

High Country News

The Outdoor and Environmental Bi-Weekly

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Lander, Wyoming

Friday, May 25, 1973

Conservation Awards Announced

DETROIT, May 15 — Seventeen men and four women, representing 15 states, have been named to receive American Motors Conservation Awards for 1973, Roy D. Chapin, Jr., chairman of American Motors Corporation announced today.

Three of the individual winners for 1973 are from Virginia, three from California (including a joint award), two each from Texas and West Virginia, and one each from Arkansas, Colorado, Delaware, Georgia, Idaho, Montana, New Jersey, New York, North Carolina, Utah and Wyoming.

The awards have been presented annually since 1953 to 10 professional and 10 non-professional conservationists for dedicated efforts in the field of renewable natural resources. This year, one joint award was made. In addition, awards are presented each year to national and local groups for outstanding achievements in conservation.

All winners will receive bronze sculptured medallions and honorariums of \$500.

Since the inception of the awards program, more than 325 individuals and 29 groups have been honored for promoting sound conservation practices.

In announcing the 1973 award winners, Chapin said:

"By recognizing contributions of dedicated citizen and professional conservationists such as those who each year receive our Conservation Awards, we hope to focus attention on the need for proper management of the nation's renewable natural resources, and on what people can do to help the nation meet this need."

American Motors Conservation Award winners are selected by a committee of distinguished conservationists which includes Arthur H. Carhart, authority on national parks and forests and consultant for the Conservation Library Center, Denver; C.R. Gutermuth, president of the World Wildlife Fund; Charles Callison, executive vice president of the National Audubon Society; Richard H. Pough, Pelham, N.Y., director of the Natural Area Council, Inc., and Dr. A. Starker Leopold, professor of zoology at the University of California.

The awards program is directed by Ed Zern, writer on conservation and outdoor sports.

Winners in the professional category include: Harold E. Alexander of Conway, Arkansas; R. Wayne Bailey of Milton, North Carolina; Gurney I. Crawford of Fort Collins, Colorado; Stacy Gebhards of Boise, Idaho; Dr. Philip F.C. Greear of Rome, Georgia; Noland F. Nelson of Hooper, Utah; Jean E. Oliverio of Clarksburg, West Virginia; Glen A. Riley, Jr., of Liberty, Texas; Dr. Spencer M. Smith, Jr., of Arlington, Virginia, and Jerry T. Verkler of Springfield, Virginia.

Winners in the non-professional category include: Dale A. Burk of Stevensville, Montana; Mrs. Barbara Harrison of Ithaca, New York; Edmund H. Harvey of Wilmington, Delaware; Mrs. Albert Lamb, Jr., of Englewood, New Jersey; Mr. and Mrs. Benjamin P. Romero of Montrose, California; Frank R. Schiavo of San Jose, California; Malcolm Smith II of Beckley, West Virginia (a 16-year old junior at Woodrow Wilson High School); R.E.B. Stewart III of Norfolk, Virginia; David L. Wintermann of Eagle Lake, Texas, and Thomas A. Bell of Lander, Wyoming.



The American energy policy seems to be committed to developing ever more energy sources rather than a slowing of the growth and restraints on use. This 710-megawatt steam generating plant near Kemmerer, Wyoming, may soon be joined by others. Utah Power & Light Co., owners of the Naughton plant shown here, are contemplating a 1,000-megawatt unit nearby. And unconfirmed rumors indicate the possibility of still another mine-mouth generating plant in the area.

No More Trade-offs!

* * *

The following is the text of an address delivered to a Colorado-Wyoming Academy of Sciences symposium on "Fossil Fuels of the Intermountain Area as Energy Sources" at the Colorado School of Mines, Golden.

by Bruce Hamilton

In the 1960's the Bureau of Reclamation sought to develop two remaining major hydroelectric dam sites on the Colorado River — this time in the Grand Canyon itself. Because of the uniqueness of the canyon lands to be inundated and the national interest in the area, these projects were vehemently opposed by conservation groups. Initially, Reclamation held fast to the need for Bridge and Marble Canyon Dams, but eventually, under massive public pressure plans for both were shelved.

The alternative suggested by some conservationists at that time, coal-fired thermal electric plants in the adjacent plateau country, was adopted. That alternative is now in operation; it is known as the Four Corners Power Complex. The conservationists who had once suggested this alternative to save the Grand Canyon soon found themselves initiating litigation over the air pollution, strip-mining and other unacceptable environmental effects of the Four Corners Complex.

(Author's note: This cause-effect relationship is grossly oversimplified and in this respect is unfair to the conservationists involved. Although some did point to coal-fired power plants as an alternative, their suggestion, if taken seriously, only served to accelerate the inevitable development by a year or so. If construction were to begin today on Bridge Canyon Dam, it would delay the need for additional coal-fired power plants by about four months. The Four Corners plant near Farmington, New Mexico, was in operation; the Mojave plant was under construction, and the Navajo, San Juan, and Huntington Canyon plants were on the drawing boards before Congress officially decided to substitute Bureau of Reclamation's participation in the Navajo plant for the Grand Canyon dams.)

In the 1970's conservationists face an increasing number of unpleasant alternatives for producing energy. Because of the hazard of oil spills at sea, the environmental problems associated with the Trans-Alaska pipeline, and the dangers of radioactivity from nuclear power plants (to mention a few current alternatives), national attention is focusing on the fossil fuels of the Rocky Mountain West. The low sulphur content of western coal and gas resources is especially attractive, since air pollution standards cannot be met using high-sulphur eastern fossil fuels.

But some conservationists, myself included, are tired of trading off one region for another. No longer do we believe that one area can be saved by simply sending the energy producers elsewhere. The energy producers will be back; they have to come back. This is the inevitable result of our national energy policy.

This attitude was articulated by Republican Colorado Senator Peter Dominick when he spoke in Fort Collins on April 7, 1973. Dominick stated that future energy needs will take precedence over pollution and environmental conservation. He went on to add:

"We will have to drill wells anywhere we can find the gas and oil. Conceivably we might have to construct a dam in the Grand Canyon to provide hydroelectric power."

Perhaps the Grand Canyon was not really "saved." The dam plans were just postponed. No place is safe; no environmental cost is too high as long as supplying cheap power is a national priority.

This policy was made official when President Nixon delivered his energy message April 18, 1973. What did he ask for?

- more imports of foreign oil
- more gas exploration and production
- a three-fold increase in offshore oil leases
- a rapid start on construction of the Trans-Alaska pipeline
- construction of huge offshore ports for supertankers

(Continued on page 4)

HIGH COUNTRY

By Tom Bell

The screws are beginning to turn tighter. The energy crisis deepens. And the country is without effective leadership just when it is sorely needed.

This country is in for some grim and harsh realities in the months and years just ahead. We are hooked on energy, and like dope addicts, it is hard to kick the habit. We have been led to believe — and indeed it is still going on — that natural resources to supply our energy are without end. If you don't believe it, just read the newspapers and watch the sports events. That great piece of Hoosier hoopla, the Indianapolis 500, takes place next week. The motorized extravaganza has been touted as the world's most ornate test site for big, gas-burning, internal combustion engines. And that is what we really need at this point in time — more big gas-burning engines.

The silver-tongued orator for the energy industry, Wyoming Senator Clifford P. Hansen, told the Jackson Hole Rotary Club recently that the way to solve today's energy crisis was simply through realistic price increases. Jack up the prices and all those energy industries would pull oil and gas out of thin air, much as if they were manna from Heaven!

Hansen is not alone. He is joined by many others of the free enterprise system in calling for higher prices, higher depletion allowances, and exploitation of Alaskan oil, Montana-Wyoming coal, Colorado-Utah oil shale, and anything else that is ripe for a profit.

There is nothing wrong with the free enterprise system that considerable lessening of greed and thirst for power couldn't cure. But profits and power are almost irrelevant at this point.

As Dr. Rene Dubos recently pointed out, the solution to our energy problems isn't just to find more. He says, "This does not solve the other problems. In fact it multiplies the other problems . . . the real limitation will come not from supplies. It will come from the secondary effects of the use of energy."

And yet we are stuck with the system. Because of fast-dwindling supplies of natural gas and dependence upon foreign oils, we will undoubtedly see the exploitation of vast amounts of Montana-Wyoming coal. And the exploitation of that coal will be, for the most part, by the existing technology of coal-fired steam generators. That means a commitment to a technology which will devastate the land and pollute the air over a wide area and for a long time.

In calling for a relaxation of air pollution standards to ease the energy crisis, President Nixon has committed us to ever-darkening skies. And more than that for Wyoming and Montana, it will finally come to an almost total commitment of water supplies. Irrigated agriculture may almost cease to exist except in those drainages where water cannot be tapped and diverted.

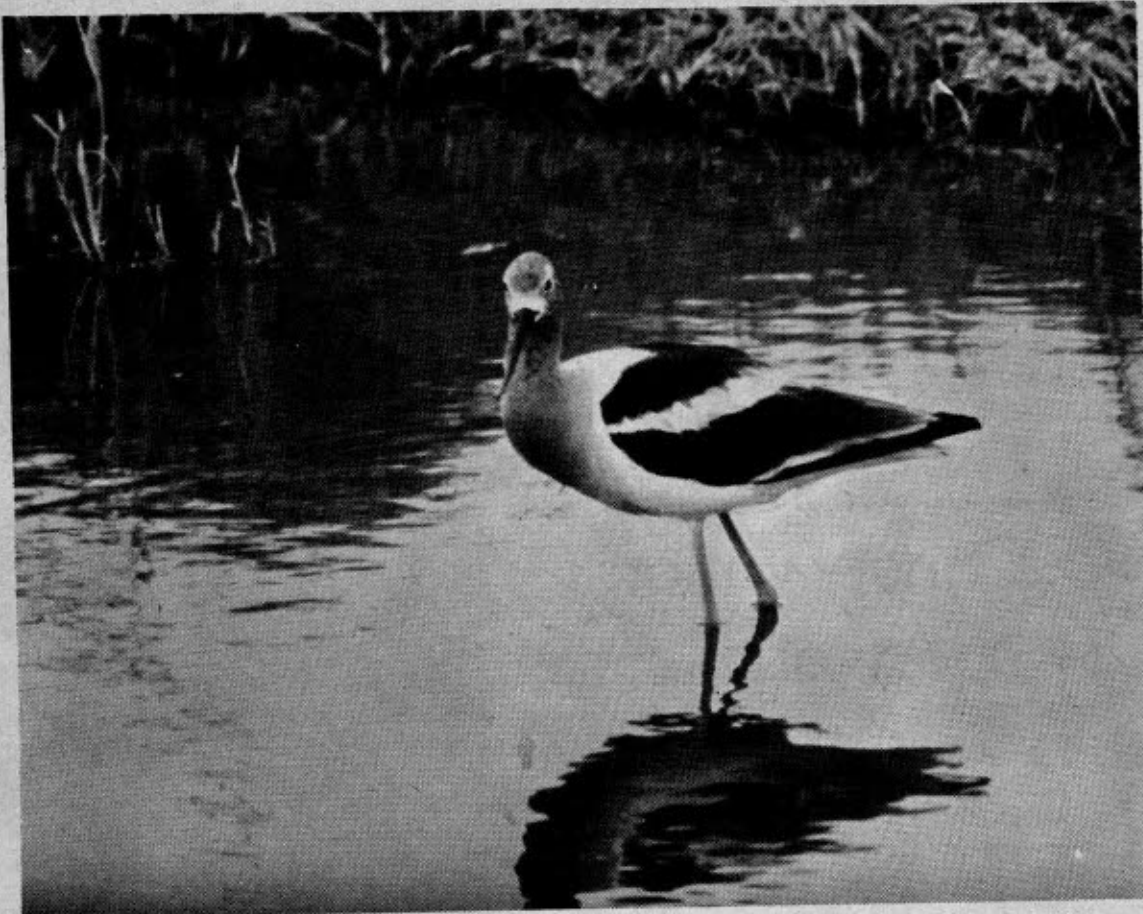
Once committed to coal-fired power generation and coal gasification, followed later by coal liquefaction, the financial commitment will be so great that there will be no turning back. The Powder River Basin will indeed become the Ruhr Valley of North America.

It doesn't have to happen that way but the odds on bets are that it will. Greedy, selfish human beings that we are, we all want that last piece of cake. And we will have it no matter what the cost to the life support systems of the globe and the future well-being of those who would follow us.

Watergate should be a lesson in more than just the partisan political system. The viability of society itself may be at stake because of the inherent lust for power and the greediness of the present American system. We must somehow turn back to more open, simple and honest lives. We must somehow come to terms not only with ourselves but the natural order of things — the unsullied air, the clean water, and the rhythm of the land through each passing season.

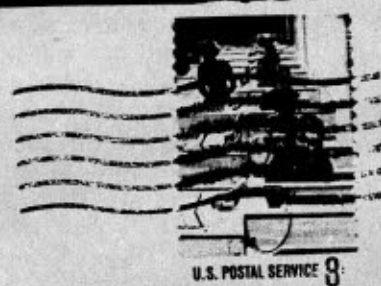


Photo by Tom Baugh



The avocet is typical of the many shorebirds and waterfowl which have returned to their summer homes in the north.

Letters To The Editor



Editor

Washington Post
Washington, D.C.

Dear Sir:

One of the most profoundly disturbing facts in the political scandal surrounding the Committee to Reelect the President is the willingness of the wealthy to make enormous contributions for what became perverted uses. The millions given have supported crime and corruption.

Meanwhile the area of independent environmental investigation and advocacy which has only to do with whether mankind may live decently upon the earth must scrape for hand-outs to keep the doors open.

Environmental Policy Center, 324 C Street S.E. in Washington, which provided the comment and analysis for conservation groups across the nation on the National Water Commission Report, has given notice that it only has funds to last another six weeks. Environment, 3910 Lindell Blvd., St. Louis, Mo., an objective and sophisticated magazine of Scientist's Institute for Public Information, is begging for tax deductible contributions just to keep publishing.

The High Country News, Lander, Wyoming, which is devoted exclusively to timely environmental information in the mountain west has been saved from the deathbed by some contributions but the staff and editors still work for almost nothing.

One percent of the moneys donated to the Committee to Reelect the President would provide ten times the annual operating budget of all of the effective environmental publications. Private donors are far more confused in their priorities than even our muddled federal government.

Yours truly,
Scott W. Reed
Attorney-at-Law
Coeur d'Alene, ID.

Dear Mr. Bell:

I am only too happy to renew my subscription to High Country News and send my relieved congratulations on the supportive responses you have received in the face of crisis this Spring. It buoy's my optimism to have seen this heartening response. I was quite pleased, too, that the Forestry Club here chose to buy a subscription to HCN for the Club and make a donation — hope it will be a part of many contributions to keep your good work going.

I will be working this summer as a Ranger, Interpretation and Resource Management, in Canyonlands National Park. If I can ever be of any aid to you in my capacity there, please contact me!

My best wishes — and thanks.

Sincerely,
Reed Kelley
School of Forestry
Duke University
Durham, NC

Editor's note: Our thanks to Reed Kelley and to the Forestry Club of Duke University for their moral and financial support. The club made a contribution of \$40, in addition to a subscription.

* * *

Dear Mr. Bell,

Enclosed is my renewal \$10, plus \$10 for a gift subscription. Rather than a contribution, I hope a little help in spreading the word to dedicated outdoorsmen I know will gain them an appreciation for High Country News. I'll try to send several more checks for gift subscriptions in the next couple of months.

You are doing a great job. Thank you for helping us all.

Sincerely,
Howard W. Dellard
Wilmette, Ill.

HIGH COUNTRY NEWS

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Guest Editorials

Reprinted from THE IDAHO STATESMAN, April 24, 1973.

Time To Examine Policies

A report saying the U.S. is becoming increasingly dependent on other countries for basic resources should stir some thinking in Washington and elsewhere.

As a nation we 1) consume more material goods per capita than any other and 2) waste tremendous amounts. We practice conspicuous consumption and conspicuous waste.

Instead of the conservation of resources, we follow a throw-away policy. Consider a few examples:

— We waste enough energy in the U.S. to provide for the needs of another highly-industrialized nation, Japan. Our utility rate structures are geared to encourage consumption.

— Eighteen per cent of the softwood harvested from our forests is wasted. Thousands of acres of forest land have not been reseeded. Funds to improve the management and productivity of our forests have been slashed from the Forest Service budget.

— Millions of tons of metals, wood and other useful material is annually deposited in land fills. We subsidize, through the depletion allowance, the extraction of new metals. But we give no similar economic break to recycling so metals that go into land fills can be re-used.

— Thousands of acres of farm land are lost annually to urban sprawl. The land resource is also limited. Our land policies should discourage its waste.

— Because of past abuse of our watersheds, some of which still continues, we lose millions of tons of soil annually. It is washed into our

streams to be piled up behind dams, or carried to the sea.

— Billions of gallons of oil are consumed in the inefficient movement of urban commuters to work in individual automobiles, in the absence of adequate rail and bus systems.

Because of failure to conserve and make better use of our resources, we are now faced with increased imports. The "energy crisis" is described as only the beginning of a larger crisis in all sorts of resources.

We can no longer afford conspicuous waste of basic resources — of energy, of minerals, of land and water. Yet many of our state and national policies promote waste.

America has always been in a hurry to extract and use resources, always assuming that supplies were inexhaustible. We have been using them at such a tremendous rate that, in a few cases, the bottom of the barrel is in sight.

How long will other nations permit us to use a disproportionate share of the remaining world resources — having depleted our own?

There are dozens of laws on the books which speak of conservation. But it is very little practiced. Our policies generally assume that the barrel has no bottom, that American destiny allows us to double and redouble our rates of resource consumption without limit.

The "energy crisis" is largely the product of such policies. Now we are warned of similar problems with a number of basic resources. It is time to re-examine our basic resource policies.



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Reprinted from THE IDAHO STATESMAN, April 20, 1973.

Not Enough Emphasis on Change

President Nixon's energy message emphasized the tapping of additional sources — rather than better use of existing energy. He offered no real "solutions" to the basic problems.

The difficulty of changing some of our energy policies was emphasized by House vote on the highway trust fund. That vote was against letting cities use some of the highway trust fund money they receive on rail and bus mass transit.

What is more wasteful of energy in the U.S. than an automobile carrying one or two urban residents to work? Not only does our dominant urban transportation system consume millions of gallons of gasoline, it creates congestion and excess air pollution.

But some who publicly worry about energy problems vote against this change in policy. It's more important to take care of the highway lobby than the interests of the people who live in urban areas.

President Nixon, to his credit, has supported that change.

In his message he called on consumers to adhere to a "national conservation ethic." This is a splendid idea. The ethic should apply to government policies and industry as well as to the consumer.

For example, tremendous amounts of energy are required to create aluminum beer and soft drink cans — which are discarded by the millions. State recycling laws, like Oregon's, could reduce this energy drain.

Electric rate structures are designed to promote consumption of energy — not its conservation. The highest rates are paid by the people who use the least and the lowest rates are paid by those who use the most. Those structures should be readjusted.

One of Mr. Nixon's eminently sensible recommendations was for higher Federal Housing Administration standards for home insulation. Money invested in insulation pays long-term dividends in reduced heating costs.

The President abolished oil import quotas and tariffs, and imposed license fees. This will allow the U.S. to import more oil. Since domestic supplies are limited, it makes sense to import as much as possible, while we can.

He directed the Interior Department to triple the amount of offshore oil land available for leasing.

Mr. Nixon urged "highest national priority" to using coal, and a loosening of air pollution standards. There is abundant coal in the West, but strip mining it for power means extensive land devastation and serious air pollution.

The nation will pay a high environmental price for these energy policies. We have allowed our rate of energy consumption to grow to a fantastic level, while neglecting research on environmentally sound sources.

Reprinted from The Denver Post

Shortage Will Be A Shock

by Lee Olson
Editorial Staff, The Denver Post

The awakening of the American citizen to the realities of the energy shortage is going to be a greater shock than the 1973 price of steak. Not only will the price of gasoline be higher but we will face the necessity of changing our thinking about use of energy.

Consider these statements:

John Welles, head of industrial economics at the Denver Research Institute, University of Denver:

"I hope the price of energy will increase soon. People have got to quit buying two-ton cars and inefficient air conditioners. We've got to increase the price — if necessary by taxes."

A Denver auto dealer:

"Economy cars? Yes, some people are interested. But the next guy isn't. Our best seller is our big model."

What goes through the mind of a car buyer

Our tremendous appetite for energy is the primary source of the problem. Basic policy changes are needed — such as deemphasizing the auto for urban commuters.

The President did not put enough emphasis on policy changes. Rather he asked the consumer to turn off the lights and called for the use of more coal, oil and gas. What he suggested was little change from present policies.

when he puts down his money — in 1973 — for a car which gives him five miles to the gallon (a figure borrowed from a regional vice president of a major oil firm)? One is tempted to say: "nothing."

Actually, the public is evidently banking on good old American know-how to boost them, and their big gas buggies, through the summer's driving.

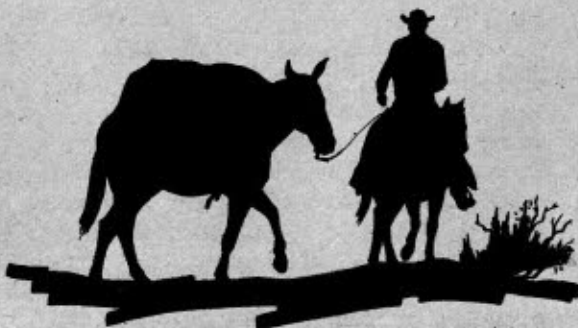
Or possibly they're still snowed by Detroit's advertising. John Welles believes that's part of it. He says: "The auto makers defend themselves by saying, 'We sell small cars, too, and it's not our fault if the public buys the big ones.' Detroit should stop advertising their big cars. They're gross."

It's clear, anyway, that the conditions under which we live have changed since the 1920s and 1930s when having eight cylinders instead of six was a status symbol of unquestioned merit.

Even in World War II gas rationing we accepted shortages because they were temporary. A V-8 was still the way to go and, when the world turned to peace, we'd all be driving them.

But in 1973 the equation has changed. The world can see the end of cheap sources of gasoline. To drive a car which yields five miles to the gallon (with the new pollution devices attached) may be to deprive one's neighbor as well as one's grandchildren of the convenience of driving any car at all.

Even in that sacred bastion of personal vanity, the American automobile, it turns out we are our brother's keeper after all.



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No More Trade-offs...

—easier licensing of nuclear power plants
—postponement of air quality regulations
to accommodate coal-burning plants

These administrative requests spell out our National Energy Policy. In short, it is a plan to continue to provide as much cheap, plentiful energy to the American consumer as he can use — no matter what the hidden costs may be.

This policy accepts and supports the statistic that energy consumption will continue to grow and in fact double every 10 years. This energy policy explains how six per cent of the world's population (the U.S.A.) can consume a third of the world's energy. And, it supports that position. Nixon recognized these trends and he cited them in his speech. But he made no attempt to guide us away from this hopeless and unjustifiable course.

So the demand for energy keeps on growing, unchecked. And the schemes to produce and supply energy proliferate. Oil shale, tidal power, nuclear gas stimulation, geothermal power, breeder reactors, fusion — the list seems endless. And each scheme has its environmental problems. In my mind, there is no such thing as a non-polluting source of electrical energy.

As the energy producers attempt to activate their grand schemes, the natural environment is put in jeopardy. Environmentalists are called upon to defend the environment, oppose destructive projects, and propose alternatives. It is an awkward position at best and one that can lead to unpleasant choices.

Energy producers play on this fact and compete for the public's support. In one of their ads, General Electric stated, "Light a match and you put more smoke in the air than a nuclear power plant." This is obviously designed to play on the public's distaste for visual air pollution from fossil fuel plants. In the smaller print G.E. continues, "All nuclear power plants discharge heat, as do fossil fuel plants." Here no mention is made of the fact that a light-water nuclear plant discharges 50 to 60 per cent more waste heat (thermal pollution) into the aquatic environment per unit of electrical output than a fossil fuel plant of equivalent size. Nowhere in the ad was there any mention of the hazards of radioactive fuel and wastes.

Such advertisements, and the administrative policies that have led to our present energy consumption ethic, have led me to the following position: I do not want to support any energy production scheme, not even a renewable, relatively non-polluting source such as solar power, until we separate our energy needs from our energy demands and address the problem of energy waste.

Until a serious program of energy conservation is adopted and enforced, we can only expect to see an acceleration of the black dream of Senator Dominick — dams on every river, strip-mined land, radioactive wastes, and polluted air. Our demands will destroy our resources, and eventually our demands will destroy our civilization unless checks are put

on them immediately. No one seriously believes we can continue to double our energy demand every 10 years. Why not call a halt to this foolishness right now? If energy conservation measures will eventually have to be instituted, why not impose them now — before we place a dam in the Grand Canyon, strip-mine Montana and Wyoming for coal, or make other irreversible decisions that affect the quality of life on spaceship earth.

President Nixon's energy policy calls for voluntary energy conservation. Meanwhile, we continue to move along the exponential growth curve. Evidently what is hoped for is a "deus ex machina," such as fusion or solar energy or the breeder reactor, that will bail us out when finite non-renewable sources of energy run out. The fact that these finite sources will eventually be depleted and the fact that environmental restraints prevent the rapid exploitation of energy resources are seen as the causes of our energy crisis.

In my mind, this view of the energy crisis is fallacious. The energy crisis is not a crisis of too few energy sources or strict environmental controls on energy production, but instead it can be attributed to our lack of knowledge about how to live under these restraints.

Energy conservation does not mean a return to the Stone Age. It does not mean blackouts. (They are the result of our present energy policy which encourages insatiable demands.) Energy conservation may mean a little less convenience, but our standard of living would still be high. It might even be higher, for surely we cannot continue to measure standard of living in kilowatt hours per capita. When our air and water are fouled by pollution from power plants and our land is stripmined, this measure will hardly seem appropriate. A more meaningful measure of standard of living would emphasize a clean and healthy natural environment.

The President's Office of Emergency Preparedness projected a potential savings of 25-30 per cent if a policy of energy conservation was seriously pursued. This could not be done immediately, but by as soon as 1980 the projected savings could be 7.3 million barrels of oil per day.

Energy can be conserved in homes in a number of ways. The thermostat on my wall indicates that 74-78 degrees is the comfort range. I keep my thermostat around 64 degrees in the winter, however, and I'm perfectly comfortable most of the time. The Office of Emergency Preparedness claims that if all home thermostats were set only two degrees higher in the summer and two degrees lower in the winter the 1980 projected savings would amount to 600,000 barrels of oil daily or 1.3×10^{15} BTU.

A second area to consider for conservation of energy is improved insulation. The National Bureau of Standards indicated a potential savings of 40 to 50 percent in this area. The Federal Housing Authority presently has minimum insulation standards that must be

(Continued on page 10)

TOO BAD

Too bad, but we had
To strip-mine the park.
It was either do that
Or freeze in the dark.

Sorry, bald eagles,
That you had to die;
But it came down to this:
You or I.

Too bad, but we had
To clear-cut the trees;
Bring that old forest
Down on its knees.
It was either that, you see,
Or freeze.

Now there's no eagles . .
No forest . . .
No park;
And we're waiting out here
While we freeze in the dark.

Laverne Rison



Energy conservation has to become a way of life or every river will be dammed, the land strip-mined, valuable water used up, and the air polluted.

Reviewing The Energy Crisis

The following article is so timely and cogent that it is reprinted here for the benefit of our readers. But because of its length it is to be presented in two parts. It will be continued next issue.

The editor.

* * *

Reviewed by Bill Rollins

Everybody these days tells us there's an "energy crisis" — "everybody" being the magazines, newspapers, government, public utility companies and ecologists.

Very interesting, since Einstein said $E=MC^2$ and, ergo, everything is energy. In fact, not only heat and light but all field and wave phenomena, such as magnetism and gravity; even metaphysical aspects of our existence like ESP and psychic phenomena.

ERG, ERGO, ERGEST

When everybody's worried about everything, there's bound to be some confusion, some false prophets, some opportunists. Some bullshit.

A few high schools here in Denver, where Mountain Gazette is published, went on three-day weeks for a time this winter "to conserve 'dwindling fuel supplies.'"

Of course those who are most worried about the "crisis" aren't talking about metaphysics. They're worried about Gross National Product.

Supplies of coal, oil and gas are running short, they say. Drill more wells, dig more mines, build more power plants. Especially nuclear power plants. If we don't, we won't have the electricity and heat to which we've grown accustomed.

THE NET IS GROSS

(With 6 percent of the world's population, the United States uses 33 percent of the energy. An average suburban home uses the equivalent of 46 pounds of coal, 9½ gallons of oil products and a half pint of nuclear energy every day. By 1985, this is expected to increase to 70 pounds of coal and 5½ gallons of nuclear energy.)

"Popeye is running out of cheap spinach," is the way Peter Peterson, outgoing Secretary of Commerce, put it.

Last June, Robert Sherrill, Washington editor of *The Nation*, in an article titled "The Industry's Fright Campaign," said the crisis had been largely fabricated by the propagandists and lobbyists of the energy supply industries.

SHORT-CIRCUIT IN CREDIBILITY

"A crisis of sorts really does confront the country," Sherrill said. "It is not yet one of supply, however, but rather one of control."

The nuclear power/electric utility partners are afraid of more federal control. They have enjoyed billions of dollars in federal subsidies for 20 years, and nuclear power has been assured of rapid development by the unique commitment of the Atomic Energy Commission.

Wilson Clark, in a January, 1973, article in *Environmental Action*, said two questions should be considered: (1) whether all the electric power which hundreds of nuclear power plants will generate is needed, and (2) whether there are more logical ways to get power.

Clark points out that most of the "need" for electricity is really a need for fuel to provide power for industries, homes and businesses. The jump in energy needs is a jump in electricity demand.

The demand for electricity has grown not because it's better for power than direct use of fuels, but because the equipment manufacturers, utilities and government have pushed its use.

The Interior Department's Bureau of Mines analyzed the growth trend in energy between 1947 and 1965 and concluded that the overall growth of energy uses was due largely to the disproportionate rapid growth of the use of basic fuels by the electric utilities.

More energy is needed to power something electrically, Clark says, because the process of

converting a fuel such as gas to electricity wastes two-thirds of the energy content of the gas in the electrical generating plant. Still more is wasted when the electricity is converted back to heat.

Clark also cited some other interesting studies:

"In March, 1971, a team of economists at the Washington-based consulting firm, National Economic Research Associates, released a report showing the relationship between skyrocketing energy use in the U.S. and the gross national product (GNP).

"Between 1947 and 1966 the growth of the GNP and the growth of energy use had been about equal. Yet in the last few years, the use of energy has grown far more rapidly. The report . . . identified three major causes —

a) the use of basic fuels for non-energy purposes has increased. Plastics are produced from petroleum for example;

b) Central power stations at one time showed an increasing efficiency of fuel use, which no longer is true, since the level of operating efficiency of conventional steam power plants has reached its upper limit;

c) The importance of air-conditioning and heating by use of electricity has grown enormously.

NEEDS THAT ARE NOT NEEDS

A RAND Corp. study in California showed that power plant "needs" could be cut by two-thirds within the next 30 years by implementing "carefully considered policies."

That report recommended that natural gas be substituted for electricity for heating, cooking, clothes drying, water heating and possibly refrigeration and air-conditioning. This would eliminate the waste of energy in conversion.

Other recommendations included: using solar energy for building heating and cooling; using better insulation in buildings; increasing efficiency of air-conditioners; reducing electricity requirements of lights; and constructing 'low energy' buildings.

"All these measures," Clark says, "could be effected without the disruption of society that the utility industry claims will occur if we can't build more power plants. Here lies the root of the problem. The crisis portrayed by the industry is false, since it only considers energy supply. The real problems are associated with the use of energy. Numerous ways exist to use less energy and to use energy more efficiently . . ."

A study released by the White House Office of Emergency Preparedness last September estimated that readily available conservation measures could be used to reduce the nation's over-all energy needs by 16 percent in 1980 and 25 percent by 1990. They would save an estimated \$11 billion per year, or the equivalent of 7.3 million barrels of oil a day.

What are some of the alternatives?

Energy can no longer be considered a process of pouring fuels or electricity into existing businesses and homes, tapping more sources when more machines are needed. Uses must be examined along with the supply of energy.

The Stanford Research Institute studied the significant end uses of energy in the U.S. for the year 1968, and found:

"There are probably over 100 separate uses for energy. However, only a few of the applications are a significant proportion of the total energy consumption, i.e., over one percent, as indicated by the summary tabulation below (for 1968):

Transportation (fuel; excludes	
lubes and greases)	24.9
Space heating (residential, commercial)	17.9
Process steam (industrial)	16.7
Direct heat (industrial)	11.5
Electric drive (industrial)	7.9
Feedstocks, raw materials (commercial,	
industrial, transportation)	5.5
Water heating (residential, commercial)	4.0
Air conditioning (residential,	
commercial)	2.5
Refrigeration (residential, commercial)	2.2
Lighting (residential, commercial)	1.5
Cooking (residential, commercial)	1.3
Electrolytic processes (industrial)	1.2
Total	97.1

"The 12 applications above account for all but three percent of the nation's total energy

consumption, and this remaining three percent is spread over a host of large and small appliances, elevators and other commercial installations, and many other uses."

The report showed that electricity accounted for the following percentages in each energy use area: Residential — 15.1 percent; Commercial — 15.7 percent; Industrial — 9.6 percent; Transportation — .1 percent.

Electricity is used mainly by residences and in commerce. The kind of energy needed is in the form of heat for direct space heating, water heating and air-conditioning. This is "low-grade heat," and the use of electricity to supply it involves a waste of natural resources. Alternatives should match the power needed. There is a great source of just this kind of power — the sun.

'HERE COMES THE SUN . . .'

Less than one percent of the sunlight falling on the U.S. would supply all our current energy needs — of all kinds. The amount falling on Lake Erie in a day is slightly more than our present consumption in the U.S. in a year.

Nuclear power plants can supply power at an estimated \$555 per kilowatt of electricity. Solar cells produced for NASA spacecraft do it for a whopping \$200,000 per kilowatt. The technology has only begun.

FREE AND LIMITLESS

But solar energy has received only 1 percent of the billions of federal dollars put into nuclear power. This is despite the fact that nuclear power costs go up every day and the costs of solar energy can't rise — the energy is free and limitless.

Solar cells are only one small way of using the sun's energy, however. The heat can be trapped, stored and used to heat and cool buildings.

This is done by a "black-box," a glass-covered device to trap the heat and transfer it to a fluid such as water, which is then stored and used in conventional heating/air conditioning systems.

There are already many houses in the country using solar energy for space and water heating.

A recent engineering/economics study in *Natural Resources Journal* showed that solar heating systems for residences in most areas would be cheaper now than electric heating.

One of the authors, Dr. George Lof of Denver, said concerted research and development would place this application in wide public use in ten years.

Individuals are experimenting with the idea on limited funds. The *Whole Earth Catalog* was an inspiration to some. One Aspen, Colorado resident, Tom Hicks, lives in a partially solar-heated house that he built with materials salvaged from the Pitkin County dump. His heated water is circulated by a discarded swimming pool pump. Potter Paul Soldner of Aspen also lives in a solar-heated house. Steve Durkee, of "Zomeworks" fame, used oil drums to trap the sun's heat for his New Mexico home.

From the ecologist's standpoint, solar heat is great. No more land space is needed for plants or transmission lines. No non-renewable resources are being eaten. No deadly wastes left behind.

RATIONAL RAYS

To quote Wilson Clark again:

"If nuclear power is the ultimate extension of the mindless, throw-away culture, solar power is the ultimate extension of rational culture."

"To implement solar power involves no great technological breakthrough. It is primarily a plumbing problem, or as one solar engineer put it, 'It's the most trivial kind of technology imaginable.'"

"Solar power can also be used to produce high grade heat in the same way that solar 'black-boxes' provide heating and cooling."

"Engineering studies are under way at the University of Arizona and the University of Minnesota of sophisticated solar collectors which can provide high-temperature heat

(Continued on page 6)

6-High Country News
Friday, May 25, 1973

Reviewing The Energy Crisis . . .

which could drive electrical turbines or produce gaseous fuels. Currently, the extent of federal funds for these projects is less than the cost of writing the environmental impact statements for projected nuclear power plants."

Last June, Sen. Mike Gravel of Alaska introduced into the Congressional Record several articles relating to solar energy via algae, solar shingles, and solar cells.

Solar power via algae:

When fast-growing algae are digested by bacteria, the major product is methane.

Dr. Alfred Eggers, assistant director for research applications at the National Science Foundation, told the Senate Interior Committee: "Solar energy can be utilized through photosynthesis and bacterial fermentation processes to produce fuel gases, such as methane or hydrogen, to augment the nation's dwindling supplies of natural gas."

"Fuel gases can be produced from organic materials in municipal, industrial and agricultural wastes, or from plants grown and harvested on land, in fresh water ponds, or in ocean areas."

"It has even been suggested . . . that all of the world's energy requirements in the year 2000 could be met by combustion of high-energy plants cultivated on only about 4 percent of the world's land surface."

POTENTIAL FOR THE NORTH

Prof. A.G. Frederickson of the University of Minnesota Chemical Engineering Dept. estimates that cultivation of algae would be an attractive proposition in northern states where sunlight is less intense. He says algae grown on only about 1/5 of 1 percent of the land in Minnesota could produce power equal to all the state's 1971 electrical power requirements at peak consumption.

The algae could be cultivated in greenhouses and burned directly in conventional pulverized-coal furnaces to produce electricity. Ash, carbon dioxide and water would be recycled.

If such a system were only 2 percent efficient, he said, 80 square miles of algae — 9 miles by 9 miles — would supply the electrical demand of a million people.

THE ROAD NOT TAKEN

Way back in 1960, Professors William J. Oswald and Clarence G. Golueke of the University of California School of Public Health, Berkeley, made some cost estimates on an algae-power system. A summary was published by Mechanical Engineering magazine in 1964. The professors estimated that the cost of algae electricity compared favorably with the approximate cost of nuclear electricity at that time. They presented several possible ways to lower that cost too.

The power produced by cultivating algae would be additional to the methane which could be produced from digestion of animal and urban wastes by anaerobic organisms. That same waste, which could be converted to oil instead of methane, could satisfy nearly half the country's present oil demand.

Dr. Eugene Ralph of Testron's Heliotek Division has described the energy opportunity in this way: "We should think of the sun as our controlled fusion reactor which is safely installed and operating with essentially an unlimited source of fuel, and which has no operating or maintenance requirements. All we need to do is tap a portion of this energy."

CHEAP 'SOLAR SHINGLES'

Dr. K.W. Boer, director of the University of Delaware Energy Conversion Institute in Newark, Del., in an article in Energy Digest, expresses optimism that within 5 years, cadmium sulfide solar cells arrayed on the roof of a typical Delaware home could produce electricity for about 3 cents per kilowatt hour. (The selling price of residential electricity in Washington, D.C., today is about 2½ cents a kilowatt hour.)

"It seems reasonable to estimate," Sen. Gravel said, "that all-solar homes could eventually render one out of every 10 power-plants unnecessary."

The earth's heat inventory might eventually become an ecological consideration. Dr. Ralph says:

"Solar energy can be converted into electricity without pollution of the earth's biosphere. The electricity is converted into heat as we use power to run machinery, but this level of heat can be adjusted to the same ratio as would have been absorbed by the earth naturally. All we have done is transformed some of the (solar) energy into electricity and used it to power our machines prior to its being converted to heat, instead of its making heat directly."

Environmentalists are showing up increasingly as wolves in sheep's clothing. Last month, EPA launched an effort to brand Western coal-burning power plants as polluters, jeopardizing the regional power supply. As complaints rise against lumber prices, experts recall that ecologists forced a reduction of timber-cutting on national Forest Service lands. Metal companies are aghast at EPA demands which may force the shutdown of important smelters and mines. Oil concerns note that environmental objections have fostered construction of oil refineries abroad to supply the U.S. market. Detroit has demonstrated that the cost of complying with EPA regulations, even if it were possible, would be disproportionate to any benefits in terms of clean air. In the Northwest, state officials have asked EPA to permit the use of DDT against the tussock moth, which threatens to lay waste thousands of acres of woodlands. This brief tally of recent grievances raises the question as to when the American people will proclaim their independence from environmental tyranny.

Barrons

April 2, 1973

Published by Dow Jones & Co.

In "Alternative Technology Paper No. 1," the Environmental Action group at the University of Colorado recently presented an economic and energy analysis of a '20-meter solar thermal converter.'

They believe that a machine could be built this spring that would generate electricity at a cost of .3 cent a kilowatt-hour. (For Colorado Public Service, fuel costs alone are .4 cents a kilowatt-hour.) This machine, they believe, can be built with existing technology and it "could be the meeting of environmentalists, industry and government in a project of immediate concern to all."

Overly optimistic, no doubt. But the paper is convincing. There was a precedent in 1965, when NATO sponsored Prof. C. Copacaccia. He built a solar generating system which achieved steam at more than 1200 degrees F at 2200 lbs/inh, with better than 80 percent efficiency.

We mentioned the high cost of the "solar cells" that power 90 percent of our unmanned space vehicles, converting sunlight directly into energy.

Sen. Gravel said that E.S. King of Centralab in El Monte, Calif., has estimated that we could develop a whole energy system for a trivial annual investment, equivalent to the cost of two 747 airliners.

Sen. Gravel said he was "appalled that the administration plans to limit its funding in fiscal 1973 to about \$6 million for all solar technologies combined."

The Colorado EA paper proposes upgrading the Copacaccia system in several ways. Common construction materials and techniques are used to keep the costs down. A pilot system would cost an estimated \$24,174. A mass produced unit, on the other hand, would be about \$8,925. At this cost, each kilowatt of steam would be produced for .342 mills, or less than one quarter the present coal cost.

(To be continued.)



Throwaway Society

Despite the much publicized energy and resource crisis in the United States, Americans throw away approximately one billion dollars worth of metals and other valuable materials every year. According to the National Center for Resource Recovery, we lose around 14 million tons of steel and cast iron every year in junk, and about 1.2 million tons of copper, zinc, lead, aluminum, antimony, tin, and various other valuable metals.

The Center estimates that it is possible to recover and re-use at least 23 percent of those metals, if a national network of re-cycling centers were established. The savings to both the environment and the national economy could be considerable, according to the center.

Unfortunately, the Nixon budget for solid waste recovery was slashed this year from \$30 million to \$5.7 million, making the likelihood of any significant recovery program pretty dim for this year. : : EARTH NEWS

Photo by Pat Hall



Solar energy in limitless quantities falls on earth every daylight hour. Except for that captured by the process of photosynthesis, the energy is virtually untapped. Yet, it could be a source of nearly pollution-free energy.

Another Disaster In The Wings

Following the disastrous episode of the oil spill in the San Juan River, and the consequent danger of oil pollution in Lake Powell, the question was raised of other potential disasters in that area. Arthur R. Swanson, chairman of the Moab, Utah, Chapter of ISSUE (Interested in Saving Southern Utah's Environment?), wrote to the National Park Service. His letter to Canyonlands National Park Superintendent Robert I. Kerr and Glen Canyon National Recreation Area Superintendent Carlock E. Johnson posed the question, what would happen if a cloudburst hit the watershed area directly above the Texas Gulf, Inc., solar evaporating ponds?

He asked, "What preventive and contingency plans have been made by Park Service authorities to protect the ecosystems and other values of the Colorado River and Lake Powell from the damage and destruction that would result from the breaching of one or more of the solar evaporation ponds that lie next to the Colorado River just upstream from Canyonlands National Park, and from other such potential pollution sources adjacent to the Colorado River and its tributaries?"

Swanson pointed out that an ISSUE bulletin of May, 1972, had said, "The earth-walled salt ponds, which contain hundreds of thousands of gallons of heavy brine, were built directly across an entire system of normally dry water courses. One good storm, of the kind that hits once or twice every year in the Moab vicinity, could, if it struck just to the east of the Dead Horse Point plateau, quite easily breach one or more of the ponds and dump their contents into the Colorado. . ."

He also pointed out that a Park Service letter about the evaporation ponds recognized the danger. It said, "The brine-filled ponds constitute a major potential threat to the ecosystem of the Colorado River. If a severe earthquake or comparable catastrophe were to breach all of the ponds, an immense quantity of concentrated brine would, or could, be added to the river. As the salt solution moved downstream, it could decimate aquatic animal populations and aquatic plants."

Johnson's answer to Swanson was that responsibility and authority to insure the integrity of the ponds was not that of the Park Service but of the Environmental Protection Agency and the State of Utah. He stated that studies were being made of potential problems, and said there was an



When Texas Gulf, Inc., decided to convert its potash operation near Moab to "solution mining," a quick and "hush-hush" land swap, from BLM-to-state-to-TGI, made a huge area of lovely redrock desertland, visible from several popular scenic vantage points, available for "solar evaporation ponds." This land was quickly bulldozed flat during the winter months when tourists were not around to raise a hue-and-cry. Then a vast system of terraced, plastic-lined ponds was built, together with a complex mess of pipes, pumps and related unsightly equipment. Note the first pond being built at the base of the distant mesa. For scale, this photo encompasses over two miles.

additional problem of the long-term effect of increasing salinity in the Colorado River system.

Kerr's answer to Swanson was essentially the same but he added that the primary responsibility for the safe construction and operation of the ponds lies with Texas Gulf Sulphur. He added that, "EPA informs us that there are no 'prevention regulations' at this time, and thus no avenue by which the National Park Service can impose preventive measures upon TGS nor insist upon 'construction standards and disaster precautions.'" Kerr also said, "In

the event of contamination by water soluble agents such as the brine in the Texas Gulf Sulphur solar evaporation ponds, we believe there to be no way of preventing the contaminant from entering Lake Powell. To the best of our knowledge, nothing in present day technology permits the removal of dissolved salts from a huge volume of moving water."

On this page and the following two pages are photographic evidence of the potentially disastrous brine ponds which pose such a threat to Lake Powell and the National Park System.

Federal Dependency Decried

A former Wyoming rancher testifying before the Senate Commerce subcommittee on the Environment Thursday said that Western sheep raisers have become dependent on a Federal predator control program which does not work. Tom Garrett, Wildlife Director for Friends of the Earth, called the sheep raisers dependence on Federal poisoning "a tragic addiction," and suggested to the subcommittee, chaired by Adlai Stevenson (D-IL), that the sheep industry would be better off if the Federal government had never engaged in predator control at all.

Answering sheep raisers' assertions that it is impossible to raise sheep without Federal or state poisoning of coyotes, Garrett noted that in 1900, years before the beginning of Federal predator control, there were fifty million sheep in the United States, in contrast to around sixteen million stock sheep today. He cited statistics showing that sheep numbers had remained fairly constant from 1890 until 1940, responding to supply and demand. During this period, despite the beginning of predator control in 1915, leading to the extinction of grey wolves, coyotes remained abundant, and the sheep herding system, in which "bands" are guarded by shepherds, "remained universal on Western ranges." According to Garrett, "the big crash" in which sheep numbers plummeted from forty million to twenty-six million — between 1940 and 1945 — was caused by an acute labor shortage as World War II absorbed available manpower, and sheepherders became unobtainable.

The labor situation was compounded after World War II, Garrett explained to the Senators, by the dramatic success obtained by the Federal use of 1080 and cyanide guns, beginning in 1945. From the late 1940's until the mid 1950's coyotes virtually disappeared from much of the West. This encouraged sheepraisers to abandon the herd-

ing system, and many bands were turned loose on public and private land, while few, if any, young people took up sheepherding as a profession. Thus, when coyote numbers began to strongly rebound in the 1960's, sheepraisers were left without a trained labor pool to draw upon and found it difficult, or impossible, to return to the herding system.

Yet, said Garrett, with the complete failure of poisoning to permanently repress coyote populations, and with the development of evidence that the long term effect may even be to increase coyote numbers, there is no alternative but to return to the herding system. "The Federal government," he testified, "having fostered the false hope that the coyote could be erased as a significant factor in the West now has a responsibility to alleviate the hang over with which its control

program left the sheep industry, and help to effect a transition back to what must be considered normal methods. A solution to the labor problem is the first and most crucial requirement."

To accomplish this Friends of the Earth is proposing a Federal-state program to train, place, and partially subsidize the wages of sheepherders. The environmental organization has also proposed a remodelled low cost Federal-state predator damage program, based on the successful extension system in use in Kansas, in which individual landowners or sheepherders are trained by extension experts to trap depredating animals, and thus protect their own sheep against predator losses. Friends of the Earth also has suggested a limited insurance compensation "during a five year transition period back to normal husbandry."

World Water Shortage Serious

The world seems to be in the middle of a serious water shortage — and one possible short range solution has been criticized as possibly creating another ice age.

The suggestion is to divert water from Canada — which has plenty of the stuff — to parched areas of the United States. But the Director of the Canadian Center for Inland Waters says this could start an ice age. Doctor J.P. Bruce says that the salinity — or salt content — of the Arctic Ocean might increase. This would result in the melting of some of the Arctic ice, which would increase the moisture in the air, increasing the amount of snowfall, and thus starting an ice age.



Whether or not that could happen, it is true that much of the world is facing a critical water shortage. India has had four years of meager rain, and there are dust bowl conditions in the Soviet Union — with water being hauled to co-operative farms in trucks. Despite recent efforts by American engineers and modern equipment, thousands of square miles in the Australian Outback lie parched. There are also signs that China has been struck.

Radio Canada International reports that similar conditions have existed several times in the past — during the 1930's and the 1950's, for example — but the world's population has increased tremendously in just the past ten years. According to the Canadian government station, if the world goes through another dry year there are only 30 million tons of grain in storage to feed the four billion of us living on this globe.

: : EARTH NEWS



An aerial view of the Texas Gulf, Inc., potash plant fifteen miles downriver from Moab, Utah, on the Colorado River. The white mass in the background is countless kilotons of common salt, a worthless byproduct of potash refinement. The high mesa in the background is part of the 35-mile long mesa which contains a popular state park and part of Canyonlands National Park. TGI abandoned its deep mines and converted to "solution mining" when imported potash became cheaper than it could be produced here by conventional mining methods.

On the

Edge

of

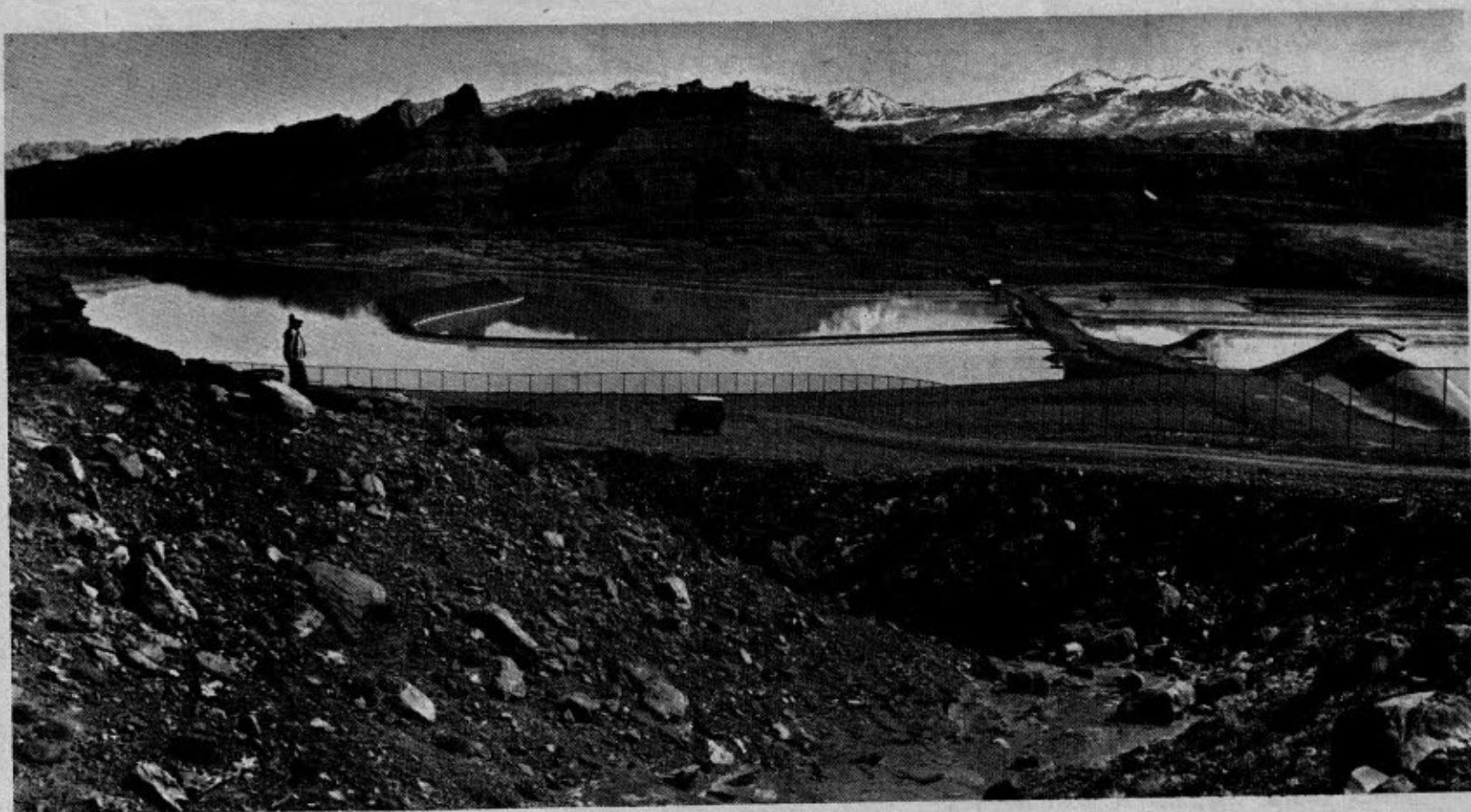
Disaster

Photos by F. A. Barnes



From this popular viewpoint, Anticline Overlook, the TGI brine ponds are even more glaringly obvious than from Dead Horse Point. In this photo, almost the full scope of the ponds is visible. Knowledgeable viewers shudder at the sight of countless kilotons of mineral salts, poised on the brink of a major water system, and held in check only by earth-walled dikes built across barren desert-land that is highly prone to seasonal flash floods. Worse still, more ponds are being planned, even before the present ponds have been proven economically justified. The local BLM office has on file applications for still other such installations in two nearby highly scenic sites, one of them so unusual it should be a national park in itself.

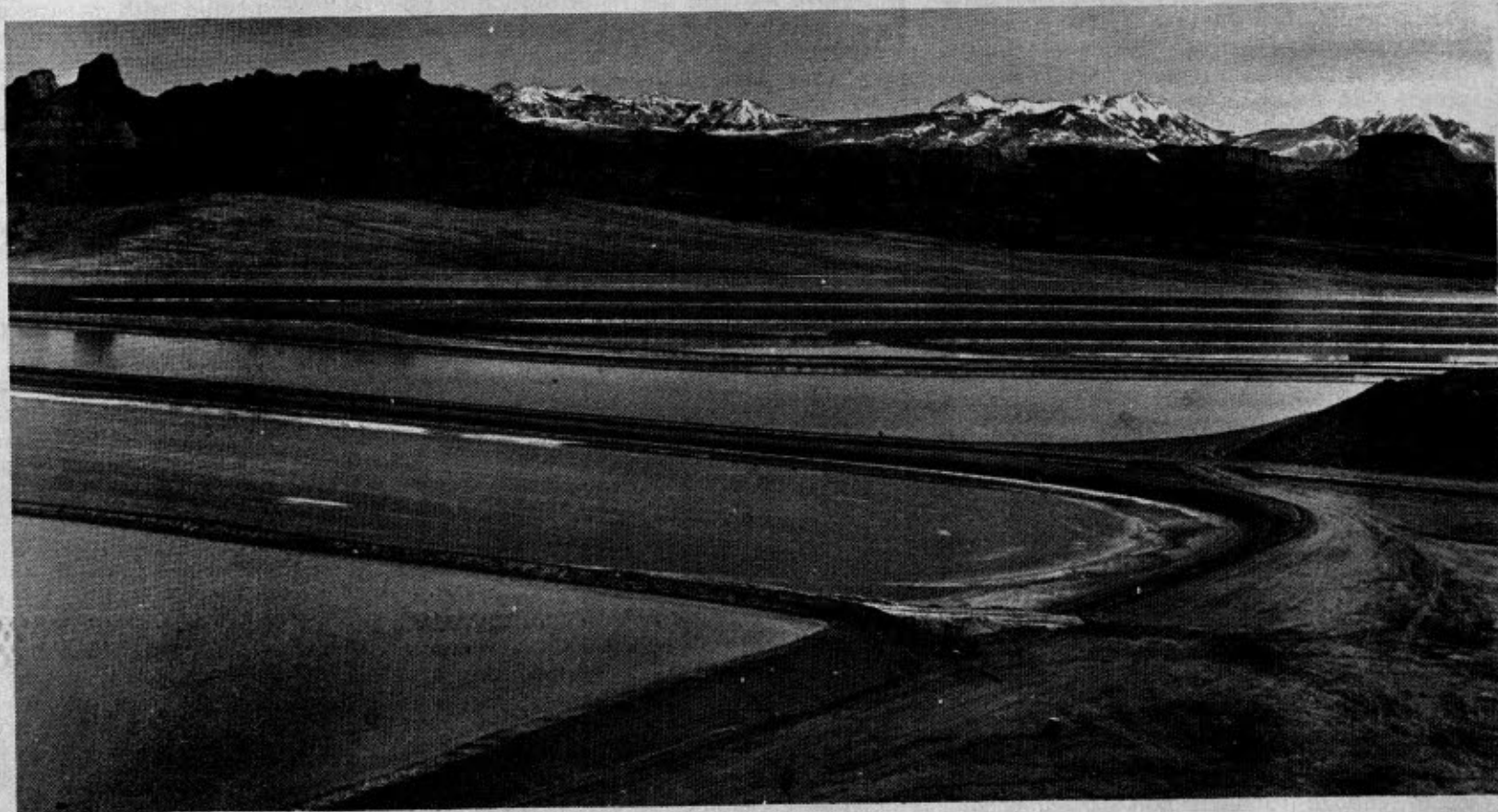




This illustrates the seriousness of the potential danger to the Colorado River-Lake Powell ecosystem posed by the brine ponds. Natural drainage courses were sharply diverted during pond construction. A flash flood, of the type common to this region, could easily breach the pond walls, precipitating a major disaster for the waters of a national park and two national recreation areas. The ponds stand on flats immediately adjacent to the Colorado River.



From the vantage point of Dead Horse Point State Park, the immense TGI solar evaporation ponds are a severe distraction to the otherwise magnificent view to the east. Park visitors are invariably puzzled by the sight of an industrial installation in what they had assumed to be public parkland. Many Utah citizens were outraged at this "desecration" of a long-established and popular state park. The Colorado River lies just beyond the ponds in this photo.



The TGI solar evaporation ponds, containing hundreds of thousands of gallons of concentrated brine, stand in jarring contrast to the unspoiled scenic splendor all around. The distant La Sal Mountains, the looming redrock escarpments of Hatch Point, Dead Horse Point, and the nearby majesty of the Colorado River all suffer from this intrusion. The brine also poses another threat, that of ecological disaster to the Colorado River and Lake Powell should a flash flood breach one or more of the earth-walled dikes. Note the sloping strata of a major anticline in the distant bluff.

10-High Country News
Friday, May 25, 1973

Clubs Charge Expediency

The Sierra Club and Federation of Western Outdoor Clubs has charged that the Nixon administration's move to cut lumber prices is "a short-term political expediency."

Roger Mellem, Acting Northwest Representative for the two conservation organizations, said that the Administration move "is designed more for immediate political gain than as a long-term solution to the problem of meeting our domestic housing needs."

"Coming as it does, while Congressional hearings on banning log exports are under way, the Administration's move is a thinly veiled attempt to head off Congressional action," charged Mellem.

The Sierra Club and Federation of Western Outdoor Clubs are on record as favoring "a total ban on all wood exports unless it can be proven that after meeting all domestic needs on a sustained yield basis, there is a surplus left over for export," said Mellem.

The two conservation organizations had a particularly harsh reaction to the announcement that sales of Forest Service timber would be increased this year by 1.8 billion board feet above last year's sales.

Brock Evans, Washington, D.C. Representative for the two conservation organizations, said that such action would have far less economic effect than a total ban on log exports, on both a short-run and long-run basis, and a devastating impact on the soils, fisheries, stream, wildlife, recreation and wilderness values of the National Forests.

Evans was responding to a statement by John T. Dunlop, Director of the Cost of Living Council, that the lumber price crisis "can be eliminated only by increasing supplies from the National Forests." Evans labeled that statement "blatantly false."

"For one thing, the 1.8-billion-board-foot increase is less than two-thirds of what we are exporting every year," stated Evans, "so exports are a much more significant factor. For another thing, the Forest Service's own

studies have shown that too much land is classified for commercial cutting, and we know that overcutting is continuing on both public and private land. Finally, to the best of our knowledge, the Nixon Administration is not asking for any increased funds for reforestation, which are absolutely essential if we are to get our forests onto a sustained yield basis."

Mellem called upon Congress to require all large timber companies to reveal the amount of their holdings, their rate of cut, and similar data.

"This way the public will be able to see the extent to which Weyerhaeuser and the other large timber holders are overcutting their own lands, to take advantage of the lucrative export trade," claimed Mellem. "We will be able to see how they have reaped windfall profits under the capital gains law, shipping raw logs abroad while waging a massive public relations campaign to prevent the establishment of additional wilderness areas in the Northwest."



No Trade-offs . . .

met by those seeking FHA funding. As poor as these minimum standards are, the potential savings are still significant. Moyers and Hirst of Oak Ridge Laboratory have calculated that if the FHA standards were applied to an 1,800 square foot home in New York City, the saving would amount to 29 percent with gas heating and 19 percent with electrical heating. If better than FHA standards were applied, savings in gas heated homes could be 50 percent or \$155 per year. This savings could easily pay for the cost of insulation. California has adopted the FHA standards. After January 1, 1974, all new dwellings in California must be able to at least meet the FHA requirements.

Homes with electrically-heated swimming pools essentially have their own private backyard cooling pond. Industries have known for years that one of the cheapest, easiest ways to dispose of waste heat (energy) is by a cooling pond. The American consumer glorifies this principle by throwing away vast quantities of precious electrical energy.

In summary, I would say that while President Nixon pays lip service to energy conservation, he is doing the country a great disservice by not making energy conservation a national policy and priority. By continuing to expect the unlimited supply of cheap energy, Nixon has contradicted any request for conservation practices. You cannot expect the American consumer to voluntarily conserve energy when there is a cheap, plentiful supply at his fingertips. In this respect the National Energy Policy of the Nixon Administration can only lead to continued power shortages and an accelerated exploitation of energy resources. This fact is especially important to the residents of the Rocky Mountain West where vast fossil fuel resources are present and crash development now seems inevitable.

If the "energy crisis" is severe enough to warrant the President recommending a relaxing of environmental controls and the promotion of potentially disastrous projects like the Trans-Alaska pipeline, why is it not severe enough to merit belt-tightening and leak-plugging measures on a national scale?

As long as I continue to witness excessive lighting, overpowered cars, electric blankets, poorly insulated homes and other frivolous uses of energy in America, I refuse to accept the "fact" that there is an energy crisis.

Women Skeptical

For the first time in its history, Italian television last month broadcast a program completely dedicated to the subject of birth control. During the show a number of doctors were interviewed on the various methods of contraception, and the bulk of the testimony assured viewers that the methods are efficient and generally free of side-effects.

Regardless of the TV show, only 2 percent of Italian women currently use contraception, mostly because of a wide misunderstanding of birth control. Many Italian women, for example, believe that the pill causes cancer and makes women fat and hairy.

: : EARTH NEWS

Grasslands . . .

(Continued from Page 12.)

Youngland wrote, "... if it weren't for the local ranchers residing in the area protecting the birds of prey and the game from the so-called ecologists, who in many cases are poachers, who appear in this area and do great damage to our ecology, and let us know that we have no control over these federal lands, we probably couldn't have any game or birds of prey left."

The memorial is currently in the House Agriculture and Livestock Committee where — who else — Rep. Walter A. Youngland is the chairman. The bill seems to be meeting strong opposition by conservationists and grazers alike, so Youngland has been hesitant to bring the memorial to a vote. It seems that Youngland plans to let the issue die down, then bring HJM 1010 before committee unexpectedly when no opposition is present. To counter this, the Colorado Open Space Council is closely monitoring the committee agenda. Hopefully, Youngland's HJM 1010 will go the way of Aspinall's HB 7211 and die harmlessly in committee.

Columbia Gardens To Be Destroyed?

Mr. John B.M. Place, President
Anaconda Company
25 West Broadway
New York, New York 10004

Dear Mr. Place,

In your religious training as a youth did you hear "When anything is to be destroyed or removed, then it should be replaced with something of equal or better quality or the vacuum will be filled by the devil's handiwork?" In my opinion the loss of Columbia Gardens is one such situation. During my eight years in the educational system in Butte I have watched the deterioration of parental interest in the schools and the increased apathy which is reflected in their children's actions. The children have vandalized, burned or destroyed for years almost anything of any value except Columbia Gardens. In spite of the apathy I have noticed, they still feel an intrinsic value and pride for that area.

Prospective newcomers have seen this lack of interest in the citizens. Consequently, it is next to impossible to interest professional people to make their home here. My father, who maintained a medical and surgical practice for over thirty years in Butte, diligently tried with little avail to interest doctors to move here. This lack of success he had, the same as in my teaching experience, is directly related to the lack of social and cultural advantages available in Butte.

The Butte citizens take great pride conducting their visitors to Columbia Gardens as an outstanding example of native beauty enhanced by corporate effort. These Gardens have stood for years as a shining example of the interest of the Anaconda Company in their employees and in the youth of the city. It would be tragic to destroy what is left of your corporate image.

As president of the Anaconda Company you have the power not to destroy Columbia Gardens, thereby decreasing the cultural and esthetic decline of your fellow man.

Sincerely,
Katherine E. Jenkins
Butte, MT

Dear Mr. Bell:

One rarely encounters a true gem of nature's beauty and tranquility such as is seen in Columbia Gardens in Butte, Montana. There nestled in a cleft amid the towering background of rocky-spined, tree-covered mountains is a creation of both man and God. Native quaking aspens, exquisite flowers and lawns contrast with the nearby devastation created by man's ceaseless wresting of the metals from the earth. The verdure of this few acres has been for decades a haven of refuge for families as they left the towering headframes, the yawning deep pit, the piles of mine dumps, the dusty dirty streets to renew their souls. In communion with nature and friends, countless men, women and children have partaken of its richness. Its picnic grounds, ball park, amusement center with its lofty rides, beds of flowers and stately pavilion have beckoned to all ages. And those who came returned to their tasks enriched in soul and body.

But progress must not be cheated. Riches must not be left buried. So the Anaconda Company, which thru the years has graciously provided this for Butte and its visitors, is now either going to bury the gardens or dig another formidable pit where it stands. We are told this cannot be delayed, this is the last year it will be alive. Even so it will be strangled and looted. Its trees are being dug up, its flower beds are no more. How often must one ask — does a corporation have a conscience? Must the rape of the gardens of the world go on forever?

Sincerely yours,
Robert G. Kroeze, M.D.
Butte, MT



Editor's note: Columbia Gardens was donated to the people of Butte "in perpetuity" by the Anaconda Co. many years ago. Now the company wants the land back, ostensibly either to mine or to use as a dump.



An energy policy which continues the demand for more power should also demand that environmental costs be fully paid. But Nixon Administration calls for mining reclamation fall far short of what is needed to protect the lands of western states.

Reprinted from the MOUNTAIN EAGLE, Whitesburg, Kentucky, May 10, 1973.

The Worry of Somebody Else

by Ernest B. Furgurson

WASHINGTON — Armageddon's advance men, who also sound very much like PR men for the gas-oil-coal conglomerates, have discovered the energy shortage and are galloping up and down the editorial pages warning us that, to survive as a nation, we are going to have to buy, sell, hock, pollute or destroy everything of value in America. That includes damming and filling the Grand Canyon for more hydroelectric capacity.

Now Mr. Nixon finally has let go his energy message to Congress, and, while slightly muting the trumpets of doom, he takes much the same attitude (though somehow overlooking the potential of the Grand Canyon).

In gist, the President has laid out a two-part approach to the threatened energy crisis:

1— In the short run, concentrate on the extractive polluting industries — rip the country apart for coal, let gas prices run out of control, abandon antipollution standards, say to hell with the risks and drill for oil off every coast of the continent.

2— Then, and only then, after this destruction is irrevocably done, turn our main attention to cleaner, more advanced forms like nuclear, thermonuclear, solar and geothermal energy.

If the chief executive of the major polluting industries themselves had spent six months devising the Nixon message, it could not have suited them better. But for the average consumer who will have to pay increasingly higher rates for the privilege of living amid the resulting mess, it is depressing news.

It is, in fact, as if Mr. Nixon had decided to confront the immediate energy problems that loom during these next few years while he remains in office, and to shrug off completely the long-range damage to the nation. That comes later, and is a problem for somebody else to worry about. Somebody else, of course, means all of us.

The President asked that natural gas exploration be stimulated by removing price controls, but unless important new fields are found this is strictly a short-run source. At that, it involves less physical destruction than the other major sources he emphasized.

By lifting oil-import quotas, he made more urgent the need for tremendous new refinery capacity in this country and for deepwater port facilities to handle the supertankers that bring oil from abroad most economically. Both refineries and ports are sources of devastating oil leakage and pollution. Atop the expanded handling and processing of foreign oil, he urged prompt completion of the trans-Alaska pipeline, and drilling on the outer continental shelf in the Gulf of Mexico, off California, in the Atlantic and off Alaska. The destructive potential in those activities has been debated long and proved often.

Mr. Nixon expressed hope that shale oil production would prove commercially feasible.

If so, 11 million acres of Colorado, Utah and Wyoming will be prime ground, and the only way to get oil out of the shale is to tear the shale out of the ground first.

Most ominously, the President urged that "highest national priority be given to expanded development and utilization of our coal resources . . . each (user) decision against coal increases petroleum or gas consumption, compromising our national self-sufficiency and raising the cost of meeting our energy needs."

That, coupled with easing of air pollution standards to make large-scale burning of high-sulfur coal acceptable again, opens the door wide to strip mining in dozens of states. Mr. Nixon mentioned that he had called for "strong" legislation to protect against strip-mining abuses; on the contrary, what he has proposed is a weak slap on the wrist, something the most rapacious operators are willing to live with.

After pushing for these changes, he added a pro forma acknowledgement that nuclear energy is an asset that should be developed. But for all research and development in advanced fields, including breeder reactors, solar generators and the rest, he proposed committing less money than the cost of one Triton submarine.

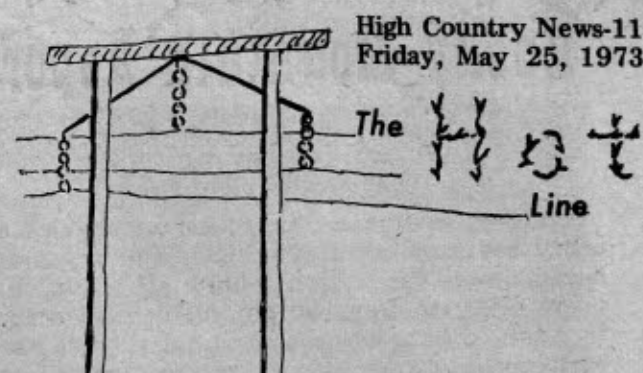
At that rate, by the time those future sources come on line the country will be so torn and fouled that we might as well give a transfusion to a corpse.

Senator Calls For Energy Program

Senator Gaylord Nelson has called for the establishment of a Presidentially-appointed National Energy Council to develop new energy sources that are environmentally safe. The Wisconsin Senator said that the energy program should be, "funded and manned on the same scale as the Apollo program that put man on the moon and the Manhattan Project that developed the atomic bomb."

Nelson said that a part of the national energy program should be a National Energy Development Project with at least a \$2.5 billion a year allotment. That project, said Nelson, should aim at supplying energy to the U.S. from the 1990s through to the end of the century with environmentally safe technology. He cited coal gasification, solar energy, nuclear power, geothermal energy, and coal liquefaction as possible avenues to new energy sources.

Nelson cited the American automobile as one of the most serious threats to the energy crisis. He pointed out that last year alone, the nation would have saved about 17 billion gallons of gasoline if the average automobile weight were reduced to around 2500 pounds. That would have represented an annual savings of about 5 gallons of gasoline for every human being on the earth. : : EARTH NEWS



William F. Penniman, Jr., told a House foreign affairs subcommittee on foreign economic policy that an outbreak of hostilities in the Middle East would result in a nearly total embargo of oil products to the United States. The U.S. is expected to import 35% of its crude oil this year and 45% in 1975. The amount is expected to go to 60-65% by 1980. Middle East oil only amounted to approximately 30% of imports in 1972 but is expected to contribute much more than that in the future.

* * *

Libya's ruler, Col. Muammar Kadafi, recently tabbed the U.S. as a "criminal state" and said his government was considering ways of taking over the oil industry. Libya is the world's sixth largest oil producer. It exports 2.7 million barrels of high grade crude a day.

* * *

A spokesman for the insulation industry says the country could save a lot of natural gas and shiploads of oil by proper insulation. The industry estimates an average homeowner could save \$15 to \$25 a year on heating bills and save about 20,000 cubic feet of natural gas by installing six to seven inches of insulation.

* * *

S. David Freeman, director of the Ford Foundation's energy policy project, says, "Unless we tackle the tough issues of how to increase (energy) supply and decrease growth in demand, and tackle them soon, the news is going to keep getting progressively worse." He says the country hasn't faced up to the bad news that there isn't an easy answer to the energy crisis.

* * *

Dr. Arthur Lewis, a geologist with the Lawrence Livermore Laboratory of the University of California, says this country's fuel crisis will be in the next 15 years. He says that in the next few years, the U.S. will be importing "almost half our petroleum from the Middle East at a cost of \$15-\$20 billion a year."

* * *

The Research Institute of America says the U.S. will face 12 lean years of energy use that will change the face of America. And it also says that an "energy squeeze" could last from 30 to 50 years.

* * *

A recent news release from the American Automobile Association scoffed at suggestions to reduce highway speed limits. James L. Hoffman, general manager of the Wyoming Division of the AAA, said reducing speed in order to conserve energy was "a numbers game without a genuine payoff." He says, "A better approach to the problem would be to improve the flow of traffic in our urban areas for the most wasteful consumption of gasoline occurs in stop and go driving which exacts a fuel penalty of about 25 percent."

* * *

Assistant Secretary of the Interior for Energy and Minerals says the administration is giving serious consideration to recommending lower speed limits, especially on interstate highways. Stephen A. Wakefield says a car going 60 mph burns 11 percent less fuel than one going 70 mph.

* * *

In testimony before the Senate Interior Subcommittee on Public Lands, Wyoming Representative Teno Roncalio questioned the value of nuclear stimulation technology. He said full field application would mean 80 years of gas well stimulation involving 3,000 to 5,000 wells and as many as 10,000 nuclear shots or more. Roncalio is a new member of the Joint Atomic Energy Committee.

Rocky Mountain Report

by Malin F. Foster
President
Utah Environment Center

Budding environmental groups usually have a particularly resonant brand of the blues to sing and anyone having even the slightest amount of experience in organizing one from the ground up understands why. In Utah, a state where traditional attitude has it that environmental organizations are best ignored, we know all the tunes.

The Utah Environment Center will be two years old on July 20 and it is safe to say that the center has met tradition face-first. There are problems, of course, but in an area where such organizations are doubly handicapped we have reason to be optimistic.

The UEC is a non-profit, tax-deductible organization which has as its main goal the distribution of valuable environmental information to as wide and as diverse a public audience as possible. Executive Director Verne Huser, in his development of the UEC calendar and newsletter, has done well the journalistic task of presenting extensive subject matter in the most objective manner possible. To say that such an accomplishment is rare on the environmental front would be extreme understatement.

The UEC has made an increasing effort to approach environmental problems from all sides. That effort has included the establishment of much needed dialogue between citizen environmental groups, government, business and industry. The organization has been criticized for this approach at times, but its board of directors believes this dialogue is not only an acceptable part of the effort, but a most important one as well.

We certainly don't claim to have been the first to open these doors. An increasingly tough-minded and maturing brand of environmentalism has existed in Utah during recent years and we believe this has helped set the stage for the reception the UEC has enjoyed.

Services of the UEC such as a library, printing and duplicating facilities, addressograph machinery, mailing and a speakers' bureau are being used more and more by individuals and organizations.

We have sponsored such activities as clean air and canyon land use planning workshops and are anticipating increasing involvement in such activities.

Fund-raising, of course, is a time-consuming activity for Verne Huser and it must be a continuing effort. For most environmental organizations this is usually a problem. Board member Robert Redford graciously helped the UEC negotiate for a share of the benefit proceeds from the Salt Lake City premiere of his film "Jeremiah Johnson." A membership rate setup is providing a slowly but surely increasing income. A brochure explaining the programs of the UEC was recently printed to help along the general public image of the center. Funds from the Rocky Mountain Center on Environment in Denver made the brochure possible. A fund-raising dinner is being planned for mid-Autumn which, we hope, will bring us not only increased funding, but more public exposure.

The center's board of directors has struggled during the past several months with a question almost universal among new organizations: What are we?

There seems to be a tendency among those who are aware of environmental activities to look to any organization addressing itself to such problems for statements of "position" on issues. The UEC recognizes that as a tax-deductible organization its position taking activities must be very carefully approached.

The center, after long deliberations and argument has decided to issue an increasing number of "white papers" regarding various issues, particularly those with broad statewide implications. A recent example of this was Verne Huser's very comprehensive informational presentation on the Rainbow Bridge National Monument controversy.

The object of such informational activities is to present every possible shred of information about all ramifications of an issue so that anyone reading it can draw logical, realistic conclusions and take proper actions accordingly. The UEC can suggest courses of action to be taken and we believe this to be a very effective way of obtaining increased public involvement.

The center can also serve as a research and consulting agency and would like very much to move into this field as soon as funds and staff are available. We believe that the more information and data that can be made available to the public the more sound and long-lasting the resulting decisions will be.

The Utah Environment Center is accepting contributions for legal fees involved in the Rainbow Bridge controversy. The Center is a tax deductible organization and contributions would be deductible. The funds will be disbursed to attorneys representing the Wasatch Mountain Club. Contributions may be sent to the Center at 1247 Wilmington Avenue, Salt Lake City, Utah 84106.

Grasslands On The Block

by Bruce Hamilton

Wayne Aspinall's infamous bill, HB 7211, would have opened up the public lands to review and potential sale to private interests. The bill died in committee after Aspinall lost his re-election bid last fall.

Aspinall is out, the bill is dead, but in his old congressional district the idea lingers on. On April 10, 1973, the concept emerged in the Colorado State Legislature in the form of a Joint Memorial to the Congress of the United States. The memorial requested the sale of the Pawnee National Grasslands.

The Pawnee National Grasslands are located in Weld County, in the northeast corner of Colorado. The land is administered by the U.S. Forest Service and encompasses 207,740 acres of short grass prairie. National Grasslands, formerly known as Land Utilization Projects, were established under Title III of the Bankhead-Jones Farm Tenancy Act passed by Congress in 1937. Through this act, the federal government acquired unproductive lands for conservation of the land through improvement and controlled use. Most of

these lands were unproductive, mismanaged and tax delinquent because of the "Dust Bowl Years" in the 1930's. The Pawnee region was administered by the Soil Conservation Service until 1954, when it was officially made a permanent part of the National Grassland system and placed under the U.S. Forest Service.

Grazing livestock has traditionally been the white man's major activity in the area. Today, two organized livestock associations consisting of 150 members hold grazing permits on the Pawnee National Grasslands. The land is of great interest to non-ranchers as well, and this interest is cultivated by the multiple use doctrine of the U.S. Forest Service. Although the grasslands are not a tourist mecca, they do attract a number of visitors interested in the plants and animals that live on the short grass prairie. More than 150 species of birds have been recorded on the Pawnee National Grasslands each year. Pronghorn, ground squirrels, badgers, jack rabbits, coyotes and a captive bison herd are representative of the indigenous mammals.

Federal ownership has facilitated studies of the natural ecosystems operating on the Pawnee Grasslands. The International Biome Program (IBP) is the main scientific interest in the area. IBP has established an intensive study site at Pawnee that involves more than 70 scientists from about 20 universities and laboratories. As of 1972, the National Science Foundation has granted the grassland biome study \$6.5 million to continue basic research in grassland ecology.

This site is one of many intensively studied by IBP in their efforts to investigate representative biomes around the world. John Guild of IBP describes the program's broad focus as encompassing, "the bacteria and fungi in the soil, the digestion of buffaloes and cattle, even the lowest struggling blade of grass and the shadow it casts. They examine the mating of the lark bunting, watch the 13-lined ground squirrel rob nests, and scrutinize the golden eagle that hunts game from the sky. They measure the decomposing of vegetation and the ability of the soil to hold water."

All of this data is translated into numerical language, reduced to mathematical relationships and fed into a computer. From the computer's memory the IBP scientists hope to uncover some of the secrets of the grasslands. Hopefully, this information can be used to increase man's understanding and enable him to make wiser management decisions in the grassland biome. If the Pawnee Grasslands were sold to private interests research which began in the early 1960's might be disrupted or discontinued.

The memorial requesting the sale of the Pawnee, HJM 1010, was introduced by State Representative Walter A. Youngland of Weld County. Rep. Youngland is also a rancher who enjoys an 83-head grazing allotment on the grasslands. "To discourage speculation," Youngland has written a provision into the memorial requesting that local owners near the grasslands be allowed to pick up the land parcels. Most Pawnee ranchers enjoy the privilege of grazing on federal lands for a small fee and profit from this subsidy. Since most local ranchers could not afford to buy the land, large grazing interests would probably move in if the grasslands were sold, driving the marginal rancher out of business and into the city.

An interesting sidelight involves the status of Rep. Youngland's grazing rights in the area. Each rancher in the area belonging to the Pawnee Cooperative Grazing Association is allowed to graze up to 300 head of cattle on private and public lands, with an upper limit of 125 head on federal lands. This allows for equitable distribution among the ranchers and insures that the carrying capacity of the land will not be exceeded. This year Rep. Youngland exceeded his allotment and was told to cut his herd size by five head. Now, it appears that he is trying to remove any hindrance to his use of the lands.

Rep. Youngland has no kind words for the researchers on the Pawnee Grasslands either. When a professor of wildlife biology at Colorado State University questioned Youngland about the future of research on the grasslands, he made a reply that would startle the scientific community, the livestock industry and his old English teacher.

(Please turn to page 10)



Convention Shapes Up

Two Wyoming environmental leaders will confront the heads of the U.S. Forest Service and the Bureau of Land Management on strip-mining, timbering, overgrazing, and other threats to America's Public Lands in a panel discussion at the National Audubon Society's 67th annual convention to be held in Denver this summer June 7-11.

Wyoming State Representative John F. Turner and High Country News Editor Thomas A. Bell of Lander, Wyoming, will ask Forest Service Chief John R. McGuire and Bureau of Land Management head Burton W. Silcock some pointed questions about federal policies for protecting the environmental resources of our Western plains and forests from the increasing threats of energy development, ranching and population growth in a panel discussion Saturday, June 9. The two federal agencies together control about 637-million acres of land, or about a fifth of the total acreage of the United States.

An outspoken critic of abuses of strip-mining and other mistreatment of the land, Representative Turner has been deeply involved in getting environmental safeguards firmly established in his state.

Crusading editor Bell has been the first to speak out on a number of occasions where special interests have clearly been given priority over the public interest on public lands, such as timbering and clearcutting in national forests, stripmining of coal where there are as yet no federal requirements for land reclamation, power development, and predator control.

Other participants in the Convention, at which over 1000 chapter delegates, members, and friends of the 270,000-member organization are expected to gather, include Nathaniel P. Reed, Assistant Secretary of the Interior, Governor Tom McCall of Oregon, Floyd K. Haskell, U.S. Senator from Colorado, and Charles F. Luce, Chairman of the National Water Commission and chief executive of the Consolidated Edison Company.

The overall theme of the Convention will be the future of the nation's vast expanses of public lands in face of the increasing pressures of society's demands. These will be discussed in two days of panels and workshops, and there will be pre- and post-convention wilderness, wildlife, and sightseeing trips.

Western..... Roundup

High Country News-13
Friday, May 25, 1973

Interior Moves To Be Watched

Secretary of the Interior Rogers Morton has established three new offices within his department to deal with energy problems. They are:

- an Office of Energy Conservation, to promote powersaving measures, and to "develop contingency plans for nationwide power, fuel and mineral resource emergencies. . ."

- An Office of Energy Data and Analysis, to develop an information system and analysis capability, in support of energy policy-making.

- An Office of Research and Development, to set energy research priorities, coordinate departmental activities in energy research, administer a proposed \$25 million Central Energy Fund supporting research, and direct the Department's research on underground electrical transmission systems.

In addition, Secretary Morton announced a realignment of bureaus within the Department. Under the reorganization, the Bureau of Outdoor Recreation is placed under the Assistant Secretary for Fish, Wildlife and Parks. The National Park Service and the Bureau of Sport Fisheries and Wildlife were already administered under that assistant secretary.

The Bureau of Land Management and the powerful Bureau of Reclamation have both been placed under the Assistant Secretary for Land and Water Resources. How the Bureau of Land Management will fare under this kind of arrangement is open to speculation.

Secretary Morton also created an Office of Land Use and Planning, to be administered by the Assistant Secretary for Land and Water Resources. The new office will be responsible for developing policy and coordinating interagency use of public land and water resources, for coordinating River Basin Commission activities, and for keeping touch with the Water Resources Council.

All of these moves will be closely watched by westerners. In an area where public lands constitute almost half the land area, where states jealously regard water as a state domain, and where vast reserves of coal, uranium, and oil shale are being looked to for future exploitation, the reorganization could be significant.

Ranchers Question Developments

Montana rancher Wally McRae told a joint House committee studying strip mine legislation that he would like to control the destiny of his own lands. He told the committee that he did not hold the mineral rights on his 30,000-acre ranch, part of which was homesteaded by his grandfather in the 1880's. He said he doubted if his rangeland could be restored to usefulness in less than 50 years, and maybe never.

A Wyoming ranch manager said he is ready to fight the proposed Burlington Northern Railroad spur from Douglas to Gillette. He called a meeting of ranchers affected by the railroad right-of-way. Earl Scott, manager of the Morton's, Inc. ranch, said he thought the railroad should have held public meetings and talked with ranchers months ago to explain its intentions and give some idea of the impact.

Forest Moves To Be Stopped

Western senators and representatives have taken steps to stop the Nixon Administration from moving Forest Service regional offices. Congressional delegations have moved to include restrictive language in Forest Service appropriations bills. The Administration wants to move regional offices in Missoula, Montana; Ogden, Utah, and Albuquerque, New Mexico.

Montana Senators Mike Mansfield and Lee Metcalf have gone even further. They have requested of Agriculture Secretary Earl Butz a complete breakdown of additional costs which would be incurred by necessary travel from each national forest to the proposed new regional headquarters. For instance, the national forests in New Mexico would be administered out of a regional office in Atlanta, Georgia, instead of Albuquerque as at present. National forests in Montana would be administered out of Denver instead of Missoula.

The Montana senators told Butz in a jointly signed letter that they wanted "a full and complete explanation of all pertinent facts that demonstrate the efficiency of your proposal." They said if the facts weren't available to say so. But they then told Butz, "However, you are advised that the absence of such studies and hard cost and benefit analyses will be considered as extremely significant factors in weighing whether the proposed revamping of the Forest Service structure advances or significantly retards efficient operation of these public assets in the national interest."

Predators Slaughter Sheep

The Wyoming Department of Agriculture has reported a loss of 150,000 sheep and lambs to predators in 1972. It says eagles reportedly killed 100 sheep and 6,100 lambs, while bears killed 1,100 sheep and 1,300 lambs. Coyotes accounted for the greatest reported loss of all — 18,400 sheep and 70,600 lambs.

Almost all figures show increases over those reported last year — 7,600 more lambs killed by coyotes and 400 more sheep; 500 more lambs killed by bears and 100 more sheep; 800 more lambs killed by eagles but 200 less sheep.

Estimates of bear populations by the Wyoming Game and Fish Department show no increase in numbers during the past year. Projections of estimated eagle populations in 1973 are below those for 1972.

Curiously, the Wyoming Department of Agriculture lists predators as coyotes, bobcats, dogs, bears and "other predators." The "others" killed 200 sheep and 7,700 lambs last year. Wyoming statutes list the coyote, bobcat, jackrabbit, porcupine, raccoon, red fox, skunk, stray cat, wolf or weasel as predators. (The Department does not say how many jackrabbits or porcupines were implicated in sheep kills.)

The report is compiled from a survey of about 350 farmers and ranchers, representing roughly 40 percent of the sheep and lambs in the state.



The public stake in western lands and water is a vitally important one. The recent reorganization in the Department of Interior will be carefully watched to see that the public interest is protected in management of these resources. The historic Oregon Trail parallels this stretch of the Sweetwater River in Wyoming.



Wolves Getting Attention

The plight of North America's wolves is gaining increasing attention. Often depicted as the monsters of "Little Red Riding Hood" tales, scientists are now trying to expose the value of the big predators. Dr. Roger J. Bider, a wildlife biologist with McGill University's MacDonald College is working to establish a wolf compound — a study area near Montreal. Wolf populations in both Canada and the United States have declined in recent years. Though in no imminent danger of extinction, those who are concerned with them hope public attitudes about the wolf will change.

During the past year, a private organization, Canadian and American Wolf Defenders (68 Panetta Rd., Carmel Valley, CA 93924), was instrumental in saving thousands of wolves. Upon learning that the Department of Defense had decided to buy wolf fur to trim parka hoods, CAWD was able to generate a storm of letters to get the orders changed. The garments would have required fur from most of the remaining wild wolves.

Briefly Noted...

The Idaho Department of Environment and Community Services has issued timetables for air pollution cleanup to about 50 Idaho companies. The action comes as the result of authorizing legislation from the 1973 Legislature.

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Montana's Oil and Gas Commission has agreed with oil producers that the only feasible way to eliminate the hazards of old oil pits is supervised burning. Such oil pits have recently been in the news as death traps for migrating waterfowl and other birds and animals.

* * *

The new chairman of Montana's Environmental Quality Council is State Sen. Elmer Flynn of Missoula. He succeeds Sen. George Darrow of Billings as head of the 13-member Council.

* * *

Forty-one persons from Carbon County, Wyoming, protested the deaths of about 100 cattle and 600 sheep on a ranch near Lamont, north of Rawlins. The protest said the animals were not properly cared for during the winter. Letters of protest went to county, state and federal officials.

* * *

The U.S. Supreme Court turned down a plea by conservationists to keep water out of Rainbow Bridge National Monument. Under the decree, the Bureau of Reclamation will be allowed to let the waters from Lake Powell rise into the area.

* * *

Two of Colorado's congressional delegation appeared before congressional committees to plead the case of reclamation projects. The projects have been put aside by the Nixon Administration. They include the economically doubtful and environmentally disastrous Dallas Creek Project, Dolores Project, Fruitland Mesa Project, Animas-LaPlata Project, and the Savery-Pothoek Project.

14-High Country News
Friday, May 25, 1973

Thoughts from the

Distaff Corner

By Marge Higley

Well, a street named "Milky Way" finally did it!

Each day, after the mail is sorted, I retreat to the office hinterland where the "monster" is located, and clank out address plates for new subscribers. Some of the street names are so intriguing that I have often been tempted to comment on them, but for more than three years I have refrained.

Last week my resistance crumbled as I typed that address on Milky Way, which is in Fort Collins, Colo. Such a lovely name for a street! Is it on a hill so high that the stars are clearly visible on a summer night? Or perhaps it's so brightly illuminated that it outshines the real milky way!

Most streets seem to be unimaginative combinations of numbers and compass points. And, as far as the address indicates, many of our subscribers exist only in post office boxes — neat and easy to type, and undoubtedly very handy for the postal department — but completely incapable of conjuring up any picturesque image!

It's surprising how many streets are named after something in nature. Lots of them are named for trees. I grew up on a Maple street in a small Wyoming town, and I strongly suspect that it was named thus through the wishful thinking of some early-day city father. Nevertheless, I can visualize wide tree-shaded avenues as I type such names as Birchwood, Walnut, Ashgrove, Beechwood, or Pinecrest Avenue. I'm not sure if there's a bush called Shepardsbush, but there's a street by that name in Birmingham, Mich. On the other hand, there's a Bushaway Road in Wayzata, Minn., and an address at Chalfont, Pa. is on Upper Stump Road.

Somewhere in Illinois are Garland Avenue and Ivy Lane, and in Anniston, Ala. there's a Shamrock Road. Bluebell Avenue is in Boulder, Colo., and Poppy Peak in Pasadena, Cal.

We have readers with such descriptive addresses as Lakeview Road, Riverside Circle, Stillwater Avenue, Meadowbrook Terrance, and Lakeshore Drive. There's a Redbank Road in Cincinnati, a Rimrock Road at Billings, Meadow Drive at Indianapolis, Canyon Road at Logan, Utah, and several Skyline Drives and Hillcrest Avenues.

Even the weather gets into the act. There's Sunnyside Drive, (Ohio), Rainbow Avenue in Sacramento, a Winter Street in Midway, Ky., and Sunrise Rim in Nampa, Ida. In Urbana, Ill. there's a street with the pleasant name of Pleasant Street, Salt Lake City claims an Ideal Lane, and there is a Darling Road in Blacklick, Ohio.

The animal kingdom is not left out, either. Deer Valley Road is in Boulder, Colo.; Doerun Drive in Rochester, N.Y.; Wolf Road in Western Spring, Ill.; Bear Canyon in Bozeman, Mont., and Elk Drive in Albuquerque, N.M. Also in Albuquerque is a street with the beautiful name of La Grima d'Oro — Tears of Gold. The euphonious sound of that one is only slightly marred by the addition of an Anglicized S.W.

Eagle Heights can be found at Madison, Wis.; Drake Road in Cincinnati; Quail Street in Lakewood Colo.; Turkey Foot Road in Gaithersburg, Md., and (my favorite of them all!) there's an Owl's Nest Road in Greenville, Del.

What fun it would be to live on a street with such a titillating name! Unfortunately, I live on a plain old numbered street, and get my mail from a post office box. Maybe someday I'll pitch a teepee high on a mountain top, and have an address something like Spotted Fawn Trail.

Falls Creek Project, sponsored by the Falls Creek Environmental Education Foundation, is sponsoring a wilderness seminar June 7-14. The Project site is near Condon, Montana, about 85 miles northeast of Missoula.

The Wilderness Study Field Techniques session offered by the Project will combine a wilderness visit, technical information, and a unique opportunity to examine wilderness values with the guidance of persons who have extensive experience as field examiners, authors of recommendations and wilderness advocates. A few essentials of the wilderness classification process and dynamics will be explored in depth. Additional items will be dealt with as questions arise.

More information may be obtained by writing Mr. Francis Mitchell, Director, The Falls Creek Project, 127 East Main St., Missoula, MT 59801.



Sometimes we see a cloud that's dragonish;
A vapour sometime like a bear or lion,
A tower'd citadel, a pendant rock,
A forked mountain, or blue promontory
With trees upon 't.

SHAKESPEARE: Antony and Cleopatra

Magazine for a gentle revolution

MADISON, Ohio — On January 1, 1970, a young couple in Ohio scraped together \$1,500 and published the first slim (64-page) issue of a magazine devoted to giving people back their lives.

John and Jane Shuttleworth plunged deep with that first issue . . . they had exactly 147 subscribers lined up and their \$1,500 barely covered the printing bill for an optimistic 10,600 copies.

But now, three years later, their publication — "The Mother Earth News" — has become the cornerstone of a two-million-dollar-a-year corporate entity.

"Mother," as she is referred to by her readers, has blossomed into a bi-monthly 132-page periodical that is inspiring and helping tens of thousands of people start their own businesses, garden organically, build low-cost homes, develop alternative power systems and — in general — find their ways to richer, more satisfying lives.

"The Mother Earth News," dubbed by The National Observer as "a magazine for a gentle revolution," has found a market in the mainstream of an ecology-conscious society reaching for alternatives to the present so-called "system."

"I suppose Mother's basic message," says editor-publisher John Shuttleworth, "is consume less and enjoy it more. Almost every article hammers away again and again on the do-it-yourself - use-it-up - wear-it-out - make-it-work - grow-your-own - start-a-home-business theme. We're not saying that everyone should go 'back' . . . but we're pretty certain that we're all going to have to start going forward in a slightly different direction than we have in the past."

Mother's editorial slant is ecological. "We're not angry at anyone," explained the Shuttleworths in a recent interview. "Most counter-culture publications advocate forcing the steel companies to stop making steel . . . closing down the automobile manufacturers . . . all negative things. We're not trying to put anyone down. We're not trying to overthrow the system . . . we're trying to overwhelm it. Saving this earth and giving people a chance to live is something we really care about."

"We're trying to build something productive out of a deep discontent that has been simmering on our earth for years. Most people, I believe, want nothing so much as to be left alone to live their lives as they see fit. We

just want to help individuals do that. Our whole message is 'yes, you can take life in both hands and make it give you what you want.' "

Potential space advertisers are given the brushoff unless they measure up to standards. (No more than 15 per cent of the book is ever devoted to ads.) "The Mother Earth News" bans both cigarette and liquor advertisers. It turns thumbs down on sex and truss offerings, get-rich-quick schemes, de-vitalized "plastic" foods, planned-obsolescence-consumer items and contributors to high pollution.

(Editor's note: Subscriptions to The Mother Earth News are available for \$6 per year (six issues) or \$11 for 2 years. Single copies are \$1.35. The address is Box 38, Madison, Ohio 44057.)

Ban Is Working

Oregon's ban on nonreturnable bottles and pull-top cans — which went into effect last October — seems to be working. Requiring a mandatory five-cent deposit on all beverage containers, so far the law has not produced a depression of beer or soda sales.

And as its advocates predicted, the ban has slowed the flow of waste cans and bottles to dumps and landfills and doubled the number of bottles being returned for reuse. Also, the Oregon Highway Department reports that its litter collections have been free of beverage containers. : : EARTH NEWS

Consumption Up

A recent survey made by Boy's Life magazine questioned its readers on the amount of soda pop they drink, and the findings suggest that the Boy Scouts — who subscribe to the magazine — should maybe institute a new merit badge — for nutritional education.

The fact is, the average Boy Scout drank more than three bottles of pop a day, and one out of 12 drank eight or more bottles a day — that's an astonishing 56 bottles a week, or 224 bottles a month.

In more general terms, the per capita consumption of soda pop in the U.S. has doubled in the last 15 years. It's now up to one eight-ounce serving every day for every man, woman and child in the nation.

: : EARTH NEWS

Environmental Eavesdropper

LOONEY LIMERICKS

by Zane E. Cology

Energy's the name of the game —
We demand ever more of the same.
Of we don't slow its use
We soon must deduce
We have only ourselves to blame!

* * *

Texas may have the first National Biological Reserve if a bill introduced in the House to protect the Big Thicket gets the go-ahead. It would be administered by the National Park Service. The bill calls for the protection of seven units totalling some 100,000 acres.

* * *

Canada reports polar bear populations to be on the increase and will allow Eskimo hunters to take 445 of the big bears this year. The Eskimos are allowed to sell some of their permits for \$2,500 each but are finding few takers because of the U.S. ban on importation of skins and ivory of arctic marine animals.

* * *

The much touted Green Revolution, launched seven years ago, has had little effect on reducing starvation and malnutrition except in isolated instances. Observers say population growth continues to outstrip the ability to produce food. Also, new, high-yield, miracle seeds require fertilizers and other conditions which cannot be supplied by the poor farmers of tropical lands.

* * *

China wants development of the ocean floors controlled by an international agency. A Chinese spokesman made the proposal in planning sessions for an international conference on law of the sea. The conference is to be held at UN headquarters next November.

* * *

Mountain Bell is contributing to environmental improvement by replacing poles and aerial cable and wire with underground cable. Some 2,600 miles of overhead wire and 4,800 poles were replaced last year in Wyoming alone.

* * *

Under-hood fires caused by the extreme heat generated in catalytic converters is another worry for automobile engineers. The catalysts are used to reduce engine emissions which cause air pollution.

* * *

Idaho Rep. Orval Hansen has introduced legislation which would create an environmental quality corps. The congressman's bill would put unemployed youths and veterans to work in projects on reforestation, campground construction and maintenance, construction of recreational facilities and highway beautification.

* * *

An assistant regional administrator of the EPA in Seattle says improper logging practices are still damaging the environment. Hurlon C. Ray says, "There must be a full-scale adoption of proper logging and land management practices by forest land owners and a logging industry which recognizes its responsibility to the citizens of the United States."

The Mining Workshop of the Colorado Open Space Council will conduct a tour of several of the proposed oil shale leasing sites on June 2-3. The tour is scheduled to leave Rifle at 8 AM, June 2, from the A&W Restaurant. A cookout and campout is planned for that night, but some participants may wish to stay in motels nearby. Anyone wishing to participate should contact the Workshop at 286 So. Gilpin, Denver, CO 80209 before May 29.

Book Review

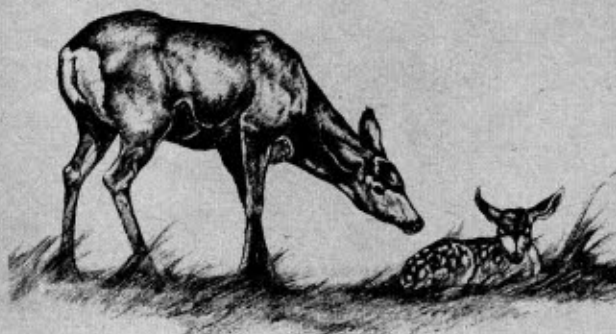
Family Wilderness Handbook

By Mary Scott Welch

"Each step along this trail is a step away from the road . . . a step closer to wilderness."

Who hasn't dreamed of getting away from the rushed, hectic everyday world? We all dream, but most of us are intimidated by the thought of the preparation involved in getting ourselves into the wilderness and surviving there in relative comfort. Mary Scott Welch, who describes herself as "citified," conquered those fears as she was nearing 50. She discovered the wilderness (an area defined as unreachable by motor vehicle) and in doing so, she discovered the liberation of her feelings and senses and capacities she didn't know she had. She found simplicity and peace, better health and a sounder physical shape.

She wrote *Family Wilderness Handbook* to help the novice camper make the transition to



Leave Them Alone!

LINCOLN, Nebr. — Each spring, a new crop of wildlife is born into the world to face the many challenges of survival in the natural environment — hungry predators, sickness, the elements, and the threat of being run over by cars, shot, or many others.

And, each year an even greater number of people crop up to pose an additional threat — finding the young animal and taking it home as a pet.

Wildlife managers in Nebraska and across the country keep plugging away trying to discourage this practice, but they fail as often as they succeed. Young birds, deer, raccoons, and dozens of other innocent creatures are picked up by people and taken home. Often this is done in the mistaken belief that the "poor little thing" has been abandoned by its heartless mother.

Such is very, very seldom the case. Normally, the young animal's mother is nearby, but was frightened off by the appearance of the human intruder. Most likely, the wild animals were out foraging for food, with the mother trying to teach her new offspring how to get by in the world. Instead of completing that phase of training, it is cruelly interrupted when her young is "kidnapped" by a misguided human.

Even if the young animal has been orphaned through some accident, it is often best to leave it to its own devices. If adopted by a well-meaning human, the animal usually suffers the same fate. It will be nursed and coaxed through infancy, then found to lose its sweet personality when it grows up, and will be turned loose into the wild again.

Few fates could be worse. The naive animal cannot possibly cope with the multitude of problems confronting it. Most if not all its "schooling" was missed, and in the vast majority of cases, it is doomed to a grisly death. At best, the animal will be able to adjust only after considerable suffering and learning via the route of "hard knocks."

Another factor easily forgotten by those picking up wildlife is the law. All game animals, such as deer, rabbits, and pheasants may not be possessed without a special permit. State law also protects all songbirds and insectivorous birds, and both federal and state laws protect hawks, eagles, shore birds, and other migratory species. Federal protection also extends to some 32 families of birds covered under international agreements.

Unless you are absolutely certain that a young animal's mother has been killed, leave all young wildlife where you find it. Even then, it is best to contact the nearest conservation officer to handle the situation. He can best determine whether the animal should be left alone or if it should be taken to a zoo or other facility. The best advice is, if in doubt, do nothing! Please!

successful backpacking in easy, logical steps and to provide detailed information for the already initiated. The first third of the book provides elementary information on beginning trails, baking, horseback riding, canoeing necessary clothing, backpacking clubs, the best time of the year to visit a specific area, how to determine one's stamina and plan a trip that corresponds to that stamina, and the advantages and disadvantages of taking a wilderness vacation with a professional group.

Once the beginning backpacker has become acclimated through day and weekend trips, and has discovered the nonverbal joys of the wilderness, he is ready for the next section of *Family Wilderness Handbook*. Here Mary Scott Welch provides the information necessary for planning and preparing a vacation trip without the use of a professional group. She considers the factors necessary in selecting a location, such as accessibility and climate. Included are charts of the 54 wilderness areas in the United States with a description of the area and a list of the nearby towns. She tells how to obtain detailed maps of the area and what to do when the maps are outdated. She explains how to realistically figure the distances when planning the vacation. And she provides detailed information about equipment: clothing, cooking utensils, first aid, personal needs, sleeping equipment, tents, water containers and lights — all equipment meeting the three W's of the wilderness: weight, warmth, and weather resistance.

There is a full chapter on food — how to have multi-course meals with ease in the wilderness. Mrs. Welch provides menus and complete food charts for a family of four, always selecting food that will provide ample nutrition, is light weight, has eye and taste appeal, can be kept safely without refrigeration and can be easily prepared. She even explains how to repack and assemble the food for carrying.

Also included in *Family Wilderness Handbook* is information on map and compass reading, how to read a trail, how to walk comfortably with a pack on your shoulders — the little details that will make backpacking an exhilarating experience and will eliminate the painful experiences of trial and error. The handbook concludes with a chapter on C.A.R.E., Caution and Respect for the Environment. Mrs. Welch discusses the care to be taken with drinking water, what to do in a storm, what flora and fauna to watch out for, what to do if you or a member of your party gets lost, and what to do with your garbage. This handbook is simply loaded with information for campers — for those who dream of camping and need the encouragement to get out there, and for those who have been camping for years.

A Ballantine Original; \$1.65.



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Backpacking Fever Spreads

by Cheryl Crase

PIERRE — A fever has broken out in South Dakota. Symptoms are the desire to hike wilderness trails, an adventuring instinct, and a love for untapped nature. It's called backpackingitis.

Backpackingitis strikes those with a certain amount of physical stamina and the hiking itch. Backpacking is like hiking, but the backpacker carries everything for survival on his back.

The fever is reportedly spreading across the state and nestling in the Black Hills of South Dakota. Sporting goods retailers in the Rapid City area report more and more backpacking enthusiasts are purchasing equipment for a wilderness trek.

South Dakota has been called one of the few remaining "untrampled states" and abounds with wilderness waiting for backpacking enthusiasts. South Dakota's three trails listed in the National Recreation Trails Registry, Bear Butte, Sica Hollow and Sunday Gulch, are short — not the kind of trail a backpacker thrives on.

A real backpacking trail is the Silver Arrow Trail. It is a 55-mile trail from Camp Old Broadaxe near Nemo past Pactola and Sheridan Lakes and over Harney Peak to Mt. Rushmore. This is the longest mapped-trail in the Hills. But unmapped trails run rampant through the Black Hills.

A partially mapped trail will be the longest — and a backpacker's dream — when fully mapped. When completed the Paha Sapa Trail, a 150-mile trek, will extend from Wind Cave National Park in the southern Black Hills to Wyoming's Devil's Tower National Monument. The Trail will climb over the tallest peak in the Black Hills, Harney Peak, pass Sheridan and Pactola Lakes and wind through Spearfish Canyon in the northern Black Hills. Planners hope this main trail will connect with smaller trails to form a spiderweb of hiking and backpacking trails all over the Black Hills.

The backpacker carries only the essentials and above all packs compactly. Backpackers have even been known to cut towels in half and slice off toothbrush handles to save space and weight. Backpacks are adjustable to conform to the hiker's center of gravity.

Backpacks and frames are priced from about \$20 and can go as high as \$70. Most packs are nylon with aluminum frames because weight is a major factor. When purchasing a pack the prospective hiker should ask the clerk to actually fill the pack with the approximate weight he expects to carry. Experts say the backpacker should seriously underestimate the weight he thinks he can carry.

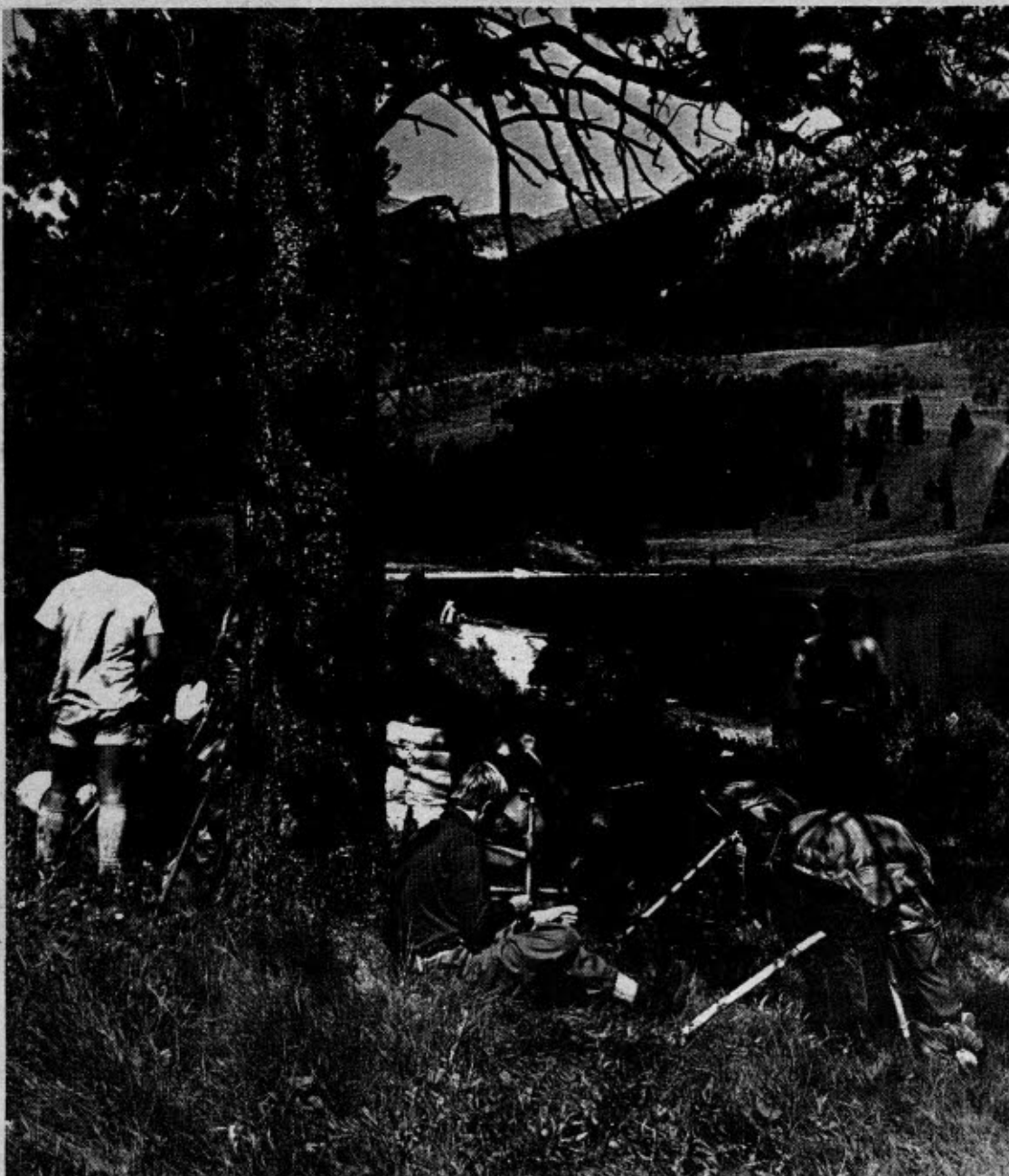
Filling the pack is easy, but carrying it on the trail is harder. It would be wise to take a knife, flashlight, compass, canteen and rope. Most of these are available at sporting goods stores. Many retailers carry tents and sleeping bags for backpacking; backpacking stoves, lanterns, jackets, boots and fishing rods that fold to small dimensions are also available.

One sporting goods store, Mountain Goat Ski Shop of Rapid City, is specializing in backpacking gear and has started South Dakota's only backpacking school. Mountain Goat Climbing School, Inc. started late last summer and is in full-swing this year. The one-day backpacking course is designed for beginners, intermediates and advance backpackers.

Three experienced backpacking instructors teach the classes. According to Michael Church, all the student needs are hiking boots and lunch. The shop furnishes all equipment.

Beginners learn the proper handling of backpacking equipment, technical names and backpacking signals to partners. Those who advance to the intermediate level learn about climbing hardware and place leading. The more advanced backpackers study rescue and artificial climbing techniques.

The fever is catching and the Black Hills should become backpacking country this year. After all, a wilderness guide calls packing "the most independent, maneuverable and rewarding way to travel."



Backpackers wait beside the Lower Green River Lake at the edge of Wyoming's Bridger Wilderness Area. Backpacking has become one of the most popular, as well as economical ways, to get away from the mechanized society of the cities. It has become so popular in fact that Grant Teton National Park and other favorite areas are having to institute backcountry management. In four years, hiking use in Grand Teton has gone from 84,000 to over 126,000, concentrated in a 2½ month period.

Goose Mystery Unsolved

LINCOLN, Nebr. — The curtain has fallen for another year on the annual spring effort to trap and band white-fronted geese in Nebraska, a vital part of a national and international effort to gather data on this rather elusive species.

This spring, wildlife biologists and technicians of the Game and Parks Commission and the U.S. and Canadian wildlife services worked on the project in Phelps and Clay counties.

"We trapped 289 this year," said George Schildman, the Commission's waterfowl biologist. "The most we've ever banded was 556 last year, and some years we've gotten 'skunked' entirely. This is part of what makes this bird so difficult to study. If our data is to be really reliable, we should consistently band about 1,000 birds every year."

Object of the banding is what waterfowl biologists call the mid-continent flock, a distinct population that migrates across the midlands. The remainder of North America's whitefronts migrate exclusively along the West Coast.

"We're trying to determine the condition of this whitefront population," Schildman said. "It's not well understood, but the flock's status can't be too good. There has been poor reproduction for the past six years, due to weather and a variety of other factors."

"What we're after is data on the mortality rate in the mid-continent flock. From our banding, we learn about the birds' movements and their timing, but the most important data is mortality. To get this, we have to band a sizeable sample like 500 or 1,000 birds each spring for at least three consecutive years."

The banding effort in Nebraska offers the best opportunity to study the birds. In the fall, their migration routes are scattered from central Nebraska eastward into the Mississippi Flyway. In the spring, however, 60 to 90

percent of the mid-continent flock funnels into staging area in Nebraska's rainwater basins and the central Platte Valley, and they spend several weeks there. Once the birds cross the Platte River after leaving their staging areas, they scatter and head for northern nesting areas.

Banding on nesting areas is expensive, difficult, and hazardous because the birds are so widely scattered and inaccessible.

Biologists have trapped and banded good numbers of whitefronts on their fall staging areas in Canada, and a few birds on wintering grounds in Texas and Louisiana. But, this takes place during the waterfowl season, and the birds are heavily hunted in both places.

"What do you learn if you band a bird one day and a hunter shoots him a few miles away the next day and turns in the band? Practically nothing," Schildman said.

That leaves the spring migration and the Nebraska staging areas. But, coming up with the 500 to 1,000 birds has proven an elusive goal so far. With other species like snow geese or Canadas, there are established refuges where biologists know there will be birds to trap and band. But there are no areas of this type that consistently draw whitefronts, so they must be taken under natural conditions.

"In essence, we're playing this game in the whitefront's ball park and with their rules," Schildman said.

Also, whitefronts are rather restless birds. They do not come to bait, and they seldom feed in the same field two days in a row. The only place they use with any consistency is a loafing area, usually an open beach. This is where biologists place their cannon nets. But with rainy days like this spring, the birds spend their time in the fields or on the water, and largely avoid their loafing areas.

"That's mainly why we didn't do well this year, even though the Canadian, federal, and state personnel worked hard at the project for 17 days. In those 17 days, we only got 7 shots with our nets in Phelps County and 2 shots in Clay County," Schildman said.

If better results are not obtained in the next two years, it is likely that the whitefront-banding program will be discontinued, Schildman noted.

