The Environmental Bi-Weekly

# High Country News

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## Merry Christmas

# Hooked on Energy

by Carlos Stern
Assistant Professor, Agricultural Economics, University of Connecticut

We have been enjoying an energy "high" for as long as most Americans can remember. Energy used to be so abundant and cheap that gasoline stations were everywhere, open to all hours, busy cutting one another's prices, giving away prizes and gifts. Natural gas was so abundant and its price kept so low by regulation that usage doubled every ten years until in 1972 we burned 22,000,000,000,000 (22 trillion) cu. ft. Electricity use has also doubled every ten years in a burn-up race with natural gas so that last year about 1,800,000,000,000 (1.8 trillion) kilowatt hours were generated.

Corporate technology worked overtime figuring out more ways to use more energy from trivia like the electric toothbrush, electric hair curlers, to climate-controlled enclosed shopping malls and under-used 747's where the energy use is not so trivial. We just missed buying ourselves a multi-billion dollar commercial supersonic airplane program that would have reduced the flying time from New York to London from two feature films to one. The SST, if full (passengers and fuel) at takeoff, would have weighed some 360,000 pounds of which 300,000 were fuel and 18,000 payload.

Not long ago they were selling us new cars with matte black vinyl roofs and then, of necessity, air conditioning; disappearing headlights and windshield wipers. When these cars proved to get about the same gas mileage as a Greyhound bus, the manufacturers blamed it on pollution controls. Swimming pool heating uses as much gas in a few summer months as it takes to heat ten average homes in a full year; yet this use was advertised as a good summertime (off-peak) use of natural gas. Buildings were lighted day and night for safety (or was it to save wear and tear on the units and switches?) Indeed, many new buildings make

(Continued on page 4)

## And A Happy New Year

# HIGH COUNTRY

By Jean Bell

The beautiful Wind River Mountains rise above our little town, stark white and blue-black in the clear, frosty air. As I walked to work on this crisp December day, I thought of the Biblical passage, "I look up to the hills from whence cometh my help." And it is so.

Somehow the presence of those towering peaks is comforting for they impart a sense of strength and permanence. Those are qualities which more and more of us will be seeking in the months and years ahead. Uncertainity and insecurity are always with us, but suddenly the effect is heightened by what is happening in the world around us.

People often ask, why a paper like **High Country News** is in a little western town like Lander, Wyoming? And all I can answer is that it is where I live. But it is really more than that. When I look up to those mountain fastnesses, there is a reaffirmation of all that is good in the world. In spite of all the troubles around the globe, there is much that is good and much for which I can be truly thankful. Living a simple, quiet, relatively uncomplicated life in a small western town is part of that which keeps me sane and whole. And for that I can be most thankful.

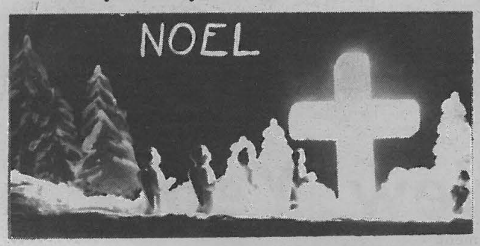
The life of this little paper is a tenuous one at best. But it is kept alive by the faith of those of us who work here, and those of you who read it and nurture it. We are most grateful to all of you who continue to support our efforts through your renewed subscriptions and your contributions. Sometimes it seems a vain effort when at one political stroke in a region a world away, a way of life is dramatically changed.

Yet, in spite of set-backs in environmental matters, the energy crisis may eventually be viewed as a dramatic turning point for the better. Humans react to crisis. And it seems to be an attribute of our species that if some show the worst of human nature during crisis, many more show our best characteristics. Always conservative by nature, and dreading change, sometimes it takes a crisis to push us in the way we should be going.

The facts of the finiteness of our world could be preached from the housetops by environmentalists around the world — to no avail. But deprive the world of just one resource on which it has come to depend and the facts are driven home with singular clarity. The oil shortage, contrived or real, may be the most valuable lesson learned by the human race in centuries. And so I cannot help but believe that there may be suffering and privation occur as a result of the energy crisis, but that in the long run it is all to our good.

As we come to the close of another year and to that time when we celebrate the birth of Him who reigns on high, we should count our blessings, however large or small, and be thankful.

I wish there were time for me to extend my personal greetings to all of you who have come to be a friend in these last few years. But I find it impossible even to get cards to old and dear friends. So if you will forgive me, I will take this means to not only save our paper resource but to extend to you my warmest personal wishes for a Merry Christmas and a most Happy and Successful New Year. May you and yours be doubly blessed by Him who watches over us all.






# Letters

Dear Mr. Bell:

Having read of your newspaper and your "cause" in **Audubon** magazine, July, 1973, I am asking your assistance in trying to find the story behind a recent broadcast from Casper, Wyoming, which may affect a situation in northeastern Washington. A lawsuit may be filed soon against Bonneville Power Administration in regard to the following, and prompt information would be very desirable.

Northwest Alloys, subsidiary of ALCOA, (Aluminum Co. of America) plans to build a plant for producing magnesium and other materials from dolomite mined at the plant site near Addy, Washington, and other ores hauled from nearby quarries. Bonneville Power Administration has a contract to furnish interruptible power to the plant for its processing. The Environmental Impact Statement on the project states: "If, however, power from BPA should be interrupted (such as is occurring now in Washington), the industries usually ask BPA to secure temporary power from other sources." It is expected that permits will be issued at any time by the Washington Dept. of Ecology and Stevens County.

One day recently, the wife of a dairyman near Addy had left her radio on when she went outside. When she returned to the house the local radio station had gone off the air for the day, and she could hear portions of a broadcast from Casper, Wyo. The announcer, as she heard it, was commenting to the effect that the state government was asking cattlemen to give up their water rights so that "BPA could supply power to ALCOA." The radio signals were fading out and back in as she listened, so she did not hear the whole broadcast. Because dairymen in the Addy area fear that the emissions from the plant may ruin their industry, she reported this to other members of the Colville Valley Environmental Council, which would like to have further information about this broadcast or the situation which gave rise to it. I do not know whether the announcer's comments were of a factual nature or a sarcastic comment on the coal-stripping, power-producing plans for northern Wyoming and south-eastern Montana. We would like to know if BPA is actively seeking additional power on behalf of ALCOA. Our local news media do not give us full information.

She thought the station call letters were either KPOC or KPOG; one member of CVEC tried to phone the announcer, was given the number of Station KVOC in Casper, and she left a request for him to call her, but he has not done so.

Can you enlighten us in any way?

Now a question on a second topic:

The same article in **Audubon** quotes you, I believe, as to the consumption of water in the coal-gasification process. What quantities of water would be thus consumed in one of the coal-gasification plants in a given time? It seems to me if it uses any appreciable amounts it would be making the semi-arid areas more and more dry and would affect not only the trout streams but the moisture needed for farming and ranching over a wide area. What is your source of this information? I have not seen this mentioned in any other material dealing with the coal-gasification.

If you have information and time to share it, it will be much appreciated.

Very truly yours,
Mrs. Bonnie A. Olsen
Colville, Washington

Editor's note: Your letter is of more than passing interest to other readers and so I am taking the liberty of answering it here.

First the radio broadcast, I have checked with Radio Station KVOC in Casper and with Associated Press in Cheyenne and can find no reference to such a broadcast. We can tell you this. It was reported that Pacific Power and Light Co. was negotiating with Bonneville Power Administration on joint financing for a 500-megawatt fourth unit on the Jim Bridger Powerplant near Rock Springs, Wyoming.

Pacific Power and Light Co. is also involved in coal deposits in Montana. There are now rumors that PP&L is planning another large steam generating plant on the Tongue River, north of Sheridan, Wyoming. Their high voltage transmission lines are tied to BPA lines throughout the Northwest.

Now, to your second question. There seem to

# Guest Editorials

**Reprinted from the LOS ANGELES TIMES, Oct. 22, 1973.**

## Cooperation With Canada

Last year Canada supplied about 6% of the oil and natural gas, and even a little bit of the electricity, used in the United States. It wasn't much. But it was more than any other foreign supplier and in oil alone accounted for 38% of all the imports.

Given the energy crisis in the United States, and the dwindling supplies of domestic oil and gas, one might think the United States would be making extraordinary efforts to include the Canadians in long-range energy planning, to respond to Canadian ideas on short-range solutions, and to improve consultations all around. But it isn't doing so.


The United States responded querulously at the beginning of September when Canada followed export restrictions with a new price structure for oil going to the United States, and only this week will President Nixon's energy chief finally get together with Canadian energy officials to see what can be done. American officials muttered about such things being done without prior consultations, exhibiting rather short memories about Mr. Nixon's own shocks administered in August, 1971, when Canada was caught unawares, along with the rest of the world, by American import surcharges.

American planners appear to be ignoring Canadian complaints about the supertanker terminus for the state of Washington. It will be part of the Alaska pipeline system from Prudhoe Bay to Valdez. Tankers from Valdez will unload at facilities that Canadians, citing U.S. Coast Guard material, say risks only Canadian shores in the event of spills.

Americans will face an interesting decision if they pursue present plans to tap the natural gas of Alaska's North Slope. The favored route for a gas pipeline would be east to Canada, then south through the Mackenzie Valley. But the Canadian government has adopted a policy that any such line will be Canadian-owned, Canadian-built, Canadian-controlled. And it will service Canadian gas as well. Some of the same oil companies pushing that plan argued in favor of the cross-Alaska pipeline on the grounds that it would be strategically more secure than relying on Canadian real estate. The absurdity of the argument would be all the more apparent if the gas line goes through Canada.

The United States has had a remarkable record of doing the wrong thing at the wrong time as far as Canadian energy is concerned. President Nixon's greatest blunder, one can say with the help of hindsight, was reimposing quotas on Canadian oil imports in 1970. They weren't lifted until last February. Now Canada has said "no thank you" and imposed quotas of its own on exports in June.

If the United States wants any Canadian energy at all over the long term, it is time for Washington to recognize that Canada's first requirement must be to prolong its own self-sufficiency. The United States should respect Canadian efforts at conservation and domestic price protection. But the United States should also dramatize its eagerness to get what Canada can spare, for Canada's supplies are likely to remain more secure than any off-shore supply, including the tanker line from Alaska.

**Reprinted from THE IDAHO STATESMAN, Dec. 7, 1973.**

## Return to Rail Travel

Railroads presently consume only 3.5 per cent of all energy used in transportation of both people and freight. Highway vehicles use 76 per cent and airlines 10 per cent. A nation faced with a prolonged fuel pinch can't afford to neglect rail travel.

A train across southern Idaho would help avoid a severe recession in the ski resort business (although the proposed train wouldn't begin operation before April 1974, too late for the current season). It would help carry people to Spokane's Expo 1974 observance. It would transport people heading for Yellowstone and Grand Teton parks.

People who want to help bring rail passenger service back to southern Idaho and eastern Oregon can write: Roger Lewis, President NRPC, 955 L'Enfant Plaza North, SW, Washington, D.C. 20024.

If Amtrak hears from enough people who want to ride a train it could make a difference.

A lot of plans for long-distance trips could be wiped out by gasoline rationing next year. Some of these people would ride a train — if there were a train to ride.

Revival of rail passenger service from Seattle, Wash. through Oregon, Idaho and Wyoming to Denver and Kansas City has been proposed. Amtrak, the national rail passenger corporation, is authorized to establish one experimental route per year, to operate for at least two years.

With the impending gasoline famine, the Amtrak train could be a godsend to people in Eastern Oregon and southern Idaho, as well as others along the route.

Fare on the Amtrak system is four cents a mile. Riding from Boise to Pocatello would cost less than $10.

Three or four trains a week are suggested for the Seattle to Kansas City run. This would cost far less than daily service. There should be plenty of passengers for three trains a week.

**Reprinted from THE BILLINGS GAZETTE, Mont., Dec. 3, 1973.**

## Coal Country Togetherness

Gov. Thomas L. Judge spoke for thinking Montanans the other day when he said it is our obligation to help out in the national energy crisis but not to the extent of ruining the region.

The governor made the remarks to the governor of North Dakota. He also intended them for the governor of Wyoming.

Judge was saying if we all stick together we won't be torn apart separately in the hell-bent drive to rip out the coal to feed the desires of megalopolis.

He meant stick together in strip mining controls, air pollution standards, water use and taxation that will pay the true cost.

The governor of Montana advised other governors in the coal-rich region that they do have the means with which to guide resource development even if the federal government fails to adopt safeguards.

That means is through taxation, a long neglected tool available to people of an area through their government.

Governor Judge is to be commended for his firm stand, not against economic development but in insisting that it be done in a manner in which Montana will benefit, not be degraded.

Other states in the region would do well to follow his lead.

be some contradictions in stated amounts of water used in coal gasification. For instance in a public hearing before the North Dakota State Water Commission, Mr. Noel Mermer, vice-president of American Natural Gas stated that each plant requires 17,000 acre feet of water per year. He was talking about a plant with a capacity to produce 250 million cubic feet per day of pipeline gas. For a similar size plant, other figures quoted go as low as 8,000 acre feet per year. But you are correct in assuming that coal-gasification plants and steam-generating plants will dry up the semi-arid region of northern Wyoming and southeastern Montana.

* * *

Dear Editors:

Each issue is a pleasure and I am happy to renew my subscription.

May I urge you to concentrate more fully in the coming time on matters radioactive. For the most part, I believe, people are in the dark as to just what the consequences are when the body is exposed to radiation. If what our past experience with X-ray, for instance, cannot teach us to read the handwriting on the wall, Watergate won't matter; women's lib won't matter; black equality won't matter — nothing will. It is my suspicion that much concerning these consequences are part of a massive cover-up on the part of the Atomic Energy Commission, part of our government and many in industry.

Sincerely,
Louise S. Weiss
New York, NY

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# Hooked . . .

(Continued from page 1)

it impossible for users to decide on lighting levels at all. Those were the good old days. What happened and why were we not warned?

The most amazing thing about the energy crisis is not that it came so fast or whether it is contrived or not, but that we really have no way of determining whether indeed we do have a crisis, what are the underlying factors, whether there is a shortage of crude oil or a shortage of refining capacity, or whether we will be 10%, 20%, 30%, or 50%, below our requirements this year. In other words our lack of specific information is what is so remarkable. Nor do the key public decision-makers: the President; Rogers Morton, Secretary of the Interior; or the Congress seem to have answers to these questions.

Take just the question of imported oil. The actual statistics giving the number of barrels arriving annually at U.S. ports does not tell the whole story, as we are now discovering. Our military forces abroad, for example, purchase fuel directly from foreign suppliers, oil almost entirely of Middle Eastern origin. Thus, our Sixth Fleet in the Mediterranean has been buying oil from Italian refineries, oil which originally came from the Middle East. Similarly, the Seventh Fleet in South East Asia, bought its fuel from Singapore refiners, again the oil was from the Middle East. Another example is our import arrangement with Canada, our biggest "foreign" supplier. Canada replaces the oil she delivers to the mid-west and western part of the United States with oil she imports to her Eastern markets, Toronto and Montreal, from the Middle East. Thus, our Canadian import should be counted as Middle Eastern. There are more examples along these lines but these should serve to illustrate how complex the accounting has become.

A perverse fact in the current energy crisis is that there really is quite a lot of energy around. Although some fear that we are already experiencing the beginning of long-term crunch, it is not clear that this is the case. Domestically, we have enormous reserves of coal and of course the Middle East, North Africa, and other areas have vast proven petroleum reserves. There is also a good probability that even more fossil fuel reserves will be discovered. For the foreseeable future, then, it is not a question of running out. The story of coal is well known. Newly mandated mine-safety standards, strip-mining controls, and air pollution legislation, the decline of the railroads and the advent of nuclear power, demoralized the coal industry. This process is being reversed but it will take a long time to attract the necessary capital and to make up the backlog in research before coal can substantially expand its share of the energy business.

The fact is that we were counting, as a nation, on the availability of reasonably priced Middle Eastern oil to fuel our economic growth at least through the 1980's. We did give sufficient weight to the disadvantages of such a one-sided dependency. No one could have anticipated the oil boycott that grew out of the most recent mid-East war, but even without the latest crisis, it seems apparent that the oil exporting countries would have developed a strategy of restricting supplies, both to keep the oil prices high and to prolong the life of their wells. The enormous increases in price that have accompanied the latest shortage can only encourage foreign suppliers to continue to keep supplies short in their own economic self-interest, even apart from any political objective.

The problem for public policy is particularly severe since, if we cannot be sure we have a shortage, or if we cannot agree on the amount of the shortfall, or even whether the problem is short or long term, we will be incapable of acting purposefully to resolve the problem. No one wants to take a move that will negatively affect people's life-styles without being certain he can defend the action before the public.

Faced with these dilemmas, the Senate overwhelmingly voted a "Gulf of Tonkin Resolution" for energy. The same Senators who had just been calling on the President to resign voted in mid-November to give him unlimited power to do "whatever he thinks is necessary" in the energy area. This, despite additional disclosures of corporate contributors to Nixon's reelection campaign, foremost among which were the oil companies. Senator Jackson who sponsored the bill, had been chairing a special committee on energy for the past two years. Tens of thousands of pages of reports and testimony had been gathered by his committee; yet when the crunch came, first the committee and then the Senate voted to effectively leave all decision-making to the President.

Instead, the Senators themselves ought to have dealt with three essentials of any new energy policy. First, a mandated system of data collection, since as we have seen in foreign affairs, it is not desirable for one branch of government to monopolize what little information there is. A requirement that all energy suppliers file complete data on reserves, inventories, foreign commitments, both import and export, should have had the top priority, because without knowing where we are we cannot decide where it is we want to go and how to get there. The companies do make some information available to the Interior Department, but this is not as complete nor as open as is needed. Had this not been the case, we would not now have been hit by a crisis as suddenly as we apparently were.

The need for information is at least as great at the state level as it is at the federal because during these past weeks, the ball has been passed rapidly back and forth between the federal government and the states in terms of the responsibility for actions to conserve energy. Ironically, the states know virtually nothing about the availability of supplies, other than what the oil companies and Interior Department tell them. By way of example, Connecticut is in the process of developing contingency plans for various levels of shortages in home heating oil. The problem is how to know in advance, with enough time so that steps can still be taken, when supplies are running low. As a first order of business, the state should require a full auditing and reporting system by all who engage in the sale and distribution of energy within its boundaries. Regulated public utilities already provide this kind of information. The question is whether petroleum and other energy fuels should not also be considered public utilities, subject to the same controls.

A second component of a national energy policy ought to deal with the timing and manner of the future development and use of our energy reserves. The bulk of our undeveloped petroleum reserves lie in the public domain, on public land, in the form of oil shale, or off shore in the Gulf of Mexico and the Atlantic. Similarly, much of the coal and uranium will probably be found under lands in public ownership. The present approach is to lease these reserves for exploitation by private corporations. An alternative approach, which seems to offer many advantages would be to establish a public corporation, along the lines of TVA or AMTRAK, in which would be vested the full ownership of these energy reserves. The corporation could of course make arrangements with private industry but its main purpose would be to develop these resources in a manner and at a pace most in the public interest. At the same time of course, such a National Energy Corporation could provide a powerful stimulus, by way of competition, to private industry in just the same way that TVA has done.

A reason for advancing this idea now is that the major oil companies have become multinational enterprises which gain but a part — often not more than 50% — of their profits from the U.S. The bulk of their reserves, and a good fraction of their market is abroad, in West Europe, Japan, South America, and elsewhere. If one assumes that what is good for GM is not necessarily good for the United States, then it is even more true of EXXON. Since it seems highly probable that the energy resources in the public domain will be developed, the question is how soon, under what kind of environmental controls, and what kind of economic arrangements should be made to insure sufficient incentive on the one hand without giving corporate windfalls on the other.

A third area that Congress should have been concerned with at this time — and in my opinion the most urgent of the three — involves the question of how the energy supplies are to be allocated if there is to be a short-fall. Here we have a fundamental divergence of opinion. One proposal is to ration on the basis either of past requirements or some standard minimum, e.g. 10 gallons per week per automobile. An alternative is to set national priorities of use. This, in my opinion, is what the Congress should have been debating. If, indeed the shortage is as serious as some have been claiming, and there is talk of a recession next year with eight per cent unemployed, then we must really ask ourselves whether we should permit fuel consumption in the recreational area, in such things as snowmobiles, motorboats, campers, second (vacation) homes, heated private swimming pools, outdoor illuminated advertising, all night skiing, autoracing, and so on. Obviously, this means for some foregoing the pleasures of mechanized modern life and for others an interference in the way they make a living. On the other hand, if it is a choice between shutting down factories and putting people out of work owing to fuel shortages, then interfering with luxury consumption may be less traumatic overall.

Over the longer haul the setting of priorities in energy use may well involve some specific disincentives for certain types of energy use, These would include a horsepower and weight tax on automobiles and some explicit incentives for energy conserving investments such as in buses and trains, telephone systems and bicycles.

Whatever system of allocation is adopted, it should be obvious that a proportioned cut-back will not fall equally on all people. Giving a home-owner half his fuel allocation, provided the facts are made clear to him, will mean a lower thermostat setting, but little else. On the other hand, half their fuel oil allocation would shut down some factories entirely, and bus and other forms of mass transit might well require an **increase** in fuel allocations.

It is unfortunate that even at this late date we are not getting clear signals from Washington. Given the right information, unpleasant as it may be, business, industry and the public can make up its mind how to respond. What is hardest to adapt to is uncertainty. Investors cannot cope with not knowing what will happen next. Given the uncertainty of data, foreign policy, and weather, there are really only two ways for the government to act in the short-run: 1) To assume the worst and impose severe restrictions, running the political risk that the shortage will be averted and unpopular measures may then be resented; 2) To do very little now

(Continued on page 5)

# Attacking Trash at the Source

Editor's note: Claudia Meloy of Helena presented the following remarks on the "Real Issues of Recycling" at the Solid Waste Management Workshop Nov. 30 in Helena. The workshop was sponsored by the American Association of University Women, League of Women Voters and Sierra Club under the auspices of the Western Montana Scientists' Committee for Public Information through a grant from the Environmental Protection Agency.

**by Claudia Meloy**

We talk about the growing problem of solid waste disposal and the wonders of landfill dumps that have been turned into parks. We talk about the ways in which we can reuse our solid waste at home and in our gardens.

But we haven't quite made the point that we as individuals must attack the source of the solid waste problem, not just the symptoms. The symptoms are the huge mountains of trash to be disposed of. The source is the value system that is fostering our fantastic rate of resource consumption.

There is a place for recycling or "resource recovery," but if we are really concerned about the amount of resources consumed and the energy used in their production, disposal and recovery, we should start at the source and **use less.**

Many people involved in promoting "resource recovery" as the solution are not interested in working on the source of our solid waste problem. Instead, they are enmeshed in a socio-economic system that fosters exploitation of resources for profit and materialistic lifestyles. For example, the Steel Products News Bureau said that the Oregon Bottle Law aggravates its solid waste management problem by removing cans and glass from garbage, making that garbage not worth recycling.

America's terrific paper consumption recently was noted in an advertisement sponsored by Hoerner-Waldorf Corporation in **The Missoulian** (Missoula, Mont.). Hoerner-Waldorf plans a huge expansion of its kraft mill west of Missoula. The company ad condoned the high rate of paper consumption as a justification of this expansion, telling us that before we switch from paper towels to rags or from paper to cloth napkins, we should consider the energy needed to wash them.

Furthermore, Montana's recycling center operators testified against a returnable bottle bill introduced during the 1973 legislative session which they claimed would force them out of business because it would have effectively banned aluminum cans, a recyclable commodity that supplies much of their income. The measure was defeated and today these recycling people still are making money from aluminum, a tremendously energy intensive metal.

Apparently industry has shirked its responsibility for getting to the core of the recycling issue. It is up to us then to commit ourselves to the reality of the finiteness of our resources and their relationship to future generations. We must change our own patterns of consumption and use "to live more lightly on the land" as the American Indians would say.

To implement this change, I would recommend that everyone be suspicious of each new product that comes to the market. Look beyond the immediate advantage and ask yourself, "do I really need that?"

It is only too apparent that corporations and their ad men get consumers to want what they produce. For example, the latest product on the market for babies is the disposable wipe. The justification for their use is right in the ad — "after all, your diapers are disposable now; shouldn't your wipes be too?" Another example is the assemblage of new aerosol sprays for every imaginable part of your body and home. All of these cause solid waste disposal problems; all of these we've done without.

I also would recommend having a healthy suspicion of certain new technological advances. A good example is the trash masher. Is it really necessary to crush 50 pounds of garbage into 50 pounds of garbage? For one thing this makes "resource recovery" more difficult, necessitating new technology to separate the garbage into its various components. Moreover, a compactor compels one to produce more waste to warrant the need for such a technological fix. On a larger scale, some communities are trying to figure out ways to produce more garbage so they can (financially) afford a giant compactor. Is this recycling? Is this resolving our solid waste problem?

The idea of a basic change in lifestyles and values leads inevitably to the concept of a post-industrial society which would end our production-consumption-waste cycle. In such a society, one's lifestyle would pivot upon a stabilized economy, minimal consumption, saving and recycling. This would not be a regression into the Dark Ages, but a progression into a new type of future.

It would mean a step forward — toward maturity if you wish — where we make maximum use of technology to utilize renewable resources and where we have a more realistic interaction with the fragile craft we call Earth. We need to realize that our consumptive patterns are not synonomous with progress but rather akin to a dead end street. We, real people, must wholeheartedly commit ourselves to a post-industrial goal for ourselves, family, community, state and society. I view our current energy crisis as a blessing in disguise. It is forcing us to realize that if there is to be a liveable future, we must adopt a new way of life — a post-industrial society.

**Ecology is a no-win game. One plays to see how many 'hands' one can play before he loses. You only lose once and then you are a fossil.**

**William E. Cooper**

Photo by Lynne Bama

## Hooked . . .

(Continued from page 4)

and hope for the best on all fronts, running the corresponding risk that the crisis will get much worse.

Given the President's preoccupation with Watergate and his need for short-run popularity, it is very unlikely that he will take what may be an unpopular action. All along he has emphasized voluntary restraints, though voluntary restraints were not successful in curbing inflation, and there is no reason to believe the public is any less skeptical now than before. Indeed, there are fears expressed that some firms may be actually profitting from the energy crisis.

Nor is the Congress very likely to take on the responsibility for decisive action, as we have seen just this week. A large part of the reason for this hesitancy is that low-cost abundant energy has been part of the national ethos. Becoming self-sufficient in energy again will involve both reducing our energy needs and changing our attitude toward power, and no politician wants to be too closely identified with the national withdrawal pangs that this will entail.

# Innovative Ways to Use Wastes

Reprinted courtesy of the Aluminum Association

## Franklin, Ohio

A solid waste recovery plant has been in operation in Franklin, Ohio since 1971. Developed through a grant from the U.S. Environmental Protection Agency (EPA) and operated by the Black Clawson Company under a contract with the city, the system processes 50 tons a day of municipal garbage through a hydropulper (a huge liquid garbage-disposal-type system), and recovers paper, glass and metals. The reclaimed paper is used by a local manufacturer to make roofing felt. Glass and metals are returned to make new glass and metal products.

Plans for a similar system are nearing completion in Hempstead, Long Island, in New York State. This plant has special significance because it will be the first such operation to be run completely by private business.

## State of Delaware

The E.P.A. has committed $9 million to the state of Delaware which it will add to its own funds to construct a resource recovery system at Pigeon Point, Del. The plant will process 485 tons-a-day of domestic solid waste, 15 tons of light industrial solid waste and also up to 55,000 gallons of sewage sludge from Wilmington's treatment plant.

Saleable products from this system will be oil or gas, aluminum, steel, glass and compost.

## Nashville, Tenn.

Construction began in July 1972 on an energy reclamation incinerator for the Nashville Thermal Transfer Corporation, a private non-profit corporation. It is being financed by a $16.5 million local revenue bond.

The plant will consist of two 360 ton-a-day smokeless and fumeless incinerators that will burn a large share of downtown Nashville's solid waste. This will supply steam and electricity to heat and cool downtown office buildings at substantially less than present costs of central air-conditioning and heating.

The city's solid wastes will be reduced 95% and rendered sterile. Consideration is being given to recovery of the valuable metals and glass in the noncombustible portion for recycling.

## Baltimore, Maryland

Baltimore, Md., was selected as one of three cities that recently received grants from the EPA for the construction of solid waste recovery demonstration systems. San Diego County and Lowell, Mass. were the other two selected from among 17 formal applications submitted to share $11.3 million.

Baltimore will use its $6 million as partial funding for construction of a $14 million resource recovery facility which will convert 1,000 tons of the city's solid waste into fuel gas on a daily basis. The gas will be burned to produce steam which will be sold to Baltimore Gas and Electric Company for generating electricity. Metals and crushed glass will also be recovered.

The facility utilizes a pyrolysis process — which means burning in an atmosphere deficient in oxygen. Operating costs are estimated to be lower than Baltimore would need to pay to incinerate the wastes; revenues from the steam and recovered materials are expected to exceed $1.5 million a year.

## Lowell, Mass.

Lowell, Mass. will construct a $3.2 million facility to "mine" its incinerator residue, utilizing technology developed by the U.S. Bureau of Mines. Some 250 tons daily of incinerator residue from Lowell — and near-by Somerville and Newton — will yield ferrous and nonferrous metals and glass which will be sold for an annual revenue of about $500,000.

## San Diego County, Calif.

San Diego County will match $3 million from EPA with $1 million of their own to build a $4 million facility that will convert all of the organic wastes of two communities — Escondido and San Marcos — into fuel oil through pyrolysis. Here again both ferrous and nonferrous metals and glass will be recovered, recycled and sold for reuse.

The project is expected to produce revenues of between $200,000 and $300,000 annually from recovered products. Operations are scheduled for November 1974.

## St. Louis, Mo.

In St. Louis, Mo., the Union Electric Company is using a portion of the city's garbage to generate 14% of the electricity it produces. The combustible portion of the city's solid waste supplements the conventional coal as a fuel in the steam-generating boilers.

This is a particularly significant application of energy use of municipal garbage because it demonstrates that garbage can be used as a fuel in existing boilers without extensive alteration of the equipment or system and it provides a low-sulfur type fuel which will not contribute to air pollution.

Under investigation by the city is a way to recycle the noncombustible, but equally valuable, portion of solid waste.

## National Center for Resource Recovery

All of the preceding operations are either operating or funded for construction. One other activity that should be mentioned at this time is the work being carried out by the National Center for Resource Recovery, Inc. NCRR is a nonprofit corporation based in Washington, D.C., organized by 12 industries and labor unions. Its board of directors include public members and educators.

Devoted to the furthering of resource recovery, NCRR is setting up a network of sites with facilities for extracting all the economically valuable materials from mixed municipal solid waste. Their initial efforts are in "Front End Separation" or separation of the valuable materials before they reach the incineration, hydro-pulping, or pyrolizing stages. The first site will be in New Orleans where a private firm will process over half of the city's solid waste.

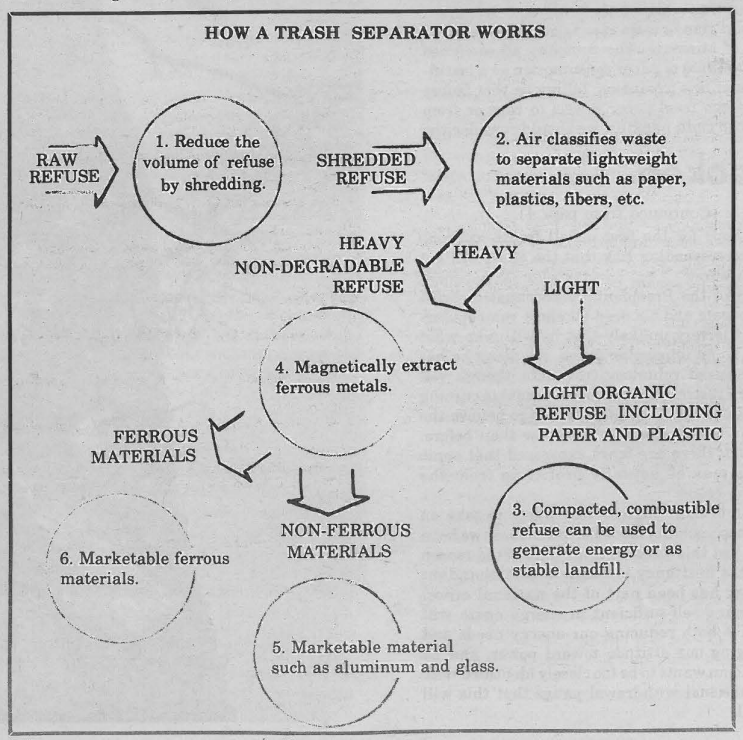
The city will save 50% on its disposal costs and the recovered material is expected to have a gross value of about $900,000 a year. New Orleans will also share in the profits from the sale of the recovered aluminum, paper, glass and steel.

The NCRR program will display and evaluate new technology for recovering resources from mixed municipal refuse and it will serve as a catalyst in the development of a new industry consisting of self-sustaining resources recovery facilities.

# Center Offers Recycling Advice

Good advice on how to start your own neighborhood recycling center is available from some recycling veterans in Berkeley, Calif.

To receive their wisdom send a stamp and-or a small donation to the Community Solid Waste Reduction and Recycling Program, The Ecology Center, 2119 Allston Way, Berkeley, Calif. 94104. Their 14-page pamphlet is aimed at instilling "an ecological conscience that may directly influence our ability to survive."



# Where to Go to Recycle

**Editor's note: Here's Part II of our guide to recycling in the Northern Rockies. For Part I, which covers Colorado and part of Idaho, see page 6 of the Dec. 7 issue.**

## Idaho

MOSCOW
— Bennett Distributing Co., Route 1, South Palouse Tract — aluminum.
— Empire Beverage of Lewiston, 723½ Main St. — aluminum.
— Larsen Distributing Co., 1020 S. Main— aluminum.
— Mitchell Distributing Co., 211 W. 8th St.— aluminum.

MOUNTAIN HOME
— Boise Sales Co., 655 S. Second East— aluminum.
— General Distributing Co., 690 S. Main St.— aluminum.

NAMPA
— Nampa Distributing Co., 1012 Fourth St., N. — aluminum.

POCATELLO
— Gate City Distributing, 1643 N. Second— aluminum.
— Kinport Beverage Co., 602 S. First Ave.— aluminum.
— Thompson Distributing Co., 555 S. First Ave. — aluminum.

ST. MARIES
— Benewah Distributors, 7th and Railroad— aluminum.

SALMON
— Drewes Distributing, Inc. 720 Union Ave.— aluminum.
— K & S Distributing, Andrew & Van Droff Sts. — aluminum.

SANDPOINT
— Eller Distributing Co., 411 Superior— aluminum.
— Madsen Distributors, 1110 Superior St. — aluminum.
— Northern Beverage Co., 208-623-3010— aluminum.
— Sandpoint Distributing Co., Railway Ave.— aluminum.

SODA SPRINGS
— Mason Distributing Co., 45 E. First South— aluminum.
— Reddish Distributing Co., 159 E. 1st South— aluminum.

TWIN FALLS
— Del's Distributing Co., 207 Gem St., S.— aluminum.
— Twin Falls Beverage Co., 356 Bridge St.— aluminum.
— Western Beverage, Route 1, Orchard Dr.— aluminum.

WALLACE
— Magey's Distributing Co., Nine Mile Rd.— aluminum.

WEISER
— Hovde Distributing Co., 147 W. Commercial— aluminum.

## Wyoming

CASPER
— Stoval Beverage Co., 339 W. 12th St. — aluminum.
— Western Distributing Co., 301 W. B St. — aluminum.

CHEYENNE
— C & C Beverages, 1111 Dunn Ave. — aluminum.
— Cheyenne Beverage, Inc., 401 E. 15th St.— aluminum.

EVANSTON
— Yellowstone Wholesale Co., Interstate No. 80, East of Evanston Park Rd. — aluminum.

JACKSON
— Yellowstone Wholesale Co., 242 Simpson St. — aluminum.
— Recycling Center, the County shed east of town across from the car body yard, open Sat. 11 a.m. to noon, glass, beer containers.
— for more information about recycling in Jackson contact Barbara Zimmers, P.O. Box 505, Jackson 83001, phone 307-733-2603.

LARAMIE
— Jack Longpre Distributor, 850 N. Third St. — aluminum.
— Smith Beverages, 201 Lewis St. — aluminum.

MILLS
— Mel Gregg, 807 Midwest Ave. — mobile compressor unit which will flatten automobiles, cost about $5 per car.

RAWLINS
— Rawlins Distributing Co., 421½ E. Cedar St. — aluminum.

RIVERTON
— Peterson Distributing Co., 102 E. Park Ave. — aluminum.

ROCK SPRINGS
— Bertolina Wholesale Co., 413 Morgan Ave. — aluminum.
— Yellowstone Wholesale Co., 700 Broadway — aluminum.

SHERIDAN
— Big Horn Beverage Co., 225 Broadway — aluminum.
— Metz Beverage Co., 300 N. Custer St. — aluminum.

TORRINGTON
— Collins Distributing Co., 2702 E. A St. — aluminum.

WORLAND
— Charles A. Alexander, 1133 Big Horn Ave. — aluminum.
— Teton Distributing, Inc., 821 Pulliam Ave. — aluminum.

## Montana

BILLINGS
— Fred Briggs Distributing Co., 3928 First Ave. S. — aluminum.
— Intermountain Distributing Co., 2201 Minn Ave. — aluminum.

BOZEMAN
— Rudy's, Inc., 707 E. Peach St. — aluminum.

BUTTE
— Bertoglio Storage & Distributing Co., 800 Utah Ave. — aluminum.
— Kenny's Distributing Co., 1015 S. Montana — aluminum.
— Reynolds Wholesale Distributing Co., 200 Watson Ave. — aluminum.

DILLON
— Beaverland Bar Supply, 129 N Montana — aluminum.

GLASGOW
— Glasgow Distributors, 725 Railroad Alley — aluminum.

GLENDIVE
— Glendive Coca-Cola Bottling Co., 220 S. Douglas — aluminum.

GREAT FALLS
— Giannini & Son Distributing Co., 115 First St., S.W. — aluminum.
— Gusto Distributing Co., 624 Third Ave., W. — aluminum.

HAVRE
— Gusto Distributing Co., 1229 First, S. — aluminum.
— Havre Distributors, Inc., 935 First St. — aluminum.

HELENA
— Clausen Distributing Co., One Mile West of Helena — aluminum.
— Mt. Helena Distributing Co., 1421 Montana — aluminum.
— Rosin Distributing Co., Great Northern Ind. Site — aluminum.

KALISPELL
— B & B Beverages, 439 W. Center St. — aluminum.
— Carver Distributing Co., 75 Fifth Ave. — aluminum.
— Lee Distributing Co., 22 5th Ave. W. — aluminum.
— Lee Distributing Co., Heidelberg Recycling Center, 22 Fifth Ave. West — aluminum.

LEWISTON
— Johnson-Nicholson Co., 403 Dawes — aluminum.

LIBBY
— Kemp Distributing Co., 209 W. Second — aluminum.

LIVINGSTON
— Bridger Distributing Co., 131 E. Park St. — aluminum.
— Valley Distributing Co., 509 E. Park — aluminum.

MILES CITY
— Ace Beverage Co., 307 Palmer — aluminum.
— Dodd Distributing, 419 N. 9th St. — aluminum.

MISSOULA
—For Recycling Center information contact Doug Stewart, 901 Toole. The center also has branches in Butte, Billings, Great Falls, Bozeman, Helena and Livingston.
— Earl's Distributing Co., 510 E. Railroad — aluminum.
— Zip Beverage Co., 938 Phillips St. — aluminum.

ROUNDUP
— Roundup Bottling Co., 220 Second St. — aluminum.

SHELBY
— Pennington's Inc., 815 Oilfield Ave. — aluminum.
— Shelby Distributors, 120 Central Ave. — aluminum.

## Utah

CEDAR CITY
— William E. Topham, 476 N. 200 West — aluminum.

HELPER
— Helper Mercantile Co., 51 N. Main St. — aluminum.

LOGAN
— D.W. Hess & Sons, 54 W. First North — aluminum.

OGDEN
— Jackson Distributing Co., 615 W. 12th St. — aluminum.
— Wasatch Distributing Co., 2429 Grant Ave. — aluminum.

OREM
— J & J Distributing Co., 345 S. Main — aluminum.

PRICE
— Johns Distributing Co., 129 First West — aluminum.

PROVO
— Big Four Distributing Co., 304 E. Ninth St. — aluminum.
— American Auto Wrecking & Salvage, 2403 S. State St.— auto baling.

RICHFIELD
— Bill Winkle Distributing Co., 425 E. 4th St. — aluminum.

SALT LAKE CITY
— Better Brands, Inc., 185 W. 3300 South — aluminum.
— M & M Distributing Corp., 995 S. 4th W. — aluminum beverage cans (10 cents per pound), Coors bottles (1 cent each if not broken or chipped).
— University of Utah Recycling Center, turn right on Hempstead Rd. at a small gravel road marked Scout Service Center. At the end of that road there is a small green shack under a tree, on the left side of road — aluminum (rinsed and flattened), newspaper (bundled in 8 to 12 inch stacks), bond paper and cardboard.
— Polly Conners, 1221 E. 7th South — aluminum, steel and newspaper.
— Jeannette Conns, 801-262-3815 — aluminum and newspaper.
— Cottonwood High School, 5715 So. 13th E. — aluminum and newspaper.
— Betty Carver, 2433 W. 3965 South — newspaper.
— Jean White, 277 E. 5300 South — newspaper and aluminum.
— 1st Baptist Church of Bountiful, 801-295-6631 — aluminum and newspaper.
— Yale Ward, 1431 Gilmer — aluminum and newspaper.
— Treva Thomas, 3258 E. Oak Cliff Dr. — will pick up newspaper and aluminum. Profits will send Girl Scout Troup to camp in Europe.
— Mrs. Vi Judge, 3381 Terrace View — newspaper and egg cartons.
— West Jordan Scout Troup, 7625 S. 1530 East — newspapers.
— Upland Terrace Elementary School, 3700 S. 2760 E. — newspapers.
— E. Gilbert Hall, 2061 E. 3900 South — egg cartons.
— Cackling Acres, 2666 W. 4700 South — egg cartons.
— Merle Rushton, U. of Utah — leaves and lawn clippings.
— Merle Wilson, 215 10th Ave. — leaves and lawn clippings.
— Dave Ronniger, 2185 S. 7400 West — leaves and lawn clippings.
— Murray's Meat Market, 1990 E. 33rd South — fat.
— Zion Book Store, College Book Store, Salt Lake Library — used books.
— General Distributing Co., 1475 S. 6th West — aluminum beverage cans : 10 cents per pound.
— Wasatch Metal and Salvage Co., 205 West 3300 South — aluminum cans and other metal.
— Learner Pepper Co., 4221 W. 7th South — junk cars and car parts: about $11 per ton.
— Pepper's Allied Metals Co., 401 W. 9th South — aluminum cans (5 cents per lb.), steel cans ($10 per ton, minimum of one ton), brass, copper, batteries, radiators (27 cents per lb.), heavy iron, aluminum siding.
— Cellulose Insulation, 136 E. Center St. — newsprint: $12 from 1 to 3 tons, $15 over 3 tons, in bundles.
— Insul-down Corp., 8989 S. 6th West — newspaper bundled 8 to 12 inch high stacks: $16 per ton.
— Spafford's West Paper Co., 1206 Beck St. — corrugated cardboard (not food boxes with shiny surface) $9 per ton, bond paper $5 per ton, IBM cards $40 per ton, computer paper (no carbons) $8 per ton, newspaper (bundled) $6 per ton.
— Jackson Distributing Co., 615 W. 12th South — aluminum.
— Wasatch Distributing Co., 2429 Grant Ave. — aluminum.

VERNAL
— C & H Distributing Co., 500 W. Hwy. 40 on 5th S.E. — aluminum.

# Hatfield Introduces National Bottle Bill

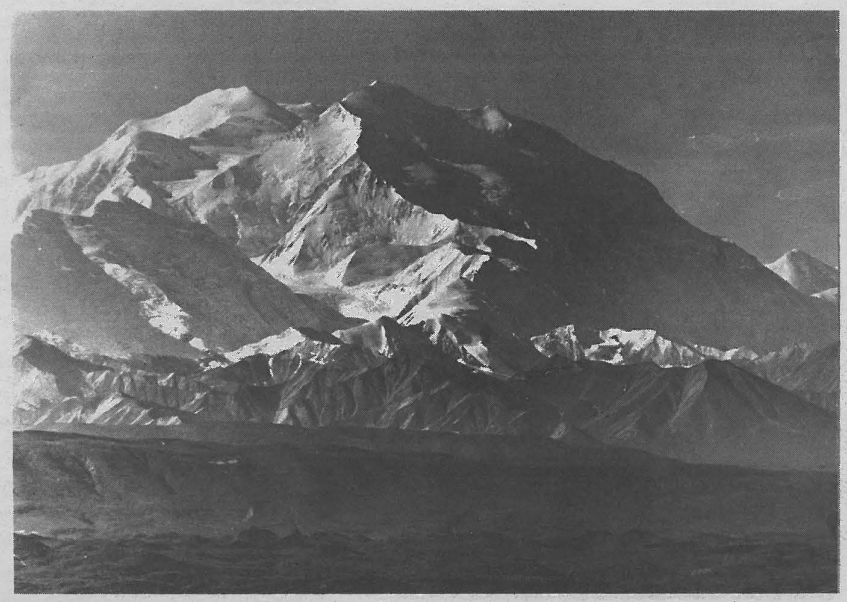
**Sen. Mark Hatfield (R-Oregon) has introduced national legislation which would have an effect similar to the Oregon Bottle Bill. His bill, S. 2062, would ban the shipment and sale of non-returnable beverage containers in interstate commerce and would ban all "flip-top" cans.**

**In introducing the bill, Hatfield cited a study by Bruce Hannon of the University of Illinois. The study showed that the energy required to deliver a unit of beverage to the consumer is about three times more in a throwaway glass container than in returnable bottles. In addition to energy savings, Hatfield said, a similar bill in his state had cut down on the beverage container portion of litter by at least 49% between the winter of 1971 and the winter of 1972.**

**The Oregon Environmental Council says that citizens who support the bill should write to their Senators. They should be asked to support S. 2062 and to join Senators Case, Hughes, Packwood and Kennedy as co-sponsors of the bill.**

"Without a good show of support," the Oregon council says, "we could likely be overwhelmed at the hearings by the beverage container industry."

# The Many Face



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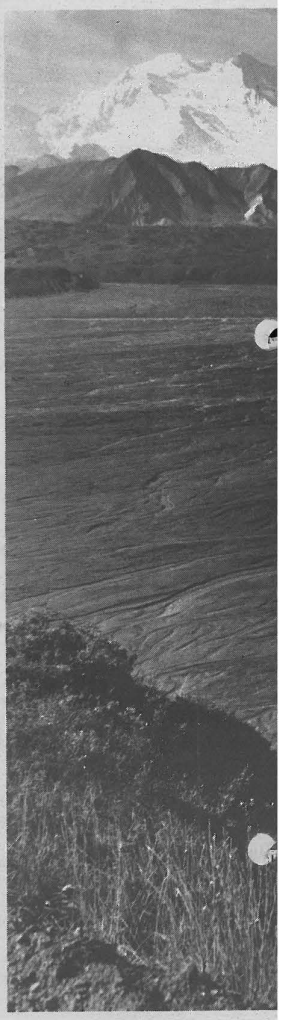

Photos

# Mt. McKinley

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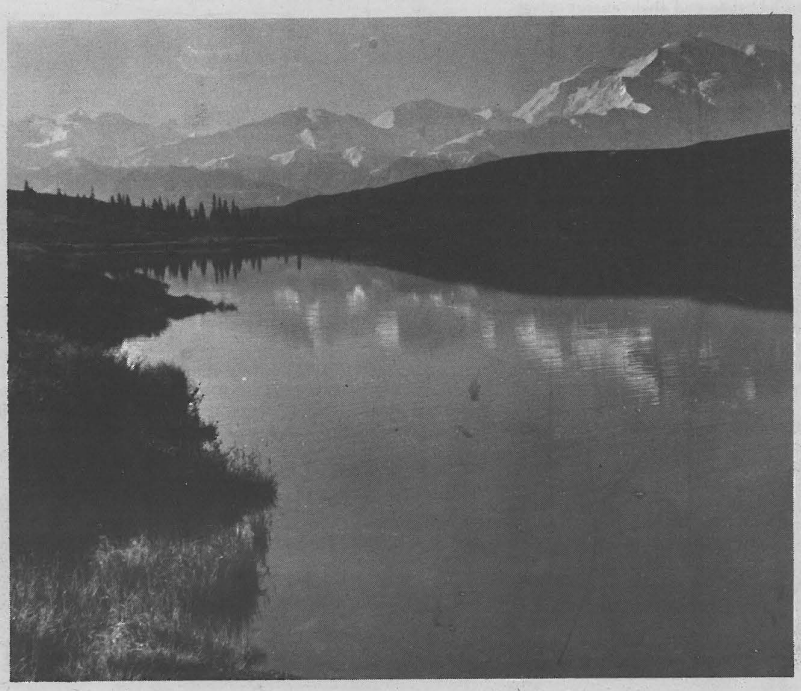

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# Reckoning from Washington

by Lee Catterall

While nature lobbyists and their energy adversaries continue the strip-mining debate, the government is being advised of another problem caused by energy development in Wyoming: a skyrocketing population that could spawn alcoholism, delinquency and suicide. In short, a government memo warns, "human misery."

In a memo to the Interstate Commerce Commission on a proposed railroad to haul coal from the Powder River Basin, Casper's Bureau of Land Management Office frets about the impending population boom. The memo was prepared by Casper BLM staffer Bruce B. Talbot and endorsed by Richard M. Kerr, head of BLM's district office in Casper.

The population boom "may cause more human resource problems than the ecological damage of strip mining itself," the memo says. Neither Gillette nor Douglas "has the capability in terms of avoiding severe social and environmental impacts caused by population increases which will conservatively double by 1980."

A study conducted by the State of Wyoming, based on industry responses to a questionnaire, forecasts that the basin, which is home for about 110,000 people now, will have 30,000 newcomers in the next six years. By 1990, the population is expected to be twice today's size.

Oil and gas already have doubled Gillette's population over the past decade, Talbot's memo points out, "and produced what has been termed the 'Gillette Syndrome' by a local social psychologist."

In describing a speech given by psychologist Dr. Eldean V. Kohrs early this year, the memo discusses the effect on people caused by Gillette's doubling from 3,500 to 7,200.

"It includes the three A's: alcohol, accidents and absenteeism, as well as the three D's: divorce, delinquency and depression. These results become social costs and are very significant in both terms of human misery and dollars.

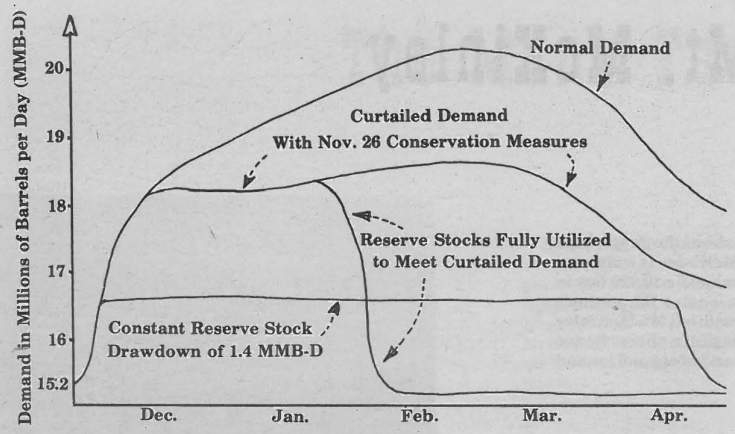
"For example," the memo continues, "Gillette, with 8,000 people during a four-year boom period, averaged one suicide per week; this is ten times the national average. This town also has one of the highest delinquency rates, high school dropout rates and divorce rates in the nation."

Talbot contends that the basin's town and counties "do not have adequate planning bases and are reluctant to establish them. This is attributed to a deep-rooted philosophy of independence plus a past stable growth pattern, a need for additional state legislation enabling planning and zoning, and lack of state aid in the form of technical planning expertise or funding."

In the memo, BLM's Casper office recommends that the railroad's approval by the ICC await an environmental impact statement of coal development generally in the Powder River Basin. Government sources have said that is the direction the ICC intends to take.

But the memo's alarmist tone also tends to echo the opening lines of an incomplete but widely-circulated consultant's report to Atlantic Richfield Co., one of the firms planning coal operations in the basin. The report, done for industry and not by an environmental cynic, begins:

"The national image of Wyoming, perhaps the state's own self image, is that of the natural west, the prairies, the mountains, the open sky, and an occasional vigorous, but small, country town. Of all this, the mountains seem certain to remain."




**An analysis of the energy shortfall this winter. A supply of 15.2 Million Barrels per Day (MMB-D) represents our assured supply. If no conservation measures are taken the maximum shortfall of 5.1 MMB-D would occur in February. With conservation measures this shortfall would be 3.4 MMB-D. To alleviate this energy gap, we will turn to our reserve stocks. If the stocks are applied to meet the curtailed demand they will be depleted by the end of January and the severe February shortage will remain unchanged. On the other hand, if the reserves are used at a steady rate of 1.4 MMB-D for 120 days, the February shortage will be lessened substantially.**

# Jackson Reveals Energy Shortfall

An analysis of the current energy situation which projects actual shortfalls in oil supply as high as five million barrels a day by the spring of 1974 was released today by Senator Henry M. Jackson, Chairman of the Senate Interior and Insular Affairs Committee.

The study assesses the impact of the Arab oil embargo and the likely effects of the President's energy conservation program. It shows that even if the President's energy conservation program is fully effective, shortages of 1.6 to 2.0 million barrels per day at least will persist throughout the winter.

"This analysis is the first thorough, frank assessment of our energy situation to have been made available to the public by any branch of the government," Jackson said. "In analyzing potential shortfalls, it makes clear that the failure to take decisive action now invites devastating economic impacts next spring. It also makes clear that the Administration must not only face up to the need for immediate gasoline rationing but must also take urgent steps to reduce the drawdown of inventories now taking place.

Our most immediate cause of concern, according to the report, is the manner in which inventories of gasoline, heating oil, and other petroleum stocks will be used. If inventories and stocks now on hand continue to be drawn upon, as is now the case, to make up for the shortage through the rest of December and early January the mid-winter shortfall beginning in early February could reach 3.4 million barrels per day.

To the extent that full compliance with the President's conservation plan is not achieved, this shortfall will be even greater. In fact, if the announced conservation plan is not effective, the mid-winter shortfall could reach over five million barrels per day. Even assuming maximum effective implementation of the President's plans, the nation faces severe gasoline and crude oil shortages in late spring, when inventories will be reduced to absolute minimum levels.

"While this report emphasizes the need for action, it also underscores the fact that our energy problems are manageable," Jackson said. "Skillfull execution of the emergency rationing and conservation measures authorized by the Energy Emergency Act can save jobs and businesses and avert intolerable economic hardships.

The report was prepared for the Senate Interior and Insular Affairs Committee, at the request of the Chairman, by Dr. Benjamin Cooper of the Committee staff. It is the first full description of the causes and extent of the present energy emergency and of its implications.

"Since the outbreak of war in the Mid-East," Jackson said, "the Administration has consistently failed to inform the American people just how serious the resulting oil shortages could be. The public has been misled and confused by sugar-coated descriptions of the problem, widely fluctuating descriptions of current and impending shortages, and the lack of resolute action to meet this threat to our security, economy, and well-being," Jackson charged.

"If we expect public support for tough programs to deal with the energy crisis, people must be given the facts about the extent of fuel shortages, the adverse impact of the shortages and steps which must be taken to minimize that impact. That can only be done by the publication of concise and factual information which both defines the problem and sets forth the optimum course of actions for its solution."

Single copies of the report are available by writing the Senate Committee on Interior and Insular Affairs, Room 3106 D.S.O.B., Washington, D.C. 20510.

## Bulletin Board

A Tri-State Fossil Fuels Energy Conference will be held at the Brown Palace Hotel in Denver on Jan. 31 and Feb. 1. Participants will discuss the energy resources of Colorado, Wyoming and Utah. Speakers will include John A. Love, former chief energy advisor to the White House, and New York Gov. Nelson Rockefeller. Governors from each of the three states will also speak. The conference is sponsored by the Edward Teller Center for Science, Technology and Political Thought in Boulder, Colo.

Registration fee, including meals, is $50. Write to Tri-State Fossil Fuels Energy Conference, 1321 Bannock St., Denver, Colo. 80204.

**Geothermal energy may be one of those untapped resources whose time has come. Lone Star Geyser in Yellowstone National Park is only one of many indications of thermal activity beneath the earth's surface in the region. North of Yellowstone in Montana and southwest on the Snake River Plain in Idaho are vast resources.**

**Recently, the Atomic Energy Commission has requested land withdrawals of the Bureau of Land Management in Idaho and Nevada. Some 80,000 acres of public land mostly in the Raft River Valley of Idaho, and 88,000 acres in three potential areas of northern Nevada have been requested. In both states, the AEC proposes an experimental 10-megawatt powerplant to be built and operated in conjunction with private industry. It is projected that demonstration plants costing about $7 million could be started by the spring of 1975. The AEC has about $1 million committed for research in the two areas.**

**Photo credit Wyo. Travel Commission**

# Emphasis ENERGY

## in the Northern Rockies and Great Plains

**Occidental Petroleum Corp.** has reportedly made a major breakthrough in its in-situ oil shale experiments. The company has succeeded in creating permeability in the oil shale formation and thus obtaining an oil flow. The Department of Interior has largely discounted extracting shale oil in-situ because of the difficulty in obtaining suitable permeability.

In-situ production involves drilling into oil shale deposits and producing the shale oil by heating the rock in place. No mining is necessary. This would minimize water demand and eliminate the surface disposal problems involved in underground or surface mining technologies.

Occidental chairman Armand Hammer said the method could produce large quantities of low-cost oil within three to five years. He predicts a cost of $1.18 per barrel.

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The **State of Idaho** is seriously looking at solar energy and windmills to help supply power for mountain-top microwave communications systems. The systems are used by State Police, the Highway Department, Fish and Game Department and other agencies.

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Colorado **Sen. Peter Dominick** attached an amendment to the $20 billion energy research and development bill to provide for research on "gobar gas." "Gobar" is the Hindu word for cow manure from which methane gas can be made. The amendment would set out as a research priority a determination of "the economics and commercial viability of the production and use of methane gas." The gas would be made from animal wastes. (For more on biogas, see page 14.)

A Bozeman, Montana, legislator, **Tom Rolfe** says he will seek a state law permitting automobile dealers to remove all that "gasoline-gobbling, pollution-control gear." Rolfe is a 23-year-old automobile dealer.

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The **Burlington Northern Railroad** and the **Chicago and Northwestern Transportation Co.** have advised the Interstate Commerce Commission that they have reached an agreement on joint construction of a railroad in Wyoming. The railroads had each filed for a separate line through the coal fields of Northeast Wyoming. BN's application called for a 126-mile line between Douglas and Gillette. (See High Country News, Nov. 23, 1973, page 11.)

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The **Crow Tribe** is preparing economic and technical data which will be helpful in renegotiating coal leases on Indian coal rights. The rights are on coal now leased to Westmoreland Resources in the Sarpy Creek area south of Hysham, Montana. The Crow have rights on a ceded strip covering more than 150,000 acres. The tribe wants a higher royalty and an escalation clause. The present lease agreement calls for a 17½ cent per ton royalty.

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The **Northern Cheyenne Indians,** whose reservation adjoins the Crow reservation on the east (located east of the Custer Battlefield), have protested coal lease renewals on their land. Chevron Oil Co. has requested renewal of a coal exploration permit in the face of tribal action to void all agreements on coal. The Indians say the Bureau of Indian Affairs failed to get a fair price for leases on several billion tons of coal on their reservation.

# The Hot Line

## across the country

The vice president of the New York consulting firm of Ford, Bacon & Davis, Inc., says White House efforts to avoid an energy shortage fall far short of heading off critical U.S. shortages. **Gerard C. Gambs** says we need immediate rationing of fuels, repeal of the Clean Air Act, and big increases in wellhead prices for oil and gas. He says we are going to have to "breathe a little sulfur if we want to keep our industries going." He recommends the lifting of bans against high sulfur coal for up to 10 years.

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A vice president of **Phillips Petroleum Co.,** George L. Bishop, told the World Trade Association that domestic oil production in the U.S. has reached a peak. He said there is no way domestic production can meet growing demands.

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In an editorial in **Environmental Science & Technology,** Managing Editor Stanton S. Miller says small particulates in air emissions "are an emerging air pollution problem. Their control is one of EPA's five top priority items for the agency's environmental engineering mission." Miller asks the question, "Who's afraid of small particles?" And answers by saying, "Everyone should be afraid of such particles. Equipment is not available to control them."

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The president of **Ohio Edison Co.,** D. Bruce Mansfield, told the Ohio Public Utilities Commission that a government ban on Christmas lighting would do nothing more than "cause the electric utilities to lose revenue." He said that electricity is available for holiday season lighting because it is a period of low demand. Ohio is one of the states hardest hit by strip mining for coal. Ohio's electric utilities rely on coal for about 95% of their production.

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**Australia's** crude-oil reserves are down to a life expectancy of only eight years, according to an article in **The Oil and Gas Journal** (Dec. 10, 1973).

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**John W. Simpson,** President of Westinghouse Power Systems Company, says the U.S. can become energy self-sufficient by 1985. Simpson told a Senate hearing that to achieve self-sufficiency coal would have to be mined at a rate three times that of 1972 and 500,000,000 kilowatts of nuclear generating plants would have to be operating by 1985. Westinghouse is one of the nation's major suppliers of nuclear reactors.

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**Assistant Secretary of the Interior John Kye** told the Northwest Mining Association that within "five to ten years this country will have a materials crisis which will make this energy shortage look like a Sunday school picnic." He said that to meet the shortage would require greatly expanded mineral production.

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**Idaho Power Co. President Albert Carlsen** says nuclear power was provided for us through divine providence. But he told the Greater Idaho Falls Chamber of Commerce that people may not wake up to the problems (of the nuclear power industry) created by small and often irresponsible special interest groups.

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**Sewer gas** may be one of the country's most valuable, untapped sources of energy. According to the dean of the College of Engineering at the University of Texas, Dr. Ernest Gloyna, a city of 40,000 might produce enough sewer gas in a day to make between 300 and 400 gallons of gasoline. The Texas Water Quality Board has approved a grant of $5,000 to the engineering school to study the feasibility of developing uses for the sewer gas.

# Colorado Fights to Control Blasts

by Ron Wolf

DENVER — CER Geonuclear Corp., the folks who brought you the Rio Blanco underground nuclear explosion, are quietly preparing a legal action which may clear the way for more nuclear blasts in the state. At issue is the question of whether the State of Colorado has the legal right to regulate such activities within the state. CER Geonuclear claims they do not.

Six months ago environmental groups unsuccessfully tried to stop the 90-kiloton Rio Blanco blast, an explosion fives times the size of the Hiroshima detonation. In their lawsuit the environmentalists claimed that the Colorado Water Pollution Control Commission improperly issued a permit for the experiment. CER, in defense of the blast, alleged that no state permits were required because the federal government had exclusive jurisdiction over nuclear matters.

District Court Judge Harry Santo allowed the shot to proceed, ruling at the time that (1) the State of Colorado did, in fact, have the authority to regulate the Rio Blanco blast, but (2) the state permits had been properly issued.

Now CER is uncomfortable with the first part of Santo's ruling, and does not want such a precedent on the books, so they are seeking to have the decision overturned.

### MORE BLASTS PLANNED

William Tucker who will be representing the state in the appeal says that the effect of a modification in Judge Santo's ruling will be "that in any future detonations, the state wouldn't have anything to say."

The big question is why is CER pursuing the appeal. Officials at the company have been claiming for months that they have no plans for any additional nuclear explosions in Colorado. Denver Attorney Ted Worcester who is handling the appeal on behalf of CER says, "I really don't know of anything else they have in the works."

But environmentalists point to the energy crisis and claim CER and the Atomic Energy Commission will try again. Attorney David Engdahl who brought the original suit claims the reason for the appeal is that "they are obviously expecting Congress in due course will pass the necessary federal legislation to make more blasts possible."

Tucker says bluntly, "They are probably planning more blasts in the future."

### AEC IN THE WINGS

Another theory for the appeal is that it is not the work of CER but of the AEC. Supposedly CER has little to gain from antagonizing state officials with such a suit.

Claims one Colorado state official, "Whether they admit it or not, the AEC is probably calling the shots."

Attorney Tucker points out, "Even though CER is a private corporation, they are carrying out the Plowshare program which is an AEC project." Engdahl claims, "It may be that the AEC is more interested in pursuing this."

However, CER's attorney, Worcester, claims, "We have not dealt with anyone from the AEC here."

A phone call to the office of the General Counsel to the AEC in Washington indicates otherwise. The AEC has a full-time attorney, James Glasgow, working on the case. Glasgow himself was not available for comment.

Still another theory for the timing of the appeal is that CER and AEC officials are now have the right to impose standards on nuclear power plants which are stricter than the federal standards. The effect of that case was to establish that the states do not have jurisdiction in the area of nuclear power plants.

However, that case may not apply here. For one thing, Colorado is a so-called "agreement state," where the AEC has officially acceded to state control in certain areas. For another thing, the contract between the AEC and CER contains certain provisions that the company will abide by all state laws.

Perhaps the most unusual aspect of the whole affair is the strange bedfellows it has created. In the original case, environmentalists sued both CER and the State of Colorado. Now, in the appeal, the environmentalists and the State ironically find themselves on the same side, perhaps for the first time. Citizens for Colorado's Future, an organization which has grown up principally in opposition to the state government, may now be filing a brief together with the State Attorney General.

The strange alliance is probably indicative of the future of nuclear detonations in Colorado. When the environmentalists and the State can agree on anything, the prospects look poor for the other guys.

afraid of a possible move to halt all nuclear detonations in the state. Environmental Action, an environmental group based at the University of Colorado Denver Center, has drafted two versions of a possible amendment to the state constitution which would have that effect. The group is seriously considering a petition drive to have such an amendment put to a vote of the electorate next year.

The only possible defense against such a move would be for the AEC and CER to establish that the state does not have jurisdiction. Then any initiated amendment would be meaningless.

### STRANGE BEDFELLOWS

Ultimately the appeal will be decided by the Colorado Supreme Court and maybe even the United States Supreme Court. Already attorneys for all sides have made the proper legal moves for the case to go directly to the State Supreme Court. William Tucker, the state's attorney, says he is "glad" the appeal is proceeding, and thinks "the state is on fairly good ground."

One problem is that a previous court decision in Minnesota established that the states do not

*Almost Big Business*

# Montana Recycling Complex Grows

by Robin Tawney

Doug Stewart and Mark Richlen opened their first recycling center Oct. 15, 1971, in Missoula, Mont. They did it as a means of earning money while in college. Today they have seven recycling centers in as many cities throughout Montana and plan to double that number in 1974.

Last January Stewart and Richlen fought the passage of legislation in Montana patterned after the Oregon Bottle Bill. The Montana bill, sponsored by Rep. Dick Colberg, D-Billings, would have required minimum refunds on all beer, malt beverage and carbonated soft drink containers and outlawed the sale of flip-top or pull-tab containers.

Stewart and Richlen objected strenuously to a provision which would have allowed persons to establish redemption centers, subject to the approval of the Liquor Control Board, at which consumers could return empty beverage containers and receive payment for their value. The bill, which was killed because of an adverse committee report, would have introduced competition in recycling and "put us out of business," Stewart said.

Oregon should be given time to complete studies on the effectiveness of its bill before Montana tries to enact a similar law, according to Stewart. "If their centers are less efficient than or just as efficient as our own operation, why pass such legislation in this state?" he said.

Asked if he would favor legislation which only required returnable containers, Stewart said he would "go for a piece of legislation if it is needed."

He noted that he plans to meet with the U.S. Brewers Association this winter to try convincing them to use returnable or recyclable containers.

He and Richlen consider their operation a forerunner of a growing industry in recycling. Before opening their first center in Missoula, Stewart traveled around the nation visiting with brewers and studying other recycling operations.

Most of these operations were volunteer or subsidized by the government, he said, and for one reason or another were not managed efficiently. Proper management necessitates a sound knowledge of markets, freight rates and other areas.

So what the two college students began as a part-time job became a full-fledged industry.

"We wanted to prove to industry and people in the United States that recycling can be profitable," Stewart said. "And we did."

The pair started a center in Billings last fall and since Jan. 1 of this year they have opened centers in Bozeman, Livingston, Butte, Great Falls and Helena.

Stewart and Richlen plan to expand their operation to several eastern Montana cities during 1974 and look to Idaho, Wyoming and South

Dakota as possible center locations in the future.

The Montana recycling centers are handling only materials which are economically feasible to recycle, according to Stewart. Glass beer and pop bottles and aluminum products are recycled in most areas. Newspapers are accepted in Missoula where the two did extensive research on recycling newsprint. Stewart hopes every Montana center will be able to accept all paper products by the end of 1975.

Steel cans are recycled in Butte where they are used experimentally by the Anaconda Co.

Stewart and Richlen seek funding for a comprehensive study of the energy crisis as it relates to packaging. "Many studies have been made on the energy crisis and no two are the same," Stewart said.

Citing figures which show more packages are produced from one pound of aluminum than from a pound of steel or glass, he said aluminum may turn out to be an "energy bank."

"The lighter the package, the less fuel is needed to transport it," he said. "What are they (people seeking to ban aluminum cans) trying to destroy?"

# Western Roundup

## Park Proposal in Jeopardy

National conservation leaders are dismayed at plans to dismantle some of Alaska's most spectacular scenery and give it over to the U.S. Forest Service. A proposal for a **Wrangell-St. Elias Mountains National Park** in south-central Alaska, and bordering Canada, is now in jeopardy. Conservationists charge Secretary of the Interior Rogers Morton has capitulated to Secretary of Agriculture Earl Butz and mining and timbering interests in agreeing to large areas being turned over to the Forest Service. One of the areas of most concern is the Chitina River Valley between the Wrangell and Chugach Mountain Ranges. Conservationists maintain the valley is an ecosystem which should be maintained without development and disruption.

## Idaho Wilderness Draws Comment

One of the largest remaining wilderness areas in the Lower 48 came in for heavy discussion at public hearings in Idaho recently. The **Idaho and Salmon River Breaks Primitive Areas,** separated by the Middle Fork of the Salmon River, are being reclassified by the U.S. Forest Service. Public hearings are being held to get comments on the reclassification.

Idaho Gov. Cecil Andrus personally testified for a wilderness of 1.8 million acres and the fullest possible protection for the Salmon River. His proposal would go beyond the 1.5 million acres proposed by the Forest Service.

The major pro-wilderness proposal was made by the River of No Return Wilderness Council. Director Ernie Day of Boise said wilderness should be extended to all of the present primitive areas plus contiguous lands for a total of 2.3 million acres. Day outlined the Council concerns in proposing the larger area.

Boise Cascade Corporation and a spokesman for Outdoors Unlimited called for complete declassification of the areas and "multiple use" for the entire area.

## Wilderness Use Increases

Wilderness use on **Wyoming's Bridger Wilderness** has increased 800% since 1966. Visitor use increased by 32% during the 1973 summer season alone. As a result of the accelerating use, Bridger-Teton Forest Supervisor Charles T. Coston has announced a moratorium on expanded commercial use of the area. Use will be curtailed at 1973 levels until the Wilderness Management Plan is completed and a carrying capacity can be established. A total management system is anticipated by 1975.

## Incinerator Produces Power

**Malheur County, Oregon,** may go to a garbage-burning incinerator to get rid of solid wastes and produce steam for a food processing plant. It is estimated that garbage could produce up to one-third of the power needs for the Ore-Ida Foods processing plant at Ontario. Garbage volume would be reduced about 90% by the incinerator which is built by Clear Air, Inc., of Ogden, Utah. The incinerator is looked upon as an answer to a serious solid waste disposal problem.

## Health Dept. Sets Good Example

**Colorado's Department of Health** is trying to set an example for others to follow. About 15% of the Department's employees walk, bicycle, or ride a bus to work. For those who bicycle, there's a secure, fenced-in area in which to park their bikes. The Department was one of the first organizations in the state to provide incentives for employees to carpool, offering a reserved slot in a space-shy parking lot. The carpool is also extended to others working in the same general area.

## Burec Threatens Upper Green Again

Wyoming's nationally recognized Upper **Green River** is once more being threatened by Bureau of Reclamation projects. The Bureau is to start investigations in 1974 on a $100,000 study to determine the most feasible reservoirs in the Upper Green River Basin to regulate streamflows. Purpose of the reservoirs would be to deliver municipal and industrial water to the North Platte River. A secondary avowed purpose would be to improve the water supply for the disastrous Eden irrigation project.

## Dams Reduce Fish Population

Dams in the Northwest continue to make inroads into fish populations. Wildly fluctuating water levels below Cabinet Gorge Dam is blamed in part for a decline of game fish in the world-famous **Lake Pend Oreille** in Idaho's Panhandle. Kokanee salmon populations have drastically declined. Record-breaking Kamloops rainbow trout may be jeopardized because they feed heavily on the smaller salmon. Critics of the Washington Water Power Co. say the utility could even-out the flow from below the dam and provide a minimum flow which would benefit fish.

Steelhead trout were down about 40% in numbers at **Ice Harbor Dam** on the Lower Snake River. Idaho fishery biologists cannot explain the loss but surmise it might have been due to construction acitivity at the dam.

**Hells Canyon Reservoir has already submerged some of the mightiest rapids of the Snake River. Here at Black Point the water is over 200 feet deep. Shown above are the Wallowa Mountains of Oregon on the left and the Seven Devils of Idaho on the right.**

**Hearings were held Dec. 6 in La Grande, Oregon, and Dec. 14-15 in Lewiston, Idaho, on the future and fate of what remains of North America's deepest river gorge. The Senate Subcommittee on Parks and Recreation wanted to know how people in the region felt about a national recreation area and wilderness proposed for the great river canyon and surrounding area. The Hells Canyon National Recreation Area Bill (S 2233) is cosponsored by both U.S. Senators from Idaho and both from Oregon. A similar but even stronger bill has been introduced by Oregon Congressman Al Ullman. S 2233 would create an 864,494-acre national recreation area in Oregon, Idaho and Washington. Some 282,315 acres of the NRA would be designated a wilderness, including both faces of the canyon from Hells Canyon Dam downstream to Pittsburgh Landing.**

**A number of Northwest conservation and environmental groups feel several amendments to S 2233 are essential. Those amendments would provide for an enlarged wilderness, to include the Rapid River area in Idaho; for the Imnaha River in Oregon to be designated as a wild and scenic river; for Section 6 (B) to be deleted because it prohibits establishing any minimum flow requirements for the Snake River, and for provisions to provide more administrative flexibility in controlling jet boat use.**

**The Rapid River area is contiguous to the proposed wilderness area of the bill and should be a part of it. The Imnaha River arises in the Eagle Cap Wilderness Area and flows for almost its entire length in the proposed national recreation area before flowing into the Snake River at Dug Bar. Hells Canyon could be literally dried up by demands on water in Wyoming and eastern Idaho unless minimum flow requirements can be established. Section 6 (B) must be deleted. And finally the use of jet boats in the canyon must be better controlled to preserve natural values along the proposed stretch of wild and scenic river through the Snake Canyon.**

**It is imperative that you write to your two senators and your congressman. Tell them you support S 2233 with the amendments outlined above. Hells Canyon belongs to the public. If it is not protected soon, it will belong to the power companies and the developers.**

**Photo by Verne Huser**

## Briefly noted . . .

**Wyoming Gov. Stanley K. Hathaway** will not run for a third term. He announced earlier this week that he thought a change in leadership would benefit the state. Hathaway, who still has one year remaining of his second term, has served as governor longer than any other person since Wyoming became a state in 1890. He has often been at odds with environmental groups for his espousal of big industrial development without adequate planning and environmental safeguards.

* * *

**Utah Governor Clavin Rampton** says a land use bill proposed by a Legislative Council task force isn't "toothless," but, "It's teeth are not as sharp as they ought to be." Rampton says that pressure for development of more energy sources makes sound land use planning even more urgent.

## Thoughts from the Distaff Corner

by Marge Higley

I hadn't really forgotten about the Sugar Plum Tree — I just hadn't thought of it for a long time. But the other day I overheard a conversation which brought the memory back, fresh and clear and delightful.

The two women were standing before the glittering display of Christmas tree lights and ornaments on the store shelf. "I'm going to put lots of lights on my tree this year," remarked one woman. "Since they're cutting down on the street decorations it doesn't even seem like Christmas anymore."

"Yes," answered her companion, "I just don't think it's fair, right at Christmastime. The kids love the lights more than anything."

As I moved on, I suddenly remembered a Christmas years ago, when it mattered not one bit to our little girl that there were no lights on the tree. We were living in the southern part of the Red Desert, 60 miles from the small post office, and more than 100 miles from my parents' home, where we had always joined the rest of the family for Christmas. But it was wartime, and gas and tires were rationed, so we decided to stay home and have our own tree.

We found a small scrub cedar, more bush than tree, and carried it triumphantly home, where its spicy fragrance filled the small room. Because we had always spent the holiday with the family, I had no box of tree ornaments poked away on a back shelf, so we had to innovate. Martha was perhaps three or four years old, and loved to have me read to her. Her favorite, at the time, was Eugene Field's "Sugar Plum Tree," so we started from there.

I didn't even have to consider what to do about Christmas tree lights. Our electricity was generated by a wind charger, and anything electric that we used had to be of the 32-volt variety, so even if I had had strings of lights, I couldn't have used them.

From scraps of left-over gift wrapping, I cut out angels, birds and Santas to pin on the bushy branches. Cut-up drinking straws made quite passable icicles; and I used up a two-weeks' supply of rationed sugar making star-shaped cookies to hang on the tree. From the same dough came the "gingerbread dog" and the "chocolate cat." (I am certain that anyone not familiar with the poem would never have recognized tham as such, but we all thought they were great!)

When I learned that a truck was to be sent the 60 miles to town for stock salt and other supplies, I asked Ed, the driver, to see if he could find me a can of popcorn — "and anything else you can find for Martha's tree!"

Candy, of course, was an unheard-of luxury during the war, but somehow, somewhere in that small town, Ed managed to scrounge up a small sack of hard candy and four candy canes! We wrapped each treasured piece of candy in cellophane, and tied them on the tree with bits of bright-colored ribbon. It was the final touch. As we stood back to admire our handiwork, I glanced at Martha's face. Her sparkling eyes were brighter than a hundred Christmas tree lights!

In the years since then, she has had other Christmas trees — in our home, and now, in her own home with her own family. Each year, when the tree is decorated, someone says, "It's the prettiest tree we've ever had."

And Martha smiles, and says: "Except one. Remember the Sugar Plum Tree?"

**Al Rutan's model of a solar-heated foam house with an interior garden.**

**A 55-gallon oil drum filled with horse and chicken manure lights a lantern for two men from Laurel, Mont. The experimenters are Al Rutan (foreground) and Norm Lord (background). They eventually hope to run a farm on methane from manure.**

**Photos by Phil Bell from the BILLINGS GAZETTE**

# Montana Men Make Methane

Two Montana men are making their own methane gas.

The men, Al Rutan and Norm Lord of Laurel, use a 55-gallon drum and chicken and horse manure. Their system involves fitting the drum with a thermostat, a light bulb for heat, and polyurethane foam for insulation. Then they set up three other drums to catch the gas.

The process is an ancient one. Bacteria working on the wastes in the airtight drum produce the gas. Rutan says that the system can utilize any kind of animal wastes, including human, and other materials with carbon in them such as grass clippings and dried leaves.

After 40 days at 90 to 95 degrees, Rutan says the drum produces 500 cubic feet of gas and a small amount of sludge. The gas burns with a clean, white flame. Rutan uses the sludge as fertilizer.

Rutan and Lord hope to build a 1,000-gallon septic tank which could produce about 6,000 cubic feet of methane per month. That kind of an operation could provide enough for their households and, hopefully, for their cars. Rutan has already bought a conversion device from England to be installed when he's ready to make the change to methane fuel.

Rutan also builds self-powered houses. He uses urethane foam as a construction material because of its strength and its value as an insulator. The Billings company he has formed, Montana Insul Foam, offers solar-heated foam houses custom built. The houses cost from $8,000 to $18,000.

Rutan became interested in life support systems after reading the **Mother Earth News.**

"**Mother Earth News** is endeavoring to build a research center to put various aspects of self-support systems to work," Rutan says. "I don't think we have to wait for a research center. We already know what we need to know. All we have to do is go ahead and build."

# Food Eats Up 12% of U.S. Energy

Americans expend six times the amount of energy in the preparation of food as they receive from it. In other words, in 1970 America used 12% of its national energy budget in the providing and preparation of food. That percentage amounts to two quadrillion calories of energy from natural fuels. In the same year, Americans received and ate only 3,300 calories per day per person — or one-sixth the amount of energy that went into getting the food from the farm to the dinner table.

Those facts were revealed by Eric Hirst, an energy expert at the Oak Ridge National Laboratory in Tennessee. In somewhat more concrete terms, Hirst points out that to produce a one-pound hamburger requires the energy equivalent of three pounds of coal. Or, the production of a one-pound loaf of bread requires the equivalent of two pounds of coal.

Hirst says that to expend six calories of fuel to provide one calorie of food energy is pretty wasteful. In fact, it's about the poorest energy-to-food-calorie ratio on earth. He says, however, that there are things the average American consumer can do to change all that — such as using more efficient kitchen appliances, better insulated refrigerators, using more unprocessed foods, and substituting vegetable protein for animal protein.

Hirst claims that food-related energy use is growing in the U.S. at about 3.3 per cent annually. The chief villains, he says, are processed foods, inefficient kitchen appliances, and greater consumption of meat. : : **EARTH NEWS**

# The Mail-A-Can Lobby

The Detroit Audubon Society has printed mailing labels for cans which ask their governor for returnable bottle legislation.

The Audubon member is asked to wrap a clean, dry soft-drink can with brown paper. Then a mailing label with the following message is attached:

"Dear Governor:

"Most litter decomposes. Non-returnable soft drink bottles and cans do not. As more of these things are sold, our landscape gets uglier. Taxes for both litter and garbage collection rise.

"I therefore ask that you create legislation requiring the soft drink and beer industries to use containers that will be returned and recycled. I don't care if this 'inconveniences' retailers. I care about Michigan's beauty."

*A Timid Step Forward*

# The Northern Great Plains Resource Program

Ever since the release of the North Central Power Study in October, 1971, there has been great interest shown in the Northern Great Plains coal reserves. The study revealed that Montana and Wyoming alone contain 46% of the nation's strippable reserves of bituminous coal and lignite. Proven strippable reserves in the region were shown to be capable of sustaining well over 200,000 mw of electrical power for the 35-year economic life of the thermal power plants.

By early 1972 several states and federal agencies began considering the need for more comprehensive resource and environmental studies in the region. By July, 1972, tentative plans were developed for a comprehensive Federal-State interagency study jointly managed by the Departments of Interior and Agriculture and the Environmental Protection Agency, under the leadership of Interior. In October, 1972, the Northern Great Plains Resource Program (NGPRP) was formally announced with a three year schedule of activity.

The NGPRP almost didn't get off the ground. Money to finance the program was held up. The picture was complicated further when Sec. of Agriculture Earl Butz, acting as President Nixon's resource czar, wrote a memo on White House stationary redirecting the NGPRP. Butz was upset at the time allotted to study all the resource values of the region. He wanted a coal study. The Butz memo read in part, "I would like to receive recommendations by May 4 of how the program can be restructured to provide not later than June 30, 1974, critical information and a plan to develop the coal resources in the Northern Great Plains area."

This development-oriented attitude infuriated a number of participants. The Environmental Protection Agency threatened to pull out of the program. Severe criticism was leveled at the NGPRP by ranchers and conservation groups. Consequently, the development aspect of NGPRP was toned down.

Now the NGPRP has new leadership. John Van Derwalker, a former environmental coordinator for the Bureau of Sport Fisheries and Wildlife, has assumed the lead position. Van Derwalker has replaced Robert McPhail, a career Bureau of Reclamation employee, as program manager.

**High Country News** interviewed Van Derwalker at his office in the Denver Federal Center.

HCN — The job of Program Manager is a hard one and the NGPRP is fairly controversial. What made you make the move?

Van Derwalker — They offered me the job and I told them I didn't want it. One friend of mine in the environmental committee said that I'd be damned if I do and damned if I don't. There was no way I could come out of this thing unscathed. The only reason I finally took the position is because I think it is very important to the future of the region.

HCN — There has been some concern expressed that the NGPRP is development-oriented and not a program that focuses on all the resources of the region. How do you view the NGPRP?

Van Derwalker — I think you should mark the difference between "coal" and "development-oriented." The program is going to be primarily a discussion of the impact of coal development — not saying it's going to be developed, but trying to understand what the impact of coal development is on all the other resources because the development of coal is so potentially disruptive.

The water demand and the population increase created by this kind of development will have a greater impact than agriculture, recreation, forestry — practically any other human pursuit that you might want to talk about. If irrigation were as disruptive to recreational uses as coal development will be, we'd probably be highlighting irrigation.

I think it is an attempt by the several agencies that are involved to recognize that they have to do a more comprehensive job of resource development and they have to recognize the other resources and values in the area. Each one of the agencies by itself does not have the capability to do that. I think it was a step forward that these three agencies (Department of the Interior, Department of Agriculture, and the Environmental Protection Agency) plus the five states (Montana, Wyoming, North Dakota, South Dakota, and Nebraska) got together and tried to develop a common data base and a discussion of what the impacts might be . . . . I'm not saying its a firm forward step. I'm saying perhaps its a first timid step, but I'm very encouraged.

HCN — How have the states received the NGPRP?

Van Derwalker — I think there has been a very obvious suspicion on the part of many of the states on the federal motives.

HCN — Did they think this would be a duplication of the North Central Power Study?

Van Derwalker — Hopefully those individuals in the federal establishment who are development-oriented will also recognize all the views and the information will be fairly stated. Its been a criticism of the Southwest Energy Study and the North Central Power Study that these reports didn't recognize all the resource values . . . . I can remember the Secretary (Sec. of Interior Rogers C.B. Morton) specifically saying, "I don't want another Southwest Energy Study. I want to know what this thing is going to do."

He wanted some answers and he thought he had the time, but as it turns out he needed some information faster . . . . Between a little over a year ago, when we were setting up this program, and now, the whole energy picture changed very rapidly. The fact that the Secretary says, "Boy!" I've got my back against the wall!" and "There's going to be some terrific pressure on that coal resource out there and I need to know more about it," speaks for the gravity of the situation.

HCN — Can you explain the reason why certain industry officials have projected removing twice as much coal from the region as your highest level of development projection?

Van Derwalker — What the industry esti-

(Continued on page 16)

# Eavesdropper

LOONEY LIMERICKS

by Zane E. Cology

Santa can travel this year
With no gas shortage to fear —
Neither energy crisis
Nor high oil prices
Can stop hay-burning reindeer!

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Editor John Cole of the **Maine Times** reports the Department of Agricultural Engineering at the University of Maine in Orono is about to start up a 600-gallon methane digester. Dr. Norman Smith, director of the department, says there may be as much as seven million gallons of home heating oil annual equivalent in the chicken manure produced as a waste product of Maine's chicken industry. Cole points out that with digesters, the Maine poultrymen can process the waste, heat their poultry houses and run their machinery with the methane produced. The by-product is a fine liquid fertilizer which can be sold to farmers.

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A firm which has been making kerosene lamps since 1884 says more lamps are being sold in the U.S. now than during the days of the covered wagon. **Thermwell Products Co.** says it can't keep up with demand because of fears of power shortages.

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A scientist and consultant to the U.S. Navy says man's growing use of energy could lead to melting polar ice caps. Dr. Howard A. Wilcox, a physicist, told the American Geophysical Union, "The scientific danger signals are rising . . . the entire world will be alarmed over this problem 100 years from now." Wilcox says the ever increasing use of energy will raise the earth's atmospheric temperature enough to melt the ice caps. The water released could raise sea levels 200 feet in 150 years, flooding such areas as New York City and London.

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Americans used almost 64 million tons of paper and paper products in 1972. Consumption is expected to go to nearly 68 million tons in 1973, or 640 pounds per person. Newsprint amounts to 11 million tons a year, and those brown bags used to get groceries home from the market use up five million tons.

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U.S. Steel may close down two mills in Ohio to avoid spending any more on antipollution equipment. A U.S. Steel spokesman said closure depends upon the regulatory agencies, "As long as they make no move to shut us down, we'll continue to operate." The two mills are among the oldest facilities in the company's empire and date from before the turn of the century. An additional $27 million would have to be invested to bring the mills into compliance with the law. Together, the plants employ about 6,000 people.

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Adults own 50% of the bicycles on the road today according to the Bicycle Institute of America. Just a few years ago most cyclists were under 16 years old. The Institute estimates domestic producers will sell 10.5 million bikes on top of the 5.3 million import models this year.

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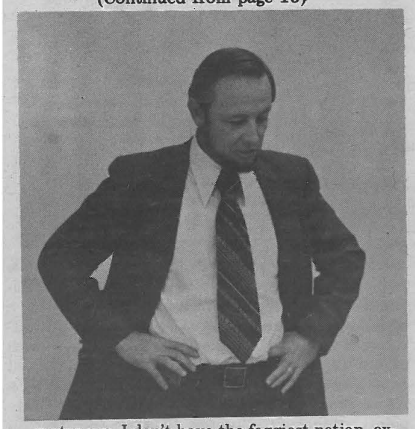
Typical building lots in a Tokyo suburb have increased from $7,500 to $32,000 in the past five years, says Previews, Inc. Lot sizes average one-thirtieth of an acre, and represent about 70-80% of development cost.

# NGPRP . . .

(Continued from page 15)



mates are, I don't have the foggiest notion, except that industry has a habit of putting out these self-fulfilling prophecies. The other thing is that people try to insure their position. There is a lot more coal leased than is going to be mined, there are a lot more water options being taken than there is water going to be used, simply because it's cheap insurance. It doesn't cost much to get the water, and it doesn't cost much to get the coal.

HCN — You are working with three development scenarios — a low, a middle and a high development projection. You also have a "most probable" scenario. Can you explain this?

Van Derwalker — We have unfortunately called the middle projection the most probable scenario. Based on certain assumptions, our projections indicate that this is what we think will really happen.

The important thing is the assumptions. A lot of people have been complaining that our assumptions are wrong. I don't think it's a matter of an assumption being right or wrong.

What we need to do is discuss the ramifications of a given assumption. For instance, take the demand-price situation. If the price of energy really goes up, the demand probably won't stay the same. It would probably fall and that would reduce the growth and reduce the amount of coal mined.

What we hope to do in our report (Interim Report to be released June 30, 1974) is to discuss all these assumptions and make it plain to the people that read the report that these are the kinds of things that they can use to guide, change, or balance development.

HCN — Are the basic assumptions helpful in impact analysis?

Van Derwalker — The assumptions aren't really important in determining what the impact of certain levels of development are. All we want to do is to give people the idea that if you mine so much coal what's going to happen. The assumptions are important when you determine if you want to do it at that rate or not. The assumptions become very important . . . when you actually get to the point of planning it and how you want to control it.

Just in the availability of water — we've assumed the availability of water at certain levels in certain places. But if you wanted to control development, you might not make that water available through some political or legal constraint. We are functioning right now under the political and legal constraints that are in effect today. If you wanted to change it (the course of development), you could change those constraints.

HCN — You spoke of an Interim Report to be released June 30th. What is the plan for the NGPRP after June 30th?

Van Derwalker — The report is a final report as far as my orders are concerned. How it got the name of "interim" I don't know . . . . When the Interim Report is finished then the group is going to determine what its next action is based on what the report says.

It may be in June that a group will be organized to continue to coordinate these efforts. But the action, the decisions, should not be the responsibility of this group.

HCN — Do you think your report will be used as a springboard for development?

Van Derwalker — I think the developers will use that portion of the report that supports their needs in any way they can. I think the environmental groups will use the portions that support their contentions. And you'll have special interest groups, no matter who they are, still going their own ways.

I would hope that the report would be objective and would enable the person in the middle who has to make the decision — to have the kind of information available to him to make a good decision in the national interest and the public interest. If that kind of information wasn't in the report then I'd hope he'd know it wasn't there and he would endeavor to see that somebody started working on it.

HCN — Does the June 30th deadline give you sufficient time?

Van Derwalker — The important part of the program is to identify information gaps. There's no question that we are not going to have all the information available that we should have for planning in the Northern Great Plains by June 30th. This will hopefully identify what we do know and what we do have. We're not pretending that this is going to give everyone the kind of information they need to make the decisions.

HCN — How do you feel about the Mansfield Amendment? (An amendment to the federal strip mining legislation which would outlaw stripping on private land where the government owns the mineral rights.)

Van Derwalker — The Mansfield Amendment is a constraint that would be very difficult to live with whether you're an environmentalist or anybody else because of the existing checkerboard pattern of land ownership. Some of the coal companies will be forced to mine in a checkerboard fashion instead of taking out one block which is contiguous. I think it reflects a very sincere interest in trying to protect the land surface owner, but I feel that it's going to complicate things if it is passed. And certainly it would reduce the planning options that we have.

HCN — How long will the federal freeze on coal leasing continue?

Van Derwalker — It has no deadline. It's a memo (from the Sec. of Interior) to bureau heads that says you will take no action on the Northern Great Plains connected with coal development without my direct approval. In other words, the Bureau of Reclamation can no longer contract for water, although they have in a couple of instances tried. They have been signing water options, but not contracts. This has been a bone of contention with certain people who say an option is an obligation.

HCN — Do you see the freeze on development lifting after your report is released?

Van Derwalker — I can't answer that. I'm sure this program will play a part in any decision made on whether to resume leasing. But there are many other studies going on in Interior that will influence that decision, too.

# States Move to Limit Population

Los Angeles, once one of the world's fastest growing cities, has now begun to limit future population.

An ordinance prohibiting construction of multifamily apartments in commercial areas is expected to reduce the city's future population by 2.2 million. The ordinance grew out of a Density Adjustment Study by the Los Angeles Planning Commission. Developers are in opposition, saying they will be hurt economically. The city's new mayor, Tom Bradley, was elected on a strong limited-growth platform.

In Petaluma, California, voters overwhelmingly approved a quota system of no more than 500 new housing units a year. The ordinance is intended to slow the growth of the community, which doubled in size since 1965. Now, a developer has brought suit against the city, challenging the ordinance. Trial is slated for Nov. 14.

Hawaii became the first state in the nation to establish a permanent Population Commission. The law establishing the Commission was the result of a report of a Temporary Commission on Population Stabilization. The new Commission will study capacity of the state and population migration, as well as formulate policies for optimal populations and means of controlling incoming numbers of people.

# Area of Action

You still have until Jan. 7 to get a statement in on the Idaho-Salmon River Breaks Primitive Areas. Industry would like to see the whole magnificent area declassified. (See Western Roundup, page 13.) Write Regional Forester, Federal Building, Ogden, UT 84401.

**High Country News** (Nov. 9, 1973) carried an explanation of a planned phase-out of the concessioner-operated lodgings in Zion and Bryce Canyon National Parks and Cedar Breaks National Monument in Utah. We said, "The concessioner (a subsidiary of Trans-World Airlines) has enlisted the aid of businessmen and the Chamber of Commerce in Cedar City, Utah, to fight the phase-out plan."

We have been informed that our assertion is not correct and wish to take this opportunity to retract the statement in its entirety.

# In The NEWS