bone-dry desert.

Water brought **people** to the canyons as well.
A thousand years ago the Anasazi and Fremont Indians
built homes and lived lives in this stark land.
They farmed bottomland, they stalked desert bighorn,
they lived close to the land.

Survival required knowledge — of where plants grew,
why they grew there,
when they bloomed.

Even in this desert, useful plants abound —
plants for food, shelter, clothing, tools.



Rock

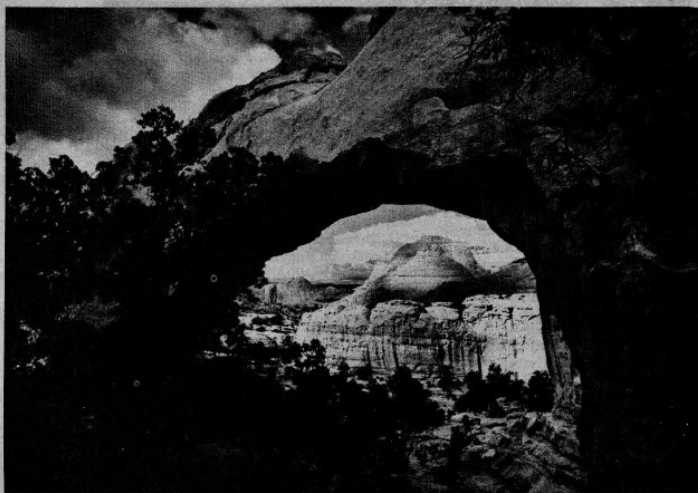
Past peoples may have understood the ecology of the canyons
far better than we do,
now that we no longer depend so closely on their resources.

For few people live today in canyon country
where ancient ruins crumble silently.
Little remains of the Indians' stay,
a few remnants of homes and storage huts,
fading petroglyphs,
here and there a basket or pot unearthed by the desert wind —
few clues to use in solving the riddle of their disappearance.

Why did they leave?
Where did they go?

For whatever reason, they abandoned the land
to those animals and plants more finely tuned to this challenging place.
These desert creatures survive best here,
wetter places being as foreign to them
as the desert is to many of us.
Even their names sound arid —
saltbush, greasewood, sagebrush lizard,
canyon wren, rock squirrel.

All plants living here must adapt —
to slim rainfall and drying winds,
to thin soil,
to heat-shimmered summers and frozen winters.
To conserve precious water,
plants have scoured themselves of lush water-wasting greenery.



Pinon and juniper trees,
dwarfed, shrunken, and twisted
by their struggle with
sun, dryness, and rock,
dot the canyons with green.

They keep their distance from one another, to share meager water.
They stand apart, each struggling with its environment singly.
Several centuries may bring them five feet of upward growth.

Domes, cliffs, canyons, mesas . . .

Patterns.
Textures.
Color and form, feel and smell.
Sounds.

Silence.

Golden sun-tones and cedar smell of old juniper gnarls.
A decaying mule deer antler cushioned in lichen-crusted soil,
the scaly back of a lizard.
The cascading musical waterfall of a singing canyon wren.

A raven's croak, a chukar's cackle, a dove's whooo.
Rock tapestries, hanging in stillness and simplicity.

The wind,
ruffling juniper or cottonwood,
whistling past the cliffs.
The roar of rivers,
flowing on through time, through the desert,
carving a few inches deeper into rock each century.

If we only look,
we may see —

the amazing diversity of one small piece of Earth — canyon country.

Canyon Country

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The HCN Hot Line

energy news from across the country

VOLUNTEERS WANTED. Dr. Richard Roberts, assistant administrator of the U.S. Energy Research and Development Administration, says no state will be required to have a nuclear waste disposal site within its borders if its officials adamantly oppose such a site.

NO WASTES HERE. Several Western states have indicated that they're not particularly interested in being considered as potential wastebaskets for the nation's nuclear wastes as the Energy Research and Development Administration (ERDA) seeks six potential disposal sites. Thirteen states are slated for extensive exploratory drilling including Utah and Colorado. Officials from both states have verbalized their resistance to the idea. Montana and North Dakota officials have also voiced opposition to storing the wastes.

FEUD OVER BLM. President-elect Jimmy Carter has vowed to reorganize the federal bureaucracy and create a single energy agency, but his appointees have different views on the plan. Coal Week reports that Interior Secretary-designate Cecil D. Andrus and James Schlesinger, the man slated to head the reorganized energy agency, both want the Bureau of Land Management in their departments.

OLD FACES. Several familiar energy bills have been reintroduced in Congress. Rep. Morris Udall (D-Ariz.) has introduced a federal strip mine regulation bill similar to the one twice vetoed by President Ford. President-elect Carter has indicated he would sign the bill. Rep. Olin Teague (D-Texas) has introduced a synthetic fuels subsidy bill similar to the ones that were narrowly defeated in the House last year.

POLICY CROSSROADS? An article by Amory Lovins in the October 1976 edition of *Foreign Affairs* has inspired a national debate on energy policy. The article, "Energy Strategy: The Road Not Taken," describes two possible energy futures for the U.S. The "hard" path resembles present federal policy with its heavy reliance on fossil fuels and nuclear power to produce electricity. The "soft" path involves more diverse, less imposing, less capital intensive technologies with an emphasis on energy conservation and alternative renewable energy systems. The U.S. Energy Research and Development Administration (ERDA) has decided to review the issues raised by Lovins, according to *Energy Daily*. ERDA hopes to involve Lovins and various environmental groups in the review process. Lovins is a British representative for Friends of the Earth.

MAINE TO VOTE ON SAFE POWER. After a year-long drive, Safe Power of Maine has collected enough signatures for a 1977 referendum vote on nuclear power. The proposal, called the Nuclear Postponement Act, differs from other nuclear initiatives somewhat since it calls for a seven-year postponement of construction of nuclear plants in the state. The postponement could be cancelled if certain conditions were met including finding appropriate disposal sites for wastes, conventional insurance to cover accidents, approval of plutonium as a fuel, and tests showing that emergency core cooling systems are adequate.

Sound of the wind from Oak Creek

by Rebecca Ambler

ROUTT COUNTY, COLO., SEPT. 21, 1910—A local railroadman, "Big Finn" McReady, is all set to test a new-fangled train engine a contraption he claims will "revolutionize rail transportation." McReady's train engine will be powered by the wind.

"All I'm doing," explains McReady, "is taking the plans for one of them fancy sailing ships and building it atop a wagon. Then I'll just let the wind blow it along the tracks." McReady will christen his invention "The Wind Wagon."

ROUTT COUNTY, COLO., JAN. 14, 1977—The use of wind power is not new in Routt County, but today it is the only place in the world where there is a commercial wind-powered radio station. Although it wasn't conceived to be so.

Back in 1972 Elliott Bayly, an electrical engineer trained at Massachusetts Institute of Technology and Stanford was out West in Steamboat Springs visiting friends. He quit his job teaching biomedical engineering at the University of Chicago and stayed on. (Ironically his specialty was neurophysiology — studying the properties of nerve cells that permit them to transmit information to other nerve cells.)

"Building a radio station seemed a romantic thing to do," Bayly says. But wind power came later. It was financially infeasible for Bayly to spend \$15,000 to get electricity from his chosen broadcasting site in Oak Creek to the transmitter site two miles away. But with wind power, he was able to do it for less than \$2,000.

Bayly, a wind power buff from boyhood days, happened to have a generator he had bought from a Kansas farmer for \$30. During the three years it took to get his Federal Communications Commission license, he bought the necessary new and used broadcasting equipment.

KFMU, "the sound of the wind," got off the ground and on the air in March of 1975 with a lot of volunteer labor and records plus \$15,000.

The advertising policy does not lend itself to prosperity. Advertising is only on the half-hours (and then sometimes merely a statement that the last ad-free half-hour was brought to you by Mary Jayne's Kitchen). If advertisers want more time Bayly says he'll tell them to wait in line. "The basic idea behind the station is to provide good music," he says.

"We pretty much just run the station as a service to the people in the area — I don't think we'll make much money for a while," he says.

The summer of 1975 the "sound of the wind" was not heard in Routt County. The wind generator was being moved to a higher, windier transmitter site on top of Oilwell Hill, two miles as the crow goes from the studio in Oak Creek. A 1930s vintage Jacobs 2,700 watt wind generator borrowed from fellow windmill enthusiast John Graham of Boulder has replaced the smaller generator. Jacobs' product was considered the Rolls Royce of American-made systems, but they quit making them in 1955. The generator is the sole power source for the transmitting and receiving equipment at the transmitter site. Bayly converted the 110 volt AC equipment to 32 volt DC by installing new power regulatory relay switches. It uses about 100 kilowatt hours a month.

Contrary to the fears of potential advertisers, "the sound of the wind" does not stop when the wind isn't blowing. The wind power goes directly into a 32 volt system



TESTING THE WIND. Rita Robinson, the only salaried staff member of KFMU, takes time off to feel the wind aboard the Jacobs generator. Robinson is in charge of advertising.

comprised of 10 Montgomery Ward car and truck batteries. This system can keep the transmitter going for six consecutive windless days.

The last time the station went off the air for lack of wind was in December, 1975, but Bayly now has a back-up system operating

— a 1930s Delco gas generator, the same kind farmers used to back-up wind-electric systems 40 years ago.

Asked about problems with the wind generator, Bayly says most of the time is spent on programming the station and not maintaining the wind power system. "It's up there and it works," he says. "It was easy to do and there was nothing complicated." The 55 watt station can be picked up on mountain tops 55 miles away. KFMU reaches the majority of Routt County residents — from Toponas to Hahn's Peak, including Yampa, Oak Creek, Steamboat Springs, and Hayden.

The Oak Creek studio is powered by city electricity. Bayly has no plans to change that as there is not enough wind in Oak Creek to make wind power feasible. He does have a battery storage system in the studio which is charged by city power that keeps the station on the air during the frequent power outages. He plans on installing another wind generator strictly to back-up the undependable city power supply.

Bayly doesn't intend to make a career out of the radio business. Instead, he wants to manufacture wind generators through his company, Yampa Wireless Works. He already has a model in mind but will need outside financial backing to make it a physical reality. In fact, most of the letters and phone calls Bayly has received come from people who want to buy wind generators. They've been difficult to get since the 1950s, when the coming of the Rural Electrification Administration put the then popular wind generators out of business.

Bayly applied to the Energy Research and Development Administration (ERDA) for a grant to design, construct, and evaluate a working model of his wind generator. ERDA's negative response was wordy but uninformative. They did say they were interested, however.

But Bayly, though soft-spoken, is a determined romantic. The "sound of the wind" will spread, he vows.

Address inquiries to: Elliott Bayly, Yampa Wireless Works, KFMU Radio, Box 66, Oak Creek, Colo., 80467.



energy news of the Rockies and Great Plains

HOT SPOT FOR OIL. More than one-fourth of all oil seismic crews working in the Rocky Mountains are operating in a 300-mile long belt running from north-eastern Utah to western Wyoming, according to the *Oil and Gas Journal*. Experts call it "the biggest, hottest onshore exploration area in the United States," reports the *Journal*.

WGREPO HANGS ON. Although Western governors voted in December to reorganize the Western Governors Regional Energy Policy Office (WGRO) into a new, umbrella group, WGRO will remain in existence through the spring and perhaps until the end of June, according to Ray Davisson of the WGRO staff. The

new umbrella Western governors' policy council will include not only energy but also natural resources, water, education and human resources, and agriculture. (see HCN, 12-17-76). The next step in the reorganization will be for state representatives to meet in February, according to Davisson. WGRO's federal funding expires June 30.

CUP FOR INDUSTRY. Utah Gov. Calvin Rampton says his state is considering transforming some agricultural water projects into projects that will benefit the energy industry in his state. The \$1 billion Central Utah Project is one of those which may be shifted, he told a meeting of the Colorado River Water Users Association in Las Vegas.

NO LIFELINE IN UTAH. The Utah Public Service Commission has ended a 15 month battle by consumer groups by rejecting the concept of lifeline electric utility rates for the state. The three commissioners said that Utah Power & Light's current rate schedule is the only one justified on a cost basis, according to the *Deseret News*. Lifeline rates, as proposed in Utah, would have cut small residential customers' power bill and added about \$5 million a year to the bills of industrial and commercial users.

Concept in coma

Without subsidies, synfuel interest in West waning

by Dan Whipple

The concept of producing synthetic fuel from coal in the West isn't dead yet, but it seems at least to be in a coma. Companies promoting the technology are increasingly pessimistic about the possibility of realization of their plans.

In Wyoming, two major gasification plants had been proposed by Panhandle

Eastern Pipeline and WYOSNGAS, whose major partner was Texaco. A spokesman for Panhandle Eastern told HCN, "Our interest in a gasification plant in Wyoming is waning." Texaco says that after the Energy Research & Development Administration rejected the WYOSNGAS project in June of 1976, "We dropped all plans for a gasification plant around Buffalo, Wyoming."

A third company, ANG Coal Gasification, seems more determined to build a gasification plant in Mercer County, N.D. The company has engaged in extensive negotiations with the county and had its proposed site rezoned for industrial development. ANG says that it has set a deadline of December of 1977 for putting together its financing for the project.

Financing is the key word when assessing the future of synfuels. The cost of a commercial-size gasification plant has soared in recent years. All of the companies say they are confident that they can solve the environmental and impact problems associated with this type of development. The barrier has been money.

"Raising a billion dollars is a big task, regardless of a company's economic stability," one company spokesman said. "Congress will have to bite the bullet. They'll have to take a serious look at financing some parts of these projects."

Although ANG has never said so publicly, it is assumed by many that government loan guarantees is what is meant by "putting together its finances." Texaco dropped its plans because government money wasn't approved and Panhandle Eastern acknowledges that investors seem unwilling to risk the necessary amounts on synfuels without government guarantees. Says Fred Ebdon of Panhandle Eastern, "Loan guarantees wouldn't cost the public a cent unless the plants fell flat on their face. We're convinced that once they are built and there is some operating data, we can eliminate the government for the second and third generation of plants."

PROFITABLE?

If private investors consider the plants a bad risk, why build them at all? The companies cite the overwhelming national "need" for synthetic fuels. But, once again, the profitability is questionable. Even assuming that commercial gasification plants are built, best industry estimates for the cost of the product are about \$4.50 per thousand cubic feet (Mcf). This is three to four times the current price for natural gas. And, one company source admits, "unless

there is some way to let prices of the product go up (gas prices are now controlled by the Federal Power Commission), there isn't much likelihood of significant production."

Another industry source says, however, that even if natural gas prices were completely decontrolled, the price wouldn't go as high as \$4.50. So, there is reason to believe that synfuels may not be able to compete economically with other fuels.

Panhandle hasn't applied to the Federal Power Commission for the necessary permits to build the plant. Once this step is taken, about five years are necessary to get the plant on line. Company officials indicate that 1983 to 1985 production is "possible" but concede that even this date is optimistic.

The WYOSNGAS project had originally been a joint venture of Texaco, the Natural Gas Pipeline Co. of America, Pacific Gas & Electric and Montana-Dakota Utilities. The consortium had applied for federal money from the Energy Research & Development Administration last year, but came in at the bottom of the five-project list.

However, Texaco still holds substantial water rights in Lake DeSmet and vast coal deposits in Wyoming. In fact, water, an essential element to any synfuels plant, is being added to Lake DeSmet to increase the reservoir's capacity. Texaco holds the rights to much of this water.

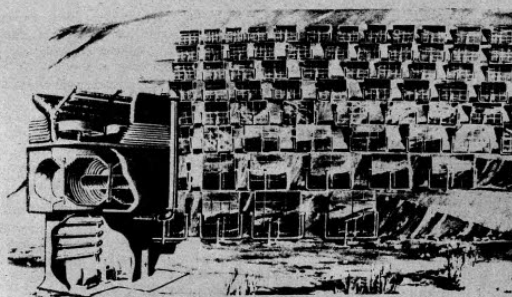
The company hasn't announced any plans for the water or the coal, but government loan guarantees may be sufficient incentive to awaken their dormant interest in synthetic fuel production.

In the absence of loan guarantees, Panhandle Eastern is attempting some innovative financing methods to build a plant in Wichita, Kan. The company is conducting a year-long feasibility study to see if industries in the area that would use the gas and the city municipal power agency would join together to guarantee industrial revenue bonds for a plant. Farther West, however, there are few cities large enough to assume such a financial burden.

The question in the Rocky Mountain region becomes one of whether financing will be available backed by federal guarantees. One company source says flatly, "Congress is probably not about to fund it. And, it may well be a year or two before the new administration gets its energy priorities in order." Jimmy Carter stated in his campaign that he opposes guarantees.

President-elect Carter also has announced that he favors development of Eastern coal over Western. This philosophy could extend toward synthetic fuels plants as well. So, even if loan guarantees are approved by Congress, the Administration may discourage Western plants in favor of projects located closer to the Eastern coal fields.

Editors' note: Congress may try a new approach to synthetic fuels legislation this session. "The latest thinking on Capitol Hill is that Congress should establish a procedure by which the Energy Research and Development Administration would submit to Congress on a case-by-case basis those projects for which it thinks government guarantees would be necessary," reports Coal Week, a McGraw-Hill newsletter. Past synfuels legislation was designed to guarantee loans and provide price supports with no mention of specific projects.



TOWER POWER. Barstow, Calif., has been chosen as the site for the nation's first solar power tower to produce electricity from the sun. The plant, located in the eastern California desert, will include a field of mirrors which focus sunlight on a boiler in a central tower. The boiler will produce steam and drive generator turbines. The experimental 10 megawatt power tower will cost \$100 million, according to the U.S. Energy Research and Development Administration. Larger commercial-scale plants (100 megawatts) may be built in the next decade with a cost per megawatt only one-tenth as high as the Barstow plant, ERDA estimates. The Barstow plant should be ready in 1980 or 1981.

Public Service Co. of New Mexico has asked ERDA to help convert one of the utility's gas-fired power plants to a hybrid solar-gas power plant. The proposal calls for converting the Person station near Albuquerque to a unit that could produce solar tower power on sunny days and gas or oil power at night and on cloudy days. "What is most attractive about PSNM's scheme is that it utilizes a large amount of serviceable equipment that is already in place at the Person station—generators, condensers, turbines, the switchyard and the like," reports ENERGY DAILY. The Person station now produces 114 megawatts and a 50 megawatt solar tower power system is planned for the unit.

Above is an artist's conception of a field of mirrors focusing on a cut-away view of a boiler tower as designed by Martin Marietta Aerospace. Drawing courtesy of Martin Marietta.

SOLAR TELEPHONE. Alternative renewable energy systems are being used to power communication systems in remote parts of the Rocky Mountain region. Near Mexican Hat, Utah, a subsidiary of General Telephone and Electronics Corp. has installed a solar-powered microwave relay tower to bring dial telephone service to a remote Navajo settlement. On a mountain near the Copper Mountain ski resort in Colorado a wind turbine has been installed to power a transmitter that gathers television signals and rebroadcasts them to the area. Near Oak Creek, Colo., a wind generator powers a local radio station. (See separate story in this issue.)

GASIFICATION NEEDED? Two recent reports take opposite points of view over whether or not Montana should have a coal gasification plant. The governor's citizen advisory committee on energy says a gasification plant should not be needed for future state gas needs if energy conservation, renewable energy development, and other steps are taken. A report by the Magnetohydrodynamics Research Institute in Butte says a coal gasification plant in Montana could deter "an economic crisis and

social disruption in Montana." The governor's coal gasification task force is considering siting a plant at the Glasgow Air Force Base in eastern Montana.

COLO. NUKE FIRED UP. Public Service Co. of Colorado's Fort St. Vrain Nuclear Generating Station produced its first electricity in mid-December. The plant, which was scheduled to fire up in 1972, has been plagued by a series of technical problems. In mid-December the plant generated 30 megawatts out of a capacity of 330 megawatts, but had to be shut down for repairs on a steam valve a few days later. Officials say the plant will probably be producing up to capacity sometime in January. The plant is a high temperature, gas-cooled reactor which uses both thorium and uranium for fuel.

SEEKING SOLAR INFLUENCE. Montanans for the Solar Initiative (MSI) have started a petition drive for solar energy in hopes that the wording and the spirit of the initiative may have some effect on the 1977 state legislature. The initiative would be on the 1978 ballot. Revisions proposed by the initiative include requiring energy conservation analysis as part of

the review process for new subdivisions, low-interest loans for renewable energy development by homeowners and owner-operated farms and ranches, and income tax incentives for alternative energy and conservation. State insulation standards would also be set. Petitions, which include the full text of the initiative, are available from MSI, Box 4148, Helena, Mont. 59601.

INTERIOR HUSTLE. Interior Secretary Thomas Kleppe and others in the outgoing Republican administration hope that if enough states sign agreements with Interior to have state mined land reclamation standards apply to federal lands, then support for a federal strip mine bill will be diminished, according to Energy Daily. Interior has said it will accept state laws that are at least as strict as federal regulations. Wyoming's law is stricter and the state has already signed an agreement. Montana and North Dakota are in no hurry to sign, reports Energy Daily. Utah and New Mexico signed an agreement last week, but both states have laws weaker than Interior's. Both states have agreed to enforce the federal regulations on federal land to meet the stringency requirement.

12-High Country News — Jan. 14, 1977

Colorado land use, energy bills to surface

COSC urges more citizen input into legislature

Colorado conservationists are gearing up for an important session of the Colorado state legislature. A power struggle between Democratic Gov. Dick Lamm and the Republican-dominated legislature may mean that many important environmental bills will be lost unless sufficient citizen pressure pushes the bills through.

Spearheading the conservation lobby effort is the Colorado Open Space Council — an umbrella group which counts among its members most of the state's environmental organizations. COSC will have two lobbyists — Ron Lehr, last year's head lobbyist for COSC, and Margot Fraker, assistant lobbyist and a former staff member of the Rocky Mountain Center on the Environment.

Two key areas of concern in the session will be land use and energy conservation. Lamm has had his Energy Policy Office and Land Use Commission study needed legislation in these areas during the last year.

The Land Use Commission will deliver a final report and recommendations to Lamm in mid-January. A three-part approach is expected. COSC says the package will probably include the following: "First, the LUC will suggest that all the land use laws be recodified, that is brought together into one section of the state law. Second, the LUC will suggest a simplification, consolidation, and an English language version of the land use laws, without substantive changes. Third, the LUC's substantive changes will be reflected in a series of bills recommended to the governor."

Key Republican legislators give new land use legislation little chance of passage. They prefer to give present legislation more time to work itself out.

ENERGY CONSERVATION

A draft Colorado Energy Conservation Plan containing 22 separate proposals has been developed by citizen task forces under the leadership of the State Energy Policy Council. Copies of the draft are available from the Energy Policy Council, 1313 Sherman, Denver, Colo. 80203.

The proposals cover five general areas — education, buildings, transportation, government operations, and agriculture. If all were fully implemented, the annual savings would amount to 828,000 barrels of oil.

New Mexicans form CAN

A New Mexico group called CAN (Citizens Against Nonreturnables) is mounting a campaign to encourage passage of a bottle bill in this year's session of the state legislature.

The bill, the New Mexico Beverage Container Act of 1977, would require that all beer, ale, and carbonated soft drinks sold in individual sealed containers carry a minimum deposit of five cents per container.

The bill's sponsor is House Majority Leader David Salzman.

CAN is still seeking supporters and donations. For more information contact Dr. Joanne Sprenger, 2805 Eighth St., Las Vegas, N.M. 87701 (454-0551) or Mrs. Pat Simon, 2308 Rancho Lane, Alamogordo, N.M. 88310 (434-1211).

Bumper stickers showing a hand pointing to a can and bottle with the caption "Return to Sender" are available from the group.

by 1980, reports COSC.

The legislature is also considering a bill requiring the state Public Utilities Commission to study alternative rate structures to encourage conservation.

COSC will also be following legislation to improve non-game wildlife management funding, see that the new state mined land reclamation law is fully funded to encourage adequate enforcement, and push for a state mineral severance tax.

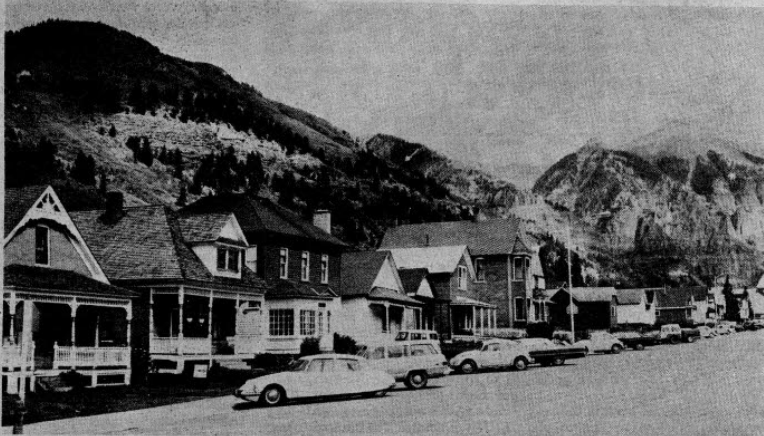
COSC holds a weekly environmental

Regional Legislative Roundup



caucus every Tuesday noon to discuss environmental legislation. COSC also publishes a weekly legislative bulletin which is available for \$10 to non-members and \$5 to members. A legislative reception will be held by COSC on Feb. 3 from 5:30 to 7:30 p.m. at the Grant Street Mansion, 1115 Grant St., where conservationists can meet with legislators and discuss their concerns.

For more information on any of these programs contact COSC, 1325 Delaware, Denver, Colo. 80204 or call (303) 573-9241.



THE COLORADO LAND USE COMMISSION hopes the legislature will reform the maze of existing land use laws in the state. At hearings held around the state the commission was told that local control was desirable and that state-level review and assistance needed to be con-

solidated and streamlined. Explosive growth in high mountain ski resort communities has been a major land use problem in the state.

Photo of Telluride, Colo. by David Doll.

Hopes for new bills, too

Conservationists on the defensive in Montana

Despite ominous signs of Montana Gov. Thomas Judge's changing attitudes toward environmental protection (see HCN, 12-31-76) and despite a legislature that appears to be less sympathetic to their cause, Montana environmental lobbyists have told reporters they're cautiously optimistic about the legislative session which opened last week.

Judge has submitted a budget which he calls a "taxpayers' budget" that cuts government growth. Included in his budget paring was a request from the Montana Fish and Game Commission, which was cut from \$3.2 million for fiscal years 1978-79 to about \$1.1 million. Although the new amount is a 10% increase from its spending for the past two years, the department says it may have to close or reduce services at nearly half of its state parks, recreation areas, and monuments, because of additional duties the department will have to fund this year.

The department foresaw changes ahead since its two most environmentally-sympathetic members will be leaving the Montana Fish and Game Commission, the citizen board. Judge will not be reappointing Les Pengelly, and the present chairman, Willis Jones, resigned because of dissatisfaction with Judge's choice for the new chairman. Pengelly speculated that he was not being reappointed because he had voted against funds for predator control.

Environmentalists plan to support legislation to strengthen the state's subdivision

and hardrock mining laws, to encourage energy conservation through tax incentives, to protect prime agricultural lands on valley bottoms from strip mining, and to encourage use of solar energy.

They expect attacks on the state's severance tax, Major Facilities Siting Act, and

land use planning laws.

In his state of the state address to the legislature, Judge said he would veto any bill to lower the coal severance tax or weaken the state's strip mining reclamation law, utility siting law, or hardrock mining law.



Utah solons to set energy policy

Utah's legislature convened Monday, Jan. 10. Energy is expected to be a big issue during the 60-day session.

In his first state-of-the-state message, Utah Gov. Scott Matheson (D) urged legislators to make energy bills a top priority. Specifically, he pushed for formation of a state energy council, a state energy development and conservation plan, and a community impact fund. He also urged development of an energy conservation code for new building construction.

Jan Johnson, who will lobby for the Utah Environment Center (UEC) this year, says that she fears legislators may adopt the majority report of the development-oriented Blue Ribbon Task Force on

Energy as their energy policy. A minority report from the task force, authored by Jefferson Fordham of UEC, has not been included in a resolution introduced in the Senate, she says.

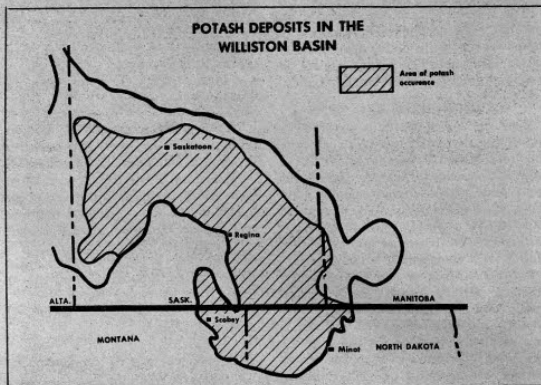
Other legislation of interest to UEC included bills on predators, the state big game board, environmental lawsuits, open meetings, and solar energy. A coalition of a number of conservation groups in the state, Council on Utah's Resources, will also be active at the session.

Johnson urges conservationists who need further information on environmental legislation to contact her office at 8 East Broadway, Suite 610, Salt Lake City, Utah 84111 (533-0591).



Western Roundup

HCN



POTASH PLANS REVEALED

As a result of Saskatchewan's intention to purchase or expropriate U.S. potash mines and developments, several firms are moving back into the U.S. to mine potash in Montana and North Dakota. The Canadian province and the two U.S. states sit on top of the largest known reserves of potash in the world, the Williston deposit. Several firms already have extensive potash leases in Montana, according to the Northern Plains Resource Council (NPRC). The firms' plans will require coal (for processing facilities and for a new power plant), water (14,500 acre-feet per year for one firm), a reservoir, and new roads and railroad spurs. Despite the fact that the firms own leases totalling over 100,000 acres in two Montana counties, there has been little notice of their presence, until NPRC revealed the scope of the potash development in its December newsletter. Companies involved in the potash development include PPG Industries, CF Industries, Burlington Northern, and International Minerals and Chemicals Corporation. Potash is an ingredient of chemical fertilizers and industrial chemical manufacturing.

Map courtesy of Northern Plains Resource Council.

Garrison report calls for revisions

A Canadian-U.S. study team has concluded that the Garrison Diversion project in North Dakota will have "adverse impacts on water uses" in Canada and should be revised. The team had considered recommending that construction stop on the project but did not do so, according to a story in the *Bismarck Tribune* quoting "an informed source." The team worked 15 months on the report, which has been presented to the International Joint Commission. All of the team's findings are subject to change by the commission after public hearings. Calling for further research, the team foresaw the possibility of harmful levels of nitrogen and phosphorus entering the water as return flows from irrigated farmland and industrial waste. Fish and ducks would be especially threatened by the present plans. Canada had twice previously called for a construction moratorium because of possible violations of the Boundary Waters Treaty of 1909.

Carter team questions water projects

The transition team for President-elect Jimmy Carter has advised Idaho Gov. Cecil Andrus, Interior Secretary-designate, that several water projects including many in the West should have high priority for re-evaluation. The report says that reform of federal water policy could reduce the federal budget by \$500 million if unsound water projects are eliminated. The report, which is written by members of Carter's energy-natural resources transition team, also advises Andrus to impose another moratorium on leasing coal (see "Reckoning" this issue). It attacks Interior's past record for lack of public accessibility, for favoring industry wishes, for suppressing scientific data, and for the large number of department employees who come from or go to companies which lease federal resources. There is no indication how either Andrus or Carter stand on the issues brought out in the report. Among the water projects included on the list for re-evaluation are: Colorado — Dallas Creek, Narrows Unit, and Dolores; North Dakota — Garrison Diversion and Burlington Dam; South Dakota — Oahe Diversion; Utah — Central Utah Project, Bonneville Unit; and Wyoming-Colorado — Fruitland Mesa and Savery-Pothook. Environmentalists have opposed most of these projects.

Colorado Gov. Dick Lamm's administration has just released a statement advocating that four of the water projects listed above be constructed to help agriculture. The report said that unless the projects are built with federal funds, then industry will build its own projects to use the water for energy developments. Environmentalists in Colorado say there are alternative ways of increasing the water available to agriculture, according to the *Rocky Mountain News*.

Logging proposed for roadless areas

Three areas of the San Juan National Forest in Colorado which have been designated for wilderness study are scheduled for extensive logging, according to the Wilderness Society, which is appealing the timber management plan. The timber plan has been issued prior to completion of the overall land use plan for the forest, which is contrary to Forest Service regulations. The society and the other groups which filed the appeal say that although the Forest Service claims in its environmental impact statement that 18 industries depend upon San Juan timber, there have been only three bidders for timber sales in each of the last three years.

Alaska limits native's caribou hunting

A confrontation is expected soon between Alaska Eskimos and state wildlife biologists who want the Eskimos to reduce their hunting for caribou. The Alaska Department of Fish and Game says the caribou herd has dwindled from about 140,000 animals in 1970 to nearly 50,000 this year, according to the Associated Press. The state wants to reduce the number of caribou killed each year from about 25,000 to 3,000. The Eskimos are accustomed to killing what they need during the annual migration of caribou, and fish and game officials admit that, "A couple of thousand caribou very near to the village might prove to be a temptation to some of the villagers." Spokesmen for the North Slope Borough Fish and Game Management Committee dispute the state population estimates.

Wilderness opponents infiltrate group

Members of environmental organizations should take a good look at their by-laws to see if they are vulnerable to the same kind of infiltration that the Gallatin Sportsmen's Association suffered recently, according to *Montana Outdoors*. After the association took a stand supporting Sen. Lee Metcalf's (D-Mont.) wilderness study bill, 200 new names appeared on the membership roles, which had included 150. The new members joined not from love for the outdoors and wildlife, according to long-time member Perry Nelson, but because they wanted to force the group to repudiate its wilderness stand. Now a new group, the Gallatin Wildlife Association, is being formed by some of the original members. The new group's charter clearly states its objectives and requirements for memberships. New members must be sponsored by a member of the board of directors and approved by at least two-thirds of the board. In addition, members may be ousted by a majority vote of the board if found to be opposed to the basic goals of the group.



GLEN CANYON RESORT PLANNED

The National Park Service (NPS) plans to build a large resort facility at Glen Canyon National Recreation Area including a large motel, tourist village, restaurant, and employee housing and school, according to the *DESERET NEWS*. NPS has concluded that developing the complex would not be a major federal action and consequently would not require an environmental impact statement. But NPS State Director James Isenogle says NPS is presently asking for public comment on the environmental assessment and may change its mind about an impact statement if there is enough adverse public comment. The assessment acknowledges that there are important archaeological ruins, which will be exposed to increased vandalism as a result of the development. During the spring and summer of this year NPS plans to excavate the remains and later to seek funds to stabilize and interpret the sites.

Presently, there is a small marina and visitors' center at Hall's Crossing in the Utah portion of the recreation area beside Lake Powell. Plans are to expand the facilities to include 250 motel units, 200 Park Service and 200 commercial campsites, 50 family units and a dormitory for employees, and a tourist village. To provide water sports and access to Lake Powell canyon, there would be facilities for up to 850 boats. The development would accommodate up to 3,400 visitors at one time, more than the population of any nearby southern Utah town.

Photo of Lake Powell in Glen Canyon National Recreation Area.

14-High Country News — Jan. 14, 1977

DISTAFF CORNER

by Myra Connell

It was my privilege, along with my husband, artist Thomas Connell, to join a group of 27,000 persons last month in the "longest running, farthest ranging, most popular and least understood sporting event of the year." Better known as the Christmas Bird Count, sponsored by the National Audubon Society, the traditional 77-year-old survey is aptly described by a Utah Audubon member as "an exercise in mass masochism, regional chauvinism and outdoor exhibitionism." (*Oregon Outdoors*, Dec. '75)

Sometime between the middle of December and New Year's Day each year a heterogeneous volunteer army: lawyers, doctors, merchants, chiefs, leave home before dawn to spend a minimum of seven hours each in taking the largest wildlife census in the world.

Observers travel by foot, auto, four-wheel drive, snowmobile, tram lift, on skis, snowshoes, horseback, and even by boat and canoe. They wade swamps, trudge through snowdrifts, climb mountains, and scramble through brush. It is no wonder some people consider them a bit crazy. Perhaps a man named Chapman who decided to take a stroll in the country on Christmas Day, 1900, counting birds, was slightly eccentric; if so his malady spread throughout the U.S., most of Canada, Mexico, the Caribbean, and finally to France.

What is the urge behind such a fast-growing activity — the excitement of the "chase," the competitive team spirit between neighboring communities? Or is it something in the individual who loves the quiet "little" joys, sunrises, rippling streams, the once-in-a-lifetime sight of a ruby-crowned kinglet?

We were fortunate this year to have a mild bright day as we set out at 7:20 a.m. on Dec. 18th. Still better, we rode with an expert "birder," a biologist who keeps a life list of the birds he has seen and identified. Near the river where a dipper (water ouzel) was sighted in 1975, a search revealed no dipper. Our disappointment compared to



that of a child who has been overlooked by Santa. Later the same day we returned and found our dipper, hunting his dinner in the icy stream.

Next we followed a country road below a steep hillside topped by a cliff. We spotted a tiny bird at the foot of the cliff, flitting among the bushes. Our companion, more nimble of foot and strong of lung than we, strode stealthily up the hill, captured a minute creature in his powerful binoculars and positively identified a canyon wren; (rare in winter in this locality). His elation and ours, was of the first magnitude.

The day in the open with good company seemed an appropriate addition to the customary Christmas observances. A quaint old carol kept ringing through my head as we turned homeward with the early-setting sun:

"Twelve peckers drumming, 11 shrikes a-striking, 10 (king) fishers fishing, 9 finches flinching, 8 larks a-larking, 7 ravens raving, 6 juncos junking, 5 go-golden eyes, 4 common snipes, 3 dipper birds, 2 blue jays — and a canyon wren in a pine tree."

FREE SOLAR INFO

Toll free calls for solar information can now be placed to the National Solar Heating and Cooling Information Center at (800) 523-2929. The center, established by the federal government, will have access to all existing literature and data on solar energy. It will act as a referral service for more technical inquiries on solar energy and alternate energy sources. It will also have an outreach program. For information on exhibits, brochures, and other material, write Solar Heating, Box 1607, Rockville, Md. 20850.



Bighorn sheep on Whiskey Mountain in Wyoming. Photo by Laney Hicks.

WILDLIFE SHORT COURSE

The Colorado State University Department of Fishery and Wildlife Biology is offering a short course in Fish and Wildlife Management April 11-15 in Fort Collins. The course is designed for wildlife commissioners, laymen, and wildlife agency employees. For more information contact Eugene Decker, Dept. of Fishery and Wildlife Biology, Colorado State University, Fort Collins, Colo. 80523.

WILDLIFE SOCIETY MEETING

The Idaho Chapter of the Wildlife Society will hold its annual meeting on Jan. 20-21 at the Department of Fish and Game, 600 S. Walnut in Boise. Topics to be covered include forestry and wildlife, birds of prey management, elk hunting in Idaho, and the impact of rest-rotation grazing on big game.

RECYCLING INFORMATION

The Reynolds Aluminum Recycling Co. has set up a toll-free number to help people locate the nearest Reynolds collection point. The number is 1-800-243-6000 (residents of Connecticut should call 1-800-882-6500). Reynolds pays 15 cents per pound for aluminum.

COLO., WYO. MINING DISTRICTS

Mining districts and mineral deposits of Colorado and of Wyoming have been mapped on two separate maps which are available from Mineral Research Co., Box 11427, Albuquerque, N.M. 87112 (phone (505) 299-3922). Write or call for a free brochure and price list. Completion of these two maps finalizes a project to map mining districts in all 11 Western states.

HCN Bulletin Board

COMMENT DEADLINE EXTENDED

The Bureau of Land Management has extended the deadline for comments on proposed changes in mining regulations on public lands until Feb. 5. For a copy of the proposed changes, contact any BLM office.

GRAZING REGS REVISION

The U.S. Forest Service is preparing to revise regulations for grazing livestock on National Forest System lands. The revision is necessary to make the regulations consistent with the requirements of the Federal Land Policy and Management Act of 1976. The categories which the proposed rule changes will cover are: authorities and definitions; management of the range environment; issuance and reissuance of grazing permits; rangeland betterment funds; and grazing advisory boards. Individuals and organizations desiring to submit written views and suggestions on the proposed rules should write to: Director of Range Management, Forest Service, USDA, P.O. Box 2417, Washington, D.C. 20013 before January 28, 1977. Rulemaking covering grazing fees and management of certain wild horses and burros is being handled individually.

MISSOURI RIVER PRIORITIES

The Missouri River Basin Commission will meet at the Cosmopolitan Hotel in Denver on Feb. 2-3 to decide on priorities for water resource activities in the basin.

POWER PLANT STATUS REPORT

The Missouri River Basin Commission has published a report on the status of electric power generation in the basin. The report is designed mainly for water and land use planners. Copies are available from MRBC, Suite 403, 10050 Regency Circle, Omaha, Neb. 68114.

S02 CONTROL REPORT

The Commerce Technical Advisory Board of the U.S. Department of Commerce has released a new report: "Sulfur Oxide Control Technology." The report concludes that several continuous sulfur emission control technologies are commercially available and can be employed by most utility plants. Copies of the report are available for \$5 from National Technical Information Service, Springfield, Va. 22161. Ask for PB 246667.

WYOMING WILDERNESS REPORT

A quarterly Wyoming Wilderness Report is being published by the regional representative for the Wilderness Society, Bart Koehler. For information about getting the report, write Koehler at Box 1184, Cheyenne, Wyo. 82001.

ENVIRONMENTAL GRANTS

A new list of grants for environmental education is now available from the U.S. Environmental Protection Agency (EPA). It lists federal programs which have or can support active environmental improvement projects. For more information, contact the Office of Federal Activities, EPA, 401 M St. NW, Washington, D.C. 20460. Ask for "Federal Education Programs with Potential for Providing Technical or Financial Assistance to Environmental Learning Activities."

YOUR OWN WILDLIFE REFUGE

Defenders of Wildlife has prepared a booklet full of ideas on how to make your yard into a refuge for wildlife. The booklet includes seasonal bird feeding charts, plantings that benefit wildlife, and other ideas. For a copy write Defenders of Wildlife, 1244 Nineteenth St. NW, Washington, D.C. 20036.

GROWTH SHAPERS

The level and density of new development is shaped in part by sewer systems, mass transit, airports, and recreation facilities. A handbook to improve understanding of these effects has been prepared for the Council on Environmental Quality. The handbook gives examples from communities around the country which have been adversely affected by such facilities when their impacts weren't given consideration in planning. It also gives examples of other communities that had used them to their advantage. A full bibliography is included. "The Growth Shapers" is available free from the council to non-profit groups on a first come, first served basis. Write Council on Environmental Quality, 722 Jackson Place, NW, Washington, D.C. 20006. Others can order the handbook from the Government Printing Office, Washington, D.C. 20402 for \$1.30. Ask for Stock Number 041-011-00029-7.

UTAH

Utah



Utah — Actual size, 10 1/2 in. x 13 1/2 in., 192 pages, 12,000 words of text, 178 illustrations in full color.

Photography by David Muench, Text by Hartt Wixom.

The Mormon pioneers of 1847, who called Utah the Promised Land, would have found a fitting testament in this beautiful book. David Muench explores the vastness of this remote and rugged land, pictures the fragile beauty of alpine life, the vistas of mountains, canyons, and deserts. Muench's camera and Wixom's pen record the incredible human achievements exemplified in Mormon temples and the Tabernacle and the communities carved from the wilderness. Brigham Young said "This is the place." You may well say, "This is the book."

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

Three Utah crusaders

Jan. 14, 1977 — High Country News-15

Raising the issues in a hostile environment



Janet and Lloyd Gordon

Story and photos by Jeff Gailian

"The man told me, 'If another power plant is rejected we're not just going to talk about hanging — there's going to be some hanging.' But he called the next day and said he wasn't serious. He was just advising me for my own safety."

Lloyd Gordon takes a long, contemplative pull on his pipe, re-thinking what he's just said, and wondering, perhaps, if it will ever get that bad.

The time is post-Kaiparowits and pre-Intermountain Power Project (IPP). The place is Cedar City. At stake is all of Southern Utah. Lloyd's antagonist is a frustrated supporter of the IPP proposed coal-fired power plant to be located near the east boundary of Capitol Reef National Park. But not if Lloyd, his wife Janet, and Hank Hassell can help it.

Lloyd, Janet, and Hank comprise the core of Southwestern Utah's only environmental organization — ISSUE (Interested in Saving Southern Utah's Environment). It's a lonely, not to mention potentially hazardous, struggle in a land famous for hanging environmentalists — so far only in effigy. After the Kaiparowits power plant proposal was dropped last year (due to economic problems and environmental protests) irate locals hung and burned Robert Redford and other environmentalist opponents of the plant in effigy.

It was concern over the Kaiparowits project that spawned ISSUE back in 1970. Lloyd began ISSUE with a personal newsletter which was plugged by the Utah Sierra Club newsletter. Shortly afterwards a Moab chapter was started by Fran Barnes. The two remain loosely affiliated but distance and differing philosophies have kept the chapters on independent footings. The newsletter also snared Hank Hassell who joined the Cedar City chapter shortly after hearing of Lloyd's and Janet's lonely efforts. The hard core membership has remained the same ever since. Issues may come and go, but Lloyd, Janet, and Hank are here to stay.

Hank operates from a base in Panguitch, 70 miles northeast of Cedar City, where he's a math instructor in the local high school. "We used to have regular meetings in Cedar City but decided to stop talking to

ourselves and start talking to others," says Hank.

"I suppose the ratio of activists to inactive armchair environmentalists is 1 to 50," says Lloyd. The three decided it was more important to spread the conservation message to those who weren't convinced rather than spending time with those who were sympathetic, but refused to act.

When Kaiparowits was generating daily headlines, ISSUE had a following of 60 diverse members scattered all over Wayne, Garfield, and Iron counties: all non-Sierra Club ranchers, landowners, and retired people.

"It started with 20 people and mushroomed," says Hank. "There's a different list of names for each (environmental) issue. Some folks support us on power plant issues, but oppose us on wilderness or predator control. Some that helped me on Kaiparowits won't help me on timber issues because they work in the forest."

Back in Cedar City Lloyd and Janet continue to voice their opinions on a seemingly endless array of developments proposed for Southern Utah, although the office they previously maintained in town is now closed. Lack of a burning issue has dried up outside support, so in the interim Lloyd continues in his regular job as a Federal Aviation Administration radar technician atop Blow Hard Mountain, while Janet tries to finish a degree at Southern Utah State College.

"It cost me a few thousand dollars a year," says Lloyd, "and a 40 hour work week (in addition to his regular job) to run the office. I paid for the office and the newsletter out of my own pocket. We tried collecting dues for the newsletter, but keeping a member was always more important than his \$5 per year anyway. We were at our best when we were working on community problems. We were a service organization — not a duplicate of the Sierra Club."

When the state highway department was relocating a highway near the small Mormon town of Toquerville several farmers sought ISSUE's assistance in fighting the proposed route through agricultural land. After effective opposition was organized the department finally pulled in its horns and decided an environmental

impact statement was needed. A proposed alternative now runs the highway through non-agricultural lava fields.

INITIATES LOBBYING

ISSUE's presence has even been felt in the Utah legislature. A few years ago Janet temporarily moved to Salt Lake City to become the first conservation lobbyist in the state. The first year she lobbied under ISSUE's banner. In her second season she was lobbyist for the 23-group coalition, Council on Utah's Resources (CUR). When Janet left, CUR had three full-time lobbyists breaking ground for new environmental legislation.

"Many Salt Lake City environmentalists were doubtful that lobbying at the state level would work," says Lloyd, "but Janet went anyway and showed it could be done. Now most have come around to the position that conservation lobbyists are effective and important."

Hank travels widely across Southern Utah trying to convince local people that energy development is not the be-all and end-all its proponents claim. The impending IPP power plant will refocus much of the same energies Kaiparowits generated, he believes. Sensitive to the historical roots of the people and aware of the environmental consciousness in southern Utah (somewhere near the Paleolithic stage), Hank skirts the issue of power plants' impacts on the natural environment and concentrates instead on their impact upon the social and political life of the predominantly Mormon communities. "Some Mormons," says Hank, "feel a development like Kaiparowits would totally destroy the Mormon culture of the area."

He spends considerable time deflating the local argument that power plants will provide jobs to economically depressed counties. "This area is no more economically depressed than anywhere else. Many people don't want to work 12 months per year. Services are lower, but taxes are, too. They only need 100 jobs in Kane County to have full employment. Kaiparowits would have brought in at least 15,000 people."

Hank also rejects the idea that a 3,000 megawatt power plant like IPP is needed to supply Utah's growing energy demand. "If you build this power plant to meet Utah's needs, it's like building a forest fire to keep warm," he says.

But awareness comes slowly, almost as slowly as people have come to Southern Utah. "It's difficult to fight the battles," says Janet, herself of pioneer Mormon stock, "because it's a closed society. Your opinion doesn't count unless you're a local, and you're not a local unless your family has lived here for three generations."

Nevertheless, some headway is being chiseled into the monolithic social structure, a structure that matches the enormous masses of solid sandstone that are Southern Utah. It's a unique and lonely life

and not without its special problems and ironies.

When the Bureau of Land Management proposed Canaan Mountain, along the Arizona-Utah border, as a primitive area, the residents of Colorado City, Ariz., objected vehemently. Though officially they objected to grazing restrictions, wilderness in principle, and vehicular closure of areas, the real reasons lay somewhere closer to



Hank Hassell

home. Colorado City is the only surviving colony of fanatical Mormon fundamentalism, which means, among other things, the residents are polygamists. Officially divorced from the church, they set up shop in the town years ago and were pursued back and forth across the border by Utah and Arizona officials, frequently taking sanctuary in the wilderness of Canaan Mountain. Though the official harassment has mellowed into disdainful tolerance, it's all those California backpackers passing through the town to get to the proposed primitive area that have the residents of Colorado City up in arms. How do you explain houses with 10 and 12 bedrooms to inquisitive outsiders?

Lloyd laughs into his pipe smoke: "I like to say it's just all part of the ball game."

IMPORTED BIRD MODEL KITS

Barn Swallow	\$3.95
Kingfisher	\$4.95
Little Owl	\$5.95
Pigeon Hawk	\$5.95
all four for \$17.00	

CARVINGS OF WILD BIRDS IN PLASTIC LIKENESS OF TRUE COLORS
AVAILABLE IN EVERY DETAIL. EASY TO MAKE IN A FEW HOURS. IDEAL GIFTS
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Buck Saddlery & M.L. Carter

Jack Boots Belts, Jeans, Jackets
248-H So. Center
Casper, Wyoming 82601
(307) 235-6274

A perfect Christmas gift
Wind River Trails

Thirty-one pictures and twelve maps show all roads and trails in Wyoming's fantastic Wind River Range. \$2.95 pp. to any state except Wyoming. *Money cheerfully refunded if not delighted. Finis Mitchell, 336 P St., Rock Springs, Wyo. 82901

Classifieds

FOR SALE: Three bedroom house in Sunset Addition, Lander. Full basement. One and 1/2 baths. Close to grade school. For appointment call (307) 332-2505 or write 945 N. Lane, Lander, Wyo. 82520.

NEW MEXICO NATIVE HERBS. Catalog, 25 cents. Lonely Mountain Herb Co., Box 23A, Radium Springs, N.M. 88054.

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Jan. 14, 1977



Unacceptable Risk

by McKinley Olson, Bantam Press,
New York, New York, 1976. \$2.25.

Review by Alexis Parks

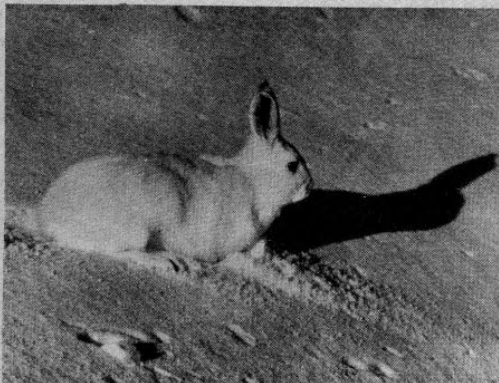
Now that the tidal wave of pro-nuclear jingles and slogans has subsided, we can get back to the serious business of uncovering what the nuclear controversy is all about. McKinley Olson's *Unacceptable Risk* does an excellent job of this: the accumulated facts and figures burn a hole through the heart of the issues like a meltdown of enormous, weighty information.

The core of the book, titled *Radioactive Implications*, addresses the current work of National Center for Atmospheric Research radiochemist Dr. Edward Martell and other scientists. Dr. Martell has directed his study of atmospheric chemistry inward, to inhaled radiation. He has shown the ability of insoluble radioactive particles to localize and concentrate their bombardment upon nearby cells: attacking at levels low enough to kill some, mutate others, and stimulate mitotic cell proliferation. "The A.E.C. (Atomic Energy Commission)," Dr. Martell reports, "minimized the effects of internal low-level radiation by a factor of thousands" for atomic work-

ers and the general public, he says.

The rest of the book includes a handy *Who's Who* in the anti-nuclear movement. It includes citizens like Mary Sinclair, Chauncey Kepford, and Joseph Currey who have roused neighbors to action as well as professionals like lawyer Mike Cherry, Ralph Nader, and organizer David Comey who work at the front of the wedge. Each victory serves as a stopgap until a wall of public resistance can be built. To show how this is being done, Olson takes us around the country, moving among pockets of critics in California, Michigan, Colorado, Wisconsin, Pennsylvania, Florida, New York, and elsewhere. He includes nuclear proponents as well, balancing their conclusions against the growing accumulation of information against them.

We learn, for example, that each standard-size light water nuclear reactor will produce in one year's time as much radioactivity as we might get from the fallout of 1,000 Hiroshima-sized atom bombs. We learn that the updated facts from the Brookhaven Report — released under court order to the public in 1973 — raises the predicted body count of those killed by a hypothetical reactor accident from 3,400 to 45,000. It raises the potential injury list



Snowshoe rabbit.

Photo by Jack McLellan.

from 43,000 to 100,000 and advances the amount of property damage from \$7 billion to \$17 billion.

Olson tells us that in 1974, weapons grade uranium was selling for \$15,000 on the black market, that plutonium 239 was priced at \$5,000, and then he quotes facts and statistics on transportation accidents, thefts, and sabotage attempts.

Olson splashes light on a conversation between a scientist from the Lawrence Livermore Laboratory and nuclear critic Dr. John Gofman. The scientist had asked Gofman why he thought that 32,000 extra deaths per year from cancer (due to radia-

tion) would be too many. Dr. Gofman later sadly replied that this kind of question came from the realm of technology without a human face. If every scientist and engineer had an opportunity as part of his or her education to work with cancer and leukemia patients, they would, he believed, become acquainted with what lives and breathes and dies behind a statistic.

As the country moves away from the press of well-financed rhetoric into public education programs dealing with the problems of nuclear power, this book will serve as a necessary, useful primer.

Dear Friends,

In the Oct. 22, 1976, issue of HCN, we asked the readers to comment on our advertising policy. We had been selectively accepting advertising for just over a year after several years of accepting none. We thought it was time to reevaluate our policy to see if this was the best way to serve our readers and at the same time assure the continued existence of the paper.

After receiving dozens of letters and carefully scrutinizing the issue ourselves, we have decided to maintain a policy of accepting only advertising that is consistent and harmonious with HCN.

We were surprised by the number of readers who felt strongly that we should not use HCN space for ads which conflict with our editorial policy. They outnumbered the letters promoting an open policy by a two-to-one margin and helped us shape our difficult decision.

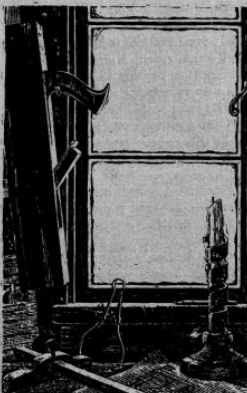
Still, many strong points were made against "censoring" by other readers. These expressed many of the same reservations we felt about the practice. As journalists, we take seriously our responsibility under the First Amendment — to provide a forum for expression of ideas.

However, the readers convinced us they had access to much of the information in question elsewhere — wherever money could buy the space for it. "One side has all the money," as one reader put it. Many readers pointed out that our responsibility to cover what is not covered elsewhere is equally — if not more — important.

Actually, the "censoring" issue is mostly a theoretical one. Since we started taking advertising in 1975, we've rejected only two ads (in addition to some political advertising). We

doubt that if the word spread that we had liberalized our ad policy, ads from industry would immediately start pouring in.

Some saw the debate as centering on "purity" — as if ads from industry or energy giants would somehow soil our pages and influence our news coverage and editorial stands. This argument was given little weight by the staff since we had all vowed to main-



tain our editorial independence. In fact, we see no reason why advertising should influence any newspaper's editorial content.

We also rejected the notion that accepting all ads would reduce news coverage space. Our plan is to add more pages as advertising revenue increases so that news coverage is not compromised.

As a result of our ad policy discussion, we decided that we would accept an ad from a firm we might oppose on

an issue (for example, an ad from a private power utility) — if the ad itself were good (for example, ideas for insulating your home).

So why would HCN want to reject any ads if we weren't afraid our content would be affected by them?

1) Service. We believe the function of advertising should be to offer our readers information on services, products, and issues while at the same time bringing in additional income. Misleading ads and ads for unnecessary items which cause excessive pollution are of little value to our readers.

2) Independence. Our only alternative to rejecting flagrantly misleading advertising would be, in our eyes, to rebut it in the same issue in news stories. To adhere to this policy would require spending time, effort, and most importantly news space — thus, in an indirect way, dictating news priorities.

3) Pride. Being able to "tell the moneyed folks that our intelligence can't be bought," as one reader phrased it.

4) Purpose. HCN exists, not to be a financial success but to spread the important regional environmental news. Most newspapers run more than half advertising. Our readers tell us if we need the money, they'd rather pay more for a subscription and see more news in place of objectionable ads.

So, in summary, you'll be seeing ads in HCN — hopefully more of them — but none of them conflicting with values which we and many of you subscribe to. There will be no election advertising for either candidates or issues since we think that, generally, this type of advertising is the most misleading, the least informative, and most space-consuming.

However, to make this policy work for us and for you, we need specific suggestions from you of possible ad-

vertisers — preferably businesses which sell by mail order or have outlets throughout the region. We need to hear about products or services that you — and so potentially other HCN readers — enjoy. Use your imaginations. Write August Dailer at HCN and give him your ideas.

One final request. The danger of a selective advertising policy such as this is that we will present the image of only wanting to talk to ourselves about subjects which we already agree upon. Such a situation would lead both writers and readers into intellectual stagnation and political blunders. Hopefully, we can avoid this problem in our news stories by presenting other points of view clearly and fairly. Let us know if we slip.

—the HCN staff.

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