

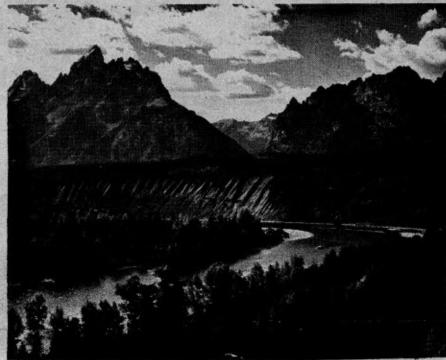
Jackson Hole wrestles with growth

by Mary Inman

With the opening of Teton Village Ski Area in the winter of 1966 a development flurry began in Teton County, Wyo. Until then the county had existed almost entirely on the summer economy of tourism and ranching. The Teton County Board of Commissioners worried about the increase in subdivision developments in the rural agricultural areas, and the Jackson Town Council worried about the influx of people wanting jobs and urban housing. A county planning commission was appointed and discussion was begun on the proposal of a master plan as an approach to maintaining the character of what was fondly and famously known as "Jackson Hole.

The initial planning steps came easily, with citizens and all levels of government participating. Since Teton County - the home of Grand Teton National Park and "ational Elk Refuge - is only three nt private land, four state and three aral agencies also helped form the county master plan. Local citizen input was sought and committees were formed to report on land development, transportation, small communities, recreation and tourism, agriculture, and natural resources. Their recommendations laid the basis for the master plan which was written the following year, 1970. After adoption of the master plan the county attorney's office submitted a subdivision resolution which was voted into law as a ment regulation.

But during the four years after adoption afford were being closed up. of the master plan and subdivision resolution, both documents proved to be ineffectual in regulating growth and development in Teton County. By the fall of 1974, 2,400



TETONS AND THE SNAKE RIVER. The spectacular scenery of Jackson Hole, Wyo., attracts millions of visitors - including many who want to stay. Development pressure is intense since only three per cent of the county is private land. Photo of Grand Teton National Park by the National Park

new residential units were under construc- such prices the trend was toward elimination or proposed, most of them scattered tion of agriculture and ranching pursuits around the rural areas of the county. The altogether, and many remaining ranchers vast agricultural tracts which give Jack- feared for their way of life. son Hole its peaceful, pastoral quality were Lawsuits erupted. Obviously the plan being broken up, and the open s

And who could fault the ranchers? For

and resolution were inadequate and sorely needed revision.

The board of county commissioners agricultural purposes their land was worth turned once again in 1972 to the citizenry maybe \$500 an acre; for development they for input. Subcommittees - this time could sell it for \$5,000 an acre or more. At formed to report on impact, density, and

planned urban development — introduced new concepts in land use planning. A public hearing was held late in 1973 to discuss the new trends and to ask the question: Which way do you want to go from here?

The response was overwhelming, both in attendance and in the wide range of opinion. The county commission decided to survey land use attitudes to get a handle on the problem. The University of Wyoming's Sociology Department and its computer were contracted in 1974. Analysis of the response to the survey - an impressive 55% - established conclusively that the people of Teton County wanted good planning and were willing to pay for it. With that encouragement the county commissioners advertised for the best planning advisors available in the country.

HIGH FINANCES

The commissioners next appropriated \$45,000 to be spent over a two year period for the preparation of a comprehensive plan and implementation program. The Nature Conservancy (a national conservation group) pledged \$60,000. But the planning team's proposal proved too expensive.

The U.S. Environmental Protection Agency (EPA) was contacted. Late in 1974 a representative came to Jackson Hole to see if funds granted under Section 208 of the Federal Water Pollution Control Act were applicable. The county commissioners learned that if their land use plan included waste water management planning, they could apply for a grant which might pay half or more of the cost of the program, and the Teton County 208 Plan-

(Continued on page 4)

How to get out the conservation message

by Bruce Hamilton



"We're in the midst of a news explosion, and the competition for space is keen," said award-winning Rocky Mountain News environmental reporter Richard Schneider. Even though you can easily find stories that aren't very important printed in any daily newspaper, it's not easy to get your particular environmental story in print, Schneider told the Energy Conservation Training Institute in Estes Park, Colo., in early March.

Schneider, together with KOA-TV Science Editor Don Kinney of Denver, discussed ways to get the media to publicize the energy conservation message. Schneider and Kinney recently received awards from the Administrator of the Environmental Protection Agency for outstanding environmental reporting.

"I'm embarrassed to tell you that most

television and radio reporters do a very poor job," Kinney confided to the institute participants. "While you might look for depth and a great deal of information in newspapers - and often get it - in the broadcast arena you often get superficiality, inexactness, or out-and-out errors."

Kinney explained that the reasons for this "sloppy job of information" are the lack of experienced broadcasting reporters and a lack of time.

"One of the major problems in radio and television today - and, frankly, one you can capitalize on - is that there is very little time to prepare a story and even less time for that story to be on the air," Kinney

"Normally, in a television station the size of the ones in Denver, it will be the rare exception that a story will run longer than

90 seconds. That is fewer than 25 typewrit-

"You can imagine in your particular case when you spend years trying to become an expert on a topic and then ask someone to interpret your entire effort in 25 typewritten lines. You can understand how errors develop," he said.

FOOLING THE MEDIA

Kinney suggested that the simplest way to get an environmental story on television is to call a news conference. "In the Denver area, if you're a reputable group or person with limited expertise or authority, you can call a news conference and almost be certain that four television stations, two

(Continued on page 4)



Clark's Nutcracker photo by David Sumner.



AMMUNITION PROVIDED

Dear HCN,

I think that occasionally you give the other side a little too much ammunition and too easy a target.

For example, on the energy conservation issue (7-4-75) your front page picture featured a horse and cart. If I were an energy company I would use that picture to point out how a "spokesman of the environmental movement was advocating that we all move backwards."

To me the point of energy conservation is that we don't all have to change our life style drastically, but that we can save significant amounts of energy right now by doing relatively simple things.

Your text was fine; the choice of pictures unfortunate.

David Hunter Helena, Mont.

SPREAD HCN AROUND

Dear HCN,

Tell your readers to give their HCN to a library or school when they are through reading. Better yet, send a subscription to a local school or politician.

R. M. Grotte San Jose, Calif.

KUDOS FOR 'LOSING GROUND'

Dear HCN,

Please convey kudos to Peter Wild on his review of Losing Ground. John Mitchell has been a close personal friend of mine for 25 years, so I've known for a long time about his "expert journalism" and "poetic richness.

Too bad that so many people who would have enjoyed and benefited from reading this book will not have the opportunity. They're too busy trying to avoid publications like "Jaws" and the good ones get lost in the money shuffle.

Suzanne Stern Sonoma, Calif.

FURIOUS

Dear HCN,

It burns me up to think that a bunch of highly paid lobbyists can jettison or emasculate the efforts of a few good legislators. I am furious to hear the mellifluous tones of Exxon explaining how it just loves the land and has all our interests at heart. So that is why I must support HCN, Audubon, and the Powder River Basin Resource Council even though my efforts are tiny and feeble.

M. Eads Sheridan, Wyo.

It's your choice!

Your opinion matters.

We want to know what you think about HCN. Please answer the survey that appeared in the January 30th issue.

SELF-RELIANT & INTERDEPEN- lands. DENT

Dear HCN.

Bret Brunner's letter (HCN 2-27-76) prompts me to say something I've wanted to say for some time. I agree that we should seek answers to interdependent existence instead of seeking ways to be independent.

quest is an international or diplomatic definition of such words as independence, areas. DU is one conservation organization self-sufficiency, interdependence, and that recognizes that the only way to save a self-reliance. They crop up in all manner of wildlife resource is to preserve the habitat communications from various parts of the animals need. planet earth. When a prime minister, president, or other spokesman speaks of becom- Bob Krumm ing self-reliant, the statement should not be erroneously translated and bandied about in the American press as "selfsufficient."

I gained my own understanding of selfreliance from Ralph Waldo Emerson's essay on that word and feel that it is not incompatible with interdependence - or with the idea of peace on earth, good will to all men (and women). "Independence" and "self-sufficiency" could start border wars and conflagrations where none was in-

S. D. Isbell Phoenix, Ariz.

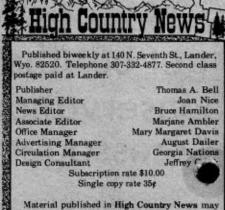
DON'T FORGET DUCKS UNLIMITED

Dear HCN,

I find your newspaper stimulating and informative but I feel an oversight in your last issue should be pointed out. On the topic of wetlands preservation not one mention was made of Ducks Unlimited which was founded in the 1930s solely for the purpose of preserving Canadian wet-

Since approximately 80% of the North American ducks are fledged in Canada, this organization deserves our support as much as any U.S. agency. The two million acres of prime habitat set aside by Ducks Unlimited are niches for other waterfowl, shorebirds, wading birds, large and small mammals, and many species of fish. In I suggest that the very first step in such a years of drought in the pothole provinces many of the ducks fledged come from DU

Jackson, Wyo.



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Attack on public information

Public information on controversial natural resource issues has become a crime in the eyes of many lawmakers in this

Recently the Idaho Senate barely managed to reject an attempt to silence the state Fish and Game Department. Sen. Larry Craig proposed an amendment to the department's budget which would have eliminated \$224,000 from the information and education division. The department has been outspoken on the potential harm to wildlife by certain new logging and min-

Craig told the Idaho Statesman he felt the department's role was not to inform the public of potential wildlife destruction, but instead "management after the fact."

In effect Craig and 15 other senators who voted for his amendment were saying: "Don't tell us that a new mine will be in the middle of an important elk range, just manage whatever elk are left after the

mine goes in."

ignorant was a follow-up of an Idaho Mincut Fish and Game's budget. The association made the threat after the department printed a series of articles critical of expanded phosphate development in southeastern Idaho.

The Montana Department of Fish and Game has also been threatened in the legislature because of the controversial stories run in its magazine - Montana Outdoors.

SCRAP NEPA

A similar attempt to hide information from the public on environmental issues can be seen on the national level where gress are trying to evade or scrap the National Environmental Policy Act (NEPA). information on alternatives to an en-

NEPA is best described as a "full disclos-This ill-fated attempt to keep the public ure law." It simply states that before the federal government embarks on a major ing Association public threat to attempt to project that has a significant impact on the environment, it must first write an environmental impact statement (EIS). The EIS outlines environmental risks and trade-offs for the public and the federal de-

> It's a law that is essential to good planning. When government agencies have been taken to court to comply with NEPA it is because members of the public felt they were not given sufficient information on a federal decision. But now the trend is to disregard requests and requirements for public information by making certain government actions exempt from the provisions of NEPA.

It started with the trans-Alaska oil developers, agencies, and members of Con-pipeline. Citizens fought the government, with NEPA as one weapon, to glean more

vironmentally disastrous proposal. The Congress responded by exempting the pipeline from judicial review. NEPA lawsuits on the pipeline were forbidden. further public information was cut off, and the pipeline construction commenced.

Similar attempts to bypass NEPA and the public are springing up on every conceivable issue. Nuclear energy proponents have sought unsuccessfully to make nuclear power plant siting and construction exempt. The Corps of Engineers has sought unsuccessfully to have its dredge and fill permit system exempt.

Earlier this year, Congress passed and the President signed a bill authorizing the killing of millions of pesky blackbirds in western Kentucky and Tennessee. The bill waived NEPA and "any other provision of law" which might allow judicial review.

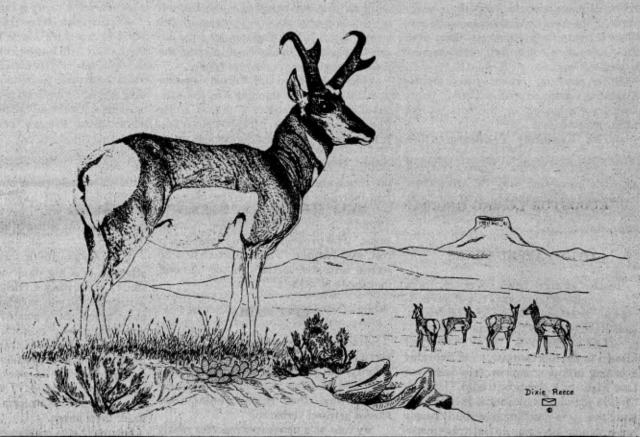
The Alaska debate has now shifted away from the oil pipeline and toward routing of a gas pipeline from the North Slope to the Lower 48. Rep. Phillip E. Ruppe (R-Mich.) has introduced a bill authorizing a route across the Arctic National Wildlife Refuge and through Canada, which is opposed by many conservation groups. His bill, HR 11273, would specifically bypass all NEPA requirements and allow only very limited judicial review.

DESTROYING DEMOCRACY

Evidently the lawmakers that propose and vote for these various bills favor quick development over informed decisions. By pulling NEPA's teeth out and closing the purse strings on Fish and Game information, these short-sighted people are denying the public a say in governmental decisions that affect our lives.

Knowledge is not an evil thing. By cutting off public information, we are destroying democracy.

-BH



recent controversy over an Environmental Protection Agency (EPA) air study described on page 8 in this issue. The controversy would be much more alarming to us if the EPA researcher had been accused of underestimating the health effects, rather than overestimating them, how-

"Wyoming has a real challenge and opportunity to become a model of future controlled industrial development; but only if it will set its own rms and time tables. Only then uld we still protect and retain Wyoming's unique quality of life. . . as well as agricultural bounty that may be its greatest contribution, in the long run, to our nation."

Sally Forbes, Sheridan, Wyo. rancher Testimony before the Select Committee of the Wyoming State Legislature on Impact

We don't know all the facts yet in the Healthy conservatism? might have some effect. After all, human

ever. The clever researcher who skewed things in favor of the polluter would no doubt earn himself generous gifts and pleasant silence from all those he regulated. Jack Finklea and his agency, on the other hand, are under fire for perhaps being too concerned about protecting the public's health. Neither the man nor the agency have gained anything but flak for their efforts.

We certainly don't condone tampering with scientific data to reach a foregone conclusion - for any reason. If that is what took place in the EPA lab, we condemn it:

But we also realize that when statistical data are compiled, they are sometimes ambiguous. The facts may not show that a pollutant definitely will cause damage to our health or that it definitely won't -only that it might. In that situation, we'd urge the researcher to risk, as Finklea says, erring on the side of overestimation of risks. We would ask him to indicate his uncertainty, but to let us know that the pollutant

lives may be the consequence of undere-

A recent court ruling also seems to favor this approach. In a 5-4 ruling a U.S. Court of Appeals held that EPA has the authority to order reductions of lead in gasoline, even before any public health hazards have been positively established. "Speculation, conflicts in evidence, and theoretical extrapolation typify their every action," said the court. "How else can they act. . ?"

Until more facts are presented, we'd like to give Jack Finklea the benefit of a doubt. Perhaps he should not be accused of having willfully distorted data; with public health at stake, he may only have been guilty of conservatism in the public interest.

We hope Congress will look into the situation. An important agency's vital functions have been challenged. Polluting industries are using our doubts about what actually happened to try to dismember EPA. Before more damage is done, we'd like some more facts.

People quote us. "See, it says it's so, right here in High Country News. . . . " Get the facts, get HCN. 25 issues ten dollars Send me the facts; send HCN to me: Box K, Lander, Wyo. 82520 1-High Country News - Mar. 26, 1976

Jackson Hole.

(Continued from page 1)

ning Agency was set up. The original planning team, Livingston and Blayney, drew up the application and EPA granted \$370,000 for the two year program.

Also at this time the Wyoming legislature passed the Land Use Planning Act of 1975 under which state grants were made available to communities who undertook planning. Under this act, \$10,000 was granted jointly to Teton County and the Town of Jackson. Furthermore, the Bridger-Teton National Forest volunteered to do the scenic evaluation study for the project at federal expense. Fiscal year 1975-76 looked bright.

During the development boom in the early 1970s, citizens began looking beyond the boundaries of the county's private lands for planning solutions. A group of landowners appealed to Washington to excounty will not be able to afford to finance any widespread program of land acquisition or of regulation with compensation. Since it is the national interest that will be served by the preservation of Jackson Hole from despoliation, it is reasonable to expect the federal government to pay a substantial share of the cost."

In April 1975, then-Secretary of the Interior Rogers C.B. Morton ordered a comprehensive study of possible boundary extensions. In September a preliminary boundary study was released and in November public workshops were held. A boundary modification proposal is due in October 1976 to coincide with the presentation of the county comprehensive plan alternatives by Livingston and Blayney.

Meanwhile, citizens and planners are investigating various land management options to preserve Jackson Hole. Through joint federal-state-county jurisdiction, some citizens hope to achieve park land protection and private land ownership. This would allow an unconventional mix of



SIGNS OF DEVELOPMENT. Construction equipment at the Jackson Hole Airport within Grand Teton National Park. Airport expansion is one land use issue facing park and county planners. Photo courtesy of the JACK-SON HOLE NEWS.

A master plan and subdivision resolution proved to be ineffectual in regulating growth and development in Teton County.

tend the boundaries of Grand Teton National Park (GTNP) to include more of Teton County. This would give them the alternative of selling to the federal government which could, by terms of agreement, preserve their lifestyle and at the same time present to the visiting public an example of living history.

In March 1975 Livingston and Blayney presented their preliminary report in which Grand Teton National Park expansion was listed as a principal planning issue. They stated: "It is clear that the

visitor services, recreational activities including hunting, grazing, and farming. While the Park Service or some other government agency would oversee development of the land, land owners could continue to live on their lands, pass them on to their heirs, or sell certain rights associated with their land.

Other planning measures and studies are being conducted within Teton County that have a bearing on the total county planning process:

-The Regional Transportation

Study, begun 2 years ago by the Park Service, is in limbo while the priorities for the need for this study are being reconsidered. The preparation of a regional transportation study was suggested after the Jackson Hole Airport Board proposed expanding an existing airport within Grand Teton National Park to accommodate commercial jet aircraft.

-The Jackson Hole Airport Master Plan direction will depend on a decision to be made on March 29 concerning the "prudent and feasible alternate site" selection. Out of 30 possible locations, 8 sites with real potential will be scored by the Technical Advisory Committee. The rest of the master plan, to be completed by July 30, will be based on the decision to keep the present location or move to another.

-The role of the U.S. Forest Service in county land use planning was the subject of a letter sent on Feb. 27 to the County Commission by the Bridger-Teton National Forest. Identified as critical areas plan.

with growth alternatives were: private inholdings, public access, the transportation system in the county, winter sports, water supply and local waste disposal, local recreation needs, future grazing needs, and long term projections of tourist accommodation needs.

-The Snake River Wild and Scenic River Study is about to start. In January the Forest Service sent a letter to Wyoming Gov. Ed Herschler to ask how the state would like to participate: jointly with the USFS, which would involve a commitment of Wyoming manpower and resources, or at a lower level. A reply is expected by April.

-The Snake River Basin Plan, under Sec. 303(e) of the Federal Water Pollution Control Act, will have a hearing in April on the draft report. Ordinarily this plan provides the overall framework for 208 planning, but in Teton County's case, 208 got a head start. The result of 208 planning will constitute an integral part of the basin

(Continued from page 1)

major newspapers, and three or four radio stations will appear."

It doesn't matter if you don't have anything very important to say, Kinney joked. "Because the stations and the papers have invested the time to cover you, you'll probably get on the air and in print." Kinney said newspapers will occasionally throw out stories that are covered, but in television. "once you've taken the steps to film an event, the tendency is to air it regardless of how bad it may be.

"That will work in 90% of the cases," he said. 'It won't get by the Schneiders and it won't get by the Kinneys - but it's only because we have an understanding of how we can be had."

As an alternative approach, Kinney suggested treating the media fairly, and expecting fair coverage in return.

"Don't lobby for just your side of the story," he urged. "Suggest ideas, suggest

who the opposition may be, give their names and phone numbers. Anything you can do to save the media time is going to be appreciated."

OTHER APPROACHES

Besides straight news coverage, there are a number of other ways to get environmental messages on radio and television, said Kinney. These approaches include:

-TALK SHOWS. "Make yourself known to the representatives of Saturday morning talk programs on television and late night talk shows on radio," he said. While you may think that it is a w your time, it is appalling how many people are watching television on Saturday morning."

EDITORIALS. "If your station has editorials on the air, don't hesitate to 'take them on' and respond to their editorials. You may be allowed only one minute, but you'll reach a huge number of people."

-PUBLIC SERVICE ANNOUNCE-MENTS. "Right now you can have meet-

an anti-waste message - just like in guarantee that you'll get anything out (1972-73 there were anti-smoking messages." The problem with this approach is position." cost, said Kinney. "The production of a 30 second anti-commercial can cost several thousands of dollars."

PRINT MEDIA

Schneider, who worked with the wire services and edited small weekly papers before joining the Rocky Mountain News staff, told institute participants not to exstories printed verbatim.

"My role as a newspaper reporter really isn't as a conduit for people to come to with information, and I grind up their ideas and regurgitate them out . . . in a story," explained Schneider. "I become interested in a subject, and I pursue it on my own. Most reporters work that way."

To get news into a major daily like the News, Schneider suggested several av-

REPORTER ROUTE. Don't just go to any reporter with your story. Try to find a reporter with an interest in your subject. "Don't be afraid to go from one section to another if you get a cool reception. If a city features writer. There are different standards for each section," he advised.

-EDITOR ROUTE. Go straight to an editor. "If you can convince an editor of bad news. We are the bad interpreter your position, then you've got it made be- your thoughts. cause the editor has the power to assign reporters to cover your story."

-EDITORIAL ROUTE. Talk to an editor and hope to get a positive editorial on the subject. Schneider cautioned, "I per-

ing times and places announced, but the sonally don't feel these meetings are very time is coming when you'll be able to put on fruitful. They will listen, but there's no. them or that the editorial will support your

> Schneider admits that it's hard to get the attention of a big daily newspaper. "But while I'm painting a fairly dismal picture with respect to access to a large paper, I'm painting just the opposite for a small daily or weekly paper," he said.

> This region has many more small papers than large ones and getting news on energy conservation in the weeklies "should be fairly easy," he said. "I know that local editors are always looking for information to fill their pages."

> Schneider also recommended contacting wire services - Associated Press (AP) and United Press International (UPI). The wire services send news to papers around the region - large and small.

OFFENSIVE PEOPLE

The media session at the institute closed with a plea for mutual understanding by Kinney: "A lot of people look very negatively on news reporters and editors. That is understandable. We are for the most part offensive people.

"However, please understand that the writer throws you out of his office, go to a reporters probably see more adversity come their way than most any other professional person. We are not trusted. We are lied to. We are misled. We are the bearer

> "But we do strive to give everyone a fair shake. And while you may be terribly irritated at us one time or another, we aren't all bad. But I'm afraid to say we aren't all good either."



THORN MEDELIKE GILL TI

DON KINNEY: "Most television reporters do a very poor job."

RICHARD SCHNEIDER: "We're in the midst of a news explosion."

A grass man looks to the future of the range

(Editors' note: The following article was written by Gary Nabhan, an expert on grass land and, until recently, a staff reearcher at the Research Ranch in southeastern Arizona.)

by Gary Nabhan

"Beef production is the most worthwhile use of Western scrub and grass lands." Such is the Great American Myth - a myth which permeated the recent annual meeting of the Society for Range Management in Omaha, Neb.

Range resources would be wasted if it weren't for cattle and sheep, a representative of the American National Cattleman's Association said in a keynote speech. A proposed session at the meeting was "new trends in range land use," but the discussion never took place. The group stuck to its preoccupation with livestock nutrition and brush and poisonous plant eradication.

The root question we should be asking is the one which the Society for Range Management shrugs off as a moot question: "Is cattle production still economically and energetically worth its status as the dominant, near exclusive use of Western lands?"

Today, as a result of overstocking, 83% of the country's range is in unsatisfactory condition, when conditions are evaluated in terms of forage for cattle. If assessed in regard to other biotic resources, too, the picture grows ever more grim.

In addition, agricultural economists have determined that by 1974, the supply of beef had reached the level predicted to be necessary to meet North American demands through 1980. Not only are the ranges overstocked, the markets are, too. While the regional supply and demand will no doubt continue to fluctuate, future meat prices will increasingly reflect rising feed, water, fertilizer, machinery, and shipment costs rather than simple demand.

Cattle no longer spend their entire lives "home on the range." Nearly all Western ranchers send their herds to feedlots "to beef up" just prior to slaughter.

Soaring water-pumping costs are now limiting the production of forage and, consequently, of cattle in parts of the Southfamilies the hardest.

FOSSIL, NOT SOLAR, ENERGIZED

Ecologist Howard Odum has argued that Idaho potatoes are more oil than sunshine. Fossil fuel is replacing solar energy in much of American agriculture. The energy

SIGN OF THE PAST — OR THE FUTURE? Dr. Paul Martin believes that to reintroduce the prairies to their natural energy flow, we must reintroduce the bison, the pronghorn, and many other plant and animal species. He has also suggested that scrub-loving game species from Africa could be ranched in the West instead of trying to convert scrub lands to grass lands. Shown above is a buffalo roundup on the National Bison Range in Mon-

necessary for one pound of hamburger. U.S. Department of Agriculture data suggest that a 15% decline in the energy efficiency of beef production has occurred since

If we concede that "something stinks" out in the feedlot and on the manipulated range, what are our alternatives?

I have heard of four alternatives which, as radical as they first sound, may be able to withstand the test of time.

First, by following Frances Moore Lappe's instructions on complementary proteins in her book, Diet for a Small Planet, we can receive the bulk of our protein directly from plants. This would reduce the need for intensive production of all range lands. Where meat is produced, however, it should be produced entirely on west. This hurts small farming-ranching the range (or in fishponds!). We then can stop using energy-intensive, inefficient feedlots, and turn the West's prime agricultural land now in forage back to plants that can be directly used for food.

Second, we can find other uses for grass and scrub lands than meat production. For instance, Southwestern Indians have long-used the productive mesquite and

of weeds and pests, rather than learning of the ecological, economic, and esthetic benefits of non-forage resources.

cosmics Englis of sich seison liter various right and to recover the residue year

Third, we can bring in animals which are more efficient as herbivores in our region's climate and vegetation than the European stocks of cattle now on the range. Drought-hardy cattle and goats from the Middle East could do better in the arid and semi-arid lands of the West.

Dr. Paul Martin has suggested that instead of trying to convert scrub lands to grass lands, scrub-loving game species from Africa could be ranched in the West. If several species of large herbivores could be stocked on the same land tract, more effi-

cient use of forage resources might occur as each species portions off its individual niche. Thus an adequate amount of meat could be produced per area, without too many of any one grazer or browser stressing the plant resources.

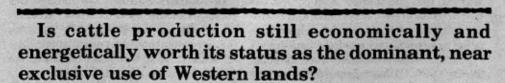
Dr. Martin believes that to reintroduce the prairies to their natural energy flow, we must reintroduce the bison, the pronghorn, and many other plant and animal species that have become scarce or extinct on this continent through man's influence.

Finally, pest animals such as rabbits and grasshoppers are tremendously productive on range lands and should be considered relatively untapped food resources.

Even if any of these food resources were developed to replace cattle in certain local areas, much more would have to be done to restore scrub and grass land productivity, and to make food production efficient. From reseeding of natural grasses and herbs, to the renewed dependence on local markets to minimize transportation costs, other changes would be required.

Certainly cattle will always be part of the discussion when Western rangemen meet. But the potentially beneficial species of the biotic community are numerous, and they deserve discussion, too.

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invested in beef production includes suplemental feeds and their shipment, vegetion manipulation, transportation, and processing.

A fivefold increase in fossil fuel costs is expected by the end of this century. Thus food production must now be assessed not only through the monetary economy, but also in terms of energy use efficiency.

Eric Hirst of the Oak Ridge National Laboratory in Tennessee says that the equivalent of three pounds of coal are low-tannin acorns. These plants are now subject to government control programs, however. Most native food resources are too scarce or labor-intensive for economic harvests. However, a few are definitely able to provide cash crops even today. Other native plants with harvestable food or oil products could be cultivated to some extent under dryland conditions with little environmental or economic cost to provide supplemental income in rural areas.

Range managers have been trained to think in terms of the "uneconomic botany"



IT JUS' DON' SEEM RIGHT.

Mes. 26, 1976 - High Country N earl 6-High Country News Ideas from Zomeworks

Mountain home uses sun

Ron Shore is living in a solar energy home of his own design.

He estimates it saves him \$600 a year in heat bills. The home is at 7,200 feet elevation in the Rocky Mountain town of Snowmass, Colo. The solar system added about \$3,500 to his building costs.

Shore has a small fireplace, but no other auxiliary heat system. Nevertheless, the house maintains a temperature between 60 degrees and 78 degrees, Shore says.

Many of the devices used in the home were developed at Zomeworks, Box 712, Albuquerque, N.M. 87103. Shore spent a year doing solar energy research there and is now an independent solar systems de-

THE "BUILDING ENVELOPE"

Shore calls the "building envelope ... the most beneficial energy conserving measure." His house oriented due south and has most of its window area on this side. The north side has only 16 square feet of double-paned, insulated glass

Shore also uses the ground to heat his house. The house is set three feet below the surface on the south side and five feet below on the north.

"If it is 20 below outside, the temperature four feet below the ground at our location will be 39 degrees above," Shore says. Thus, he reduces the heating requirements for the portions of his home below the surface of the ground.

THE PASSIVE SOLAR SYSTEM

Shore collects some heat without collectors, tanks, piping, ductwork, or pumps through windows on the south side of his house. Sunlight passes through 90 square

feet of windows, heating a masonry floor, which stores the energy. When the sun goes down, Shore insulates the windows. Part of them are insulated by a Zomeworks product called a Beadwall, a device which blows polystyrene balls into the three inch space between the double glass.

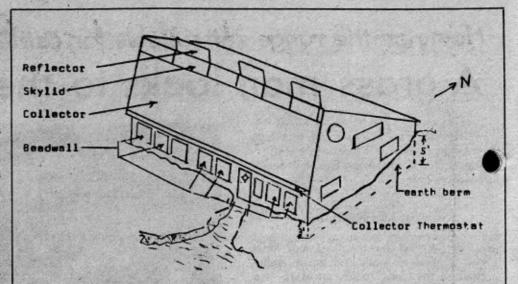
In other homes, Shore has devised other ingenious ways of retaining the heat collected by a house. He has used water-filled 50 gallon drums, mossrock walls and fireplaces, and even 420 one-gallon plastic bottlesfilled with water. His most elegant way of providing "thermal mass," as he calls it, was devised for a home in Basalt, Colo. The design includes a balustrade made of ceramic vases filled with water.

Sun also heats the house through Skylids, Zomeworks' solar-powered skylights. The devices automatically open when the sun shines and close when it sets. Freon gas moved from one canister to another when heated by the sun tilts the louvers open. When the gas cools, it moves back and closes the louvers.

Reflectors installed at a 62 degree angle from the horizontal increase the amount of sunlight passing through the Skylid by 25%, Shore says. In summer, the reflectors are turned to prevent the extra sunlight from entering the home.

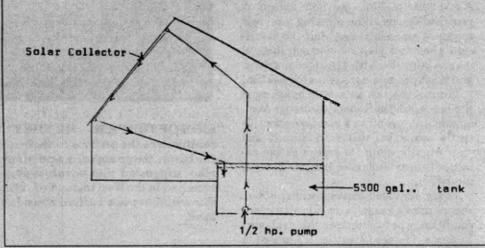
THE ACTIVE SOLAR SYSTEM

Shore has 564 square feet of flat-plate solar collectors on his south-facing roof. They provide both domestic hot water and additional space heating for the home. Corrugated aluminum painted black heats water, which is sent to a well-insulated, 5,300 gallon concrete storage tank. The two-story home has about 1,500 square feet of floor space.



SUN-CENTERED HOME. A sketch of Ron Shore's solar energy home in Snowmass, Colo. Shown here are his use of the earth and a south-facing wall, as well as more sophisticated devices called Beadwalls and Skylids.

Below is a rough sketch of Shore's storage system. He can either send heat to the house through the top of the storage tank or through pipes in the flooring.



Ninety per cent of the time, the home is heated by energy radiated from the top of the tank. During the coldest 10% of the year, water from the storage tank is sent through pipes embedded in the upper three-inch layer of concrete in the floor. Heat then radiates from the floor into the P.O. Box 238, Snowmass, Colo. 81654

Domestic hot water is provided by a 100 foot loop of pipe in the main storage tank.

Shore says both the space and water heating system costs him about \$2 a month in electricity for pumping the water.

For more information contact Shore at call (303) 927-4122.

Trona companies try to rescue birds they endanger



STAUFFER AIR BOAT. Stauffer Chemical Co. uses air boats to retrieve ducks that land on its evaporation ponds where their lives are endangered by the high chemical content of the ponds. Stauffer operates the boats daily. They have found that the boat, along with Zon guns, make noise, which helps keep the birds from landing on the pond. Photo by Dick Randall of Defenders of Wildlife.

covery programs at soda and tailings ponds its airboat until late in the season. in southwest Wyoming are showing only Randall reports that a third company, limited success. The two companies are try- Allied Chemical, began having bird losses ing to save migrating waterfowl that land on their ponds, where they are im- has purchased an airboat for its disposal mediately encrusted with a crystalline ponds and will probably have a recovery formation. (See HCN, 9-26-75)

The two companies now operate Zon exploder guns to keep the birds from landing and regularly patrol the shoreline to collect any birds that have died or that need help. The birds that need help are taken to a rehabilitation center where they are washed, fed, and treated. Both companies use airboats to recover the birds, and Stauffer notes that the airboat also helps create noise to keep more birds from landing.

Stauffer reports 446 birds were collected during 1975. Of that number, 56 were dead or later died and 390 were released. The fate of those which were released is not known. Stauffer reports, therefore, a 12.6%

FMC reports 220 birds were collected, but more than half of them (125) were either found dead or died after collecting. The total released was 95.

and it is possible that FMC's ponds are more toxic to waterfowl than Stauffer's, Dick Randall hypothesizes. Randall, the North Central field representative for Defenders of Wildlife, has been working

Stauffer Chemical Co. and FMC Corpo- closely with the companies. In addition, ration reports indicate that waterfowl re- Randall points out that FMC did not have

at its tailings ponds last year. The company program going this fall.

Although Stauffer bands birds that are released, Randall says many of the birds are not species that are desired by hunters so it may be a long time before a few bands turn up. This means there is no way of knowing what the survival rate is.

In Randall's opinion, the Interior Department should push for a more acceptable solution to the problem. He suggests the department could set up a realistic time schedule, three to five years, and insist the companies work toward a solution rather than just easing the losses

"Whatever the outcome," Randall says, "this is going to be an expensive operation. If the present salvage methods are allowed to continue, many thousands of dollars be spent each fall - and, of course, a lo birds will die.

"One of these days, winter will arrive all Explanations for the difference in "suc- at once - like it has many times before. cess" ratios vary. Refining processes differ, The birds will migrate in great flocks, and the facilities to recover and care for the birds will not be adequate. I suspect it may take something like this to motivate the public and the courts to insist on a solution

James River destined to become drainage ditch?



HOME FOR WILDLIFE. The James River is now a meandering, plains stream where many species of birds, fish, and animals live. U.S. Fish and Wildlife Service

(FWS) research indicates that duck breeding pairs reached densities of 17 pair per river mile last spring. Photo by Larry Lockard of the FWS.

(604) 224-8692.

terested in an informational program on

the James River could contact the FWS at

P.O. Box 250, Pierre, S.D. 57501 or call

Construction of the Oahe Irrigation Project continues in South Dakota, but one of the more controversial segments of the project is being delayed. Critics claim that by delaying channelization of the James River, the U.S. Bureau of Reclamation is trying to avoid exciting more adverse public opinion until the project is definitely nmitted financially.

The James River is now a meandering 120 mile waterway, full of fish and one of the main migration routes for ducks and geese in North America. The bureau proposes to make it primarily a drainage ditch instead.

Missouri River water will be transported through a system of canals and regulating reservoirs to the James River Valley. After irrigation of 190,000 acres of land, the James would be used to carry returning excess irrigation waters to the Missouri

In order for the James to carry this addinelize the river into a 54 mile straight

agencies in the state have launched campaigns to prevent the channelization. The the South Dakota Game, Fish, and Parks Reclamation, Huron, S.D. 57350. Department propose a natural floodway or

"greenbelt" instead. Under their proposal, the river would not be altered and consequently flooding would occur.

However, land in the floodplain would be purchased where the most flooding would be expected.

The FWS says their proposal would preserve South Dakota's major north-south bottomland hardwood habitat which could continue to support both resident and migratory wildlife as well as a vital fishery.

At the same time, many of the current agricultural uses of the floodplain could be main tained. Land that would be flooded too often to be used for agricultural use could still be used for recreation.

Under the other alternative, channelization, the fishery would be decimated, according to the FWS. Herons and cormorants along the river depend upon fish for their food, so these birds would also suffer.

The bureau has said it will prepare an tional water, the bureau plans to chan- environmental impact statement (EIS) explaining the alternatives to be considered for the James River. Some critics doubt the Both the federal and the state wildlife statement will be prepared unless there is sufficient public pressure.

Anyone interested in inquiring about U.S. Fish and Wildlife Service (FWS) and the EIS should write to the U.S. Bureau of

Anyone in the vicinity who would be in-



ROOKERY RESIDENTS. Along the reach of the James River to be channelized, there are five known rookeries of cormorants and herons. Estimates of one colony showed it included 800 double crested cormorants, great blue herons, and blackcrowned night herons last summer. The birds feed on the river during the breeding season and use the river in late summer and early fall during migration periods.

Photo by Larry Lockard of the U.S. Fish and Wildlife Service.



CHANNELIZATION. Although this picture was taken in the Southeast United States, it shows the type of channelization that has been authorized for the James River in South Dakota. Channelization of the James would decimate the fishery and eliminate shallow-water feeding areas, according to the U.S. Fish and Wildlife Service (FWS). Photo by Bruce Stebbings of the

environmental news from around the world

LOONEY LIMERICKS by Zane E. Cology

Over range in the West there's a battle, Folks say there are too many cattle. They say bison could be herded, Control over elk asserted, But the cowboys can't picture the saddle.

PETALUMA DECISION STANDS. The U.S. Supreme Court is letting stand a lower federal court ruling that allows a California city to control growth. Petaluma's attempt to control growth by limiting housing construction was ruled a valid exercise of the city's authority by the lower court. The plan was designed to slow the 24% jump in population the city had experienced between 1970 and 1972. The California construction industry expects the plan to be copied by other towns, according to Land Use Planning Reports.

NEW WILDERNESS CHIEF. George D. Davis has been named the new executive director of the Wilderness Society. Since

1971, Davis was director of planning of the Adirondack Park Agency, which administers public and private land use in New York state's six-million-acre Adirondack Park. Davis' predecessor, Stewart Brandborg, was fired by the Wilderness Society and is now working for Friends of the

PRESIDENTIAL PHOSPHATE STUDY. President Gerald R. Ford has ordered his Council on Environmental Quality to study the environmental effects of normal rate of lung cancer in persons liv-

ing on reclaimed phosphate lands. No new mining permits will be issued until the study is complete, according to Land Use Planning Reports.

NUKES AND LAND USE. New Jersey will impose temporary land use controls to restrict development around nuclear power plants, an official in the state Department of Environmental Protection told Land Use Planning Reports. Pending completion of a study on nuclear plant effects, the state will not allow new residenphosphate strip mining in Florida. Recent tial development or any heavily occupied federal reports have indicated six times the facilities near the state's two nuclear

Desenters or Whillie.

L.A. Times reports 'distortions'

EPA defends air standards

brought U.S. Environmental Protection Agency (EPA) air pollution control standards under fire. The story claims that in one EPA study, figures were willfully distorted to prove sulfur oxide emissions' harmful effects on human health.

The Times writer, W.B. Rood, indicates that the alleged distortions have broad implications, bringing into question EPA's entire program for controlling sulfur oxide emissions. The dispute puts the agency "in an excruciating regulatory position," says Rood.

The EPA study in question was published in 1974 as part of the agency's Community Health and Environmental Surveillance System (CHESS). It was entitled "Health Consequences of Sulfur Oxides: a Report from CHESS, 1970-1971."

EPA administrator Russell Train issued an official response three days after the Feb. 29 front page Times story. While offering no defense for the CHESS study, Train said that the document's importance was exaggerated in the Times' account.

"The Times story implies that EPA's

A recent Los Angeles Times story has regulatory program for controlling sulfur oxide emissions from electric power plants and other fossil fuel burning sources is based solely on the CHESS study," Train said. "This is totally untrue."

The ambient standard for sulfur dioxide was set in 1970 after research from government and independent sources all over the country had been reviewed and compiled in an EPA "criteria document." The ambient standard's "validity with respect to adverse health effects has been substantiated by the National Academy of Sciences and other scientific groups," Train says.

The Times article implies that the alleged distortions were partially the result of a crisis atmosphere in the agency sparked by a Kennecott Copper Corp. suitin 1971. The suit challenged EPA's secondary standards for sulfur dioxide, which are meant to protect the "public welfare," including plants and public property. (Primary standards, which are less stringent, are set to prevent damage to public health.) On Feb. 18, 1972, the judge ordered EPA to supply information to "enlighten the court" on the basis for the standard. In Sept., 1973, the agency admitted

that it did not feel it could substantiate part of the secondary standards for sulfur dioxide - those based on 24-hour and annual averages. EPA was forced to eliminate those standards. The agency only was able to document and retain the standard set for three-hour average concentrations.

Between the time of the court order and EPA's response, EPA air researchers intensified their efforts on the CHESS studies. For three months in the summer of 1972, Jack Finklea, manager of the laboratory which published the CHESS report, worked 16 hours a day on the CHESS studies and expected his associates to do likewise, according to the Times report.

In the struggle to find the facts to defend EPA's reputation in court, Finklea "systematically distorted" data collected "in an effort to prove that pollution from sulfurbearing fuels had an adverse effect on human health," says the Times.

People around the country have noticed the L. A. Times article and drawn varying conclusions:

-Carl E. Bagge of the National Coal Association said the article "depicts a possible environmental Watergate." He called upon the Senate Public Works Committee and the House Commerce Committee to conduct "a complete and thorough inves-

-A Salt Lake City, Utah, television station, KSL, said the distortions "form a pattern which discredits any alleged research bearing the name of EPA." The broadcast editorial concluded, "No federal agency, or perhaps any other agency, should be mandated to conduct research which bears on the areas of that agency's concern. The temptation to juggle the facts to make the agency's task easier may be irresistible."

-Rep. Barry Goldwater, Jr. (R-Calif.) has asked EPA, the Office of Management and Budget, and the General Accounting Office to "conduct full and exhaustive investigations of the allegations."

-In a telephone interview with HCN, a Kennecott Copper Corp. communications representative said he felt the "Finklea philosophy," which he defined as a belief that the national standards are not strong pervades EPA. enough, representative, Verne C. Huser, accused EPA of consistently "going above and beyond" what is required to meet ambient standards. "They (EPA) used the CHESS study to embarrass us in the public eye," he said. Kennecott has disputed the need for the type of pollution control measures required by EPA for their copper smelter near Salt Lake City.

-An EPA official who previously worked -COLORADO. Bob Turner, Colorado with Finklea told HCN that he doubts that any distortions were as substantial as implied by the story. Laboratory managers don't sift out parts of the data, says Lou Johnson, chief of air planning and operations at the EPA's regional office in Denver. The manager's position is simply to see "that studies are completed and to question assumptions," Johnson said. He defended Finklea's operating principle, as reported in the Times, that if mistakes were made, that they be made in the direction of overstating the health effects. He's just saying that when we don't know enough to say in all good conscience that there will be no health effects, Johnson says, that we should point out that health effects might occur. Johnson contends that the controversy is more a technical debate about statistical methods than a case of deliberate distortions.



Young Ruth and family at the

by Ruth Evans

The Sweetgrass Hills cast their familiar blue outline from the north about 40 miles and a bit east of our dry land farm in Montana. One hundred miles to the west at the end of the horizon stretches the full length of the Rocky Mountains. With customary good visibility, one is always oriented for direction. At night there is the Big Dipper pointing to the brilliant North Star, and frequently the Aurora Borealis provides a magical display in the northern sky.

It is difficult to lose one's way in the rolling hills and flat prairie country except during storms and blizzards. Walking home the mile and one quarter from our town of Shelby can be relatively routine by day compared to walking home at night with the myriad of constellations in the

firmament of light. Wind from the west is frequent, and sometimes it brings rain or snow flurries. On occasion there are spectacular storms with crashing of lightning nearby. The crack and roar of thunder, blinding rain, or heavy blizzards all help to keep one in tune

with an infinite power. On more normal days tumbleweeds may dance along in the wind and eventually pile up against some barbed win-Each spring there is a brief period when the prairie grass is green. There are a few varieties of small flowers in early May. Varieties of cactus produce elegantly beautiful flowers in summer. The lilting song of meadowlarks seems almost continuous in

summer. Hawks are plentiful. In early spring there are wild geese flying north in formation.

"I hold to my heart when the geese are

Beautiful birds, let me go with you!" -Grace Noll Crowell

Rattle snakes, gophers, and coyotes arouse some apprehension. I never encountered a rattler, but heard stories about them. On one occasion my brother's pet gopher bit his finger. Coyotes normally kept their distance. However, on one occasion when my mother and brother and I were walking at dusk to a farmhouse down by the river from the place where we were stalled in the Model T, acoyote appeared in front of us. He turned to look and then walked with us for awhile. We did not act afraid, but I guess we were.

Our house faces east overlooking the county road and rolling prairie. To the west the land seems to stretch in perfectly level prairie to the very base of the long line of Rocky Mountains which are lit at evening by the glow of distant sunsets.

We have a back stoop facing soy covers our cement water cistern by hauling water eight miles from the Marias River. The stoop is protected from the wind by the house on the north and by an attached shed on the west which serves as a laundry and storage room. We pump water for drinking and for washing in our hand-operated washing machine. For heat

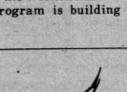
States push insulation and alternative energy

A series of state workshops on how low income residents can insulate their homes at little or no cost will be run during the next few weeks. The first workshop - to be held in Riverton, Wyo., April 12-14 - will cover home insulation techniques, alternative energy systems you can build, utility rate structure reform, and energy conservation education.

The program through which winterization funds are available is called the Emergency Energy Conservation Program (EECP). EECP helps pay for insulation materials and helps organize volunteer labor to assist low income home owners. Low income organizations and senior citizens centers in the cooperating communities help administer the program at the local level.

Besides insulating homes, EECP is promoting alternative energy projects to conserve fossil fuels and reduce energy

In Idaho the Western Idaho Community Action Program is building a solar



IT'S YOUR PAPER

Writers and photographers needed for High Country News. We need qualified, accurate, fair, objective freelance writers for investigative reporting. Also need black and white photos of the region and environmental events. A chance to advance your career or hobby while helping HCN and the region. Long hours and low pay. Send inquiries and material to HCN, Box K, Lander, Wyo. 82520.

greenhouse in Payette. The greenhouse will be powered totally by the sun, with no back up fossil fuel heating system. Two more solar greenhouses are planned for Council and Cascade. The greenhouses are designed by Bill Yanda of Santa Fe, N.M.

Andrea Dunn, energy coordinator for the Wyoming Community Services Administration, hopes to build solar water heaters in Wyoming under the EECP program. She has invited Malcolm Lillywhite, an alternative energy consultant from Colorado, to lead a workshop at the state meeting in Riverton. Lillywhite has worked on bio-gas waste conversion facilities in Greeley, Colo.; community solar greenhouses in Jefferson County, Colo.; and low income home-built solar heaters in the San Luis Valley in Colorado.

For more information on upcoming winterization workshops contact:

-WYOMING. Andrea Dunn, Wyoming Community Service Administration, Energy Coordinator, Room 361, Hathaway Building, Cheyenne, Wyo. 82001, (307) 777-7611.

Office of Human Resources, 1531 Stout St., Suite 570, Denver, Colo. 80202, (303)

-MONTANA. Jim Parker, Human Resources Division, Department of Community Affairs, Capitol Station, Helena, Mont. 59601, (406) 587-3420.

_UTAH. Lois Lindford, Utah Housing Division, 101 State Capitol, Salt Lake City, Utah 84114, (801) 533-4052. NORTH DAKOTA. Gary Wiebee,

North Dakota OEO, State Capitol, Bismarck, N.D. 58505, (701) 224-2467 SOUTH DAKOTA. Dennis Balyeat, South Dakota OEO, Office of the Governor,

Pierre, S.D. 57501, (605) 224-3663. -IDAHO. Wendell Peabody, State Economic Opportunity Officer, Dept. of Health and Welfare, State House, Boise, Idaho 83720, (208) 384-2322.

Luxurious life in the Sweetgrass Hills

A look at the values of the recent past

we use a marvelous cooking range in a small kitchen and a coal heating stove in the living-dining area. The bedroom and the long glass-enclosed front porch are relatively unheated. Kerosene lamps, a gasoline lamp, and on occasion candles provide light. An outhouse to the west and an excellent root cellar for storage just over the brow of the hill complete the farm's utility system.

We store in the cellar the winter's supply of potatoes, eggs put up in salt, root vegetables, and our milk and butter. We have had two cows, pigs, chickens, and turkeys. A chicken house and a good sized new barn complete the layout of buildings. I should mention the large rock pile of heavy stones cleared from our land and the cookouts my older brother and I have at the rockpile. We wrap potatoes and meat in foil and cover them with hot ashes to cook.

Fortunately, we do not depend on the homestead for our livelihood. My father is a dentist and is a long-term county assessor. On one occasion there was another candidate for the office. Mother is known for great beauty and interest in home and family. (In later years she remarked that the best years of her life were those spent on

Much be said of my various experiences. To begin with, I do not feel the least bit deprived. In fact I feel quite luxurious. We have a piano, a handsome cuckoo clock handcarved in Switzerland, a Victrola, good silverware, fine linens, an extensive library. There is a beautiful and serviceable rug for the living-dining area in a deep-toned Oriental design. Maxfield Parrish's "The Garden of Allah" adorns one wall while "The Lone Wolf" in the snow the other

Once I watched two coyotes from the north window. They were resting at dusk in the distant prairie. Finally one set out to walk, and I watched him until he disappeared in some distant ravine. Whereupon, the other coyote, perhaps his mate, started

walking at the same leisurely pace and finally disappeared at the same spot. I watched fascinated but could see no more.

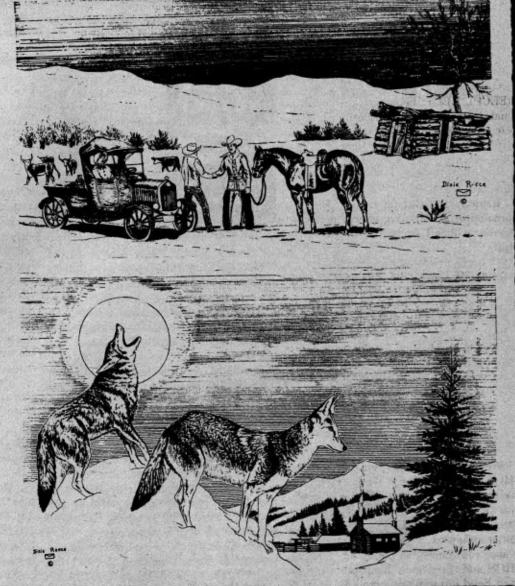
Living on the prairie is conducive to development of a sense of serenity, wonder,

Since my father bought a Model T Ford we often go on Sunday trips to visit with ranchers and farmers and see the local points of interest. Usually we are invited to dinner as ranchers really enjoy having company. I especially remember stopping for dinner at the Gold Butte Hotel and Store. There are always visitors at this rambling ranch house at the foot of the Sweetgrass Hills.

And so from home and school the expanding world of community opened to us. It seems to me self-evident that with our fully automated homes and two cars in every garage we have somehow grown soft and listless, or perhaps disturbed because of what seems to be missing from our lives.

From my new kitchen window in California I see a dominant hill of the Mt. Hamilton Range beyond. It has the same familiar rounded outline of the Sweet grass Hills. However, here the prevailing wind is from the north, frequently bringing Bay Area smog. On occasion I see deer in the canyon. Red fox and raccoons sometimes cross my patio at evening. The native valley oaks frame my view of the Santa Clara Valley.

How long will the hills of home retain their quality?





Drawings by Dixie Reece

by Lee Catterall

President Gerald R. Ford's inflation ighters set out to find the culprit responsiole in the past few years for the tripling of oal prices. They found plenty of explanaions, but no culprit.

The new study was prepared by the President's Council on Wage and Price Stability. When wage and price controls were lifted, the council was left with little to do. Agencies relegated to such a role generally become immersed in "makework" projects, such as studying an area hey would be doing something about if hey could. For example, the price of coal.

Coal prices had been fairly stable for more than two decades, hovering around \$4 to \$5 a ton, when suddenly they doubled and then tripled. This made Western coal economical to mine and thus signalled a new era for Wyoming and neighboring areas. According to the President's council, here is what happened:

First, the Arab oil embargo of September 1973 and the later OPEC (Organization of Petroleum Exporting Countries) price increases "made domestic coal immediately attractive because of the relative certainty of supply and its lower cost."

Second, the report says, "some coal consumers," fearing a strike in November 1974 by the United Mine Workers, tried to stockpile an adequate supply of coal" to last through a strike by the union, which mines 70% of the nation's coal. This developed into a "near panic," and caused coal prices to skyrocket. The strike lasted a month.

Third, price controls ended during the same time period.

By the time it was all over, the price of coal had risen to more than \$18 a ton, and coal company profits had risen accordingly. The report shows company profits increased nearly ten-fold from 1973 to 1974.

"The behavior of coal prices was precisely that which one might expect in a competitive natural resources market where short-run supply is relatively fixed and unable to accomodate rapid increases in demand," the report says.

"The key here is Western coal," it says. While coal from the West now accounts for only 17% of the nation's production, federal energy officials want that figure up to 31% by 1980 and 36% by 1985.

The report sites several potential hindrances to Western coal development. The issue of strip mining legislation "remains cloudy." The Sierra Club's lawsuit before the Supreme Court could turn the tables on the Interior Department's coal leasing policy. "Major new investments" are needed for transporting coal from Western mines to Eastern power plants; the slurry pipeline is at least a decade away. Increased state severance taxes "would increase Western coal producers' costs and drive up coal prices throughout the coun-

try," the report says. The council expects those problems to be straightened out. It regards the "uncertainties" now to be troublesome. They may, in fact, be more troublesome than if they were resolved in favor of those who don't wantrapid coal development. For example, if Congress should enact a strip mining bill the coal industry regards as too rigid, the industry at least would know the ground rules and could begin to plan better.

The report makes it very clear that the coal companies' new profits from record prices equip them well to pay the cost of Western development.

Citizens meet to hatch energy conservation plot

by Bruce Hamilton

A group of subversives met in Es Park, Colo., earlier this month. At the summit meeting, federal and state employes and private citizens plotted how to change the course of the country through energy conservation.

It was a revolutionary meeting, fitting for this bicentennial year. Participants planned strategies for freeing the American public of the need for ever-increasing amounts of energy and becoming more independent of foreign imported oil.

Keeping with this revolutionary theme, keynote speaker Colorado Gov. Dick Lamm told the gathering, "We are moving into the most dangerous time in our nation's life. Ironically we are facing a national crisis (in energy) of the same magnitude we faced 200 years ago.'

Lamm cited the Monkey Wrench Gang approach as one solution - referring to Edward Abbey's novel, The Monkey



Gov. Dick Lamm: Guy Fawkes where are you?

Wrench Gang, about a group of ecob eurs in the Southwest. Lamm said other approach is to hand all our energy decisions over to the energy industry. "Neither of these approaches is productive," he said.

Lamm favored legislative change as the peaceful, responsive alternative. But when a member of the audience brought up Lamm's inability to get energy conservation programs through the General Assembly, Lamm said under his breath, "Guy Fawkes, where are you now?" (Fawkes is a British hero-villain who tried to blow up Parliament.)

The forum for this discussion was the Region VIII Energy Conservation Training Institute - one of 10 such programs being held throughout the country to educate and inform citizen leaders on energy conservation issues. During the four day conference, participants explored opportunities, incentives, and constraints affecting conservation policies at all levels - for individuals, businesses, industries, agriculture, and government.

Over 100 participants came from Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming. They returned to their states with plans to start implementing energy conservation strategies. The meeting was sponsored by the Conservation Foundation of Washington, D.C., and the Denver-based Rocky Mountain Center on Environment, under contract to the U.S. Federal Energy Administration (FEA).

General Dudley Faver, the Region VIII FEA administrator, told the conference that the region as a whole is a net exporter of energy - but several states are importers. Wyoming, Montana, and North Dakota are net exporters. Colorado and



Gen. Dudley Faver: Region is an energy exporter.

South Dakota are net importers. Utah is about at balance.

Faver said this energy exchange picture is constantly shifting. He predicted that within 10 years oil-rich Texas could be importing energy from Wyoming and Utah.

Faver said that people of this region use 10% more energy per capita than the rest of the nation. This region uses 23% of its energy in the residential area, while the nation uses about 20%. The region uses 30% of its energy in transportation, while the national figure is 25%.

Improving home insulation was a major topic of discussion. Community Services employes explained the winterization program to aid the poor and the elderly. Utility representatives talked about their success in getting customers to insulate by offering inspection and funding services.

Utilizing solar energy through proper home building design and alternative energy systems was discussed. Solar energy consultant Malcolm Lillywhite and San Luis Valley Council of Governments planner Akira Kawanabe presented a program on how low and moderate income residents of Colorado's San Luis Valley are__ using simple materials and technology to build home-made solar collectors for their homes. Residents are able to reduce skyrocketing propane bills by investing very little time and money.

energy news of the Rockies and Great Plains

SLURRY LINE CHANCES SLIM. Wyoming Gov. Ed Herschler says that the chances for a coal slurry pipeline from Wyoming to Arkansas appear dim. The assessment came in the wake of news that the Kansas and Nebraska legislatures had turned down the pipeline company's request for eminent domain rights through their states. But the never-say-die manager for the company, Energy Transportation Systems Inc.'s Frank Odasz, points out that there are still two options open for the pipeline: routing around Kansas and Nebraska or a Congressional granting of the rights of eminent domain to slurry pipelines. Rep. Teno Roncalio (D-Wvo.) says he hopes that any Congressional action on the pipeline is delayed until two studies are complete: 1) a U.S. Geological Survey study of groundwater potential in the Madison Formation, which would provide water for the pipeline and 2) a broad study by the Office of Technology Assess-

GIFTS TO THE NATIVES. Two companies involved in the Kaiparowits Power Project paid the transportation costs for a lobbying trip to Washington, D.C. for a group of pro-power plant Kane County (Utah) officials and residents. The group met with Secretary of Interior Thomas A. Kleppe, who has the power to approve or deny the power plant, and with members of Congress. According to a Deseret News story, Southern California Edison Co. spent \$7,500 on a bus which carried 40 Kane County residents to the capital city. Kaiser Industries Corp. paid the airplane fares of seven county officials headed for the same meeting. Edison is one of the three utilities planning the power plant. Kaiser will design, construct, and operate the coal mines for Kaiparowits. The Kaiser money was "prepayment" for building permits the company would have to get if the project is approved, John Nelson, Kane County engineer, told the Deseret News.

URANIUM CAPITAL. Colorado, New Mexico, Utah and Wyoming contain about 91% of the recoverable uranium reserves in the U.S., according to 1972'estimates. The four Rocky Mountain states hold about 496,000 pounds of the nation's total 546,000 pounds of estimated recoverable uranium reserves. These figures are taken from a recent publication of the Federation of Rocky Mountain States, "The Rocky Mountain Region: A Unity of Interests.

STATE STRATEGIES

As the conference neared an end, the participants' attention was focused on the recently enacted federal Energy Policy and Conservation Act of 1975. The bill provides for a three year grant program to encourage states to plan and implement energy conservation programs. Each state is asked to participate and draw up a plan to cut projected state energy consumption by five per cent by 1980.

Participants met in state groups to draw up state energy conservation strategies to be recommended to the governors and other decision makers. They agreed to continue the drive to conserve energy in their states. State networks of energy conservation volunteers will probably be set up.

For more information on the conference and the energy conservation network being set up in the various states contact:

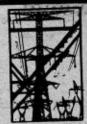
-Colorado. Morley Ballentine, Box 61, Durango, Colo. 81301.

-Montana. Dave Hunter, 9 Placer St., Helena, Mont. 59101. -North Dakota. Richard Madson, Bg

1591, Jamestown, N.D. 58401. -South Dakota. Dr. Nels Granholm, S.D. State University, Brookings, S.D.

-Utah. Gigi Brant, 1913 Hubbard, Salt Lake City, Utah 84108. -Wyoming. Phoebe Holzinger, 1604

Bellaire Drive, Casper, Wyo. 82601. Or contact ROMCOE, 1115 Grant St., Denver, Colo. 80203, (303) 861-1260.



nergy news from across the country

SOLAR POWERED CITY. A small Reno, Nev., firm may soon build a solar electric plant big enough to supply the needs of the city of Bridgeport, Tex., population 5,000. The plant will cost \$6 million, the firm estimates. Bridgeport's city manager has asked the federal Energy Research and Development Administration (ERDA) to investigate the silicone expansion proposed by Solar King, Inc., of Reno. If ERDA isn't interested in financing the project as a part of its solar energy research, the city may go ahead with it anyway, the city manager says. Texas Power and Light Company is cutting off Bridgeport's supply of electricity at the end of 1978 because of a rate dispute.

KLEPPE, THE PRESERVATIONIST. Secretary of Interior Thomas A. Kleppe has rejected his first industrial project due to unacceptable local impacts. He has asked one of the nation's largest mineral and chemical conglomerates to abandon its plans to strip mine within historic Louisa County, Va. He told the company, W. R. Grace, that they should not proceed with plans to mine vermiculite there because such activities would be "incompatible with the cultural and scenic values of the area" - even if the mined farm land was fully reclaimed. The New York Times quoted an Interior department official as saying that he could not recall the department's "ever taking such a flatfooted stand that socio-economic impacts ight to rule out a mining plan." Kleppe sked the company to help in "protecting our national heritage for future generations of Americans."

RATES BRING SAVINGS. Central Vermont Public Service Company is the first utility in the country to offer time-ofday rates as an option to all its consumers. For consumers who choose to enter the program, electricity used when the utility's overall electrical demand is low is cheaper than electricity used during peak demand periods. Under the program, savings have ranged from \$45 to \$135 a year for customers without electric heat and up to \$300 a year for customers with electric heat.

BUILDING CONSERV ATION. A strong Energy Conservation in Building Act (HR 8650) passed the Senate March 9. Next, the bill goes to conference committee where the advantages of the voluntary House version and the mandatory Senate program will be debated. The Senate bill would provide grants to states for the "weatherization" of low-income homes, would demand federal minimum performance standards for energy conservation in new buildings, and would provide grants to states to develop their own energy conservation standards. Federally insured loans and federally regulated private loans would be withheld from states and localities which not comply with the act within five

SYNFUELS BILL REAPPEARS. A watered down version of the synthetic fuels bill defeated in Congress this fall has reappeared in the House. The new bill asks for \$2 billion, rather than \$6 billion, in loan guarantees. The loans can be applied to shale oil, coal gasification, solar, and geothermal plants.

BURY A BUILDING. Buildings buried underground may save 75% of the energy it takes to heat and cool them above ground, reports Conservation News. The National Science Foundation is instrumenting a buried bookstore at the University of Minnesota to calculate the energy savings.

ICE CUBE FURNACE. Oak Ridge National Laboratory and Westinghouse are testing the feasibility of an 8,000-gallon ice cube to heat and cool a building. The ice cube is a 20-by-20-foot water tank, hooked to a heat pump, according to a Christian Science Monitor report. In winter, the heat pump extracts heat from the water, turning the water to ice and heating the building. In summer, the process is reversed. "I personally don't think this is viable for a single-family home," said a Westinghouse spokesman. "But it may very well prove economical in commercial build-

TAR SAND PUSH. The Energy Research and Development Administration (ERDA) is requesting development proposals to recover oil from U.S. tar sands. ERDA wants to encourage testing and demonstration of various recovery methods, "with funding based on cost sharing between ERDA and the contractor." Tar sands are found in 22 states. The five richest - Utah, California, Kentucky, New Mexico, and Texas - contain an estimated 29 billion barrels of oil. Much of the resource may prove to be uneconomical to recover.

FURNACE WASTE. Energy Research and Development Administration (ERDA) researchers report: "35 to 55% of the heating value of the fuel used in a typical residential gas furnace system is wasted." The largest single point of waste is uninsulated or leaking hot air ducts. Waste also results from oversize furnaces, improper fan cycle settings, and improper furnace design. Research backing up the ERDA report was conducted at the Oak Ridge National Laboratory, Oak Ridge, Tenn.

NUCLEAR, FOSSIL COSTS LEAP. According to a story in the New York Times, the cost of building a nuclear reactor has risen to \$1,135 per kilowatt of capacity from about \$300 per kilowatt of capacity in 1970. For fossil fuel plants, the cost leap has been from \$220 to \$950 per kilowatt, including pollution control equipment.

Andrus fights new coal power plant

proposed coal-fired power plant to be built south of Boise.

Speaking at hearings held before the commission this month, Andrus said he opposed the Pioneer plant because it would pollute the air in a region already plagued with pollution problems. He also questioned Idaho residents' ability to absorb a tripling of electrical energy costs, which he said the plant would cause.

"From an environmental standpoint, I am convinced that the Pioneer plant as proposed would be devastating to the lifestyle Idahoans love and enjoy," Andrus said. "We already have an air quality problem in



this valley that would be compounded by SO2 (sulfur dioxide) and additional particulate emissions.

Growth follows surplus energy," he said. "To knowingly destroy the very things that make an Idaho lifestyle unique for the sake of all-out growth would be foolhardy."

Andrus said he thought that the would be even more devastating than the environmental problems.

"To place the burden of paying for a 1,000 megawatt plant on Idaho residents under the present pricing methods would be dis-A near tripling of electrical energy costs would fuel the fires of inflation while

Idaho Gov. Cecile D. Andrus urged the at the same time decreasing the effective Public Utilities Commission to reject a spendable income of our people, particularly for our senior citizens and others on small, fixed incomes," Andrus said.

"I believe that the Idaho people are ready to make a commitment to conservation of a sufficient magnitude to enable our state to meet the energy challenge without a Pioneer," Andrus said.

In a fourth phase of the PUC hearings, intervenors began presenting their witnesses March 15. Among them were:

-Neil Talbot, in charge of the Arthur D. Little study which forecast Southern Idaho energy needs in the 1980s. Talk it said that if the utility rates are kept low, the power plant will be needed by the 1980s. If, however, rates are raised high enough to finance the building of two 500 megawatt units of Pioneer, demand would decrease and the plant would not be needed.

-Dr. Conrad J. Mason, meteorological consultant from Ann Arbor, Mich. Mason said that a power plant the size of Pioneer (1,000 megawatts) would occasionally violate federal air quality standards. He said that he expected that the plant would violate the Environmental Protection Agency's primary standards, set to protect human health, about twice a year.

The Public Utilities Commission has the power to decide if the plant may be built at the proposed site 23 miles south of Boise. Hearings are expected to continue into

Rule committee stops strip bill

The strip mine bill has met an unexpected obstacle - the House Rules Committee. In a voice vote March 23 the comeconomic problems the plant could bring mittee voted against bringing the bill to the House floor for sonsideration.

The bill, introduced by Rep. John Melcher (D-Mont.), passed out of the Interior Committee with a 28-11 vote at the end of February. House floor action on the measure was expected by the end of March.

The rules committee decided that allowing the bill to be considered on the floor would set a bad precedent, since a nearly identical bill was passed by Congress earlier, but Congress failed to override a Presidential veto. Those who voted against the bill in committee provided the rules committee with a list of the similarities between the two bills.

The rules committee action surprised proponents of the bill. Melcher says he feels class I, under the present version of the bill. the bill is still alive, however, and he is considering ways to move it out of the rules committee. One way to do that would be a "discharge petition," a document signed by class I unless the state or the federal land a majority of the House asking that the bill

Earlier Melcher said he hoped to win 300 Hart also is sponsoring a strengthening votes for the bill on the House floor, a to the Administration, Melcher had in-The coalition says that a vote is expected serted an amendment to assure that "onsays. The amendment allows companies already operating with state permits in alluvial valley floors to continue operations. constraints on mining in alluvial valley floors in earlier strip mining bills.

Moss attacks Clean Air Act

the portion of the Clean Air Act amendments which would protect much of the West. The National Clean Air Coalition expects Sen. Frank E. Moss (D-Utah) to introduce an amendment which it says would "emasculate provisions of the amendments on significant deterioration." Bob Slomski of the coalition says Moss may try to delay implementation of the significant deterioration provisions or may try to replace them with a study, which, in effect, might exclude the proposed Kaiparowits power plant in his state from being regu-

The significant deterioration section of the Senate bill provides for class I and class II air designations, which specify the amount of deterioration allowable from present air quality. The section applies to air that is now cleaner than national health and welfare standards, and it requires that the air be kept cleaner.

However, a class II designation is "insuf- Report.

A Senate floor fight is expected soon on ficient to protect pristine areas since vast reductions in visibility can occur within the class II increments," according to the coalition. National parks and wilderness areas over 5,000 acres would be designated Sen. Gary Hart (D-Colo.) is introducing an amendment which would make national monuments and national recreation areas manager for those areas reclassified the be released by the rules committee. area class II.

> amendment on automobile emissions of number that would discourage a Presidenhydrocarbons, carbon monoxide, and nit- tial veto. To make the bill more palatable rogen oxides.

> in the Senate within the next week or two. going outfits will not be threatened," he The House Commerce Committee voted by a margin of almost 2-1 to report favorably the Clean Air amendments, but the full House isn't expected to take it up until The Administration had complained about mid-April, according to Conservation



Regional legislative review

Colorado lawmakers taken to task

Senate labeled anti-environmental

of the section of accordingly

Legislative Workshop has strongly criticized the Colorado Senate for its failure to act positively on energy and environmental legislation. "Colorado can ill afford a know-nothing and do-nothing Senate on energy and environmental matters," said workshop spokesperson Richard Jameson.

The workshop singled out six environmental bills already killed this session by the Republican-dominated Senate as exemplifying the Senators' attitudes. The list includes: SB 67, The Energy Conservation Act; SB 112, SB 121, SB 122, subdivision regulations; HB 1125, a nuclear facilities liability act; and SB 5, a pesticides applicator certification act.

Another environmental bill the Senate will be considering soon is a mined land reclamation bill. A compromise reclamation bill passed the Democrat-controlled House unanimously.

The bill increases state control over re-

The Colorado Open Space Council's clamation efforts. Mine operators must apply for a permit and submit a reclamation plan to a seven-member reclamation board. The board will issue a permit good for the life of the mine if the reclamation plan is satisfactory. Permit fees and reclamation requirements would be less stringent for small (under 10 acre) mines.

> Rep. David Gaon (D-Denver) tried unsuccessfully to amend the bill to allow changes in the reclamation plan as technology advanced, instead of giving a lifeof-the-mine permit. Montana law requires a yearly permit, and Wyoming law grants a life-of-the-mine permit - but with a provision for changing requirements to incorporate new technology.

Gaon did manage to amend the bill to include protection for state parks and

Another House-passed mining bill awaiting Senate action is a \$17 million severance tax proposal. The bill would imfrom the extraction of metals, gas, oil, and oil shale. The tax on coal would be 50 cents per ton for underground mines and 75 cents per ton for surface mines. The bill exempts the first \$10 million in gross proceeds from mines - thus exempting the state's small marginal operators.

The Denver Post reports that by exempting small metal mine operators "virtually all of the tax in that field . . . would be paid by the giant Climax Molybdenum Co. which is resisting the levy fiercely." The proposal could cost Climax about \$8.8 million a year in severance taxes.

Colorado's proposed severance tax is still far below the level already enacted in road planning. The main reason for opposimany surrounding states.

gross proceeds. But Senators and mineral company lobbyists are hesitant to kill the

pose a four per cent tax on gross proceeds ance tax on the November ballot if they don't act, according to the Post.

"I'm a little worried about some of our friends in the Senate," an oil industry source told the Post. "They might try to help us more than we want them to."

A bill to create a state Department of Transportation was approved by the House 46-17 and sent to the Senate. Similar bills have been sent from the House to the Senate for the past five years, and all of them have been killed.

The bill would turn the existing highway commission into a transportation commission which would coordinate air, rail, and tion in the past has been a fear that high-The Post reports that Senate Republi- way user tax money might be put into cans favor a tax on net income rather than urban mass transit instead of rural road improvement.

This year's bill makes it clear that no bill in the Senate, because they fear a petimoney from the highway user fund will be tion drive to place an even higher sever- spent for anything other than highways.

Utility siting, bottle bill killed in Idaho session

Environmental bills have taken a real battering in this year's Idaho legislature. Most recently a utility siting bill, a bottle bill; and minimum stream flow legislation have been dealt death blows.

The siting bill, which passed the Senate 19-16, died in the House Resources and Conservation Committee. Idaho Power Company, which plans to build a 1,000 megawatt coal-fired power plant south of Boise, led the strong lobbying effort against the bill. The bill would have set up a timetable for power plant studies, hearings, and decisions. It was supported by the Idaho Public Utilities Commission.

MINIMUM STREAM FLOW

A bill to provide for minimum stream flow levels to protect fish and wildlife and enhance water quality and recreation in all parts of the state was held in House committee. A substitute bill to set up minimum flow regulations only in the northern half of the state was reported out to the House floor where it was killed 28-41. The southern half of the state was excluded because most of the water there is already approp-

Opponents of the substitute bill called it "one of the greatest threats to irrigation and agriculture we've seen." Even though it only covered the northern half of the state, opponents said it was a "foot in the door" to enforce minimum flows throughout the state.

Here is the outcome of other environ-

BOTTLE BILL. A bill to encourage beverage container recycling was killed in the House 58-11.

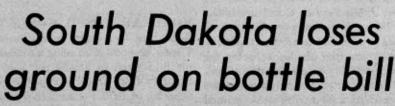
STATE WATER PLAN. The Senate has voted to require legislative approval of the recently completed state water plan before it can become effective. The Snake River Basin portion of the plan was released earlier this month. Workshops on the plan are scheduled for April and public

hearings for May. The plan should be ready for legislative review by next January when the lawmakers reconvene.

-SOLAR TAX BREAK. Both houses of the legislature passed a bill to allow income tax reductions for expenditures on home insulation and alternative energy devices like windmills and solar collectors. Since Gov. Cecil Andrus requested the bill, his approval is assured.

WILDLIFE INFORMATION. Following a series of articles by the Fish and Game Department on the impact of phosphate development and logging on ing to avert wildlife destruction. The wildlife, an amendment was introduced to amendment failed, but by only three votes. chop \$224,000 off the department's infor- All 16 of the senators supporting the mation and education division budget. Sen. amendment were Republicans - includin-

Larry Craig (R-Midvale), who introduced the two top Senate GOP leaders. The Ida the amendment, told the Idaho States- Mining Association had threatened pubman that Fish and Game's role should be licly to seek to reduce the public informa-"management after the fact," not attempt- tion budget.



Defeat of strengthening amendments to an existing bottle bill in the South Dakota legislature was a big defeat for the South Dakota Environmental Coalition (SDEC). Going into the 1976 session, South Dakota was recognized as the third state in the nation to have a bottle bill (passed in 1974). But by the end of the session SDEC declared, "South Dakota no longer has a bottle bill of any type.

The 1974 bottle bill declared that "no beverage container shall be sold . . . unless it is reusable or biodegradable." The implementation date was set at July 1, 1976.

In the 1976 session the House passed, but the Senate killed, an amendment to the existing bottle bill which would have required a five cent deposit on all beer and soda pop containers and abolished the pull-top can. Then both houses turned around and passed weakening amendments to the present law.

The new amendments delay the implementation date two years - until July 1, 1978 - and add recyclable containers to the list of acceptable bottles and cans. By accepting recyclable containers, the state will allow the use of aluminum cans and recyclable but not reusable glass, plastic, and steel containers. Recycling containers takes more energy than washing and reusing glass bottles.

The following is a list of a few more en-

vironmental bills and their fates:

-Nuclear siting. SB 249, a bill to control the siting of nuclear energy facilities in the state, passed the Senate, but died in the House. The bill would have required approval of the Public Utilities Commission and the Legislature before any nuclear facility could be sited in the state.

-Energy siting. HCR 506, a resolution calling for a legislative study of the need to control the siting of power plants and transmission lines, was passed.

-Water quality. A bill to give the state the authority to implement federal safe drinking water standards, SB 57, was killed in the Senate. SB 65, a bill regulating land use that increases soil erosion and sedimentation, passed. A bill to prevent stream channel alteration without a permit, SB 248, died in the Senate. HB 772, a bill allowing state grants for water pollution control programs, was killed in House.

-Mined minerals. HB 835, which would have put a severance tax of 41/2 cents per ton on surface-mined minerals, was killed on the House floor.

-Water priority. A bill to set priorities for Missouri River water passed. SB 67 makes the order (first to last) domestic, hydroelectric, irrigation, industrial, environmental protection.



Timbering threatens roadless areas

Timber sales proposed for the next five years in Idaho national forests include 22 es entirely within roadless areas and about 13 sales partially within roadless areas, ording to the Idaho Environmental Council. Cutting is planned for 22 of the 35 roadless areas on the Salmon National Forest. Six roadless areas on the Salmon "would be essentially eliminated" by proposed sales, reports the council. The council wants to see these roadless areas studied for wilderness.

Rainmaking doesn't make a difference

The Bureau of Reclamation says it has "failed to detect significant increases in either precipitation or streamflow" after cloudseeding in Colorado's San Juan Mountains for five years. The San Juan experiment — the largest in the nation — was designed to increase snowpack in the mountains and thereby increase the flow of the Colorado River. The results of the San Juan cloudseeding and other weather modification experiments across the country are reported in a recently released draft environmental impact statement (EIS) on the bureau's "Project Skywater." Hearings on the EIS will be held next month in the following locations: Miles Community College, Miles City, Mont., at 1:00 p.m., April 19; Bureau of Reclamation Auditorium, Building 56, Denver Federal Center, Denver, Colo. at 1:00 p.m., April 21; and Sacramento Municipal Utility District Auditorium, 6201 SSt., Sacramento, Calif., at 1:00 p.m., April 23. Copies of the EIS are available from the Office of Assistant to the Commissioner for Ecology, Commissioner's Office, Bureau of Reclamation, Interior Building, Washington, D.C. 20240 or from the Division of Engineering Support, Technical Services and Publications Branch, Engineering and Research Center, Building 67, Denver Federal Center, Denver, Colo. 80225.

Stauffer fluoride still damaging plants

A university study indicates fluoride pollution in vegetation around the Stauffer Chemical Co. near Butte, Mont., remains as much as 10 times above state and federal standards despite citizen complaints dating back 20 years and company cleanup efforts since the late 1960s, according to a story in The Missoulian. Gardens in the town of Ramsay near the plant produced lettuce last summer which contained more than 10 times the level of fluoride permitted in vegetables raised for interstate shipment. Ranchers as far away as five miles are unable to raise cattle because wind currents carry pollutants and cause fluoride concentrations in the grass. The study was prepared by nine University of Montana graduate students in environmental studies. Stauffer omplains that even its pollution control equipment is being chemically attacked, hich indicates gaseous fluoride may be the problem, according to the students. Stauffer's pollution control efforts have concentrated on curbing particulate emissions—not gaseous.



MINING AT MONUMENT

The Panjea Resources Corp. is exploring for copper in Organ Pipe Cactus National Monument in Arizona. Panjea recently completed its first drill hole as part of a \$300,000 copper exploration program in the monument, according to CANYON ECHO, a Sierra Club publication. Panjea hopes that if a commercially valuable deposit is discovered, the area will be excluded from wilderness designation. All of the monument was originally closed to mining, but in 1941, with the possibility of war-time shortages, Congress allowed mineral exploration. The House Interior Committee is now considering a bill to ban mining in all national parks and monuments. The Senate has already passed a similar bill. Photo courtesy of National Park Service.



DEER POPULATIONS

DOWN Mule deer populations are on the decline throughout the West, according to a Montana Fish and Game Department researcher. Eugene O. Allen of Bozeman says so far no obvious reasons for the over-all decline have been uncovered. Researchers are investigating loss of habitat, predation, hunting, and disease as possible factors in the decline, according to a story in THE MISSOULIAN. Allen says the recent population decline may be part of a cyclic phenomenon where populations rise and fall periodically. If so, the cause behind the cycles is not known. A regional scientific symposium will be held at Utah State University next month to explore the cause or causes of the decline. Photo by David

BLM proposes new primitive area

The Bureau of Land Management has proposed an 11,352 acre primitive area in the Big Horn Mountains near Buffalo, Wyo. The wild area is mostly public land, but 160 acres is private. It contains the 1,800-foot deep North Fork Canyon. For more details or to submit comments on the proposal, contact the Bureau of Land Management, Box 979, Buffalo, Wyo. 82834. Comments are due by April 5.

Lamm, conservationists differ on dam

Colorado Gov. Dick Lamm has endorsed the controversial Narrows Dam. His former conservation ist allies are requesting a government investigation of the project. Lamm announced his approval of the project on the South Platte River in eastern Colorado on Feb. 27, saying a draft environmental impact statement (EIS) on the dam and reservoir he U.S. Environmental Protection Agency rated the EIS in adequate. The project is proposed by the Bureau of Reclamation to provide flood protection and irrigation benefits. The project would "remove prime agricultural land from production, inundate three small towns and a whole school district, displace 850 people, destroy 15.5 miles of one of Colorado's best riparian wildlife habitats and cost \$139 million - before over-runs," according to Colorado Environmental Legal Services (CELS). CELS has threatened a suit to stop the project. Meanwhile, the Colorado Open Space Council (COSC) has requested a Government Accounting Office (GAO) audit of the project. COSC believes the flood control benefits are overstated and the new irrigation benefits may be negated by the fact that 17,000 acres of crop land and 40,000 acres of grazing land will be lost to the reservoir. A group of farmers in the area is also protesting the project.

Atlantic Richfield bids for Anaconda

Tenneco, Inc., has terminated its plans to merge with the Anaconda Company, but now another industrial giant — Atlantic Richfield — plans to buy a controlling interest in Anaconda. Atlantic Richfield has made an offer for six million shares of Anaconda stock which would give the energy company 27% of the stock. Anaconda is best known for its copper mining operations, but also is involved in uranium production, which would be of great interest to Atlantic Richfield. Another major stockholder — the Crane Co. — says it has no plans to sell its 4.1 million shares, but it will offer its holdings to Atlantic Richfield first, if it does decide to sell.

Anaconda is Montana's largest private employer, and has facilities in 24 other states. This month Anaconda requested a fourth one-year variance to operate its smelter at Anaconda, Mont., in violation of state clean air regulations. Anaconda is also the subject of a recent civil suit by 118 residents of Butte, Mont., who are protesting a proposed 90-acre waste dump near their homes.

EPA sets water goals

The Environmental Protection Agency (EPA) has issued regulations to prevent further pollution of water and to clean up waters that already are polluted. The regulations seek to implement different sections of the 1972 Federal Water Pollution Control Act.

In one set of regulations, the EPA requires states to develop and implement water pollution control plans for all parts of each state. These regulations, called "208" plans because they would implement section 208 of the 1972 act, are designed to assure that, by 1983, water would be of a high enough quality to preserve and protect fish, shellfish, and wildlife and to provide recreation, wherever those goals are attainable.

The National Resources Defense Council, Inc. (NRDC) says the development of strict 208 plans is essential in each state because they would "be the reference point for water pollution cleanup in your area for years to come." Each 208 plan, says NRDC, must contain programs to handle the long term sewage needs of an area; to control pollution stemming from agriculture, mining, forestry, construction, and urban stormwater; to protect groundwater and prevent salt water intrustion; and to achieve and maintain high quality water.

Each state would have to submit two kinds of 208 plans. One would be for specially designated local areas where the degrees of population and industrialization are relatively high, and the other for water basins in the rest of the state, where agriculture, forestry, or mining are the primary polluters. Local agencies would prepare the first type of plan, and the state the

Areawide plans are to be submitted to the EPA by the summer of 1978, and the

state plans are due that November.

Another set of regulations, also designed to meet the 1983 goals, requires states to review their existing water quality standards every three years and revise them when necessary.

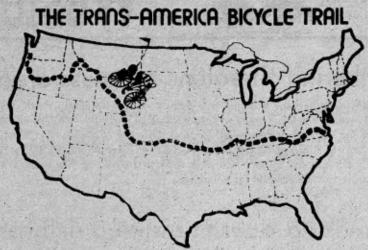
The main feature of these regulations is that states would have to upgrade their water quality standards whenever possible. But, NRDC says, those standards could be downgraded if a state shows that: natural conditions make it impossible to attain existing standards; man-induced conditions make that impossible; or "substantial and widespread adverse economic and social impact" would result from insisting on existing standards.

The third set of regulations states that, "No further water quality degradation which would interfere with or become injurious to existing instream water uses is allowable." This means, for example, that if a stream is presently used for fishing, it could not be degraded so as to impair the quality of the fishing.

A state could make an exception to this rule, however, if it felt that "necessary and justifiable economic or social development" took precedence over water quality.

In all cases, however, water quality could not be degraded so much that it interfered with fish, wildlife, and recreation, and no exception could be applied to high quality water in state or national parks "and waters of exceptional recreational or ecological significance."

The new regulations, "Policies and Procedures for Continuing Planning Process" (40 CFR part 130), and "Preparation of Water Quality Management Plans" (40 CFR part 131), were published in the Nov. 28, 1975, Federal Register, pages 55334-55349.



See America on your bicycle, says the Bikecentennial '76 group. The non-profit Montana organization is promoting tours on a 4,250 mile bicycle trail across the country. The routes planned stretch from Williamsburg, Va., to Astoria, Ore.

Bikecentennial '76 offers organized tours ranging in length from 82 days, the time they expect it would take a group to pedal across the entire country, to 12 days. Meals and lodging are included in the costs, which are about \$200 per person for a 12 day tour. The transcontinental tour costs \$965. Groups will average anywhere from 50 to 120 miles per day, depending upon the members' physical condition.

Guidebooks for independent touring, which would allow you to utilize Bikecentennial food and lodging facilities, are also available on a limited basis.

Twelve-day tours available include the Oregon Coast and Cascade Mountains; the Old West, including Yellowstone and Grand Teton National Parks; Colonial Virginia; and the Colorado Rockies.

The group expects that 10,000 people will pedal down all or part of the trail this summer. For more information contact Bikecentennial, Box 1034, Missoula, Mont. 59801 (406) 721-1776.



The intrepid biker shown here is on the trans-America trail crossing McKenzie Pass (elevation 5,324 feet) in Oregon — in July. Photo courtesy of Bikecentennial '76.

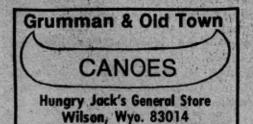
HCN Bulletin Board

CAMPGROUND HOSTS SOUGHT

The Targhee National Forest in Idaho is seeking volunteer campground hosts to live in forest campgrounds for the summer and answer other campers questions. In exchange for certain services, each host would be provided with a season-long campsite in a campground and could receive limited compensation for living expenses. The host must provide his or her own camping equipment — trailers are preferable. For more details contact the Targhee National Forest, 420 North Bridge St., St. Anthony, Idaho 83445.

ENERGY ECONOMICS WORKSHOP

The Sierra Club's Southwest Regional Conservation Committee is holding an Energy Economics Workshop in Salt Lake City on April 10-11. Experts will discuss financing public utilities, economics of energy alternatives, economics of energy alternatives, economics of esthetics, and other topics. No registration fee is anticipated. For more information contact Sherm Janke, 1035 South 2000 East, Salt Lake City, Utah 84108 or call (801) 582-5193.



ARCHES WITH ABBEY

The University of Utah is offering a workshop on environmental awareness and writing in Arches National Park, structor. Abbey is the author of Desert Solitaire and The Monkey Wrench Gang. The program, called "On the Rocks," is for teachers, youth leaders, environmental education specialists, environmentalists, and desert rats. The course, which runs June 17-20, is limited to 40-50 people. Credit is offered in English and education through the university. For more information contact Dr. Flo Krall, 142 Milton Bennion Hall, University of Utah, Salt Lake City, Utah 84112, (801) 581-8584.

EIS DISCUSSION

The Wyoming Bureau of Land Management advisory board will meet in Cheyenne April 1-2 to discuss environmental impact statements. The board will examine two of the BLM's recent statements, on the Westside irrigation project and a dam on the Middle Fork of the Powder River. Laney Hicks of the Sierra Club will present guidelines on how to prepare an acceptable environmental statement. The meeting, which isopen to the public, will be at the Little America Motel in Cheyenne. For more information contact John Burnett, public information director, BLM State Office, P.O. Box 1828, Cheyenne, Wyo. 82001 (307) 778-2220.

MORE SHALE HEARINGS

Public hearings will be held in April on development plans for Colorado oil shale lease tract "C-b." The federal lease, held by Ashland Oil Co. and Shell Oil Co., is for 5,000 acres of public land in northwest Colorado. A copy of the development plan for C-b can be obtained by contacting the Bureau of Land Management, Room 700, Colorado State Bank Building, 1600 Broadway, Denver, Colo. 80202. Hearings will be held April 20 at Freeman Fairfield Square in Meeker, Colo., and April 22 at the U.S. Post Office in Denver. Written comments will be accepted until May 7.

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CITY OF STRANGERS

Vance Packard, author of A Nation of Strangers, and CBS newscaster Douglas Edwards will highlight a conference on social change in the Wyoming boom town of Rock Springs. "Tradition and Change in the Community" is the theme of the April 5-8 conference at Western Wyoming Community College in Rock Springs. The prog-

ram is free. For more information contact David Kathka, Director of Social Sciences, Western Wyoming College, Rock Springs, Wyo. 82901, (307) 382-2121.

WATERGATE TO AID EDF

The Denver premiere of the movie "All the President's Men" will be a benefit for the Environmental Defense Fund. The showing will be April 8 at 8 p.m. at the Cherry Creek Cinema. The film is based on the book written by Washington Post reporters Carl Bernstein and Bob Woodward, who broke the Watergate story. Tickets are \$10 and may be obtained through the EDF office at 1657 Pennsylvania in Denver or call (303) 831-7559.

MEETING ON DAMS

A public hearing on the Draft Environmental Statement for the Dallas Creek Project will be April 17 in Montrose, Colo. The project includes dams and reserv on the Uncompangre River and on Pleant Valley Creek. The stored water would be used for municipal, industrial, and agricultural purposes. A coal-fired power plant has been proposed for the area, which is near Ouray, Colo. For more information contact the Western Colorado Project Office, Bureau of Reclamation, Building 8, ERDA Compound, Grand Junction, Colo. 81501 or call (303) 242-8621.



by Jim Leckie, Gil Masters, Harry Whitehouse, and Lily Young. Sierra Club Books, 302 pages indexed, \$9.95 paperback.

Review by Dave Brook

When this book was first handed to me my reaction was, "What, another book on alternative energy? And, at 10 bucks!" There are more than 20 titles available now on this hot topic for American publishers. Many are filled with half-tested, impractical designs.

Then along comes the Sierra Club, publisher of large picture books on disappearing wildlands, offering Other Homes and Garbage - filled with graphs, charts, and pages of raw data, with very few pictures.

"The basic purpose of this book is to place design tools and information into the hands of nonspecialists," the authors say. "Whatever your living context and lifestyle, you will find ideas and information to allow you to gain a little more control over your own existence (without sacrificing those things that give quality to our lives)."

Other Homes and Garbage is more comprehensive than anything currently available. It includes not only power systems, but building design and water and waste treatment. Its seven chapters cover house design and site planning; wind and water electricity generation; building heat loss and solar space and water heating; methane digesters, outhouses, and composting toilets; fresh water supply and purification; and gardening, including pruning, beekeeping, and aquaculture. No small chunk to bite off in 294 large-sized pages of text.

ably should have been subtitled Designing for Self Sufficient Living, is the fearlessness and clarity with which theoretical considerations are presented. Anyone with a tape measure and a four function calculator can do all the figuring needed. computations on gardening and costs of Even a logarithmic table is included.

For example, the solar section, one of the most comprehensive, begins with an excellent discussion of thermal comfort and indoor environments. It continues with climate and energy for heating, then explains heat loss computations. Finally collection, storage, and distribution efficiencies for space heating and hot water systems are discussed. Along the way, the authors provide more than 20 pages of tables and charts, usually referred to in other books as "easily found at public libraries or at government agencies. . . .

As I began reading the book I wondered, "Well, this introductory technical stuff is okay, but when are they going to get around to the construction diagrams, photos, and parts lists?" They never did. I discovered that my approach to the solar hot water system I'd been considering was just what the authors were trying to avoid: look at a couple of pictures and run out and throw together a system that provides half the water needed half the time. It reminds me of all the unused geodesic domes you see sitting out on the land. A lot of enthusiasm went into building them, but not enough

My biggest reservation about Other Homes and Garbage is the lack of discussion about relative costs of various alternatives. Perhaps this is inevitable in a book not primarily concerned with construction details

I also have a few personal quibbles.

The book reads like a textbook for a graduate architecture class. But maybe it should - since it is an outgrowth of a course the authors gave in 1973 at Stanford

-There is nothing about wood heating and cooking. Although there is mention of good fireplace design, a fireplace is pretty inefficient compared to a stove.

technical publications than practical. See Whole Earth Epilog and Co-Evolution Quarterly (Box 428, Sausalito, Calif.) for the practical.

-I'd like to have seen some input-output home canning and freezing.

There is only one book which comes close to this one in doing its homework: Producing Your Own Power edited by Carol Stoner (Rodale Press Inc., Emmaus, Pa. 18049, \$8.95). It is not nearly as comprehensive, but is more construction oriented. Other books you will probably end up looking at include Ken Kern's Owner Built Home (P.O. Box 550, Oakhurst, Calif. 93644, \$7.50), Design with Climate (at \$20, find it in a library), Energy Primer (Portola Institute, 558 Santa Cruz Ave., Menlo Park, Calif. 94025, \$4.50), and Alternative Sources of Energy (a Seabury Press compilation from the magazine published at Route 2, Box 90A, Milaca, Minn. 56353), and various Utah 83421.

High Country News-15

VITA publications (Volunteers in Techn) cal Assistance, 3706 Rhode Island Ave Mt. Rainier, Md. 20822).

During the past several months I've been surprised to meet two ranchers (both from Montana) passing time in airports reading alternative energy books. Although thei cattle operations were large scale, both say such systems as a way to get out from unde at least part of the rapidly increasing cost they were facing. Neither was reading Other Homes and Garbage, but I hope

Dave Brook is former owner of To Flight Book and Record store in Logar Utah. He says he is currently open for sug gestions as to what to do next in books newspapers, or classical FM broadcasting His address is 1731 E. 2100 North, Logar

Rural landowners' cooperation essential to help save wetlands

on agricultural land, the farmer has been forced to begin cultivating marginal land that formerly had been left for wildlife. Many government policies have encouraged this trend of fence-to-fence farming.

Drainage of marshes in the Dakotas and Minnesota is a common practice. However, in many cases farmers will retain their wetlands there when they are shown that it can be profitable, according to the U.S. Fish and Wildlife Service (FWS). Alternatives to drain age include fur farming, minnow raising, forage-crop production, and conservation of a water supply. Some farmers favor marsh development to attract more ducks, fur animals, and upland game so they can rent shooting and trapping

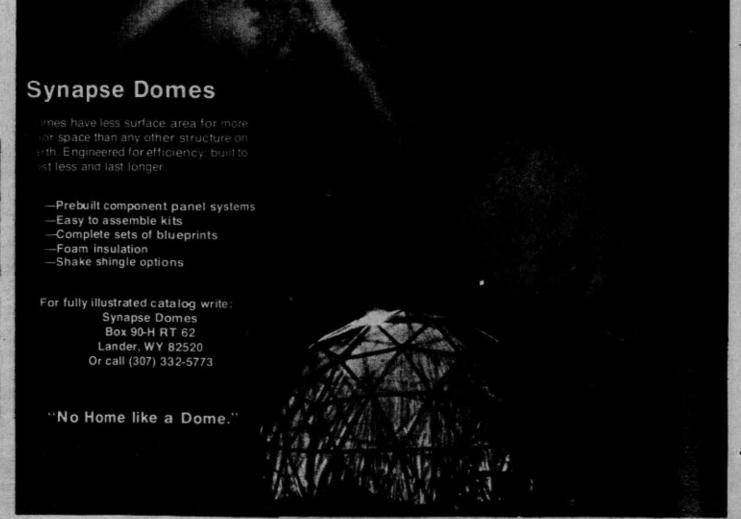
Farm and stock ponds, small floodwater-detention reservoirs, and water stored for irrigation may double as wildlife

As urban use encroaches more and more habitats with little or no additional ex pense to the farmer. Holding a fairly con stant year around water level helps estab lish submerged and other aquatic plants which are useful as duck food, according to the FWS. Iffeasible, drawing off water during the growing season will favor the growth of heavy seed-producing plants which are valuable for food.

> Financial incentives aren't always necessary. In many states, the game and fish departments have "Acres for Wildlife' programs which encourage farmers to leave some marginal land for wildlife, The farm operator agrees not to burn, graze mow, or spray the enrolled area. In return he gets an arm patch or a certificate and often a subscription to the game and fish magazine. They also gain the knowledgethat they're helping provide cover for wild-



of the Rockies. \$1.50



Cattle ranching in a recreation area

by Lloyd Levy

Some may be ready to pronounce the ranching industry dead in the Roaring Fork Valley near Aspen, Colo. Bob Child, 52, who holds a sizable spread on Capitol Creek, is not.

By taking an active role in public policymaking through a seat on Pitkin County's planning commission, he is trying to promote an experimental program aimed at preserving what's left of the valley's cattle grazing industry.

A softspoken, reticent person, he does not take easily to public life and is on the political stage by choice, not by nature.

Articulate and thoughtful but not the sort to speak out readily, he nevertheless does.

What stirs him to step out of character is a sense that the future will bring a time when the valley's citizens will wake up to find that land so irretrievably subdivided and converted to recreational and residential uses has regained its importance for food production.

It's a preservationist instinct, and Child views the family rancher, especially in this valley, as something of an endangered

"A lot of the ranchers themselves say and they may be right, I hope not - that our efforts will be too little and too late," he reflects. "They may be right, but we owe it to ourselves to give it a try."

The fervor Child brings to his beliefs may be a function of having acquired his current lifestyle by choice.

An urban refugee and a native of Chicago, he admits that on his first visits to Colorado he was unable to sleep without the accustomed urban streetnoise.

He was a statistician and systems analyst for Continental Airlines in Denver before making the final decision to turn to

His ranch is among the most beautiful 1,500 acres in the area, spread out along the creek's path among rolling hills from hishome on the road to the foot of Haystack Mountain. He runs the spread with the aid of his wife, Titi, and his son, Steve, a Stanford graduate who now leavens his ranch duties with school bus driving.

Though the ranch holds its own, the agriculture and beef industries in general are "in a bad position," observes Child, and in this valley the pressure for development is

The county government - to whatever extent it can and with Child's wholehearted support - is pursuing a multifaceted program aimed at creating a more hospitable economic and environmental climate for the rancher.

It begins with current efforts to explore local markets. One aspect could be a processing facility for locally-raised livestock, Child suggests.

"It's in the study stage," he notes, "but it's worth looking into." Child says there are glaring inefficiencies in the current livestock marketing system.

"The animals leave the ranch and they are shipped to Denver - or even as far as to Iowa - where they are fed on grain and

then, eventually, they are returned to the valley. "It's an inefficient use of grain," he says with rising emphasis, "and a very inefficient use of energy to transport the animals when we have the market here."

His own experiments selling his beef locally have been mildly successful. "We get a lower price, but we find we get a better return, so I think that there is a potential there."

The county program, of which Child is at least partially an architect, also includes "resource" zoning. This limits division of land to minimum 160-acre parcels and allows house construction on a maximum of five sites.

As Child sees it, stamping ranch land with that zone is a boon to the family that wants to stay in the business from one generation to the next.

The zoning takes the land out of the speculative market," Child explains, and should reduce its value when the time comes for inheritance tax appraisal. At the same time, it allows the construction of some salable homes to provide "cash for the bad years," he says.

Besides resource zoning, Child hopes for some form of property tax relief, "perhaps even relief, for operating ranches and farms, from all property taxes." He admits that the suggestion "may be extreme" but, again, "it's worth looking into."

A fourth prong of the program would have the county provide ranchers some access to the sewage sludge produced by the area waste treatment plant.

Child was recently appointed to serve as a "wildlife" representative on both the state and district citizen boards advising the Bureau of Land Management.

Child admits that in some cases, the interests of the ranching industry and those of wildlife preservation do "collide." But he finds that the two strands can peacefully coexist - and do, for the most part, within his own mind. He's proud, for example, of a Christmas present from his family - a book entitled Birding from a Tractor Seat.

"I feel that almost without exception, The words agriculture and conservation who husband the land. ranchers have a healthy respect for wildlive and work around a ranch without developing that respect.".

On the subject of predators, Child notes it is more of a problem elsewhere than in

"I would be concerned," he says, "if the wholesale use of poisons with secondary effects were made legal again, but I would not oppose other methods of reasonable

The most dangerous predator in this area, where dense human habitation borders extensive wild life range, is the domestic dog, Child believes. He says he would support strictures on dogs in the county, keyed, perhaps, to the nearness of a residential area to game habitat.



Bob Child

Photo by Lloyd Levy

As for ranching here, Child believes the county's program could salvage the industry, at least for those who had already entered before the current ski-fever-fueled land price inflation spiral began. However, he admits, it may never again be possible for a young family to buy into the game.

His own ranch and the push for recreational development met in a head-on collision five years ago when the Aspen Skiing Corp. attempted to acquire his land for development of a Haystack Mountain ski

Child staunchly resisted the pressure.

"That experience really changed my attitude," he says. What it did, in fact, was mark the beginning of Bob Child's quiet activism, creating a serious spokesman for the preservation of a time-honored endeavor in the rapidly changing valley.

Lloyd Levy is a freelance writer in bondale, Colo. He is the former Ba. editor of the Roaring Fork Valley Jour-

Reprinted from the ROARING FORK VALLEY JOURNAL.

Dear Friends =

should be inseparable but often are at odds. life," Child insists. "I don't see how you can Poor agricultural conservation practices aggravated the 1930s drought years, creating a dust bowl in the Great Plains. As more farmers learned sound soil conservation techniques and the weather changed, the environment recovered.

Environmentalists have learned much about conservation from farmers and ranchers, however. They have been pioneers in developing better ways to maintain soil productivity, prevent water pollution, and recycle wastes.

But some agriculturalists are also responsible for air pollution from agricultural burning, water pollution from feedlot wastes, stream channelization which damages fish habitat, and overgrazing.

In this issue we offer a look at the joys, the trials, and the responsibilities of those

Gary Nabhan criticizes our limited view of Western range land.

Bob Child, the subject of this issue's portrait, explains that raising food on the land is one way to make a living while preserving open space and wildlife in an area threatened by too many second homes.

Mary Inman details the saga of land use planning in Jackson Hole, Wyo. She tells how ranchers are negotiating with Grand Teton National Park to save their way of

Ruth Evans, who grew up on a homestead in the plains of Montana and now lives in California, lightens our pages with a nostalgic look at the past. She reminisces about early ranch life - before farmers (or anybody else) worried about pollution.

-the editor



Jackson Hole, Wyo. focal point for planning.

Hitting the headlines media experts speak frankly.

Future of range lands four radical approaches.

James River scenic river destined for ditch? 7 Health debate is EPA too protective?

Pioneer power plant Idaho governor opposes.