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High Country News

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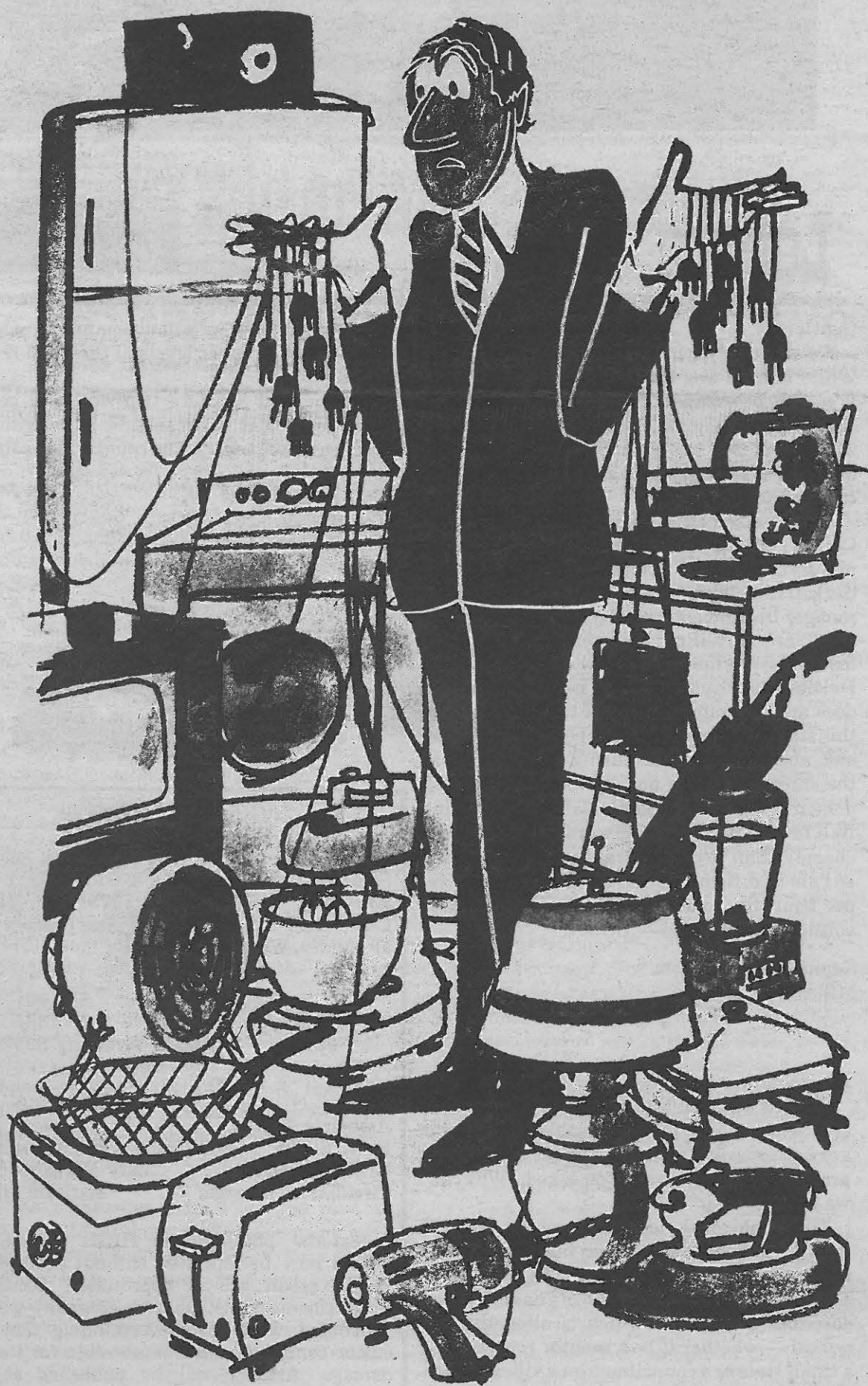
Lander, Wyoming

Friday, November 9, 1973

The Making of an Energy Skinflint

Reprinted with permission from EXXON USA, Third Quarter, 1973.

by Don Deder
Art by Norman Baxter



"Doesn't anybody turn off lights around this house but me?" exploded Harvey Handyman one Saturday morning.

Click. Click. Click. The three, recessed 100-watt bulbs in the kitchen ceiling.

Click. Click. The two fluorescent tubes illuminating the counter tops.

Click. Pantry light.

Click. Hanging fixture, dinette.

Click. Stove hood light.

"Eight lights burning in broad daylight! No wonder the country's facing an energy crisis!"

While Harvey's righteous sermon thundered down the hallways into tender ears, he drew a drink of cold water from the tap, popped a frozen pastry into the pre-heated oven, ran two oranges through the electric juicer, and brewed a cup of instant coffee from the kettle ever-warming on a back burner.

Then he hustled out to his workbench, only to find the blade of his power saw hopelessly dull. So in a hurry he zipped ten minutes down the freeway to buy a new blade at the hardware store. Back home, after cutting three boards for a shelf project, he was taken to task by the world's most beautiful daytime bulb burner:

"Hon, don't you have a hand saw that would give you some exercise, and wouldn't blow so much sawdust around?"

And when he was cleaning up the mess with his shop vacuum, another kind of light glowed in Harvey's head. He remembered reading that the United States, with 6 per cent of the world's population, is consuming one-third of the world's energy. America's energy demands are straining available supplies, and the condition may worsen before improving. The long-predicted energy gap is arriving with electrical brownouts, fuel shortages and higher prices. While energy companies tackle the technology of supply, Harvey wondered, can citizens reduce demand by managing their energy more wisely?

Experts believe that people can get by with less energy, without greatly changing their lifestyles, if they wish.

"At present only 50% of all energy consumed is converted into useful work," recently stated Exxon's Chairman M. A. Wright. "The remaining half is lost . . . In the short term, voluntary consumer efforts to reduce overheating, over-cooling and overlighting will be ways in which we can all conserve energy. In the longer term, energy can be conserved by more organized approaches to large, energy-consuming sectors of the economy, such as transportation."

Within Exxon Company, U.S.A. itself, employees are being encouraged to make

(Continued on page 4)

HIGH COUNTRY

By Tom Bell



Energy conservation must become a way of life for the United States, or our country will come to an inglorious end after only 200 years. It is ironic that the country must return to the frugality of our ancestors in order to survive. But it is altogether fitting.

The God-fearing, hard-working, provident pioneers of this country are often held up to us as the people who made this country great. Now, it will be interesting to see, if when we are called upon to emulate them, we can be as great. Can we give up our wasteful, extravagant ways? Can we forego the niceties and luxuries we have come to expect as our lot? Can we return to slower more simple lives, and come to look once more at thrift as a virtue to be cultivated?

As I write this, President Nixon is to address the nation on the energy crisis. He has not yet spoken but some of the proposals he will probably make have already been suggested. Strong as some of the measures will undoubtedly be, I would venture that Mr. Nixon will not go far enough. Certainly, it is true that he speaks from a position of shattered weakness. But even if he spoke from a position of strength, I seriously doubt if he has the insight or courage to address the problem in its true light.

We are in very serious trouble. We need leadership of the highest order. At this moment, we need the ultimate in both short-term and long-range planning if we are to escape disaster. What we will get will be more of what **Weekly Energy Report** said was existent last week — near panic in Washington. The Nixon Administration has had nearly five years to anticipate this moment of truth. It is not that the Administration or the American people have not had warning. The Office of Emergency Preparedness in the Executive Office of The President published a staff study, *The Potential For Energy Conservation*, in October 1972. But Mr. Nixon was too absorbed in getting re-elected, in ITT, in the dairy producers, in feathering his own nests at San Clemente and Key Biscayne to notice. Now, he is too absorbed in saving his own skin.

We are now in a position where panic decisions may decide our fate. Mr. Nixon will probably request a lowering of the air quality standards to allow burning of high-sulfur coal. The House Committee considering strip mine legislation is said to be dodging the tough decisions. Utility industry people are pressing for more nuclear plants in the face of rising public concern and scientific evidence that all is not well in that area.

Our problems could be solved by some tough political decisions. But those decisions could be made and the American public would accept them — if the public knew the true straits we are in. But like the Watergate tapes, our government feels what we don't know is better for us than if we did know.

Our citizens must be made to realize that the energy situation is critical to the future welfare of our country. They must be made to believe that the profligacy of the past is no longer tenable. A certain amount of energy is absolutely essential for an industrialized country. But exponential growth in the use of energy is absolute folly. Instead of looking for ever more energy, at great risk to the environment which sustains us, we must look to the lifestyles which we feel are ours by right.

In these United States, we use eight times more energy per person than the world average. Somehow we must be convinced that good as it is our society is not eight times better than that of a Swede or Britisher or West German. We may feel we are the annointed of the world. But then again so did the Romans, once upon an empire.

An older generation was brought up to turn off the lights because electricity cost money. A younger generation believes electricity is free. I am convinced that no one under 30 has ever turned off an electric light.

Daniel B. Luten

Letters



RURAL AMERICA



Gentlemen,

We returned from a recent visit in Casper. While there I was browsing thru some of the Wyoming newspapers at the Casper Library. I came upon a copy of your *News*, Vol 5, No. 20, issue of Oct. 12, 1973. This issue contained an article regarding the demise of C&NW tracks into Lander.

I was raised in Iowa in a town served by C&NW, the same line which serves our community. What a sad situation indeed to see that the rail lines, either through lack of public patronage, insufficient creative management, or what, are curtailing their trackage. In some instances, this may be the only way to act. South Dakota has about 11% of the C&NW lines, and does approximately 3% of its total business in this state. I believe there has been some discussion about the state acquiring certain lines in the interests of the public, such as has been done in Vermont. In South Dakota, something like 73% of the grain is forwarded by rail, more cheaply than it can be transported by trucks, so I am told. Some trains run at about ten miles per hour. So, some kind of nationalization or subsidy should come — SOON.

Kenneth L. Engstrom
Miller, S.D.

* * *

Dear Editor,

Thanks so much for the copy of *High Country News*. It was most enjoyable reading, but very depressing as well. Almost every story prompts the question so often asked, "Why can't we just not do it?"

The whole oil shale, land development, strip mining, mineral exploitation business is earth rending, and heart shattering. The editorial by Tom Bell about Senator Hansen (Wyo.) describes a situation which is altogether too typical — whether it be a senator representing a small state or a councilman on a village board. Somehow, we have got to get men of principle into public office at all levels, and then we can

be more sure that we will ultimately have better ones in at the upper levels, if they will remain steadfast.

I hope that a future trip west will get me close to Lander so I can talk more with you and see better some of the country thereabouts.

Best regards,
Ted Hullar
Buffalo, N.Y.



HIGH COUNTRY NEWS

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Editorials



Nixon's Project Independence

It seemed odd to see President Nixon on energy-conservationist Gov. Tom McCall's bandwagon. But there he was, righteous and resolute, asking Americans to tighten their belts. We can learn from Oregon, he admitted. At last. Things must really be bad.

Nixon faced some realities in his Nov. 8 energy speech. He acknowledged that there is flab in the American way of life. He brought to mind the empty planes, the empty cars roaring in perpetual motion. He suggested that the rooms we inhabit are too warm for health.

While we commend Nixon for this analysis and the conservation measures he proposed, we regret their belatedness. And we deeply lament his lack of imagination in long-range solutions to our energy problems. We are rich in resources; we need only exploit them, he told us (again). In the long run it is not a matter of revamping our lifestyles. It is a matter of deeper devotion to production, he said. The president did not face the reality of outlining the problems

associated with the levels of production we've begun to demand.

Of the energy production alternatives before us, Nixon placed most emphasis on some of the worst. He called a nuclear industry fraught with safety problems "the most advanced nuclear technology known to man." He spoke carelessly of the period spent reviewing the building and operational plans for a nuclear plant as "a time lag." He spoke of surface mining — not deep-mining — our abundant coal reserves. He asked to free the construction of the Alaska pipeline from "unnecessary provisions."

We would hope that many of the energy conservation measures outlined by the President become a way of life for America — not just a crisis effort. We hope Americans are aware of the cost of continuing to hold soaring production as a national goal. We hope that we'll not choose to sacrifice a livable world outside for warm rooms and encased, perpetual motion.

—JN

Guest Editorial



Reprinted from The Billings Gazette, Nov. 4, 1973.

Park County Leaps Toward Land Law

by Duane W. Bowler

Our neighbors in Park County, Wyo., the home of Buffalo Bill and wild west country personified, are on the verge of taking a giant leap forward to preserve the attractive, livable flavor of Cody Country and the rest of their bit of paradise.

They are doing it by moving ahead on adoption of Subdivision Regulations of the County of Park.

True, no law is any better than it is enforced nor is there a cureall for man's desire to commit mayhem on his surroundings. Until a better one comes along, the document now under consideration in County of Park, Wyo., is a blue ribbon blueprint.

It comes right out and recognizes fact: Subdivided land sooner or later is of public interest.

That's a hard road to hoe for some westerners who rank property ownership at least kitty corner to divine right.

Subdivided land sooner or later is of public interest because roads and streets must be maintained and public services provided. The word "must" is used because pressure from buyers in subdivisions gets to the "must provide" stage before long.

The Park County document accepts that and draws the conclusion that since "welfare of the entire community is thereby affected in many important aspects, it is, therefore, to the interests of the public . . . that subdivisions be conceived, designed and developed in accordance with sound rules and proper minimum standards."

That's the start. And when you read what follows, the authors of that document weren't fooling around. They get right down to earth.

They state in a few short paragraphs that the subdivision must be fit to inhabit from every standpoint. That includes "used safely without danger to health, fire, flood, erosion, excessive noise or smoke or other menace. . .

"Proper provision shall be considered for

drainage, domestic and irrigation water supply and distribution, sewage disposal . . . Streets shall be safe, convenient and functional . . . Buildings, lots, blocks and streets shall be so arranged as to afford adequate light, view and air . . . Land use shall be developed with due regard to topography, so that the natural beauty of the land and vegetation shall be protected and enhanced."

That's what all of us hope we are buying and the County of Park resolution is designed to enhance the chance.

The document is 14 pages long and not at all hard reading. There is some legal language in it but mostly it says what it means in easily understood English.

You can't start a subdivision without a permit and you can't get a permit without meeting the requirements. The commissioners get 60 days to look over your preliminary plan for approval, modification or disapproval. The final plan comes later after you have satisfied the purpose of the act "to adequately promote the public health, safety and welfare of the citizens of Park County."

Document provisions take care it is not to be treated as a scrap of paper. It calls for performance bonds or such from the subdivider or developer to assure proper water, sewer, street and access requirements are met.

Summed up, the proposed Subdivision Regulations of Park County are protection for the prospective buyer and the general public, which includes the thinking of Powell and Cody, the principal cities of the county.

A main point is that nothing happens to hurt the future buyer or general public interest before a subdivision permit is issued. It has to meet all the "general welfare" requirements before a lot is sold or ditch dug for other than testing purposes.

The author or authors of the proposed Subdivision Resolution of the County of Park appear to have pulled together a model resolu-

tion. It is one that can be used to allow development and still maintain the character of the area.

Montana counties confronted with development will do themselves and their residents, present and future, a favor by getting a copy of the County of Park, Wyo., proposed subdivision resolution and applying it to their area.

The fast-buck crowd won't like it. So who cares?



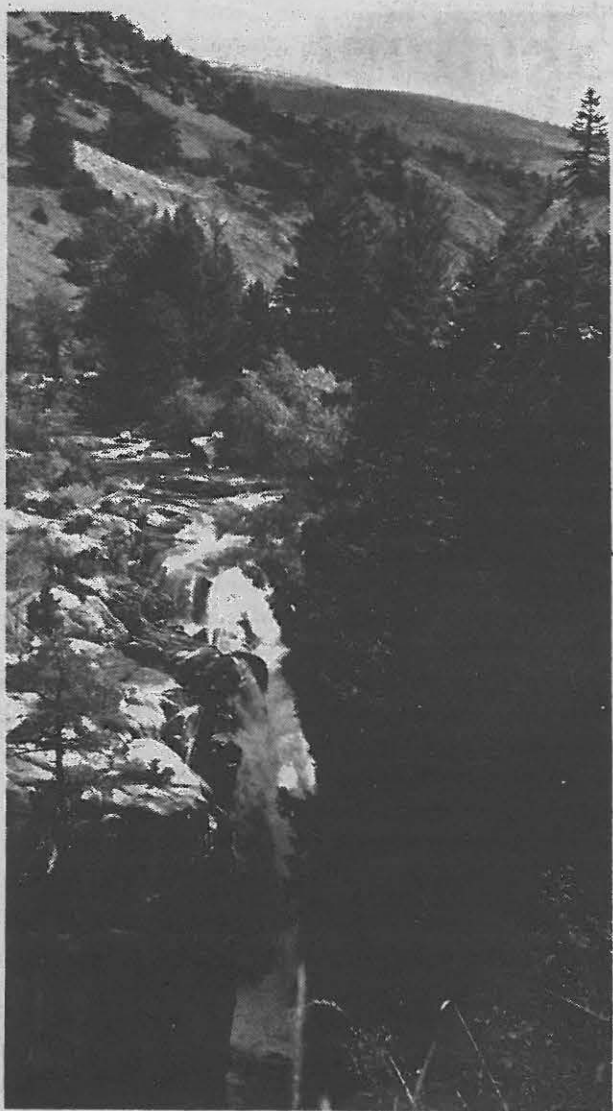
Safety Questioned

The Joint Committee on Atomic Energy will hold hearings on "the possible extension or modification of the Price-Anderson Act" early in 1974. The Act limits the liability of the utilities which operate nuclear power plants.

The act will not expire until 1977. The committee says that representatives of the electrical utility industry have urged them to consider the matter during the present session of Congress. The utilities say that early review is necessary "to prevent an unwarranted disruption in the planning process for nuclear power plants."

The Price-Anderson Act sets a \$560 million limit for public liability per nuclear accident, regardless of the real amount of damage. The Atomic Energy Commission's "Brookhaven Report" estimates that damages from a single nuclear accident could reach \$7 billion. Under the act, the share of damages paid by the utilities is limited to the coverage they can get from the insurance industry — \$95 million. The balance would be paid by taxpayers.

Sen. Mike Gravel (D-Alaska) introduced a bill to repeal the act in 1971. The bill died with the end of the 92nd Congress. In his Sept. 28, 1973, newsletter, Gravel asks, "Why should the utilities insist on the protection of the Price-Anderson Act if nuclear power plants are as safe as they claim?"



Skinflint . . .

(Continued from page 1)

gasoline go farther, and to consider more frugal energy usage at home. Conservation alone can't alleviate the energy shortage entirely. But it can help, and at measurable savings to consumers.

As found out by Harvey Handyman, the United States today abounds in advice (some contradictory) on how to become an energy skinflint. Harvey asked for information from his local utility, an automobile travel club, some environmental agencies, and several home building trades associations. The postman groaned delivering a mountain of brochures, speeches, check lists, savvy tips and technical reports to the Handyman residence.

In a few evenings of study, Harvey learned that his pet peeve regarding daytime light burning was the least of his available concerns. If he and his family douse their lights for a day and a night, only 9 cents worth of electricity is saved. Stanford Research Institute estimates that if all the lights in the United States were switched off, the saving would be only 1 or 1.5% of total energy consumption.

Meantime, Harvey's coffee water warming hour after hour on the stove causes the Handyman electric meter to spin like a top. Harvey's breakfast roll should have been thawed before cooking. Wouldn't it have been simpler to squeeze the oranges by hand? Needless preheating of an oven is pure waste, and it throws an additional load on air conditioning. Harvey's one-item dash to the hardware store, at the 70 mph speed limit plus 5, squanders two gallons of gasoline.

The more Harvey boned up, the clearer it became that if he truly wanted to help his nation and his pocketbook, his two best opportunities were:

— Transportation. One-fourth of America's energy moves people and things from one place to another. (Virtually all transportation energy comes from petroleum products.) Of total transportation energy, more than half is consumed by automobiles.

— Space heating and cooling. One-fifth of the nation's energy makes buildings more liveable.

There are other expenditures of energy over which the Handyman family has control. Cumulatively, they are important. But the Big Two are the climate control of the Handyman house, and the travel habits of the Handymans.

The average American car burns its own weight in gasoline per year. Partly because of new, fuel-guzzling emission controls, 1973 luxury sedans go as few as 8 miles per gallon, as tested by the Environmental Protection Agency. But some small cars with manual transmissions get nearly 29 miles per gallon. According to the Department of Transportation, the difference in fuel consumption of a standard American sedan and an economy-size car is 260 gallons annually. Harvey, now the enlightened energy tightwad, is considering trading for a more economical auto.

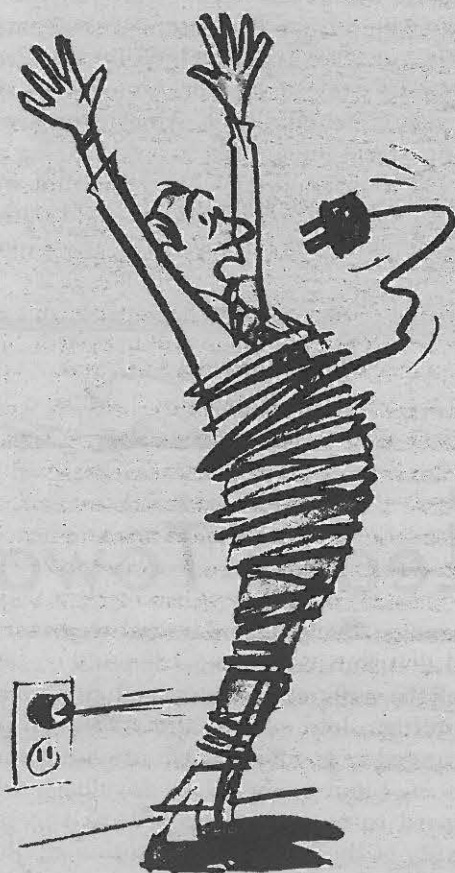
Whatever the car, dutiful maintenance can conserve energy. A dirty air filter can cut mileage by 15%. One fouled spark plug can increase unburned hydrocarbons tenfold. Under-inflated tires drag mileage down (and wear treads rapidly). The Southern California Travel Club recommends that Harvey keep his car tuned, with special attention to ignition, carburetion and emission control.

The first question Harvey intends to ask himself about driving is not how, but why? Isn't it time to revive that old World War II slogan: "Is this trip necessary?" Nationally, 54% of car trips are less than five miles. By packaging

grocery shopping, banking and Little League taxi service, the Handyman family now saves two gallons of gasoline per day. Harvey's car pool with two compatible co-workers curtails his freedom somewhat, but his mental cash register rings up ten cents for every undriven mile, and his parking costs are one-third of what they were.

Last year the Handymans took the kids to see Disneyland, Mount Vernon, the Alamo and Yellowstone in the same vacation tour; this summer they'll go camping a hundred miles into the hills.

Although some thriftless habits were hard to break, the motoring Handymans changed their style. No more flat-out flings down the freeway. Harvey knows that a car that travels 20 miles per gallon at 40 mph, gets only 12 miles per gallon at 80. The government's Oil Policy Committee reports that slackening speed from 70 to 50 increases mileage by 20% or more.



Less apparent than transportation extravagance, the heating and cooling of American living space is equally prime for energy conservation. These days, utilities from San Diego Gas & Electric to Consolidated Edison of New York are telling their customers that comfort need not be sacrificed for economy. To the contrary, as the San Diego utility points out in a free brochure:

"The cost of completely insulating an average-size new home in the San Diego climate zone may run as little as \$250 to \$300. Over the life of a 25-year mortgage, the savings in heating and cooling bills may total about \$1,800.

"Insulation is one of the few house improvements that will pay for itself in three or four years, and then return guaranteed annual dividends every year thereafter."

By good fortune, the Handyman house had been insulated — the equivalent of 3½ inches of fiberglass in the walls and six inches in the ceilings, where heat loss potentially is greatest. So what else could be done? The mind-grabbing statistic for Harvey was that 26% of his heat loss was through his windows. Today, this reformed daytime light dimmer is a confirmed nighttime drape shutter.

For winter months, the Handymans voted that 72 degrees is as comfortable as 75. Now they save another 15% on the heating bill. They leave a couple of little-used rooms unheated. Harvey faithfully changes filters, makes sure warm air isn't escaping up an open fireplace chimney, and yells at the monsters who leave

doors open to the outside. Mrs. Handyman read that an air humidifier makes people feel comfortable at lower temperatures in winter. Toward the same goal, she placed house plants here and there to give off moisture and oxygen.

When the weather turns around, some of the same rules for space heating apply to space cooling, only more so. Gleaned from Harvey's pile of booklets and charts:

Insulation is a must with refrigeration. Not even a millionaire can afford to cool the great, hot outdoors. Closing curtains slows heat gain through windows. Air filters should be changed monthly. Inexpensive weatherstripping keeps hot air outside. Again, the fireplace damper should be closed. Every degree cooler costs about 5% more energy, and the Handymans elected to set their thermostat at 75 instead of 72.

Fiddling with the thermostat wastes power; it's better to find a reasonably comfortable setting, and leave it.

At the Handymans, winter's house plants are placed outside, because humidity is an enemy of refrigeration. Heating vents are closed, a window unit is moved to a shady side of the house to increase efficiency, and a clothes dryer is vented to the outside. To his dismay, Harvey discovered his attic temperatures were peaking at 160 degrees. Larger attic vents cooled that energy-draining hot box.

This summer, without giving up anything, the Handyman family enjoys air conditioning without costing Harvey an arm and a leg. They time their moisture-producing activities for the cooler hours of the day. Mom runs her stove hood exhaust when pans are steaming. Showers and baths are reserved for the morning, with ceiling exhausts operating. For once, Harv is right about lights. They produce heat. And as Harvey was informed by refrigeration engineers, few luxuries are so dear as a child repeatedly running in and out of an air conditioned home. Only when they are going away from home for two days or more do the Handymans shut off their refrigeration . . . and a half day before returning home they call a neighbor to turn it on again.

Beyond the Big Two of energy conservation by the Handymans knocks a lengthy list of lesser opportunities. Taken one by one, savings are slight. But by embracing a thoughtful ethic of energy thrift, the Handymans further pare down their requirements. Not only are they convinced they are better citizens, their frugality provides money for other things. Money? Truly, can much be saved? Consider: the average family in Los Angeles spends 8% of disposable income on energy.

In an economic sense, energy and water are interchangeable. It takes energy to pump, purify and deliver residential water. If need be, a human being can survive on a gallon of water per day for all of his drinking, cooking and washing. Medieval man required no more than three to five gallons. As late as the 19th Century, people of Western nations were getting by on less than 100 gallons per day. At present, the United States per capita consumption is 1,500 gallons of water daily for needs and comforts, recreation and cooling, according to the Los Angeles Department of Water and Power.

Harvey's old practice of running a tap for a cold drink wasted a gallon for a cupful. Now the Handymans keep a bottle of drinking water in the refrigerator. A glass of water, instead of a gushing faucet, augments Handyman toothbrushings. A kitchen timer reminds the Handyman teenage daughter when a reasonable amount of water is expended in her shower bath. Harvey himself stopped running 20 gallons of hot water down the drain while he shaved.

On the kitchen end of the Handyman home

one water heater is set at 150 degrees, sufficient for washing clothes and dishes. But in the bedroom wing, a supplemental water heater is lowered to 120 degrees, high enough for bathing. One long reach of hot water pipe is insulated for a few pennies. The faucet over the laundry tub had been leaking 90 drips a minute. One plumbing washer in the hot water tap saves 430 gallons of hot water a month.

Other economies hold the Handyman energy demand at a minimum. Most of today's clothing fabrics come clean in a warm water wash, and cold rinse. Mrs. Handyman plans full loads for both washer and dryer. And on sunny days, she hangs bulky wet items outside to dry. Solar energy is free.

She also waits for a full load before running her dishwasher, aware that the unit uses as much hot water for fifty plates as for one. Feeling kindly toward her utility company, she avoids running large appliances at times of peak demand — 1 p.m. to 5 p.m. in summer, and 6 a.m. to 8 a.m. in winter.

"You can save in cooking, too," Harvey recited from his brochures.

"How?" asked the phantom light burner.

"By serving sashimi from Japan, gravlax from Sweden, gaspacho from Mexico, and bisque from Yugoslavia. They're all foods that require no cooking."

"You've got to be kidding!"

"Yeah. But it's just as easy to cook with less energy as with more." Mrs. Handyman now thoroughly thaws frozen foods before cooking, unless instructions are to the contrary. Preheating an oven is seldom called for, and the Handyman model, like most, is thoroughly heated in ten minutes. Mrs. Handyman combines meal elements for cooking together in one oven. For casserole-type dishes, she turns off the oven 20 or 30 minutes early, assured that stored heat will finish the job. That is, if she avoids oven-peeping, which wastes 25 degrees worth of heat with each peep. For sure, she no longer uses the oven to warm up the kitchen!

Getting the most from her energy dollar, she employs flat-bottom utensils with tight lids for range cooking. She turns off the heat a few minutes before foods are done; they'll "coast" to completion. She lowers burners under pans once they have come to a boil.

The Handyman refrigerator, near-universal symbol of the American good life, now does more for less. The door gasket would not grip a dollar bill when the door was shut, indicating expensive air leaks. Dust is routinely vacuumed from the condenser coils in back, the temperature is set at a practical 37 degrees (and zero degrees for the freezer), and Mrs. Handyman cools hot leftovers before storing them in the refrigerator.

Not wishing to be fanatics, the Handymans retain their electric toothbrushes, carving knives, food mixer, radios and circulating fans, all of which draw relatively low wattage, anyway.

But they vow to monitor high-wattage appliances, such as roaster, portable room heater, coffee maker and other devices which convert electricity into heat by resistance, not a very efficient way. A deep fryer draws more wattage than some room air conditioners. A toaster, for the time it is on, consumes twice as much power as the automatic washing machine. A hand iron takes three times as much power as a color television. Taken altogether, small appliances burn up 3% of America's energy. By comparison, the entire steel industry accounts for 5%.

Consumers might be assisted in choosing appliances to buy if energy demands and efficiency were clearly indicated. Accordingly, the Commerce Department recently proposed that the appliance manufacturers voluntarily label

their products to inform buyers as to how much electricity they use.

As indicated, Harvey wasn't entirely in the dark about lights. Obviously, nothing is served by a light glowing in a closet or in an uninhabited basement. Further, lights of a wide range of performance are available nowadays. One example: two, 60-watt incandescent bulbs give off a total of 1,680 lumens of light; one, 100-watt bulb glows with 1,700 lumens. The larger bulb produces more light, with 16 per cent less electricity. A more dramatic improvement can be had with a 40-watt fluorescent tube: more light than the 100-watt incandescent, at half the energy cost, and bulb life ten times longer. (However, because of the initial power surge of fluorescent lighting, the advantage is lessened where lights are snapped on and off frequently.)

One pleasant surprise for Harvey and his flock is that personal energy conservation in large ways and small need not degrade cherished lifestyles. In certain aspects, the retrenching seems to enhance the days of their lives.

For years Harvey daily motored from his business office to the post office, and stopped at a nearby gymnasium for a brisk, midday workout. The routine provided a refreshing hour's break from telephones and paperwork.

A few months ago Harvey bought a bicycle. Now, in the same hour, he pedals a ten-mile round trip to the post office. He zips around traffic jams. He talks to pedestrians he used to resent. At a sedate 10 mph he sniffs flowers, watches girls, chats with kids, and encounters all sorts of treasures that have bounced off motorized transport.

Sure, he has to carry his mail back to the office in a bike basket, but thanks to the smaller sized gasoline and utility bills, it's no burden.



Editor's note: The Handymans state that they do "not wish to be fanatics." The staff at the **High Country News** feels that due to the state of the energy crisis, a little fanaticism wouldn't hurt. Even the reformed Handyman household represents a high energy consumption lifestyle. For this reason, we add the following suggestions to conserve even more.

Home heating — "Fiddling with the thermostat wastes power" as the Handymans say, but turning it down 10 degrees when you go to bed or go away would bring about significant savings. The Handymans' recommended 72 degree setting is high. Try 68 degrees. Also, try a good old fashioned sweater. When replacing a heating system or installing one in a new home consider gas heating. The Council on Environmental Quality reports that, "For home heating, gas is more than twice as efficient as electricity. The low overall efficiency of the electric-powered heating system results from the poor conversion efficiency at the powerplant and the significant transmission line losses." If you are stuck with an electrically heated house, consider investing in a heat pump. Eric Hirst of Oak Ridge National Laboratory reports that, "Electric heat pumps provide thermal energy for space heating that is appreciably greater than the thermal equivalent of the input electric energy, making them roughly comparable to gas- or oil-fired systems from a fuel-use standpoint."

Transportation — Handyman over-emphasizes the effect of "fuel-guzzling emission controls" on his car. This makes it sound like the main reason his "1973 luxury sedan" gets as few as eight miles per gallon is its anti-smog device. As pointed out elsewhere in this issue, many lightweight, manual-transmission cars get better than 20 miles per gallon with the

same strict emission controls. Not being allowed to adjust emission controls in high altitude areas is a severe problem, however. Cars are built and adjusted at near sea level and operate inefficiently at higher elevations.

Lighting — Although Mr. Handyman was a fanatic on this point, the article played down the importance of minimizing lighting demands. Richard Stein of Richard G. Stein and Associates in New York points out that illumination levels recommended in commercial buildings have more than tripled in the last 15 years. Nearly a quarter of all electricity is used for lighting, and Stein believes that a four per cent savings in total electricity use could be achieved immediately by reducing excess lighting in existing buildings and by more effective use of lighting in new buildings.

Air conditioning — If the Handyman's carried out every house cooling strategy they so ambitiously planned they would probably not need their cherished air conditioner. In fact, air conditioning is unneeded in most climates in the U.S. if certain steps are followed. "Air conditioning is particularly important because it contributes to or is the cause of the annual peak load that occurs in summertime for many utility systems," writes Hirst. Having a neighbor turn on the climate control system before you return home is another extravagance. Do the Handymans really need to make a mad dash from their air conditioned car to their air conditioned home to avoid a hostile summer environment? Efficient air conditioning requires that all windows be sealed. Wouldn't a few open windows allow some natural air conditioning to replace an energy-expensive system? Type of air conditioner is also important. Hirst reports that some models consume 2.6 times as much electricity as others with no increase in cooling.

Water heater — Hirst writes, "With the exception of space heating, water heating consumes more energy than any other single function in the home." With this in mind, it seems the Handymans could pay a little more attention to this area. Mr. Handyman turned his water heater down to 150 degrees. Idaho's Gov. Andrus has recommended a setting of 140 degrees to save even more. Also, Hirst has shown that three inches of extra insulation on water heaters is economically justifiable at present utility rates. It generally costs about four times as much to heat your household water with electricity as with gas.

Other appliances — The Handymans should pay extra attention to their electric appliances. Even though they represent a small part of the total household energy budget, our present energy situation demands little or no waste. What is so sacred about their electric toothbrushes, carving knives, circulating fans, etc. Manual substitutes work just as well in most cases and have less chance of breaking down. Here are a few examples of other possible savings: Self-cleaning ovens use 21% more energy. An instant-on television receiver uses an extra 5-40 watts a day . . . even when it is turned off. Color televisions use substantially more energy than black and white sets. A frost-free refrigerator uses over 60% more electricity than its conventional counterpart. Turn off your gas stove pilot light for additional savings. A gas stove pilot light uses about half the total gas that the stove consumes. There are inexpensive automatic devices to ignite burners conveniently and safely if you don't want to go back to the old match stick method.

Despite these criticisms, we feel that **Exxon's** article is commendable. We appreciate the opportunity to reprint it and hope that their future efforts in the area of energy conservation will show the same sincerity and dedication. We are all in the energy crisis together.

Trimming the Fat — Conservation

I. Leadership: The Rumble Becomes a Roar

Six months ago, former Interior Secretary Stewart Udall declared that Americans were "like addicts who are hooked on this high, wasteful energy lifestyle." Today we are going through the first stages of withdrawal.

At the same time, Udall declared that, "nobody in authority is saying we can't have all these goodies and a sound economy and clean environment, too." Today almost everyone in authority seems to be telling us the honeymoon is over and energy conservation is here to stay.

It was a small rumble at first. Consolidated Edison may have started things rolling with their Save-A-Watt program. Somehow their efforts didn't ring true as they kept pushing off-peak use (that added to on-peak anyway) and blamed the environmentalists for the impending energy crisis.

Save-A-Watt flickered out after its public relations usefulness had worn off. It wasn't until Oct. 1972, when the President's Office of Emergency Preparedness (OEP) completed its staff study, **The Potential for Energy Conservation**, that the idea of conservation gained some credence. Unfortunately the study received little publicity, and was hard to get even if you did know about it. Shortly after publication the OEP was dismantled.

The winter was cold, several schools closed, farmers couldn't dry their crops and energy conservation was forced upon us. Spring came at last, drying up fears of energy shortage and if it wasn't for those frustrating service stations without gas we could have forgotten our problems for a few months and returned to living high off the gasoline hog.

It was in August that Secretary of Interior Rogers C.B. Morton revealed what most energy conservation advocates had known for quite some time. "I'm not going to gild the lily," he said, and went on to admit that so far the government effort to promote energy conservation has been "mostly jawboning."

With this admission, the government kicked off its effort to promote energy conservation. Morton declared, "We owe it to the country to develop a technical competence . . . to cut down the per capita use of energy." Within two weeks he had set up an office of energy conservation within the Department of the Interior. John Gibbons, an Oak Ridge National Laboratory veteran and a man highly respected by environmentalists, was announced as the new director. By early 1974 "the office should be operating effectively," said Morton.

The states followed suit. Faced with severe power shortage in the Pacific Northwest, that region's governors were the first to respond. Oregon's Tom McCall directed his constituency to shut off all lighting used for commercial and ornamental displays. He is now talking of suspending school in January and making it up in the summer. McCall estimates shifting the school schedule could save 4 million gallons of fuel.

Idaho's Cecil Andrus ordered state electricity use cut by 10%. Andrus didn't wait for the bureaucracy to process the order. He personally drove around the State Capitol complex late one night, looking for lights that could be turned off.

Other western governors were not to be outdone. California's Ronald Reagan started dimming lights and edging back thermostats to conserve energy. California's state buildings were to have heat, lights and air conditioning

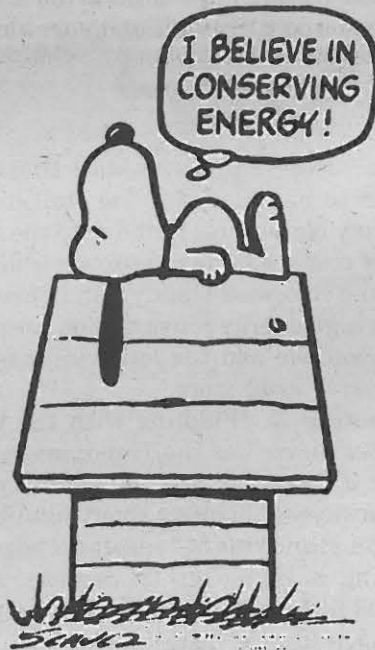
shut down on weekends. New state cars will be small, economical models.

Gov. Reagan's conviction must be viewed with some skepticism. While proposing these measures he has vetoed an energy conservation bill for California. The bill would have created a commission with broad powers to prepare emergency plans, forecast supply and demand and engage in research and development of renewable energy resources.

In Colorado, the state's main concern is over a gas shortage. Tourism was reportedly down 27%. Gov. John Vanderhoof noted that the fuel shortage in Colorado this past summer was probably "worse than anyone . . . wants to admit." As one remedy, Vanderhoof wants to lower the state's maximum speed limit to 60 m.p.h.

At a recent conference of western governors in Albuquerque, N.M., Vanderhoof said, only two chief state executives — from Nevada and Wyoming — indicated reservations about requiring lower speeds in their far-flung regions.

Back in the federal government, energy conservation has progressed from "jawboning" to voluntary controls. Typical of the Nixon Administration's attitude is the symbolic emblem it has adopted — a lazy Snoopy day-dreaming in the summer sun. The thought: "I believe in saving energy!"



saveEnergy

While the administration pays lip service to conservation, the nation is looking for leadership. Coast to coast the mandate is clear. Gov. McCall called the shortage a "calamity." Maryland's Gov. Marvin Mandel labeled his state's situation "desperate."

Sec. Morton is already seeing the negligible effect of voluntary controls. On Oct. 26 he reported that it may take several cold winters and seasons of closed schools to convince the American consumer he must conserve energy.

The Administration has been forced to shelve its voluntary fuel allocation plan for a mandatory one. Yet this does not appear to be an indicator to the Administration, for crude oil and gasoline remain unregulated and conservation remains a daydream.

Commerce Secretary Frederick Dent is against mandatory reductions in energy use because it "would involve the development of

a very large bureaucracy and delay," he said. Dent also voiced emphatic opposition to a federal weight tax on autos and redesign of electricity rates (so the large users would no longer pay diminishing rates per kilowatt-hour.)

Dent said a reversed electric rate structure would discourage expansion by electric utilities.

A Treasury Department study, described as preliminary, breaks with Commerce over the auto weight tax. The study backs the imposition of an excise tax on gasoline-thirsty cars. "Basically, the tax would establish a national automobile standard of 20 miles per gallon," a summary memo states. "Cars getting that mileage or better would pay no excise tax."

Congressional bills to establish such a tax have already been introduced by Rep. Charles Vanik and Sen. Frank Moss. The Administration has not endorsed any such legislation to date.

Where does the President stand on all this? Well, according to Leonard Larsen, chief of the Washington Bureau of **The Denver Post**, Nixon is setting a national example by riding "in one of the royal helicopters with the rest of the Nixon family" as they commute between White Houses. According to Larsen, "there's been no announcement from the White House to discontinue the practice of transporting the royal dog, 'King Timahoe,' in a royal White House limousine to the royal retreat at Camp David, Md., since the royal dog is scared when he rides in one of the royal helicopters. . . ."

Larsen concludes, "It appears that you and I are to set the examples of energy conservation in this country in the cold and dim months ahead and the royal family will cheer us on."

III. Putting Reins

When this country starts to feel the full impact of the energy crisis, those Americans whose lives revolve around the car are likely to be the hardest hit.

Almost half of the energy used in the U.S. is either directly spent in transportation or used in support of transportation, such as auto manufacturing. That fact comes from Dr. William Gouse, Jr., director of the Interior Department's Office of Research and Development in Energy and Minerals. And Dr. Lester Lees of Caltech's Environmental Quality Laboratory says the automobile, considered as a total system, from raw materials through production to repair, accounts for half of this, or 25% of all U.S. energy consumed.

It appears then that as the energy crisis deepens, the transportation sector of our society may show the most radical changes and the greatest energy savings through conservation measures.

Robert Sansom, Assistant Administrator for Air and Water Programs of the Environmental Protection Agency, says, "Over the last 50 years, our dependence on the automobile has become almost total. Since the '20s the population merely doubled, but the number of cars has grown by 800%. Currently, there's one car on the road for every two people in the United States."

Gouse sees a "ray of hope" in these statistics. He feels that our country has just about peaked in its automobile boom, because there are now more registered cars in the U.S. than there are

of Energy Takes Center Stage

II. Recycling and Energy: Waste Less, Want Less

by Bruce Hamilton

Solid waste management has a substantial influence on energy consumption. Waste disposal is not just a problem of limited throw-away space that can be solved by an electric trash smasher. Trash smashers lock up valuable resources into compact cubes where they are irretrievable. In the end we must seek ways to use our discarded resources and save energy in the process.

"Although recycling will not solve the energy crisis, it can make a substantial contribution," according to John Busterud of the Council on Environmental Quality. Government estimates show the United States now produces about four billion tons of solid waste annually. This amounts to approximately 110 pounds of garbage per person per day. Busterud estimated that "economically realistic" increases in voluntary recycling could save as much as 3% of the nation's total energy consumption. Interestingly enough, government officials estimate the energy deficit during the coming winter will be about three per cent.

"While a 3% energy savings is still small, it represents a savings in 1985 of about two million barrels of oil a day," said Busterud. To put this in perspective, the United States currently imports six million barrels of oil per day. A "mature" oil shale industry might produce one million barrels of oil a day by 1985.

The Conservation Foundation publication, **Hidden Waste: Potentials for Energy Conservation**, points out, "Whether or not net production energy is conserved in the process of replacing a particular raw material by recycled scrap is not always obvious; the energy involved in collection, separation, and reprocessing must be carefully weighed against that involved in

mining, processing, and transportation."

Eric Hirst, energy specialist at the Oak Ridge National Laboratory, has discovered, "For steel, aluminum, copper, and paper the primary energy consumption for production from recycled scrap is estimated to be considerably less than the energy required to make these materials from raw ores. For example, the energy required to produce steel from scrap is roughly 25% the energy required to make steel from raw ores. For aluminum the figure is less than 5%, for copper 5-10%, and for paper 60-70%." Thus, it can be seen that from aluminum alone the saving could be on the order of 95%.

Hirst notes that if one-half of the U.S. production of paper, steel and aluminum had been obtained from recycled scrap in 1970, the overall electric energy savings would have been about 42 billion kwh, 3% of total electricity consumption for that year.

Bruce Hannon of the University of Illinois has shown that not all materials merit recycling strictly from an energy standpoint. Hannon's analysis shows that "remelting scrap bottles, while returning about 30% of the glass, would consume more energy than manufacturing all of the glass from raw materials."

Recycling in the sense of re-using is a different matter altogether. As Hannon points out, returnable bottles that are re-used require only one-fourth as much energy per gallon of beverage as do throw-away bottles.

A study by the Oregon Environmental Council estimates that as a result of Oregon's "Bottle Bill," energy savings were dramatic. Those savings during 1973 amounted to about 1,320 billion BTU — enough to heat a city with a population of about 46,000. Oregon is now reporting

a return rate on soft drink and beer bottles of 95%.

A partial list of the volume of disposable items our throw-away-society produces is staggering. Last year, Americans discarded 80 billion metal cans, 34 billion glass bottles, 40 million tons of paper, seven million cars and trucks and eight million television sets. (The cost of disposing of it runs to \$6 billion annually.)

Citizen volunteer recycling campaigns can't hope to keep up with this onslaught of garbage. Our national energy budget can't keep up either. Recycling must be institutionalized and adopted as part of a national ethic if we are to meet this problem and save substantial energy resources.



Photo by Lynne Bama

on a Runaway Gas-Guzzler

people to drive them.

Not only do we have too many cars, but we also use them inefficiently — which hastens the energy drain. Sansom notes, "The rate of occupancy of cars during peak load periods is down to 1.2 persons per vehicle and falling steadily. This trend prompted someone to predict that by 1980 one of every three cars will be traveling along without a driver. That's improbable perhaps, but not much more absurd than the present practice of encasing one man in 5,000 pounds of steel, adding 400 horses, and then making him creep along at 5 miles per hour breathing a combination of synergistic poisons."

Sansom's 5 m.p.h. figure is not just an exaggeration used to build up his case against the automobile. Cars can travel at racetrack speeds, but for example in New York City, "90% of the roads are filled, even in off-rush hours, and average speeds are down to 5½ miles per hour," reports Sansom.

Another problem with the American auto is that it is generally too big for economical, efficient fuel conversion. Detroit has intentionally played up to the American image of 'bigger is better.' The Ford Mustang, called a compact when it appeared in 1964, has increased in weight by 800 pounds. And Detroit continues to produce its gas-guzzlers despite the fact that studies show mileage to be roughly twice as good with a 2,500-pound car as compared to one twice as heavy.

Sansom writes, "The market is trending to

smaller cars. By last year, the small car share had grown from 31% of all cars sold in the United States to 36%. Current estimates by automakers go as high as 50% within 5 years."

Detroit knows the projections, but they are fighting the trend tooth and nail. "Inventories of unsold big cars are backing up in some showrooms," writes the **Wall Street Journal**, and, "ultimately, the auto industry's profits — largely derived from big cars — could be squeezed. 'This kind of thing snowballs,' says a sales expert for one of the Big Three. 'It's kind of scary.'"

One Chrysler-Plymouth dealer in Illinois who was interviewed by the **Journal** declared, "We're in trouble, and there's no quick way to cure it." This dealer tried to overcome the objections of mileage-conscious customers by "guaranteeing" 15 miles to the gallon for the first 10,000 miles on the big Chryslers he sells. "I knew I was going to pay," he said, "because 99% of these cars won't get more than 10."

Manufacturers are "using cash-incentive programs to encourage dealers to move big cars," the **Journal** reported.

Energy waste due to auto size is intensified by the gadgetry that accompanies most cars. Today it's hard to find a standard car that is not already bedecked with "optional equipment." Most "options" are energy-hungry additions that we can ill afford. More than 90% of all new cars bought in the U.S. have automatic transmission, which increases fuel consumption by about eight per cent. Factory air-

conditioning, found on more than half of the new cars in the U.S. involves about a 20% fuel loss.

Environmental safeguards are also costly in terms of energy, though this is overplayed all too often. Currently an emission-controlled car is seven per cent less efficient than an uncontrolled car. Sansom says the EPA expects to recoup this loss by 1975. The rotary engine, for all its promise, uses 35% more fuel than an equivalent piston engine.

One of the few positive options that is increasing in usage is the radial tire. Steel-belted radials reportedly increase fuel economy by 10%.

All of these easily attainable mileage increases could have a significant effect on the oil Americans use. The Conservation Foundation's publication, **Hidden Waste**, notes that, "increasing the average miles per gallon from a hypothetical 14 to 20 would reduce automobile gasoline consumption by 23%, or 8.5% of the projected total petroleum consumption in 1985."

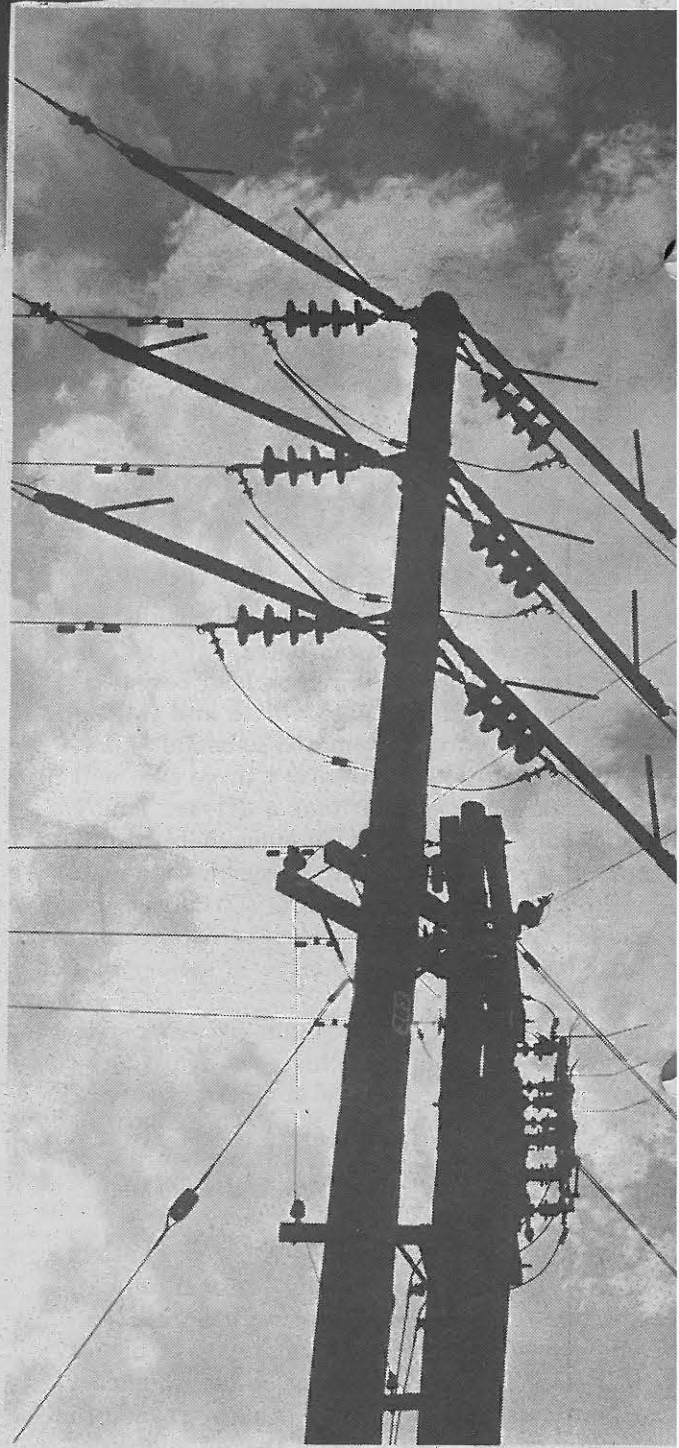
Clearly there is more for the American motorist to do than curse closed service stations and bemoan the lack of adequate mass transit. Simple voluntary steps are available that will save energy. There is no excuse for inaction.

Save -

The question has become, 'For
on using energy as if there were
marching across our countryside
as the marching armies of an en-

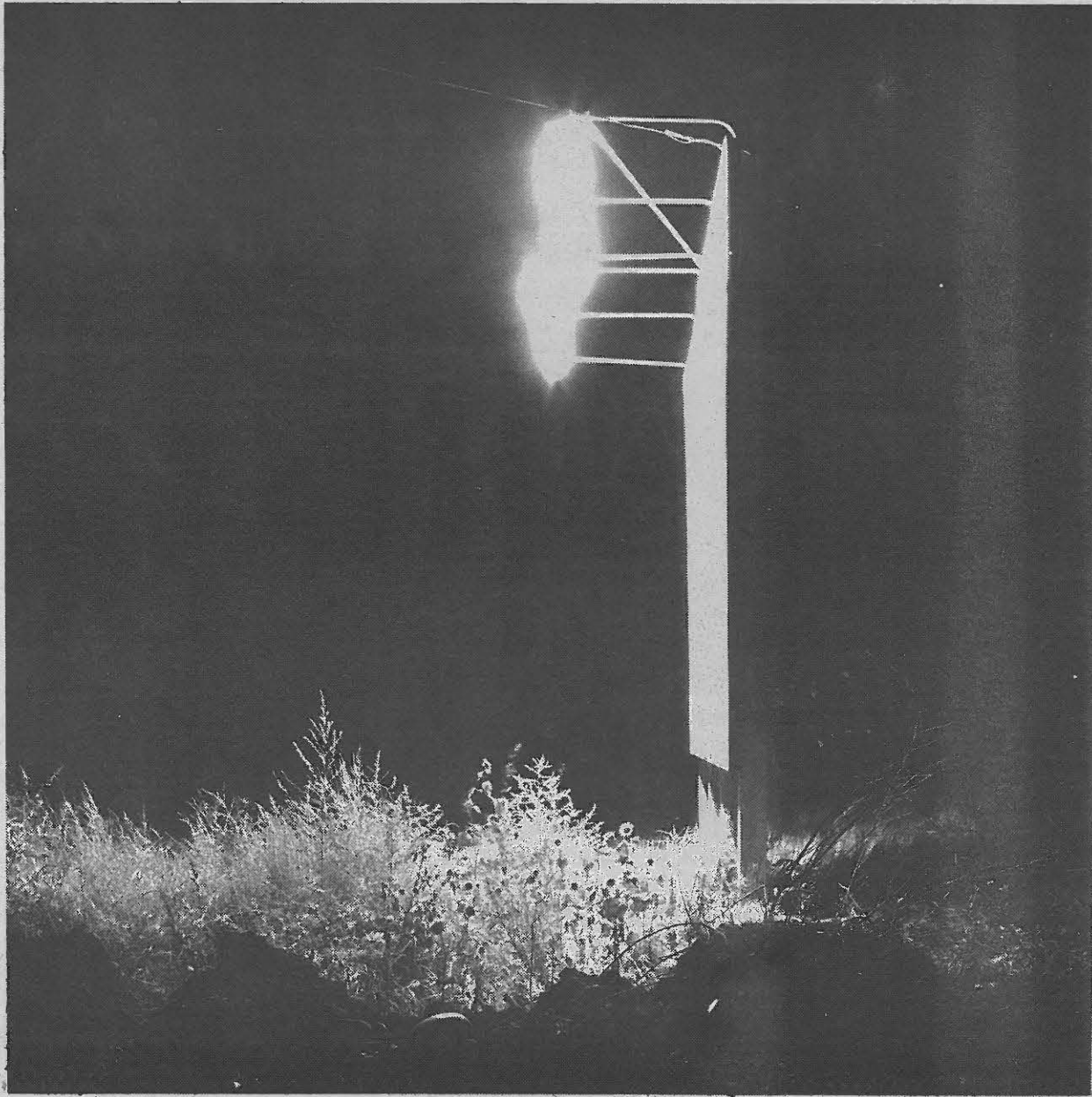
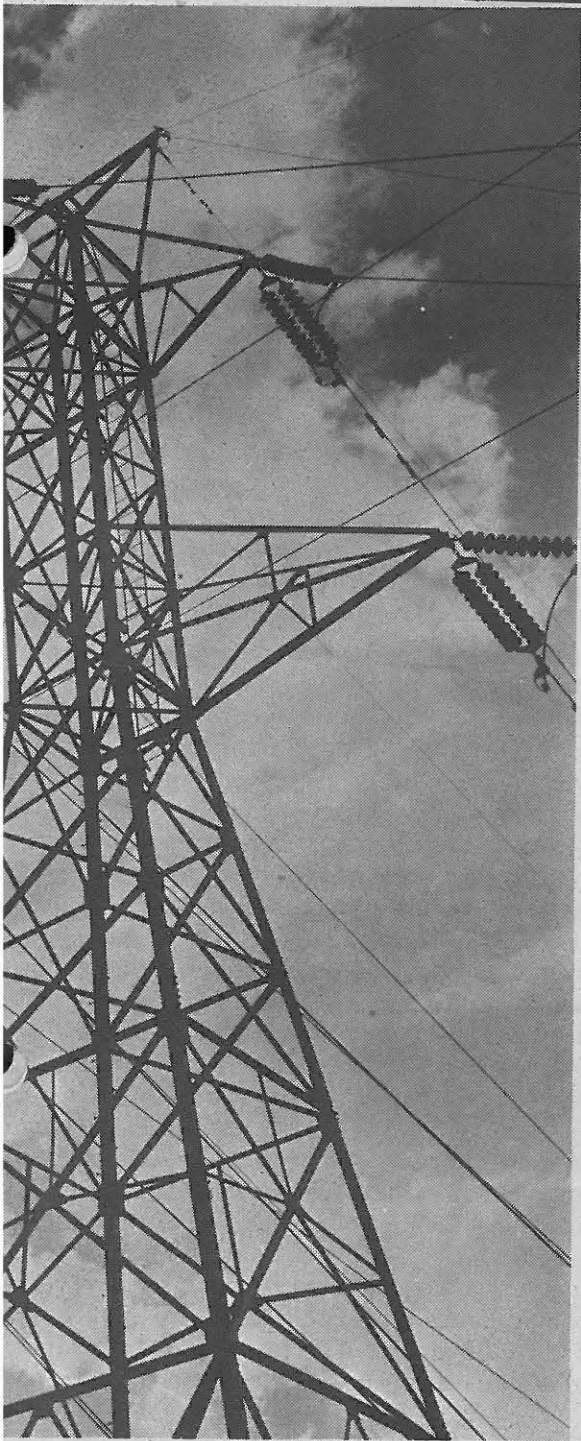
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Managing Private Land

Wyoming — Planning Commission Overruled, Plan Overlooked

The Teton County Commissioners overruled their planning commission last month by granting conditional approval to three new development projects. The projects would add more than 450 dwelling units to the valley.

Commissioners promised approval if the developers presented a letter indicating the State Board of Health's preliminary approval of their sewer and water systems.

"It's obvious that Teton County lacks the tools to work with, and we cannot do the job the people of the county want us to do without these tools," said Commissioner Bill Ashley.

The Commissioners reversed the Planning Commission's ruling because it was based on density recommendations in the Teton County Master Plan.

"The Master Plan is only advisory in nature and cannot be interpreted as a substantive regulation affecting subdivision plans being submitted for approval," said County Attorney Bob Ranck.

Florida — City-Size Limit Challenged

A growth ceiling approved by a city in heavily populated Southeast Florida will face a crucial test in January. A year ago the citizens of Boca Raton voted five-to-one to limit their population to a maximum of 100,000. Two developers have taken the city to court for allegedly violating

the U.S. Constitutional provision against taking property without compensation.

The case, to be heard in U.S. District Court in Miami, may produce a landmark decision. Two lawyers from the Washington headquarters of the National Association of Home Builders have already traveled to Boca Raton to advise the developers.

Utah — Growth Truths Make Locals Shudder

Recreational subdivisions may bring serious economic woes to the surrounding community, according to a Utah State University study. The study, "A Taxpayer's Problem — Recreational Subdivisions in Utah," is based on a master's thesis by Donald W. MacPherson.

MacPherson points out that in Southern Utah subdividers buy mountain land at about \$250 an acre and resell it at \$6,000 an acre. Local government does not share in the bounty, however. Because many of the mountain lots are assessed at a lower per cent of their market value than other property in the county, the county loses thousands of dollars in revenue.

The study also examines the only land use laws which exist in the state, the "toothless" regulations of the Utah Real Estate Division (URED). The URED requires that the developer fill out a questionnaire in the process of applying for a permit to subdivide land. MacPherson quoted the following answers supplied by developers on questions about water supply,

sanitation and roads.

Water? — "Dipping rights on spring."

Sanitation? — "Lots to be sold to constipated individuals until such time as the Board of Health will be satisfied with tests and allow the use of septic tanks, at which time the individual lot owner will install a tank and distribution which will pass Board of Health standards at buyer's expense."

Roads? — "Subdivider does not intend to build new roads to serve the tracts."

Even when such problems are boldly outlined on URED forms, the division cannot deny a permit to sell, the study pointed out.

Reckoning from Washington

by Lee Catterall

The Forest Service last week echoed a Presidential panel's call for increased timber cuts to meet a public demand for lumber that could double in the next half century. But it differed from the panel on the question of where the timber should come from.

The President's Panel on Timber and the Environment, headed by former Interior Sec. Fred A. Seaton, recommended in September that areas of old trees in the West be harvested. It added that the Forest Service should "review and revise" policies that restrict industry activities on National Forest lands.

By law, the Forest Service allows companies to bid on a limited number of board feet from National Forest land. A board foot is one square foot of wood one inch thick. The service this year offered companies 10.8 billion board feet for sale. But in May the Administration decided to up that amount by another billion. The law allows it to offer 13.3 billion, so it still was within the limit. President Nixon wants the cut to meet the limit. The Seaton Report suggests this can be done by changing regulations regarding such things as rotation of tree crops.

The Forest Service study, which is conducted every ten years, forecasts increased timber cutting to occur mainly in the South on the same steady, rising level that has occurred in recent years. Yields from the Rocky Mountains are expected to be about the same, it says.

But along with that kind of steady increase would come price increases in the year 2000 that would be 50 to 60 percent higher than they were in 1970.

"We're already halfway there" in prices, a Forest Service spokesman said. "We've just gone through an extraordinary demand for lumber." A 60 percent rise in housing starts over a two-year period, he said, shot lumber prices up by a third.

At this writing, Washington-based environmentalists had not studied the Forest Service report. However, Sierra Club Washington representative Brock Evans said its assumption that increased yields from the South, rather than from old growth in the West, is "more in line with our thinking."

Environmentalists complained earlier this year about the Administration's decision to increase cuts in National Forests. They pointed to a Forest Service directive to close down many campgrounds as a bad sacrifice to make way for tree cutters. And they called on the Forest Service to replant trees on five million acres of National Forest land that now lay bare.

The Forest Service spokesman said the campground directive had nothing to do with the tree-cutting, but rather was a cost-saving action in anticipation of a tight budget. When Congress increased the service's budget for recreation, he said, the problem was largely corrected so that "very, very few" campgrounds have had to close.

The five million barren acres, he said, are mainly land in the East that the government bought in the 1930s. "The bulk of it had been cut and burned over when it was in private ownership," he said, and not land the service had harvested and not reforested.

The Seaton Report now is in the hands of the Office of Management and Budget, which will decide what proposals to use and what form of legislation to suggest to Congress.



John Bermingham, environmental and planning coordinator for the Governor, has urged the Colorado Land Use Commission to investigate problems in six Colorado land developments. The subdivisions are: Middle Park Land and Cattle Co., Routt County; Val Moritz, Grand County; Arapahoe Lakes, Arapahoe County; Pleasant Valley, Routt County; Silver Cliff Land and Cattle Co., Custer County; and Pine Springs, La Plata County. The LUC voted to begin immediate investigations of all six. This is the first of six steps which could result in cease and desist orders being issued against the developers. "The Land Use Commission should get into this and start issuing guidelines to county commissioners," Bermingham said.

Photo above shows a small portion of the Middle Park Land and Cattle Company's Steamboat Lake Development in Routt County. Mountain in background is Hahns Peak. Large building (right, middle) is clubhouse and below it is construction work on golf course. Part of ski slope is shown in foreground. Roads for building lots penetrate into timbered tracts shown above the clubhouse and to left.

High Country News-11
Friday, Nov. 9, 1973

The Hot Line

Weekly Energy Report (1238 National Press Building, Washington, D.C. 20004) says the energy crisis turned into near panic in Washington last week. The Report says the situation was touched off by "some realization of the impact of the forthcoming oil shortfall. . ."

A **Defense Department** memorandum spells out some gloomy energy news as a result of Arab cut-backs, embargoes and price increases. The memo says the U.S. will be running three million barrels of oil per day short of present consumption by Nov. 15. The figure amounts to 18% of total consumption, but could go higher as time goes on. The Arabs have also nearly doubled the posted price of any crude oil which is delivered.

Sen. Henry Jackson says a Federal Power Commission report shows a possible saving of 500,000 barrels of oil per day by conversion of oil-burning power plants to coal. The conversion of 44% of the plants could be made within a year. Jackson has introduced a bill which would require the shift.

The World Trade Center, a 110-story structure in New York City, uses 80,000 kilowatts of electricity, more than the entire city of Schenectady, New York, with a population of 100,000.

Another aspect of the **Mid-East oil crisis** could result from any cut-off of Arabian oil to Canada. Such a cut-off would immediately cause Canada to cut back about half of its oil exports to the U.S. Canada sends oil to the U.S. from the western provinces and imports oil from the Mid-East for use in the eastern provinces. The U.S. receives about 1.4 million barrels of oil a day from the northern neighbor.

About 22,000 people have signed coupons urging Congress to enact a moratorium on the licensing and operation of civilian nuclear power plants, reports **The Task Force Against Nuclear Pollution**. It says it is organizing an effort to urge Congress to develop "safe sources of clean energy (especially energy from the sun) instead of nuclear fission, and to phase out the operation of nuclear power plants as quickly as possible." To support their efforts, send an endorsement of the nuclear moratorium to John K. Mustard, 305 High St., Moorestown, NJ 08057.

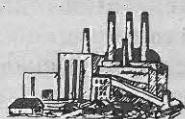
The Corporate Examiner, a publication of the National Council of Churches, included a brief on nuclear power in its October, 1973, issue. Entitled **Nuclear Power: The Angel of Death**, the brief examines the dangers of nuclear power and other aspects not generally known to the public. Copies of the brief may be obtained from the Corporate Information Center, Rm 846, 475 Riverside Drive, New York, NY 10027. Prices are 60 cents for 1-10 copies; 40 cents each for 11-19 copies.

A California assistant state attorney has ruled that **energy needs** can be a consideration in granting a construction permit for expansion of a nuclear power plant. The decision ruled in favor of the two energy companies that wanted possible energy shortages considered in a ruling on their application to build a \$1 billion expansion of the San Onofre Nuclear Power Plant. Groups opposing the project argued that only safety and environmental hazards should be considered.

A research firm retained by **Southern California Edison Co.** reported that California's electric power industry may run out of natural gas by 1976.



Utah's White River runs out of scalloped hills rich in oil shale. This area is adjacent to the Utah Oil Shale Tracts designated by the Department of the Interior.



Emphasis ENERGY



Mrs. V. Crane Wright, President of the Colorado Open Space Council (COSC), says 15 national, regional and state-wide conservation organizations have joined COSC in requesting a postponement of the Interior Department's proposed oil shale leasing program. The postponement, she said, "would be in the national interest and would allow a full public consideration to be given to alternative oil shale policies."

The organizations, in addition to COSC, include the National Audubon Society, the National Rifle Association of America, the Rocky Mountain Sportsman Association, the Wildlife Management Institute, Trout Unlimited, the Wilderness Society, the National Parks and Conservation Association, the New Mexico Conservation Coordinating Council, the Denver Audubon Society, the Environmental Policy Center, the North American Wildlife Foundation, the **High Country News** of Wyoming and Environmental Action of Colorado.

Letters supporting the delay request were sent to Interior by the Natural Resources Defense Council and the Rocky Mountain Center on Environment.

The request was sent to Rogers C.B. Morton, Secretary of the Interior. The Secretary is responsible for making the final decision on whether to proceed with the leasing of the public's oil shale lands in Colorado, Utah and Wyoming to oil companies.

The request emphasized that the proposed leasing program is "poorly designed" to meet the Interior Department's stated objectives. Because the program "represents major difficulties to consumers, industry, Government, conservationists and the general public (who own this land)," the request warned that, "The program as presently devised could be an

economic, social, environmental and political fiasco, the costs of which would have to be borne by the Federal Government."

Ten alternatives accompanied the request which "either have not been addressed or have received a narrower-than-required analysis in the Final Environmental Statement" on the proposed oil shale development. Interior released the Final Environmental Statement on Sept. 1, 1973.

The request pointed out that Interior's four objectives cannot be met. The drawbacks cited were these:

1. "Since most oil shale technologies are in their infancy, it is inappropriate to gear this program on the public lands to commercial" development. The program does not prevent the large, integrated oil companies from "monopolizing the public land tracts" of yet another new energy source.

2. The program contains "few measures to minimize the adverse impacts on the human and natural environment." It could "lock us into present technology" that is socially costly and environmentally destructive.

3. The state and local governments must provide increased services for the "expected population boom" oil shale development will bring to the three-state region. These governments "have no protection" if the expected tax revenues "do not materialize." In addition, the "Federal Government is undertaking two sizable risks: 1) That the lease-holders may need additional subsidies from public funds to market shale oil at a profit; and 2) That if the company fails, the public must pay the bill to repair the damage done."

4. Interior has not presented "a comprehensive management plan." If the plan is developed as the program goes along, "the experience may cost far more than it is worth."

Rocky Mountain Report

by Gerald A. Jayne, President
Idaho Environmental Council

The Idaho Environmental Council was formed in early 1969 as a non-profit, non-tax-deductible organization incorporated in the state of Idaho. The Council engages in various activities, including lobbying, serving on numerous advisory committees, supporting political candidates, entering into a limited amount of legal action, and attempting to provide environmental education via a newsletter, news releases, slide shows, and talks. To date, the IEC has run entirely on volunteer effort. Directors, presently 17 in number, make policy and choose officers from among themselves. There are about 400 individual members of the IEC, many of them active beyond the mere act of paying dues, and many quite expert in various environmental fields. Some division of labor is provided by the existence of several committees. Of course, work is not done by a committee nor by an organization — it is done by individuals. The effective function of the entity called "IEC" is that of communication and coordination; the things that get done by individuals who are motivated primarily by their love of the land.

A pertinent part of the IEC's purpose, as stated in the by-laws, is "... to stimulate an increased understanding and awareness of the impact of modern society and man on his environment; to work for the preservation and wise use of scenic, historic, open space, wildlife, wilderness and outdoor recreational resources. ...". Although the Council is involved in varying degrees in many aspects of environmental protection in Idaho, emphasis is on the preservation of natural areas; this is what our more active members are usually interested in, and secondly, wilderness is probably Idaho's most important natural resource. Some attention is given to pollution problems, noise, energy, timber practices, etc., but there is simply not enough time available on a volunteer basis to even be aware of all the environmental problems and threats in Idaho, let alone respond to them. And so priorities are established, either consciously or otherwise; major emphasis is put on wilderness and wild river protection, where the issues are usually clear-cut and the proposed actions are usually irreversible.

Idaho is about 60% federal land, with 21 million acres of national forest land and the remainder BLM land. Idaho has more wilderness-type land (8 million acres of national forest de facto wilderness alone) and more free-flowing streams than most other states except Alaska. So we spend much of our effort working with (and on) the U.S. Forest Service, since they manage the most land in the state; and also much effort attempting to counter the wishes of the federal dam-building agencies (Bureau of Reclamation and Army Corps of Engineers) to place more dams on our streams. Since the forests are national forests (a fact frequently overlooked by many of us fortunate to live near them) and most of the streams are on federal land, many of the problems we are involved with are national issues rather than merely local or state issues. The IEC tries to stay abreast of proposed federal legislation relating to federal lands and to water development projects in Idaho, and works closely with national conservation organizations.

The general issue of development versus preservation of our remaining natural areas seems to be the matrix into which most of our controversial problems are cast. The old "Growth is Good" attitude dies hard, but some Idahoans are coming to realize that physical growth frequently causes more problems than it creates, and that there is more to life than merely being a consumer.

The major specific wilderness issue facing us now is the reclassification of the Idaho Primitive Area, and the adjacent Salmon River Breaks Primitive Area, as required by the Wilderness Act of 1964. The IPA is a magnificent, mountain area of 1 1/4 million acres, the largest national forest primitive area in the U.S. The IEC and other Idaho and Montana conservation organizations have proposed a "River of No Return Wilderness" which would embrace the IPA, the SRBPA, and several contiguous de facto wilderness areas. This 2.3 million acre wilderness would be



The Idaho Environmental Council fought the ill-fated Lower Teton Dam from its inception. But the classic pork-barrel water project is now well along in construction.

Photo by Dave Sumner

the largest statutory wilderness in the country (possibly the largest one possible outside of Alaska). Designation as wilderness would best protect the existing and outstanding values relating to wildlife habitat, fisheries, watershed protection, and recreations. However, as usual, timber and mining interests are gearing up to try and make the final wilderness as small as they can.

Hells Canyon also remains a major issue for us and Oregon conservationists, an issue which will warm up in the next few months as the Hells Canyon—National Recreation Area bill sponsored by the four Idaho and Oregon Senators proceeds through the law-making machinery. The deepest canyon in North America is still not safe from the proposed High Mountain Sheep Dam, nor from numerous other threats.

Dams are becoming less popular in Idaho, but the old dam-building habits are still strong in some quarters. The classic pork-barrel water

project is unfortunately a-building now in Teton Canyon, with only moderate chances of being stopped. Dam promoters still long for the Swan Falls-Guffey and Lynn Crandall Dams on the Snake River.

On the state level, there is still much to do. The state Legislature has been, for the past 2 years in particular, quite unresponsive to the needs for environmental legislation. Subdivisions are spoiling some of our most scenic rural lands, frequently contributing to water pollution and to growth problems in general. We still have no flood plain management laws, no minimum stream flow law, nor a meaningful surface mining reclamation law.

The address of the IEC is P.O. Box 3371, University Station, Moscow, Idaho 83843. We welcome new members, who need not be Idaho residents. After all, most of the problems facing us are on your public land. The regular or family rate is \$7; student rate is \$3.

Areas of Action

The National Park Service plan for phasing out concessioner-operated lodgings in Zion and Bryce Canyon National Parks and Cedar Breaks National Monument is running into trouble. 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. Even though the plan would bring more business into Cedar City, the businessmen feel they would lose world-wide advertising promoted by TWA.

Phasing out the lodgings would reduce unnecessary impacts on the national parks. It is a precedent which should be extended to other national parks. Please write to: Mr. Ronald Walker, Director of the National Park Service, Department of the Interior, Washington, D.C. 20240. Just as importantly, write to your congressmen, or send a copy of your letter directed to Walker. Commend Mr. Walker for the plan to phase out the overnight lodging in the Utah parks.

The world's whales are in deep trouble. The blue and humpback whales are verging into extinction. The fin whales are critically depleted. Last June, the major whaling nations, by majority vote, agreed to restrictions on whaling. That agreement was abrogated by

Japan in September. Now a coalition of major environmental groups has proposed a boycott of Japanese products and an embargo on Japanese fisheries imports.

The National Wildlife Federation has gone even further and accused Russia of also violating whaling restrictions. The Federation is asking for a boycott of both nation's products.

It is estimated that both countries killed some 37,000 whales last year. Tom Kimball, executive secretary of the Wildlife Federation, says, "The best scientific information available points towards the extinction of at least some of the eight species of great whales."

Friends of the Earth, the Fund for Animals, the Animal Welfare Institute, and the National Wildlife Federation are all calling for a boycott of automobiles, cameras, clothing, TV and radio sets, canned fish, alcoholic beverages and furs from the two countries.

The conservation groups have pledged an all-out campaign to save the whales. They say, "We will urge our government to take every legal means available to exert economic and political pressure on the Japanese to bring about compliance with policies aimed at preserving the great whales."

You can do your part by refusing to buy Japanese and Russian goods and then letting your congressmen know about it.

Western.....Roundup

Land Mismanagement Charged

The Bureau of Land Management has been charged with mismanagement of livestock grazing programs on public lands of the eleven western states. In a suit filed earlier this week, the Natural Resources Defense Council; the Ada County Fish and Game League of Boise, Idaho; the National Council of Public Land Users of Grand Junction, Colorado; the Nevada Outdoor Recreation Association, Inc., of Carson City; the Oregon Environmental Council; and an independent wildlife biologist, James K. Morgan, joined in the action.

The suit is an outgrowth of a year's investigation by NRDC of the BLM's management of over 150 million acres of publicly owned land. The study included the effects of livestock grazing, which is the most extensive commercial use made of these lands.

Dr. Terry Lash, one of NRDC's staff scientists, says, "These lands are a priceless national asset. However, instead of managing them to protect and conserve all of their resources, the BLM's management has been designed primarily to promote domestic livestock grazing, and has resulted in significant environmental degradation on millions of acres of these lands." He says the adverse effects of the grazing practices permitted by the BLM include the reduction of fish and wildlife populations, accelerating erosion, deterioration in water quantity and quality, and impairment of recreational uses.

The lawsuit would require the BLM to prepare environmental impact statements in connection with the issuance of permits to private stock-growers to graze livestock on the public lands. The suit says the National Environmental Policy Act of 1969 requires an assessment of the environmental effects of the livestock grazing permitted in each of the BLM's 60 management districts.

Bill Meiners, a former chief of resource management in the Boise District of the BLM and president of the Ada County Fish and Game League, says the intent of the suit is not to end grazing on the public lands, but to require the BLM to weigh the impact of kinds and numbers of livestock, and to determine suitability of particular areas for grazing.

Pressures Mount for DDT Use

Pressures continue to mount for a relaxation of EPA regulations on use of DDT in the Pacific Northwest. A devastating infestation of the tussock moth has caused an estimated \$48.7 million in damage to forests. However, much of the estimate was Forest Service projections for cost of fire control in the next five years. The infestation, now in its third year, has covered about 800,000 acres of forest in varying degrees.

The tussock moth is matched in destructiveness by the gypsy moth of eastern hardwood forests. As a result, a House agriculture subcommittee has voted to lift the ban on DDT use in national forests and "other agricultural land." Such other agricultural land could be the dry pea crops of Washington and Idaho. There, the president of the Inland Empire Pea Growers association has called for limited use of DDT on the edible crop.

There is one note of optimism from the Northwest. The tussock moth infestation appears to be dying down.

Senate Approves Flat Tops

The U.S. Senate approved a 237,500-acre Flat Tops Wilderness Area in Colorado. The wilderness is somewhat larger than the area proposed by the Forest Service. The Nixon administration opposed the larger area on grounds it would threaten the oil shale industry, included "commercial forest" land, and that it included some private lands, "improvements, primitive roads, and water storage and supply facilities." The Senate bill is expected to face stiff opposition in the House.

Part of the opposition will come from the Colorado Water Conservation Board. Following Senate approval of the Flat Tops, the Board refused to endorse the enlarged area. Ironically, the Conservation Board staff supported the larger area, arguing that wilderness would protect water resources needed for development of oil shale.

Wild Horses to be Returned

The survivors of a wild horse roundup in Idaho are to be returned for claims of ownership or release next spring. Nineteen horses rounded up by ranchers and sold to a Nebraska packing plant are to be returned to Southeast Idaho. There the ranchers can make claim on horses where ownership can be proved. The rest would be returned to the range to roam free. The 19 horses are part of an estimated herd of 50 rounded up in the Little Lost River area last spring.

Meanwhile, a U.S. District Court Judge in Washington, D.C., rejected a government request to transfer a civil suit involving the horses to Boise. The Humane Society is suing the government for allowing the roundup on public lands in violation of the law.



High Country News-13
Friday, Nov. 9, 1973



Riders round up the buffalo each fall at the Moiese National Bison Range in Montana's Flathead Valley. This sanctuary, one of the oldest wildlife refuges in the United States, was established in 1908 to help preserve some of the last remnants of the once-great buffalo herds that ranged throughout North America. From an original 41 animals moved onto the refuge by the American Bison Society, the herd has grown to over 300 head.

Briefly noted...

Rep. John P. Saylor, R-Pa., died of a heart attack earlier this week. Saylor was considered to be one of the leading conservationists in Congress. He was one of the original proponents and sponsors of The Wilderness Act and the Land and Water Conservation Act. He was known for his concern for the public lands of the West and served on the Public Land Law Review Commission. He was the ranking minority member of the important House Committee on Interior and Insular Affairs which deals with many issues relating to natural resources.

* * *

An issue of the free weekly newspaper in Ketchum, Idaho, was seized in bundles from newsstands in the neighboring town of Hailey. Strong feelings about the city election may have motivated the culprits, it is believed. The paper, *Ketchum Tomorrow*, contained a blistering editorial opposing the pro-development candidates in the race. Incumbent Mayor Lawrence Heagle, councilman C. W. Dunn, and Don Angell are candidates backed by the Hailey Council for Responsible Government, a group which favors the controversial McCulloch development in Hailey. The editorial attacked all three pro-development candidates at length.

* * *

A Denver water bond issue passed with a decisive margin in the wake of a large voter turnout. The Denver Water Board had argued that the \$160 million bond issue to bring water from Colorado's West Slope was necessary for anticipated growth in the Greater Denver Area. Only a few days before the election, two Denver economists presented research evidence that water conservation measures would make water diversion unnecessary until the year 2000.

* * *

Wyoming Sen. Gale McGee has reintroduced legislation calling for a moratorium on clearcutting in national forests. McGee's bill also calls for a national study commission to study the issue and report to Congress and the President. The commission would be composed of representatives of the timber industry, conservationists and scientists. McGee said such a study was needed "particularly since the U.S. Forest Service is under mounting pressure to increase timber cuts on public lands."

* * *

Rocky Mountain National Park Superintendent Roger Contor says 81 green back cutthroat trout were planted in Hidden Valley Creek recently. The planting was the second attempt at restoration of the greenback, the only trout native to waters of the South Platte River drainage. A first attempt in another stream was unsuccessful. If the Hidden Valley plant is successful, trout from that stream will be used for further restoration of other east slope streams.

* * *

A joint snowmobile policy has been developed for Yellowstone and Grand Teton National Parks and the surrounding national forests. The forests involved are the Targhee in Idaho and Wyoming, the Custer and Gallatin in Montana, and the Teton and Shoshone in Wyoming. Because of increasing snowmobile use in these areas, officials have developed the Joint Interagency Standard Snowmobile Use Policy to better control and regulate that use. The policy went into effect Nov. 1.

Thoughts from the Distaff Corner

by Marge Higley

As Alice followed the White Rabbit down the long tunnel she heard him mutter, "Oh dear, oh dear, I'm afraid I'll be late. We've run out of electricity and all the clocks have stopped. I wonder what time it is."

"Well, why don't you look at your pocket-watch?" asked Alice.

"Don't be silly," replied the White Rabbit. "This is Wonderland, you know, so everything's electric. **Everything!**"

"You're the silly one," exclaimed Alice. "You have a perfectly good watch but you won't even look at it because it's not electric. If **everything's** electric, it's no wonder you're out of electricity!"

"Mad!" mumbled the Rabbit. "You're as mad as the Mad Hatter and the March Hare — so why don't you go to their tea party?" And off he trotted down the corridor, muttering to himself.

Alice found the Mad Hatter and the March Hare sitting at a table full of dirty dishes. A sleepy doormouse dozed with his head on the table.

"You can't have any tea because all the dishes are dirty," the March Hare told Alice.

"Well, that's not very polite," she said. "Why don't you wash the dishes?"

"Because we ran out of electricity, so the dishwasher won't work," he answered.

"Well," said Alice, "you could easily wash them in the sink, you know."

The sleepy doormouse opened his eyes just long enough to say: "Not here. This is Wonderland, and **everything's** electric."

"That's stupid!" cried Alice. "That's the stupidest thing I ever heard of!"

"Agreed!" spoke up the Mad Hatter. "I kept telling them they'd run out of electricity, if they used it for **everything**. That's why they call me the Mad Hatter," he added. "They say I'm against progress."

The doormouse blinked and said "You surely don't expect the Queen of Hearts to get along without her electric comb and electric toothbrush. Not in Wonderland!" And he dozed off again.

"Since you can't have tea," the March Hare told Alice, "you might as well go ask the Mock Turtle to tell you his sad tale. The Gryphon over there will show you the way."

"I thought a Gryphon was just a creature of fable," remarked Alice.

"There'll be lots of creatures that are only fables if they don't quit tearing everything apart to get coal for electricity," grumbled the Mad Hatter.

The Gryphon and Alice found the Mock Turtle sitting on a rock, and asked him to tell his story.

"I'll tell it," said the Mock Turtle, "but it's very sad. Once I was a real turtle," he sobbed, "and I lived in the sea."

"Yes — go on," urged Alice.

"That's almost all of it," he continued. "It's just that the sea got so full of oil wells and oil spills — so now I'm a Mock Turtle. It's sad. Very sad."

"Come on," the Gryphon said. "The trial's about to begin."

"What trial?" asked Alice, but nobody answered her. They only "sshhd" her and told her not to say a word, as the Queen was in very bad temper without the air conditioner.

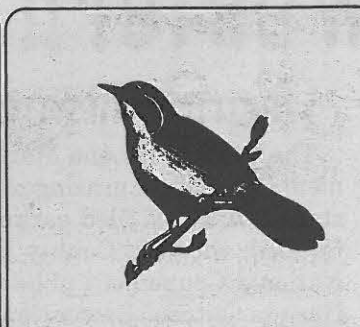
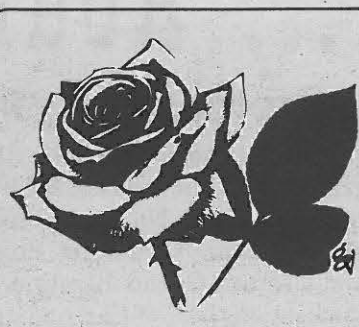
The King and Queen were seated on their throne, with a great crowd assembled about them. Nearby stood the White Rabbit, with a trumpet in one hand and a parchment scroll in the other.

"Order in the court!" yelled the King. "Consider your verdict," he admonished the jury.

"Not yet! Not yet!" the White Rabbit hastily interrupted. "There's a great deal to come before that!"

"Oh yes," said the King. "Call the Mad Hatter to the stand. It's all his fault!"

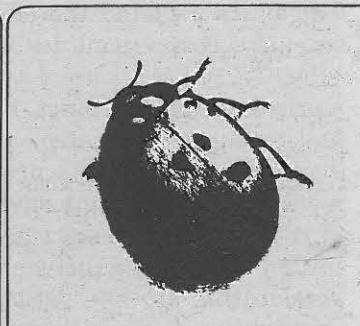
"What's all my fault?" asked the Hatter.



THE LIVING GARDEN



AN
ENVIRONMENTAL
CALENDAR
1974



Publication of the 1974 Living Garden calendar has just been announced by Concern, Inc., and the Audubon Naturalist Society of the Central Atlantic States. The two Washington-based, non-profit citizen groups use calendar proceeds to further environmental education and information programs.

"This calendar," says author-gardener Joan Kirk, "suggests alternatives to poison sprays. It is written with the conviction that the purpose in gardening is to create, not to destroy."

With this in mind, Mrs. Kirk presents a month-by-month guide to growing things naturally. Included are tips on soil fertility, pest and disease identification, plant requirements, natural controls and companion plantings.

Illustrator George Venable, of the Smithsonian Institution, has provided over 150 scientifically accurate and attractive illustrations to accompany the text.

The purpose of Concern, Inc., is to make consumers aware of the environmental impact of household products and practices, to encourage manufacture of products less damaging to the environment and to investigate and promote pollution abatement. Concern's periodic consumers' guide, "Eco-Tips," has a national distribution of over a half million. Work is carried out entirely by volunteers and supported by donations and small foundation grants.

The Audubon Naturalist Society, founded in 1897, was among the first organizations to teach natural history in terms of the total environment. It pioneered, with Rachel Carson as an active member, in pointing out the environmental hazards posed by indiscriminate use of

pesticides. Today the Society continues active educational program through publications, films, field trips, a bookstore, school projects and college-accredited courses. Donations and volunteer manpower support the activities.

The 9x12" Living Garden calendar is printed in green and brown on white recycled paper. Published annually since 1972, it sells for \$3 or \$2.50 each for 10 or more.

Purchasers may send check or money order to: Concern-ANS, 1621 Connecticut Ave., N.W., Washington, D.C. 20009. Please allow 4 weeks for delivery.

You have to continually make the consumer want natural gas appliances, whether they can get gas or not.

Joseph D. Lydon
Marketing consultant, Lydon Co.
(in MART)



School Conserves

Students at Indiana University in Bloomington are engaged in one of the most ambitious and — so far — successful energy conservation efforts ever undertaken. Already, in just the first six months of the university-wide program, the savings in water and power costs have added up to over \$150,000.

By removing 3,600 fluorescent light bulbs from the university library — a reduction in lighting of about twenty percent — they'll save around \$17,000 a year in electrical bills. Students have pointed out that that cutback alone represents a decrease from the electric generating plants in the release of 1,300 pounds of particulate pollutants, 90,000 pounds of sulfur emissions and 26,000 pounds of other oxidants.

Students all over the campus are constantly reminded to turn off room lights when not in use, to shut down air conditioners when they're not needed, and to waste less water than they've been accustomed to.

The most unusual method of conserving water is still to be employed. It involves turning off fifty public urinals in the university union. Normally, they automatically flush with thirty gallons of water every five minutes — whether they're used or not. Now, they plan to link the flushing mechanism to the light switch so that they'll only flush when the lights are on. They say that will save around 7,000 gallons of water a day. :: EARTH NEWS

Distaff . . .

"You've been saying we'd run out of electricity," answered the King, "and now there isn't any more, so it must be your fault!"

"Your fault!" echoed the crowd. "All your fault!"

"Off with his head!" shouted the Queen.

"That's not fair!" cried Alice, jumping up. "If you had any sense at all you'd have listened to the Hatter in the first place and you might still have some electricity left. It's stupid to have **everything** electric. I don't think the Hatter is half as mad as you!"

"Off with her head!" shouted the Queen. "OFF with her head!"

The White Rabbit blew such a shrill note on his trumpet that Alice awoke with a start. She blinked, and stretched, and sighed with relief. After all — it was only a dream!

Or WAS it?

Record Review

Folk Songs of the Colorado River

by Katie Lee

Available from Katie Lee, Box 395, Jerome, Ariz. 86331. \$6.50.

Review by Bruce Hamilton

"The Colorado River is young, yet ageless," writes Katie Lee. "It is a wild raging torrent, yet gentle as a lamb. It is crystal clear, then coffee-with-cream farther down. It is cold, it is warm, it is always wet and it is referred to as He by those who have felt his strength against their oars. He is a river to be admired for the beauty he has created and respected for the canyons he has carved."

"Sadly, the Colorado, great watershed of the Western Hemisphere, is not much of a river any longer. Instead he is a series of dams with fluctuating lakes backed up behind, ringed with scum, destruction and debris, and packed with seventy-five foot mud flats where once beaver built the sort of dams that nature intended."

Katie Lee knows both sides of the Colorado's story and she sings it all in a plain, unadorned style. Aldo Leopold wrote that he tried to "think like a mountain." Katie Lee sings like a river.

"My heart knows what the river knows
I gotta go where the river goes
Restless river, wild and free
The lonely ones are you and me."

Her disdain for the "Wreck-the-nation" Bureau which dams the canyons is portrayed with equal emotion and feeling:

"They checked his endless labor
With a big cement creation
And he said, 'Well, now what the hell
I can't fight Reclamation!'"

"I'll just sit here and chew away
At this concrete foundation
And one day soon, in the month of June
They'll have free irrigation!"

There is a lot of joy in these songs. You thrill in hearing of running the rapids with the "foolhardy canyoneers." There is also a certain amount of understandable regret. Ms. Lee writes, "For ten years Frank Wright and a college chum helped me sing these songs. Together we explored, photographed and named many side canyons of the Glen, and the names have stuck (referring to Glen Canyon, 'the place no one knew,' which is now inundated.) Perhaps

it will be the only thing, besides our own insuperable memories, that the Wreck-the-nation Bureau will not inundate . . . and then again, perhaps they will not even leave us that."

The record comes complete with a song sheet of the words and a brief history of each song. Some poems about the Colorado by Ms. Lee that were never put to music are also included.

Ms. Lee writes, "The album has never been a 'success' by recording standards, but I call it successful if even a few people are jarred out of their doldrums by it, or even if they merely enjoy it."

I agree. The tunes are still going through my head. If your friends already get *High Country News*, I couldn't think of a better gift for Christmas.

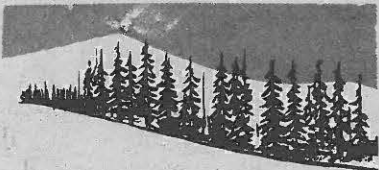


belted kingfisher

Right next to us (in San Clemente), within a couple of miles, is one of the new nuclear power plants. Many are afraid to live there because they fear what would happen with regard to that peaceful nuclear power plant. I am not afraid to live there. I am not afraid, not because I know much about it, but because what I do know tells me that here we have a new source of energy . . . that is absolutely important to the future of the world.

Richard M. Nixon
from a speech delivered at the
Atomic Energy Commission
facility in Hanford, Wash.

Give the gift of awareness



Please send **High Country News** as a Christmas gift to:

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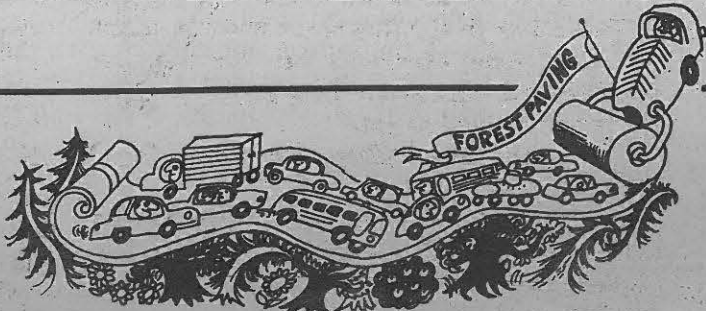
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Sign the gift card:

Enclosed is \$10.00



High Country News Box K Lander, Wyoming 82520

High Country News-15
Friday, Nov. 9, 1973

Eavesdropper

LOONEY LIMERICKS

by Zane E. Cology

This warning you'd better well mark:
The energy crisis is STARK.
Save some for tomorrow,
Or you'll learn to your sorrow
How to live in the cold and the dark!

An Agriculture Department official sees the possibility of another Dust Bowl developing in the Great Plains. Assistant Secretary Robert W. Long says he is afraid farmers will ignore good soil and water conservation practices in the rush to produce more food and fiber.

Dr. Walter Orr Roberts, the "weather wizard" from Boulder, Colorado, predicts another severe drought for parts of the Great Plains in 1974 or 1975. Dr. Roberts bases his prediction on a recurring sunspot cycle. He says drought in Colorado, Kansas and Nebraska would have a "tremendous impact" on grain production. It could have far-reaching effects on world food conditions.

Lawrence T. Forbes, vice president of Norfolk & Western Railway Co., says environmentalists are to blame for fuel shortages, closed coal mines, troubled railroads, and an international monetary crisis. Forbes also says there should be a greater alliance between the coal industry and the railroads on such matters as stripmine legislation.

A committee of the North Atlantic Treaty Organization says Ankara, Turkey, may become uninhabitable in another 15 years. The use of soft coal has already caused incredible air pollution.

Earth News reports that citizens for Henry Ford's Wildlife Preserve are fighting Henry Ford over the fate of the undeveloped area near Detroit. It seems the original Henry Ford set the 500-acre area aside, dedicating 72 acres to the University of Michigan. Now, the present Henry Ford wants to develop a luxury condominium tract and a 20-acre country club. And the Wayne County Road Commission wants to put a road through the preserve. Henry Ford isn't talking to the Citizen's for Henry Ford's Wildlife Preserve.

Latest estimates put the toll at some 6,000 dead and possibly 100,000 injured in the mercury poisoning of Iraqis. The poisoning occurred when wheat seed treated with a mercury compound was stolen and used for food. The bags were marked in English and Spanish but not in the local language, warning against human consumption.

A resident elk herd is increasing so rapidly on Montana's State Prison property that the Fish and Game Commission approved a special hunt. Fifty permits were issued. No hunting has been allowed in the past because prison officials were worried about security.

Some \$250,000 worth of tortoise-shell jewelry has been confiscated from some of New York City's most fashionable stores. The hawksbill turtle shell used in making the jewelry is from an endangered species. It is protected by Federal law.



The Oil Shale Kingdom

by Alfred G. Etter, Ph. D.
(Adapted from an article in
Defenders of Wildlife News
April-May-June 1968)

Not long ago I walked beneath a hot morning sun in the oil shale country of Piceance Creek in northwest Colorado. When scientists devise an economical means of utilizing these vast deposits, they are supposed to make Colorado rich. To tell the truth, the country is already rich. It contains great voids without people, deep deposits of tranquility, eons of silence, and air that is fit to breathe. True, it is hot dry country, and the shining hillsides can turn the sun into an awesome weapon, but someplace there is always a cool north slope or the shadow of a pinyon pine.

I made my way up a ravine following a faint trickle of water that wet shaley overhangs, and irrigated clumps of yellow columbines wedged among rocky shelves. I lay on my back on a cool ledge catching drops of falling water in my mouth. I reclined on the slumped debris of a mountain of oil shale, indifferent to its chemistry but delighted with its resilience. Shaded from the sun by a tangle of currant bushes, I plucked rich black berries now and then, in spite of objections raised by a scrub jay that mewed at me from his nearby perch in a pinyon.

The opposite hillside of sparse grass, pines, and sliding rock reflected the heat of mid-morning into my eyes, and I began to doze, only to be awakened by a crackling of castenets. Recognizing the rhythm, I searched the heat waves for dancing grasshoppers. In the flatlands these heavy bodied creatures flash their wings as they rise and fall only a few feet above the weed tops. Here in these rocky slopes I found them swinging like erratic pendula above the tops of the pines, full of emotion and summer heat. At a signal the chorus died, and the dancers plunged to earth. Almost immediately a blue shadow fell from a pinyon. A sputtering insect attempted unsuccessfully to elude the agile jay that had been watching me only minutes before. What had seemed two isolated creations were now revealed to be connected in the closest kind of relationship.

I returned to my dozing and the jay returned to watch me, working his way circuitously among the bushes to gain a close view without revealing himself. Only a trembling twig or an occasional whine defined his presence. Was I somehow also caught up in a web with this bird? What of the striped sparrow with the orange eye that I found crying in the thicket while I watched the jay? My ignorance was impressive. Yet I knew that while these spirits lived on earth, I too was safe, for the same earth that gave them life gave birth to me. When the earth is changed and they succumb, my own existence will be endangered. This thought came to me as I dreamed, but I thought none the less of it for that reason.

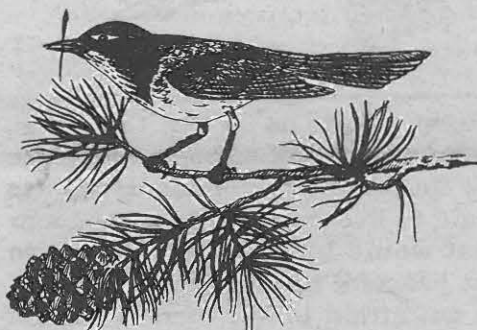
When I awoke, the jay was busy in a pinyon tree, poking with mighty determination at a seed that constantly slipped from his grasp. In a minute he abandoned the seed and went to a clump of pine needles, removed one, and pecked vigorously at it while holding it under his foot. This activity excited my curiosity. Why would a jay peck at an inedible pine needle? I wondered if he were deliberately anointing his bill or his feet with resin from the bruised needle. Had jays learned that resin helps give a better grip on round and slippery things? It was amusing to think that jays, like baseball pitchers, might occasionally "go over to the

mound for the resin bag," as the announcers say.

Just then a hurrying flicker shook the air in the narrow defile where I relaxed. With characteristic brusqueness he landed heavily on a prominent branch of a currant bush loaded with red and black berries. His red "moustache" glistened ferociously as he reached out for ripe fruit — his wine in this arid land, and a welcome antidote for ants.

Soon a hummingbird, with all the agility of a U.F.O., climbed successive steps in the canyon, stopping at each cool glen to refuel at columbine. Then it landed at a rocky brink and bathed voluptuously in a pool no deeper than a spoon.

Animals are obviously ingenious in solving problems posed by their environment, but their solutions need not seem reasonable to man. What is reasonable to an animal weighing half an ounce may seem ridiculous to one weighing 2500 ounces. What is helpful to a creature with a hand may not be relevant at all to one with a bill. And yet it is not at all uncommon to find birds devising peculiarly human behaviours. Bower birds are known to mix paint from fruit juices and charcoal and to apply it to their bowers with wads of fibre. Perhaps it was not beyond the realm of possibility that a jay might discover the benefits of resin, but my observations so far were hardly proof of this possibility.



My only hope for shedding light on this matter was to find the needle that the jay had dropped. While watching the bird with binoculars I had seen the needle fall, but the ground beneath was littered with needles. Fortunately most of them were brown, while the one that fell was green. This gave me some hope of success, although I soon found another obstacle. The entire area beneath the tree was spattered with goeey drops of whitish gum. My hands and knees were soon coated with it. This sticky rain, I soon determined, was the result of an indecisive porcupine that had fed on the branches of the pine.

While I dusted my hands in powdered shale to remove the stickiness, I marvelled at the interrelationships I had discovered in my few brief minutes of peaceful co-existence with the members of this oil-shale community; pine and porcupine, jay and grasshopper, hummingbird and columbine, flicker and currant. Nature's system of supply and demand, dealing as it must with thousands of species, makes the human economy seem crude by comparison. But in view of this perfection, why should a jay have recourse to resin? If he needed resin at all, why did he not go straight to the source and dip into the gum drops the porcupine provided. I was losing what little faith I had in my hypothesis.

I resumed my search for the fallen needle and soon added a new dimension to the story. Many of the dead needles had peculiar bulb-shaped swellings at the base. I guessed that they were galls, which are formed when an insect lays eggs in growing plant tissue. Chemicals associated with oviposition or egg develop-

ment cause an abnormal growth, and by the time the eggs are ready to hatch they find themselves in a hollow dwelling which provides protection and a nutritive substance suitable for growth of the larvae. The picture was all quite clear now. The jay had been opening these galls and eating the larvae. The only trouble was that when I opened a few of these galls, if such they were, I found neither larvae nor any sign that there had been any. One obvious explanation of this fact was that the galls on the ground were formed last season. I looked on the tree for new ones. Because the swollen needles were at least one-third shorter than normal needles, I had no difficulty in locating a number of fresh galls, but in each case when I opened them I found nothing that might interest a jay.

Having reached this impasse, I returned to my search for the missing needle, and after about a half an hour I surprised myself by finding it. Fresh bruises, such as a bird's bill might make, helped me identify it. I was excited to discover that this needle also had a swollen base, a small section of which had been nipped out. In contrast to the bulb-like growths I had found before, the lower ¼th of this needle was enlarged in a sausage shape. Apparently I had discovered a second species of gall. There was still hope for my gall hypothesis.

For fifteen minutes I searched among the branches for needles with sausage-shaped galls, a search made difficult because the development of this gall seemed to have had no shortening effect on the needle, and the swelling itself would be hardly visible in a cluster of needles. I was about to give up when I noticed that the tip end of the needle which the jay had picked was slightly yellow. Using this clue I soon located several needles "coded" yellow, and each of them had a sausage-shaped swelling at the base. Impatiently I split them open, and in every case discovered about a half-dozen bright orange wiggling larvae safely hidden from the world — except the scrub jay who had the key to these secret chambers in The Kingdom of Oil Shale.

Morning had gone, and afternoon was attacking even the pinyon shade with its bright weaponry. I had hardly exhausted all the lessons to be learned in this sanctuary, but with an investment of only a few hours, part of it spent dozing in the sun, I found that nature had already devised a method of exploiting oil shale — in situ, as they say — with no waste but life and beauty.

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