The Outdoor and Environmental Bi-Weekly

High Country News

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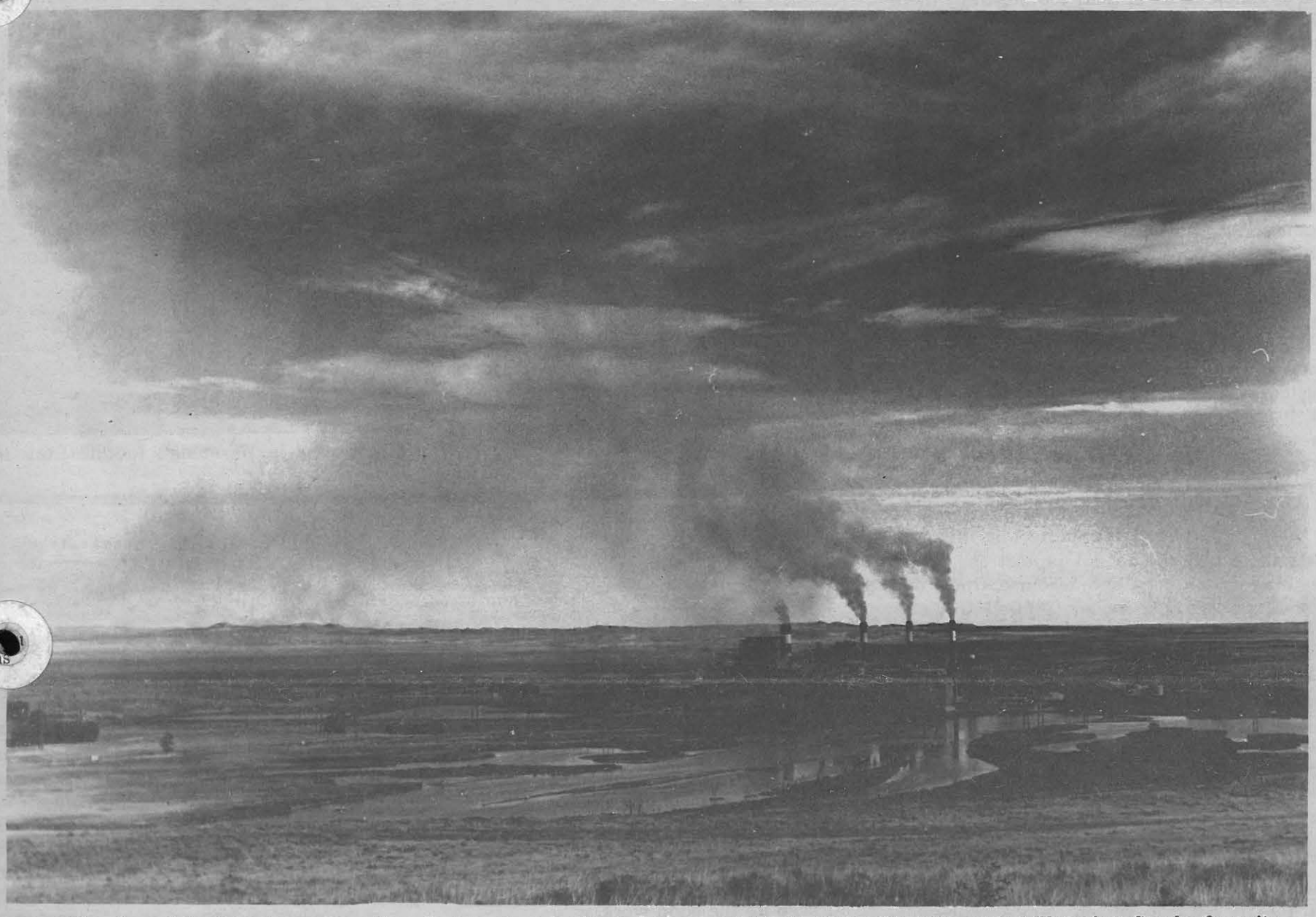

The Dave Johnston steam-generating electric plant is situated along the North Platte River in central Wyoming. Smoke from its stacks often fill the river valley for many miles up and down river. The three main smoking units in the 750-megawatt plant are to be modified to reduce the emissions. However, fine particulates, sulfur dioxides and nitrogen oxides which cannot be removed will continue to pollute and degrade the air. Pacific Power and Light Co. which owns the plant is building a new 1,500-megawatt plant near Rock Springs. Reynolds Metals Co. projects the need for a 3,600-megawatt plant near Buffalo. Largest of all proposals is for the North Central Power Project in southeastern Montana and northeastern Wyoming. That project anticipates the ultimate development of 53,000 megawatts of electric generating units in one localized region. Given the current state of technology, such power developments will lead to massive air degradation over a wide area.

There Goes Our Air!

by Tom Bell

Earlier this year the Sierra Club won a [illegible] for clean air — the significance of [illegible] was generally lost on an unknowing [illegible] Simply stated, the United States [illegible]t Court for the District of Columbia said the Clean Air Act of 1970 was intended to keep clean air from being degraded.

The Court cited legislative history and the Environmental Protection Agency's own regulations in finding that those regulations were not strict enough to prevent clean air areas from being degraded. Judge John H. Pratt set out the first basic purpose of the Clean Air Act:

> "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population."

He then said, "On its face, this language would appear to declare Congress' intent to improve the quality of the nation's air and to prevent deterioration of that air quality, no matter how presently pure that quality in some sections of the country happens to be." (Emphasis added.)

Judge Pratt gave Environmental Protection Agency Administrator William D. Ruckelshaus four months to review and approve state plans. He said a state plan must "insure that it does not permit significant deterioration of existing air quality in any portion of any state where the existing air quality is better than one or more of the secondary standards promulgated by the Administrator."

The key word in this finding is "significant." To a Southern Californian whose air is some of the worst in the world, "significant" would have to mean a considerable amount. But to a visitor to Yellowstone Park or a rancher in the Black Hills, any amount of air pollution is readily noticed.

EPA's regulations set primary and secondary standards for "ambient" air. (See definitions of air pollution terms.) The secondary standards are to be the toughest for air polluters to meet. And some of the worst air polluters are fossil-fuel, steam-generating electric plants.

To the average layman, most of the terms and technical language are incomprehensible. They really don't mean much until they can be expressed in a meaningful way.

From a mountain top in Central Wyoming, it is often possible to see 100 miles in any direction. If our air were to be degraded to the secondary standards allowable under present EPA regulations, you would not be able to see more than 15 miles in any direction.

In other words, the Rocky Mountain and Great Plains states which now have relatively clean air would see their air consistently grow dirtier until it reached the secondary standard. Nowhere would you be able to see more than 15 miles in any direction. That amount of air pollution is the amount of small particulate matter that is the maximum allowable to protect human health.

Already, a dirty yellowish-brown curtain hangs across the horizon in almost any direction you wish to look. Here in the West it has become distinctly noticeable in the past two years. It means that even here, air pollution from around the globe is being brought to us by the natural movement of the air stream. It also means that what we put into the air here will only add to the load of pollution being distributed world-wide.

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HIGH COUNTRY

By Tom Bell

Air, water and land are the three basic resources of planet earth which sustain all life. The physical and chemical properties of these three ingredients, along with sunlight, determine how well living creatures shall live.

Without clean air, in the basic proportions which have evolved through eons of time, life as we know it will cease to exist on earth. As a part of the web of life on earth, human beings have a vital stake in what happens to clean air.

It is as simple as all of that, yet incredibly there are those who have missed that awful truth. Some feel their sole duty is to provide electricty to a demand market and provide a profit to the stockholders at the same time. There seems to be no responsibility or obligation of a higher order — to life itself.

Every new powerplant adds to a growing air pollution problem which is global. Yet the best technological solution that many utility engineers can come up with is a taller smokestack. They know that by keeping the smoke up out of the eyes and lungs of people in the immediate vicinity, they can keep down the "crank" calls. People at a distance won't know where all the poisonous fumes are coming from and so won't know where to complain.

State officials and state legislators must share the blame, which means ultimately the man on the street. It is citizens who place in office those who shape and direct resource policies. Yet, the average citizen cannot be expected to know all of the complex ramifications of an air pollution problem. He must rely on the honesty, sincerity and integrity of those whom he puts in office to protect his interests.

When those officials do not protect the public interest, the citizen must have recourse. Under our system of government, we are allowed to go to court — provided our laws are so written. This is why it is so important that the National Environmental Policy Act be kept intact. It provides for environmental impact statements which must set out for everyone to see just what a development will do to air or water or land — or people.

There are those who decry the National Environmental Policy Act "because it stands in the way of progress." They claim it is nothing but a hindrance, that it is a nuisance law by which "kooks," communists, and Sierra Clubbers can pull our country down.

But for the average citizen, NEPA represents one of the only ways to protect himself from the corporate interests and their political allies in office. By means of it, he can question whether a new polluting industry is in the public interest or the corporate interest.

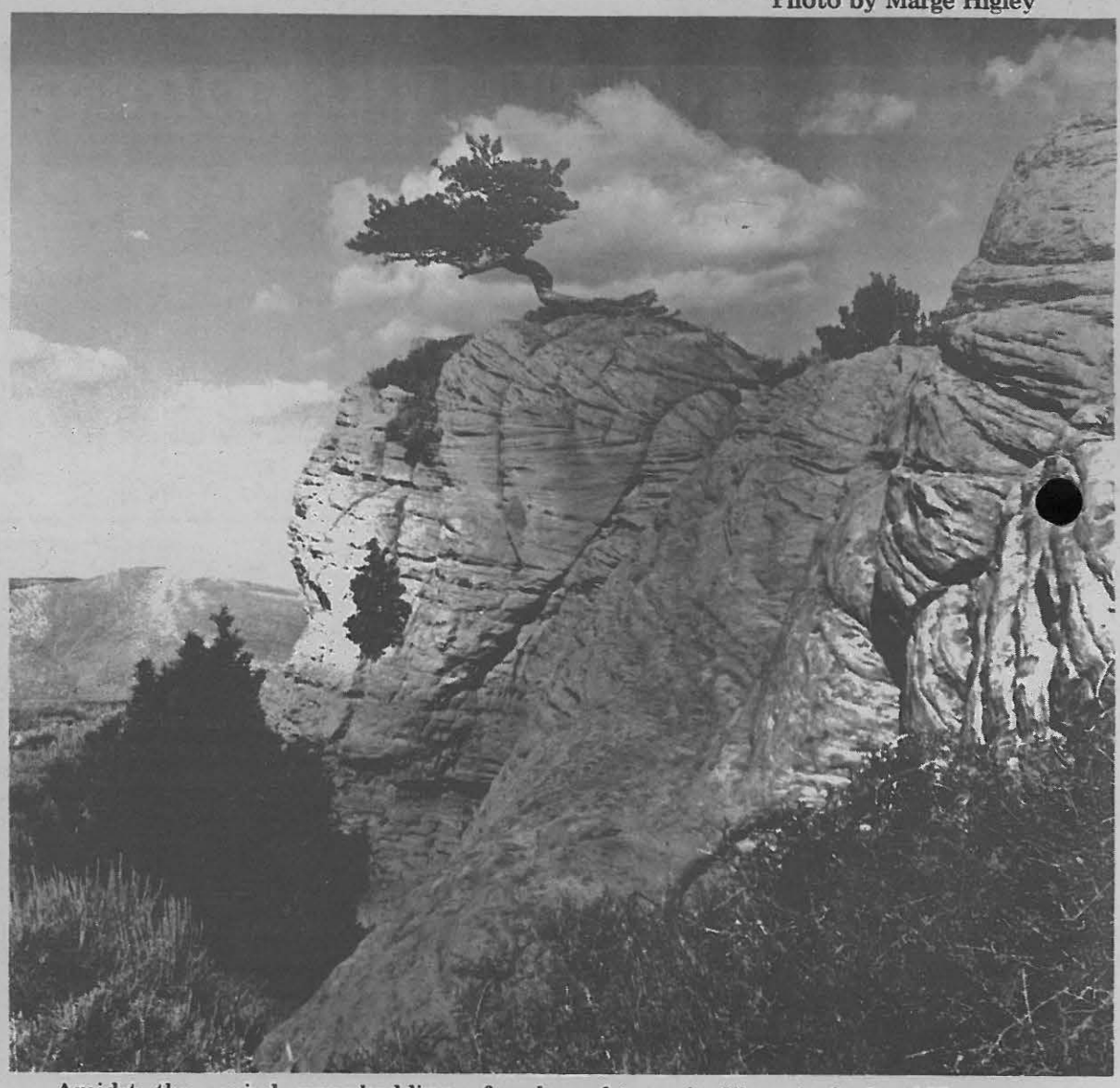
Utilities and other industries want to keep costs as low as possible while boosting profits as high as possible. It so happens that electric utilities generally are some of the highest profit-taking institutions in our capitalistic system. Just recently the profit margin after taxes was revealed for a number of utilities. Heading the list was Idaho Power with 23.72 percent. Close behind was Montana Power Co. with 22.62 percent and Pacific Power and Light Co. with 21.63 percent.

Pacific Power and Light Co. is the big one in Wyoming. It is partners with Idaho Power Co. on the Jim Bridger plant here in Wyoming. It is also partners with Montana Power on a plant in Montana. All three are big companies with tremendous assets. All of them can well afford to install whatever would be necessary to remove practically all air polluting emissions from their smokestacks. All protest that they have done all they can, and, besides, they will not pollute anymore than the law allows.

What the public doesn't generally know is that the utility companies and the energy companies have an almost decisive influence on the way the legislation is written. Their lobbyists tell our legislators they can't do any better and so the laws and regulations are tailored to fit what they say they can or cannot do. It makes a nice arrangement.

Now the Sierra Club is testing that cozy arrangement. The test case against EPA and the Jim Bridger Power Plant in Wyoming hopefully will clear the air.

Photo by Marge Higley



Amidst the varied cross-bedding of red sandstone in Wyoming's foothills, this lone sentinel displays its rugged character.

Letters To The Editor

Editor:

I'm continually amazed at the high quality of every issue. I don't know how you do it, but I certainly hope you generate enough subscription support to get and remain solvent. In an era of psuedo "sportsman's" magazines, your publication retains a unique integrity — keep up the good work.

C. A. (Bill) Bishop
Polson, Montana

* * *

Editor:

We especially like the articles on the Beartooth area. We have spent several vacations there and consider Wyoming a great place. We favor keeping as much of Beartooth primitive as possible. We own trail cycles but prefer to keep Beartooth primitive. We will be content to ride our cycles on existing roads — keep all the primitive areas that way. We also hike and backpack.

Sincerely,
Mrs. Clyde Keathly
Worthington, Ohio

P.S. If Wyoming lets the development take place as it has in Ohio, everyone will be much worse off.

* * *

Editor:

Ever since becoming a reader of High Country News, I have been impressed with the quantity and quality of the articles each issue contains about the uses and the abuses of our natural resources. It presents facts without catering to the viewpoints of influential interests. It exhibits no fear of offending private or government organizations that possess a special interest in the management of resources and land.

A good example is the publication of former Idaho Game & Fish biologist James Morgan's own story of the bighorn sheep management or mis-management, near Challis, Idaho, by the BLM and the Idaho Game Management Dept. I do not doubt the truth of Morgan's criticisms of the management of the bighorn sheep, but it would be helpful to a complete understanding of the management plan, if the BLM and the State people would describe the reasons Morgan's plan is unacceptable to them. If that is not done, we can only assume that Morgan's allegations of mis-management are completely valid and justified. And that the people who are hired to protect the public's interest in the bighorn sheep are catering to the livestock operators involved and have failed in their performance to base their plan upon the ecological needs of the sheep. If Morgan is right then it appears that the BLM and the State take the position that continuance of cattle grazing on the Bighorn winter range is of primary impor-

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Guest Editorials

Reprinted from THE WASHINGTON POST, September 17, 1972.

He Won All Shootouts But The Last

The Democratic primary in Colorado's fourth congressional district had all the drama of a Western duel. There was Wayne N. Aspinall, the canny incumbent, aging but astute, champion of those who believe the West's vast resources were put there to be used. For 24 years he had scrapped for the ranchers, the miners, the dammers and river benders, the timber and oil and gas interests on Capitol Hill. His loyalities were stubborn, his reflexes sharp, his grudges durable. For 12 years he had run the House Interior Committee as he might have run a frontier town: he never lost a shootout with a bureaucrat, and the bills that entered his territory emerged with his personal brand, or not at all.

Facing him was Alan Merson the upstart challenger, spokesman for a different breed of Westerners — people whose advent had made Colorado more crowded and less content. They believed that resources such as open space and beauty were finite and ought to be conserved. They regarded the taming of the frontier as the savaging of the land. For years they had railed against Aspinall without denting his power or his grip. This time, however, redistricting came to the aid of righteousness. And when the dust had cleared last Tuesday, Rep. Aspinall, 76, had been defeated by Mr. Merson, 38, a law professor and environmentalist who moved into the district last year.

It would make a marvelous movie: youth against seniority, the new environmentalists against the old exploiters, a popular uprising in a lovely state already marred not only by mining and logging, but also by subdivisions and smog. And it will make a great difference in Congress. For Rep. Aspinall has been the single greatest influence on natural-resources policies in the House. His likely successor as Interior Committee chairman, assuming that the Democrats retain control of the House, is Rep. James A. Haley of Florida, 73, a former president of the Ringling Brothers circus, who is not expected to exercise either Rep. Aspinall's autocratic sweep or his particular passion for big dams, reclamation projects, low grazing fees and exploitative multiple-use policies for public lands.

Although the revolt in Colorado's fourth district will not bring an instant environmental revolution in the House, it does brighten the prospect for a sensible nationwide land use planning bill, far-sighted and cautious public lands policies, the creation of more wilderness preserves, and an overdue review of the nation's outdoor recreation problems and needs. Thus for the environmental activists who poured funds and energy into the Merson campaign, Rep. Aspinall's defeat is an even larger prize than the forced retirement of Rep. George Fallon two years ago. For Mr. Merson, however, the battle is just beginning, since the new fourth district has strong Republican leanings and his prospects in November are uncertain.

As for Rep. Aspinall, his congressional career has earned him a small and qualified tribute, not for his policies but for his skill. He has been one of the most attentive, outspoken, and formidable personages among the band of aging House Committee chairmen whose power is now ebbing so suddenly. In movie terms, as he rides off into retirement, he deserves a pretty sunset — but we're not sorry his day is done.

Reprinted from JACKSON HOLE NEWS, August 17, 1972.

This Week's Offering!

El Paso's public relations department never seems to run out of gas. Using the Western Union pipeline, El Paso sends out its weekly news bulletin cum telegram to keep the people of Jackson Hole "informed" about the latest developments in the Texas gas company's effort to promote Project Wagon Wheel.

Money is apparently no object. Each Monday the bells begin ringing in the Jackson Hole Chamber of Commerce office and the teletype begins clicking as El Paso's message comes across the wire. This week's "progress report" cost El Paso $150 to send duplicate copies to the two Jackson newspapers and radio station.

Perhaps $150 a week on public relations in Jackson is small change for El Paso. In fighting a monopoly suit in California, El Paso is reported to have spent an estimated $12.6 million on outside law firms and $1.74 million through a New York public relations firm. According to El Paso, they have already spent several million dollars on Wagon Wheel which must justify, in their minds, the extravagant press releases.

The problem is that El Paso isn't getting their money's worth because their messages are so blatantly propagandistic. Let's look at this week's offering, which is given the catchy title, "El Paso Natural Gas Company Engages Experts for Project Wagon Wheel Bioenvironmental Studies."

Maybe El Paso puts these "Scientific American" headlines on their stories to lull the unwary reader to sleep before he plunges into the subject matter. It would probably help El Paso's cause.

Anyway, this week El Paso is telling us about this team of "experts" who have been engaged to "expand the bioenvironmental studies already carried out." El Paso is justifiably touchy about studies "already carried out" because it has been amply demonstrated that their earlier studies were woefully inadequate.

In fact, although two Environmental Impact Statements have been released on the project, El Paso is only now being forced to undertake comprehensive studies to indicate the possible effects of their blast.

That would be fine, if the studies appeared a bit more objective. Buried in this week's announcement we find that Dr. Keith Schiager, a CSU radiation ecologist, is to be on the investigating team. Sounds impressive until you remember that Dr. Schiager was one of the few scientists at a meeting held last spring at Big Piney who spoke in favor of the Wagon Wheel project. Judging from this experience, can we expect Dr. Schiager to be objective?

Unfortunately, Dr. Schiager doesn't appear to be as much of a liability to the team as Dr. H. G. Fisser, range management expert from the University of Wyoming. According to the El Paso release, "Previous studies by Dr. Fisser and others . . . have indicated that the project Wagon Wheel detonations will not have observable effects upon the ecology and environment of the area."

What a way to announce an "independent study"! With men like Schiager and Fisser, why even have a study? It's like having Lyndon Johnson do an independent evaluation of our involvement in the Vietnam War.

El Paso Natural Gas apparently has money to burn, but it is an insult to the people of this area to continue sending out "news releases" that are little more than dishonest pieces of propaganda.

Reprinted from THE IDAHO STATESMAN, Boise, July 26, 1972.

Set It Aside

Rep. Wayne Aspinall's public land policy bill has been improved by amendment, but it doesn't deserve House approval. It should be set aside.

It would make extensive changes in the basic laws governing the public lands. Congressman Aspinall seems determined to push it through at this session.

In its original form the bill would have opened up wilderness areas and national parks to potential "multiple use" management. It is based on the philosophy of extracting the maximum resources from the land.

It could de-emphasize public recreation use of land, and environmental considerations in land management.

Amendments were adopted after Interior Secretary Rogers Morton blasted the bill, but it's difficult to amend bad legislation and make it good.

Aside from the legislation's faults, it should be considered separately. Aspinall has tied it to significant land use planning legislation. Both subjects are important and deserve individual attention.

Aspinall says his bill carries out the philosophy of the report of the Public Land Law Review Commission. Some sections of that report are at odds with others, but the emphasis is on disposal of public lands and resource extraction.

Congressman Aspinall's views on land management were more appropriate to another

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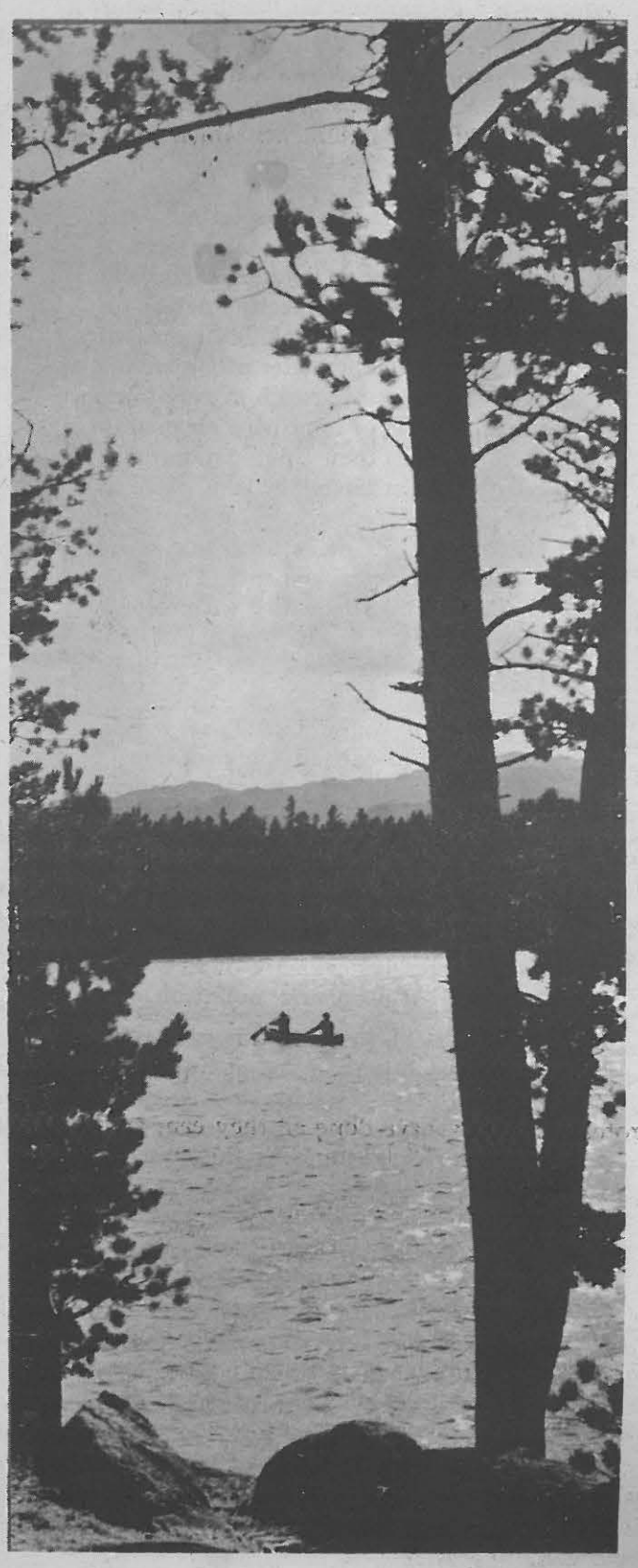
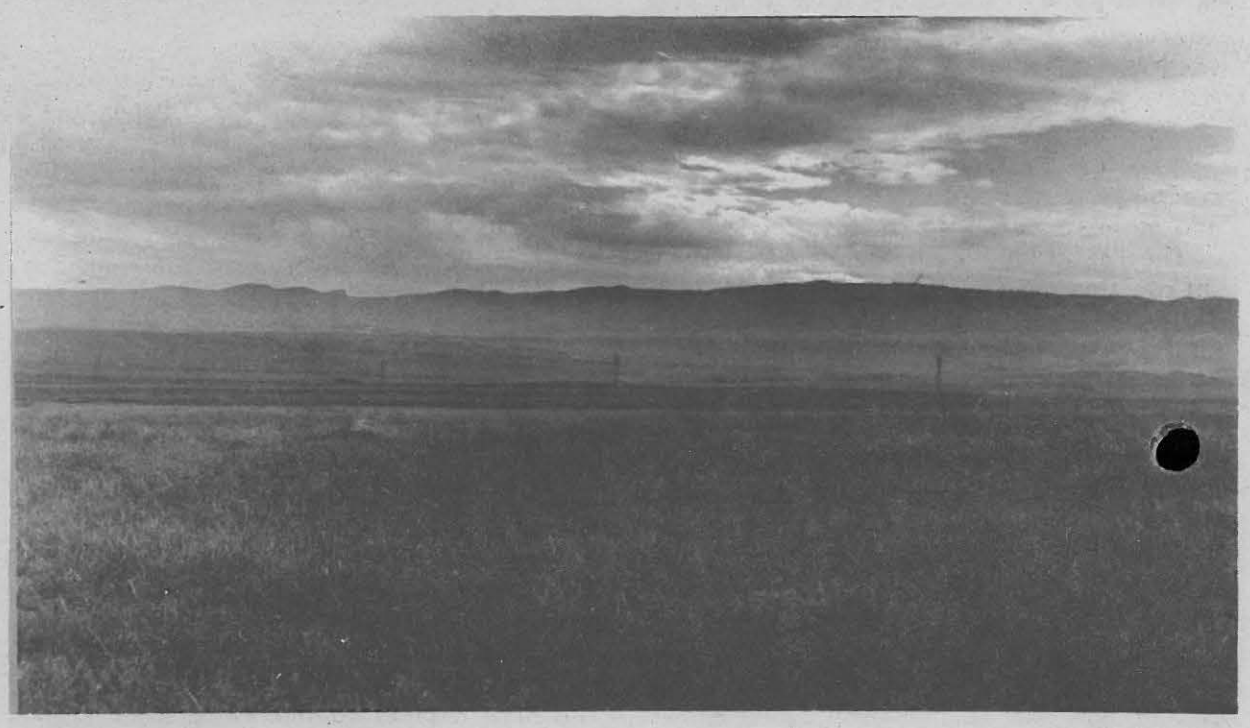


There Goes . . .



Dirty air hangs along the Deer Creek Range near Glenrock, Wyoming. Smoke from the coal-fired Dave Johnston power plant often backs up along this range. Additional power plants and industries can only add to the total degradation of normally clean air.

This has profound significance not only for us but for all other inhabitants of the northern hemisphere and the earth. The Environmental Defense Fund has recently pointed out that a concentration of coal-burning, steam-generating electric plants in Wyoming and Montana has the "potential for massive degradation of air quality" in that area. But such massive effects would have lesser effects far downwind from the plants themselves.

> Downwind agricultural, industrial, commercial, and municipal interests must be advised of adverse air quality, changes in cloud cover, and increased acidity of precipitation resulting from NCPP. Synergistic effects of particulates, nitrogen oxides, sulfur oxides and water vapor must be evaluated and the local people must be apprised of the impact of reduced air quality on public health. . . Environmental Protection Agency Administrator William Ruckelshaus says he will fight the Sierra Club suit to the U.S. Supreme

(Continued on page 5)

Terms and definitions related to air quality.

AMBIENT AIR is that air which is moving around us at any specific location, or that air mass which surrounds us at a certain place.

Ambient air standards are favored by polluting industries and sources because they pass the air pollution off to someone else. High smokestacks do not reduce pollution — they only put the pollution up where the wind will carry it farther.

Dr. Robert E. Kohn, Assistant Professor of Economics at Southern Illinois University, commented on ambient air standards before a Senate Subcommittee on Air and Water Pollution in 1969. He said:

> Ambient air quality standards have been defined as "pollutant levels that cannot legally be exceeded during a specific time in a specific geographic area." They are expressed in terms of the maximum allowable volume or weight of a pollutant in a given volume of ambient air, averaged over a specific period of time. For example, 75 micrograms of particulates per cubic meter of air, annual average. Such an approach says nothing about protecting or improving air quality that is better than the standard. If standards are achieved in one place at the price of reduced air quality elsewhere in the airshed, it seems clear that there has been no improvement. The true measure of total air quality with respect to any pollutant is the average of ambient air concentrations at every point in the airshed. . .
>
> It has been stated that "the atmosphere's dilution capacity is enormous." A conceivable strategy therefore might be to load the air with the right pollutant at the right place at the right time without exceeding ambient air quality standards. This ignores the consequences of emissions into the world atmosphere. There is increasing evidence of an overall buildup of atmospheric pollution. . .

PARTICULATES are any airborne particles, either solid or liquid. Some metals such as mercury, and other elements such as selenium and arsenic, go out the stack as vapors but cool and condense at some distance downwind to become solids. Minerals in coal, expressed as percent of ash, contribute ash and carbon soot. Major sources of particulates are coal-burning power plants and smelters.

Particulates that are less than 1 micron in size cause the most trouble. Those that are one-tenth micron to one micron in size are the most hazardous to health. (For an idea of size, most bacteria are about one micron in size; red blood cells are 7-8 microns.) The nose will filter out particles up to about 5 microns. The hair-like cilia in the throat carry out particles up to about one micron.

Particulates that range from one-tenth to one micron in size enter the alveoli of the lungs causing such conditions as cancer, silicosis, and silicotuberculosis. (Coronary heart disease has been found to be as much as 79 percent greater than normal in areas of highest air pollution.) The particles either remain in the lungs, or are excreted through the kidneys, the liver or the lymph glands.

It is these smallest particulates which also cause the most haze because they tend to remain suspended. And they are the most difficult to remove from stack gases because they are so small. They are practically invisible as they leave the smoke stack, giving the lie to assertions by power company officials and others that nothing is coming from the stack except steam.

Anyone wishing to determine how much particulate matter is being emitted to the atmosphere can do so. The number of tons of coal being burned per day, multiplied by the per cent of ash content, multiplied by the per cent efficiency of equipment will show how much ash is being removed. The difference between the factor of the first two numbers and that of the last two will show how much is going into the air.

However, this is not the only consideration. Gaseous emissions of sulfur, mercury, selenium and other elements often condense at some distance from the stack and form small particles.

The amount of particulate matter going into the air can be measured. Regulations promulgated by the Environmental Protection Agency say that 60 micrograms per cubic meter of air are all that can be allowed and still protect human health. That amount of particles in the air will allow for about 15 miles of visibility.

SULFUR DIOXIDE is a colorless (invisible) gas and therefore can't be seen as it comes from a smokestack. It is formed when sulfur is burned.

All coal contains some sulfur because the coal was formed from once living material which contained sulfur. Therefore, when coal is burned, sulfur dioxide is formed. Western coals generally contain less sulfur than coal found in the eastern states.

Sulfur dioxide and particulates are both severe irritants to the respiratory tract and the lungs. S02 paralyzes the hair-like cilia in the throat and thereby facilitates the passage of fine particulates into the alveoli of the lungs. S02 and particulates are much more serious when they are breathed together because each magnifies the effect of the other.

Science Magazine says that a 50 percent reduction in the levels of S02 and particulates could result in reducing the death rate from bronchitis by 25 to 50 percent, from lung cancer by 25 percent, from all other respiratory diseases by 25 percent, and make possible smaller reductions in death levels from heart disease and other types of cancer. The National Research Council, in one of the most complete and conclusive reports on air pollution in the U.S., says the rising tide of lung cancer is due to air pollution. Sulfur dioxide is one of the worst of the causative agents.

When sulfur dioxide is emitted from the smokestack it begins to react with more oxygen to form sulfur trioxide. It, in turn, combines with water to form droplets of sulfuric acid. The acid damages plant and animal life and corrodes metals and various forms of building materials and statuary. It also deteriorates textiles (such as cotton, rayon and nylon) paper and leather. It dissolves paints and dyes and damages electrical equipment.

Sulfur oxides are now known to cause acid rains over Sweden and some parts of the U.S. The acid rainfalls are causing damage to crops, forests and fish life. Salmon and trout are highly affected. The Wall Street Journal (July 19, 1972) recently documented the significant loss of crops from air pollution. Estimates of damage run as high as $500 million a year.

NITROGEN OXIDES (NOX) are colorless gases produced in high concentrations when fossil fuels are burned at high temperatures. They are formed from the burning of hydrocarbons in automobiles, trucks and airplanes, and from the burning of coal. Nitrogen is not a component of the fuels but of the air mixture in which the fuels are burned.

They are most responsible for photochemical smogs. But more important than that the reaction between sunlight, hydrocarbons and N02 forms other serious air pollutants. These are ozone and PAN (peroxy-acetyl-nitrate). Ozone can aggravate asthma, reduce lung function, and directly affect coordination. During ozone "alerts" in Los Angeles, school children are not allowed outdoors to play because of possible lung damage. Ozone is an important catalyst in converting S02 to sulfuric acid droplets and deteriorates rubber. (Ozone is also formed along the paths of transmission lines as a result of the flow of electricity.)

PAN is the powerful eye irritant which causes tears to form. Although most common in cities, it has the potential to form in rural areas given the high concentrations of nitrogen oxides and sunlight.

N02 has a toxic effect on the lungs. It is known to cause acute bronchitis and breathing problems in children and increased acute respiratory disease in all ages. EPA says ambient concentrations of N02 are a direct threat to general health.

NOX corrodes metals, deteriorates natural and synthetic fabrics, and fades various textile dyes and additives.

. . . Our Air!

Court. He said the suit, if successful, would prevent the building of any more polluting plants in a clean air region. On the other hand, he points out, the air is already so bad in some areas that no more polluting plants can be tolerated. Yet, the American public continues to demand more electrical energy and more consumer goods.

The Sierra Club believes that sooner or later the question must be resolved. Will the United States continue polluting all air regions until all areas are intolerable, or will the public face up to the hard question of reducing demands?

Earlier this year the Council on Economic Priorities (**The Price of Power: Electric Utilities and the Environment**, Economic Priorities Report, Vol. 3, No. 2, May/June, 1972, 456 Greenwich St., N.Y., N.Y. 10013. $2.50.) pointed out that the U. S. consumes 35 per cent of the world's electric power. Our population constitutes only 6 per cent of the world total.

The report shows 43 percent of all power consumed is in manufacturing. But it says the fastest growing industries are also the most power-intensive. This results in the use of ever-larger amounts of electricity to produce goods with the same amount of economic value.

The report points out that aluminum production consumes 6.5 times as much energy (per pound) as steelmaking, and that synthetic clothes require 5 to 10 times as much power to manufacture as those made from natural fibers.

The report says the commercial sector uses 21 percent of electric power and homeowners use 32 percent. Municipalities use 4 percent for lighting and transit. It points out that new office buildings are designed to require lighting day or night and huge shopping centers are provided with all-electric climate control. It says that much of the increased demand by homeowners is for "all-electric" homes, "heated by remote power plants which burn fuels only one-half as efficiently as gas and oil furnaces."

Other sources show that recycling of steel products would require only one-fourth the amount of power required to produce iron ore and process it to steel. Throw-away containers require much more power than returnables, and in addition add to a growing problem of solid wastes.

The Office of Emergency Preparedness has just finished a study pointing to directions which might be taken to conserve power and energy. It is the first such attempt on the part of the federal government to analyze ways and means of reducing energy consumption. It is certain to be highly controversial because of some of the suggestions made. Among them is a suggestion to raise the price of power and fuels by means of a federal tax. It also suggests better home insulation and more efficient air conditioners, more mass transit and more efficient industrial processes and equipment.

Meanwhile, plans for more giant steam-generating plants go on apace in the Southwest and in Colorado, Nebraska, the Dakotas, Montana, Wyoming and Utah. Experts have determined that coal-fired power plants must bear the burden of producing energy for the near-term needs. The coal is here while low-population densities make the areas favorable for placement of polluting industries.

The powerful energy industries represented by the electric utilities; coal, oil, gas and uranium companies, and mining companies, all in league with the country's biggest banks, are pushing for development. Since these companies are some of the largest contributors to the Republican party, Republican senators and governors are captives of the industries.

Wyoming's Senator Clifford P. Hansen is the acknowledged spokesman for the oil and gas industry in the United States Senate. In that respect, he has replaced the deceased Sen. Robert Kerr of Oklahoma. Hansen has also shown where his concerns lie in respect to strip mining. He and Utah Sen. Frank Moss were recently conducted around Wyoming and then feted at a cocktail party and banquet by the Wyoming Mining Association. When the senators returned to Washington, they authored one of the weakest strip mine bills to be presented in Congress.

Development-minded western governors have never been known to stand in the way of new projects, especially huge installations such as powerplants. Wyoming Governor Stanley K. Hathaway has openly bragged that he represents those who prefer the smell of smoke. Earlier this year, the Governor told the Republican state convention that "we have met the challenge in the environment." He has repeatedly regaled his constituents with the fact that it was during his tenure that Wyoming enacted its first air and water quality standards. He once told an audience in Jackson that "ecology was still an obscure word" when he recommended the Wyoming Air Quality Act to the legislature. In March, he told a press conference in Rock Springs that he believed Wyoming's air was purer now than five years ago.

Hathaway made no real effort to obtain funds from the Republican dominated Legislature in the last session. Last week, Robert Sundin, head of Wyoming's air quality section, said his office was nothing more than a training ground. He said salaries he could pay were much below the national average for personnel in the air pollution control field. He also said the state expenditure on air pollution monitoring and control was far below the national average and was "less than the state of Wyoming is spending to remove billboards."

The wide-open spaces of Wyoming's Powder River Basin are soon to be drastically modified. Giant mine-mouth coal complexes, coal-fired power plants, strip-mining on a vast scale, transmission lines, water aqueducts, railroads, and other features are to make their appearance in the decades to come. Air pollution from these sources will be generally carried east into neighboring states.

On September 22, the Environmental Protection Agency took over the state's authority in four areas of air pollution control. EPA said it took over administration because the air quality law was deficient. It said there was no authority to monitor sources, to make emission data public, and to stop construction of possible new polluters. It will continue administration until the state's law is amended to provide these requirements.

Utah's state air quality plan was recently rejected by EPA. The plan was not considered adequate to control sulfur dioxide and hydrocarbon emissions. Hartt Wixom, environmental editor of the Deseret News, observed that conservationists and physicians generally applauded the EPA action while chambers of commerce and industries protested. Utah Power & Light Co. officials said the EPA regulations were an attempt to single out their Huntington Canyon Power Plant. They said technology does not exist for control of sulfur dioxide emissions.

In July, the Sierra Club petitioned EPA to stop construction of the $300 million, 1500-megawatt, coal-fired Jim Bridger Power Plant near Rock Springs, Wyoming. The petition of the Sierra Club said, "In all likelihood there will be a violation of the national primary and secondary ambient air quality standards. Significant deterioration of existing air quality will occur."

Miss Laney Hicks, regional representative of the Sierra Club from Dubois, Wyoming, said the Club wanted to see that "proper pollution control equipment" is installed in the big plant. She said the plant emissions could be drastically cut "with 99.9 percent effective baghouses and 98 percent effective scrubbers."

Miss Hicks pointed out that baghouses are now being planned for some of the Four Corners plants and that scrubbers were being used in England before World War II. Air and Water News (Aug. 23, 1971) reported that Arizona Public Service was installing two flooded disk wet scrubbers and limestone slurry absorption towers for removal of fly ash and S02.

Miss Hicks said that with more efficient control equipment, the amount of particulates coming from the smokestacks of the big plant could be cut from 12.9 tons per day to 1.9 tons. Similarly, the amount of sulfur dioxides would drop from 284 tons per day to 5.7 tons, and nitrogen oxides from 149 tons per day to 62 tons.

The Jim Bridger plant, now under construction, will not have sulfur dioxide controls built into it. However, the plant is being designed to provide for later incorporation of equipment.

Crux of the matter may be cost — and the profit margin. About 25 percent of the cost of a power generating plant is capital cost. And about 10 percent of the capital cost is allocated to emission control. This results in an approximate cost to the consumer of around two percent. Baghouses and other high technology removal devices are expensive and could push the cost to the consumer to about 10-15 percent.

The Environmental Protection Agency announced in July that sulfur dioxide emission controls would have to be installed on some plants. Regulations call for 70 percent emis-

(Continued on page 6)

There Goes Our Air . . .

sion controls by 1977. Even so, this level is not stringent enough to meet federal health standards. The controls would result in an 8 to 10 percent hike in costs of electric power.

Smelters in Montana and Utah were also affected by the EPA regulations on sulfur dioxides.

Electric utility companies consistently maintain that they are doing all that is possible. They say the state of the art of removing air pollutants is not far enough along, while at the same time insisting that they must continue to build more plants to meet the demands for more power. They continue to advertise heavily to promote the sales of more power while investing little in new technology to improve the state of the art.

Senator Lee Metcalf of Montana has pointed out that, "Federal Power Commission figures show utilities in 1968 spent 0.23 percent, or less than one-fourth of one percent of their revenues on research." But the companies spent eight times that amount on advertising to boost sales of electricity. The ratio of spending has improved considerably in the past four years but is still far out of line. The companies get to deduct advertising as a cost of doing business. So it is the consumer who gets to pay for all of the high-powered, Madison Avenue advertising, while breathing the polluted air from the plant which provides him with more electricity.

To put it in the words of one utility executive, L. M. Alexander of Arizona's Salt River Project, "Our responsibility as utilities is to make certain there is enough electricity to operate every air conditioner, heater, and other type of electrical appliance our customers may want to use. They dictate — it is up to us to respond."

Throughout all of this the Sierra Club is maintaining that actions must be taken to effectively prevent significant deterioration of existing air quality. If actions are not taken, it has demonstrated that it is willing to go to court to force action. So far it has been successful.

If it continues to be successful, the energy companies will be forced to push the price of power up. This will have an ultimate effect of putting a damper on demand and a lessening of the need for more polluting plants.

The Club sees **significant deterioration** as the key to maintaining air quality. It foresees a permit system setting out the kinds and types of sources which would be allowed in any airshed or geographical region. There would be threshold amounts permitted but no more than those amounts.

The Club proposes to limit any increase in concentrations (of any of the covered air pollutants to no more than 20 percent, or 4 micrograms per cubic meter, whichever is larger, above the concentrations existing in 1970-1972. These concentrations would be averaged either over that **volume** of air within **one kilometer** of the proposed source, or that area (measured at ground level) within one kilometer of the source. This increase in concentration would apply to **either** the annual average, the 24-hr. maximum, or the one-hour maximum concentrations.

The Club says that under its proposal, such limits would prohibit air pollution in any quantity, beyond levels existing in the 1970-1972 period, which detracts from the essential purity of air. It would maintain that purity of air in any identifiable geographical region.

It says purity of air is a function of visibility; healthfulness to all plant and animal life; human comfort, well-being, and enjoyment, and the integrity of technological materials exposed to the air. It also says maintaining purity of air will prevent unwanted climatic variations due to air contamination.

The struggle to maintain clean, uncontaminated air is sure to continue. Each utility sees itself only within the limits of its own, individual operations. But each adds to the total load of air impurities. Each stoutly defends its "mandate" from power commissions to provide ever more power, while at the same time defending its "right" to advertise to sell more power. Each maintains that its plants are a vital source of tax base, employment, and security for the communities where they are located. And in this they are aided and abetted by local chambers of commerce and politicians.

The concerned citizen must come to know that fossil-fueled power plants rank second only to the automobile as the worst polluters of our air. Advertising by utility companies to promote the use of "clean" electricity should be forbidden. Citizens should protest both to the power company which so advertises and to their public service commission.

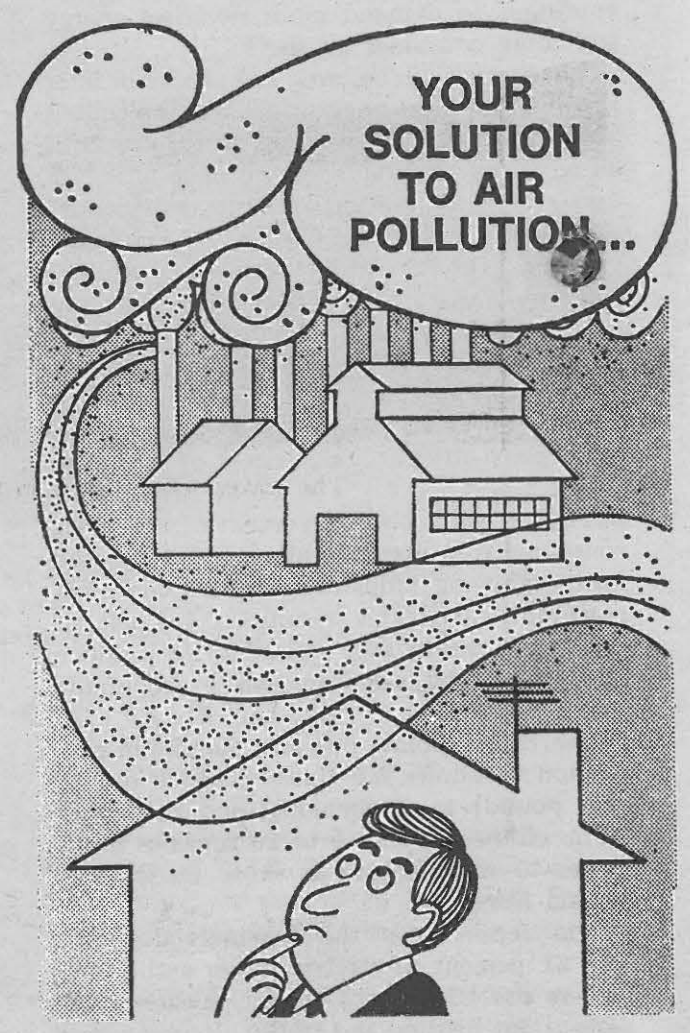
Electricity generated in fossil-fueled plants is one of the most wasteful uses of finite resources. Coal is an extremely valuable chemical complex. From it comes many of the wondrous chemical products we have come to enjoy — drugs, dyes, paints, plastics, and more. Yet, we waste about two-thirds of the energy from coal when it is burned. That waste energy adds to growing thermal pollution problems which is added to the air pollution problems.

What can the concerned citizen do? First, he must insist on a coordinated national energy policy. Without such a policy we will continue to blunder further into a worsening energy situation. Write the President and your congressmen and tell them we cannot afford to go any longer without an energy policy.

Within that energy policy, the citizen can insist that federal research funds be allocated to non-polluting sources of energy such as solar energy, tidal power, wind power, geothermal sources, and others.

The citizen can insist that federal tax policies be changed or implemented to provide for saving energy rather than wasting it. Tax depletion allowances should be eliminated and transportation taxes should be changed. A tax on sulfur, as proposed by the President but on an even higher level, should be instituted.

The President's Office of Emergency Preparedness has suggested an energy-use tax and tax incentives to encourage recycling and reuse of materials.



Install an
ELECTRO-AIR
electronic air cleaner!

The citizen can insist that electric utilities cease all promotional advertising. Write your public service commission and insist that all such advertising be forbidden.

The citizen can also demand of his state government that truly meaningful anti-pollution laws be passed and enforced. This takes money which means higher taxes. But the alternative of allowing pollution to become intolerable will become even more costly.

The citizen himself can take an even more individual action. It can begin with a light switch — turn it off when not needed. Forego air conditioning unless you live in a truly hot, humid climate. Ask yourself, do I really need electric combs, toothbrushes, knives, can-openers, and a multitude of other such appliances?

Do not even consider the possibility of an "all-electric" home. Such an extravagance should draw heavy penalties both price-wise and tax-wise. Make sure the home you do have is well insulated. It can save both money and electric energy needed to run pumps, blowers and fans.

In order to save ourselves from not only an impending energy shortage but also intolerable and deadly pollution problems, we must all face up to a change in life style. We can no longer afford to be profligate and wasteful of our energy sources, or our clean air. Nor can we afford to be complacent. An informed and concerned citizen can help resolve the problems we face.

Here's how our giant 'wet scrubber' works to keep Wyoming's air clean.

1. Exhaust from the coal-fired furnace is forced down into the scrubber and through an intense shower of atomized water.

2. Tiny droplets in this shower bath trap ash particles and carry them to the bottom of the scrubber, and then to the settling ponds.

3. The ash is settled out to be hauled away for disposal, instead of dirtying the air. The water is recycled to the scrubber for more cleaning duties.

4. What's left of the furnace exhaust to be carried up the plant's tall stack is largely hot air and water vapor.

Illustration by Pacific Power and Light Co. to show the principle of a wet scrubber installed in the fourth unit of the Dave Johnston Power Plant near Glenrock, Wyoming. What the company does not say, and the illustration does not show, are the amounts of particulates and invisible gases which come from the smokestack. Given large tonnages of coal (2,600,000 tons consumed by this plant in 1972), even high efficiency equipment will still allow tons of air pollutants to escape into the surrounding air. It can be said that not all of the company's hot air goes up the smokestack.

"..Noted & Quoted.."

"A nation which exported 22 million tons of coal during the first five months of this year, and whose investor-owned utilities spend seven times as much on advertising and sales promotion (as research) can first see that the land, air and water receive better protection than they do now."

Senator Lee Metcalf
United States Senator from Montana
addressing the Western States Water
and Power Consumers Conference in
Billings, Montana September 26, 1972.

Pyramid Lake

Photos and text by Tom Baugh

The desert lands of the central-western portion of Nevada are a strange and contradictory setting in which to find a great fresh-water lake. During the Pleistocene epoch, however, the waters of ancient Lake Lahontan covered in excess of eight thousand square miles of what is now sand and sage. Both time and the dynamics of a changing earth affected even the massive Lahontan, leaving modern man a smaller yet impressive reminder of the past — Pyramid Lake.

Pyramid Lake, home of the Paiute Indian and even more ancient cultures, was first seen by European man on the morning of January 10, 1844 when Captain John C. Fremont and his party crested a gentle pass at the northern end of the lake. In his journals of exploration, Fremont wrote, "It broke upon our eyes like the ocean . . . it was set like a gem in the mountains, which, seemed to enclose it almost entirely." Following the perogative of all explorers, Fremont named the lake for one of it's distinctive rock formations which reminded him of "a pretty exact outline of the great pyramid of Cheops."

The 20th century brought many changes to Pyramid. Dams and irrigation diversions on the Truckee River have decreased the life flow of eastern Sierra water necessary for the healthy continuance of this natural masterpiece. Pyramid Lake, which shimmers in the desert sun or tosses to the strong desert winds also echos to almost the same controversies which trouble it's Sierra Nevada neighbor, Lake Tahoe. There's a tragic significance in the fact that Lake Tahoe is the birth place of the Truckee River and the Truckee river is the lifeblood of Pyramid.

Unique in it's setting, Pyramid is also unique in its natural inhabitants. Deep within it's colorful waters cruise large cutthroat trout. Anaho Island, lying along the eastern shore of the lake, is home to thousands of White Pelicans. The Cui-Ui, a large sucker, spawns near the sand bar where the mouth of the Truckee River enters the lake. This fish is found only in Pyramid Lake and at one time provided a staple food for the Paiute Indians.

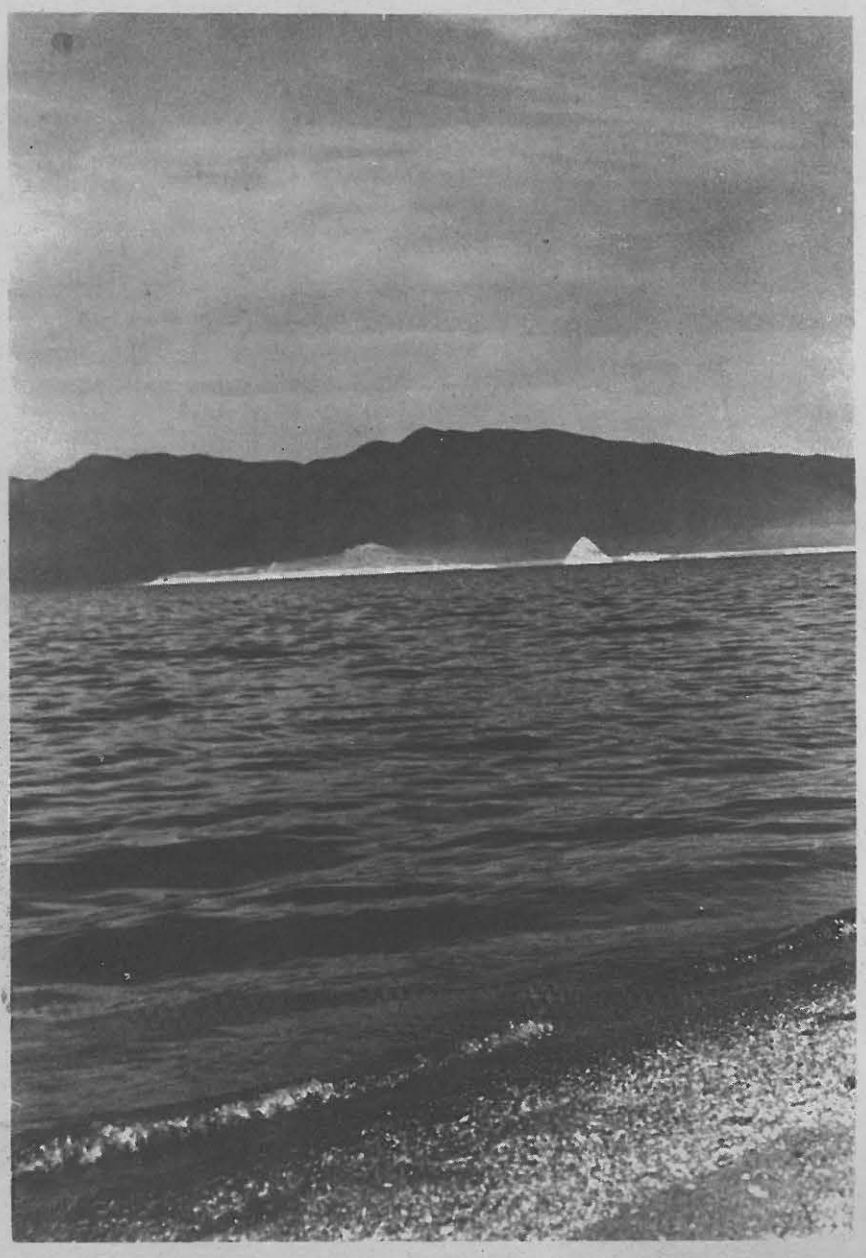
What does the future hold for Pyramid Lake? Will it, with man's intervention, follow the path of Lake Lahontan into the oblivion of time, or will man perhaps find a place in this world for a jade green lake among the harsh desert sands.

"The waves were curling in the breeze. . ."

"For a long time we sat enjoying the view. . ."

Photo captions from the journals of John C. Fremont.

"...and filling up all of the lower space, was a sheet of green water, some 20 miles broad."



"This striking feature suggested a name for the lake, and I called it Pyramid Lake. . ."

"The shore was rocky . . ." (left)

SEED - H

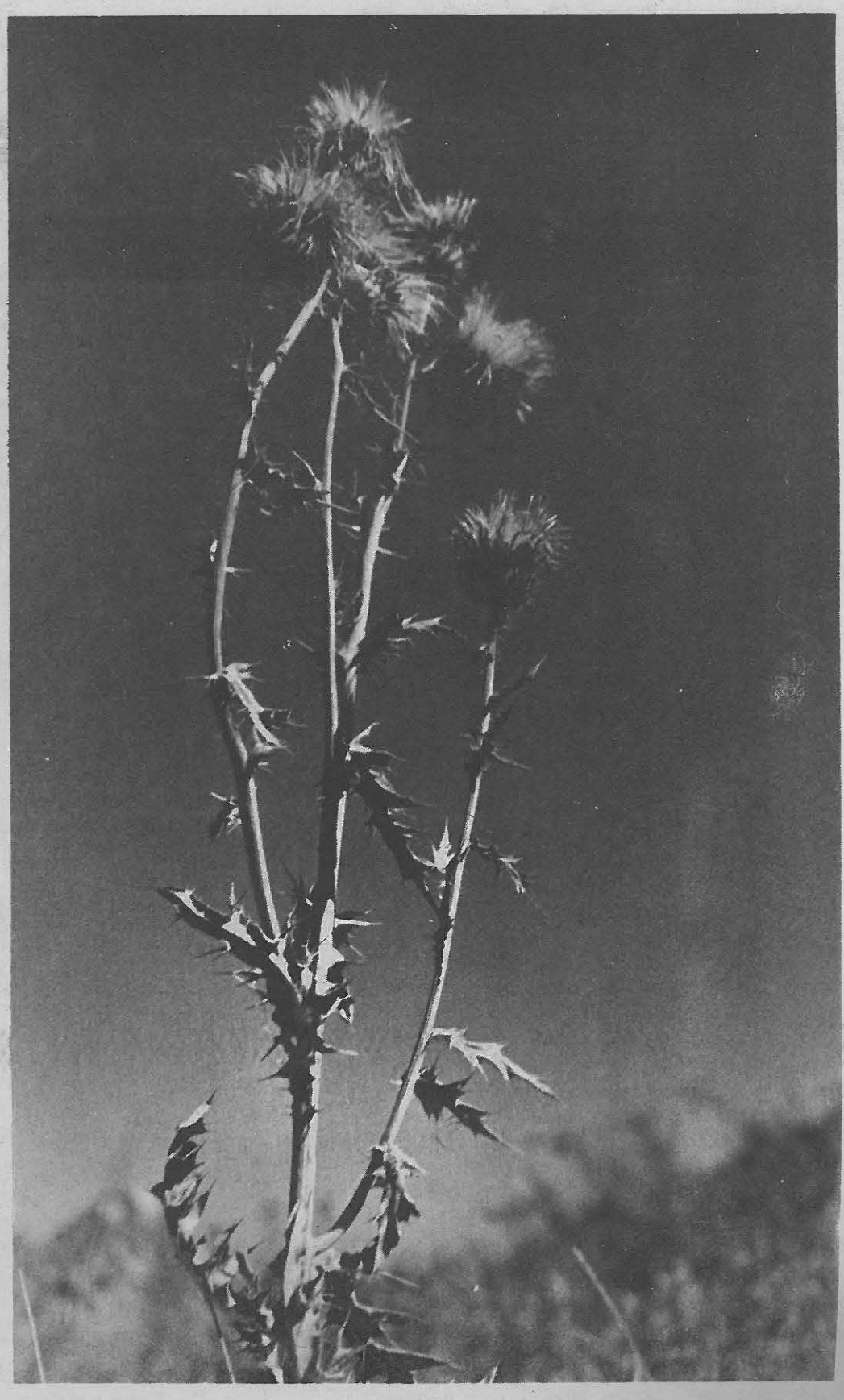
While the earth remaineth, seed-time and harvest, a
and winter, and day and night sha: not cease.

GENESIS: 8:22

Photo by Pat Hall

TIME

harvest, and cold and heat, and summer



Photos by Marge Higley

Save The Minam!

by Verne Huser

Several years ago Senator Mark Hatfield of Oregon, a former Governor of that state, introduced legislation into the U.S. Congress to add nearly 85,000 acres of national forest land to the existing Eagle Cap Wilderness. Located in the northeastern corner of Oregon, the wilderness lies in the Wallowa Mountains that form the western wall of Hells Canyon of the Snake River.

After mid-summer hearings in La Grande in 1970, the La Grande **Observer** reported that local opinion favored wilderness status for the Minam River adjacent to the Eagle Cap Wilderness by a 7-1 majority. And that fall (October, 1970) Hatfield's bill (SB 1142) passed the Senate unanimously. However, it got nowhere in the House.

Then Representative Al Ullman of Oregon's Second Congressional District went one up on Hatfield by proposing a 115,000 acre addition to the Eagle Cap Wilderness including all of the Hatfield proposal plus 33,000 additional acres along the Minam and Little Minam Rivers. Thus, the Minam question is back in the Congressional hopper, and Ullman said last October, "I have every confidence we will see this bill (HR 6446) enacted in the present Congress — probably next year (1972)."

Next year is here. Now, conservationists in northeastern Oregon have started the wheels rolling toward realization of that goal. Senator Hatfield's new bill, simply a re-introduction of the bill that passed the Senate in 1970, is S. 493; the Ullman bill is HR 6446.

Both are opposed by Boise-Cascade, an exploitive user of the national forests that spent thousands of dollars last spring to buy full-page ads in most of the local newspapers in northeastern Oregon. Those ads suggested that to add the Minam River drainage to the wilderness would cost local residents "more than 90 jobs." But local seems to have meant most of northeastern Oregon, and local conservationists do not accept the Boise-Cascade figure.

Figuring the annual allowable cut in the proposed wilderness additions to be five million board feet at 8 to 9 employees per million board feet (a standard figure in northeastern Oregon timber operations), Save The Minam, Inc. figures a loss of between 40 and 45 jobs.

The Boise-Cascade ads also suggested a $50,000 annual loss in county taxes that should go to support schools and road maintainance (pulling at the heart strings as well as the purse strings). Again, Save the Minam, Inc. figures that the Minam fishery (trout, steelhead, salmon) is worth $170,000 annually. They say the average sportsman spends $64 to catch a steelhead or salmon — a resource that may be lost if the Minam were roaded. (The Forest Service says, "Road construction is generally the major cause of increased sedimentation.")

Further financial considerations include the wildlife and tourists. The proposed additions to the wilderness comprise one of the leading mule deer and elk hunting grounds in the state. Furthermore, the Eagle Cap Wilderness had more than 150,000 visitor days of use last summer with an increase trend of 10% per year. That figures out at $30,000 a year spent in other parts of Oregon and $50,000 a year in business income for the local economy.

Boise-Cascade suggests that without timber roads, hunters will have limited access to the national forest hunting grounds. True, but most residents realize that recent hunting pressures have greatly reduced the quality of hunting in the state, especially in northeastern Oregon. (Hunter success has fallen from 50% in 1968 to 36% in 1970 to 34% in 1971.) Too ready access is considered to be a major cause of the decline, and the Forest Service has been closing many roads that have been open for years in a co-operative effort with the Oregon Fish and Game Commission.

Boise-Cascade holds up the threat of fire: if logging roads aren't built, they say, the fires that occur in the area can't be effectively fought. But Boise-Cascade ignores the fact that 90% of the fires in our national forests are caused by man and that the more ready the access, the more fires there will be. And to be ecologically sound for a minute, fire is good for the forest in certain areas under certain conditions. (Boise-Cascade wants to log the Minam, they say, to open up the area for better wildlife habitat, but fire is nature's traditional tool toward that end.)

The Minam has a long history of wilderness quality. However, parts of the Minam were logged by horse operations in the 1920's, as were parts of the Bob Marshall Wilderness in Montana and the DuNoir area of the Washakie Wilderness in Wyoming.

In 1958, the Forest Service planned road development along the Minam for timber harvest, but local residents — some who depended upon logging for a living — fought the roading of the pristine Minam and forced the Forest Service to take another look.

The public said in no uncertain terms, "Don't touch the Minam." The Forest Service then revised its plan and has declared a moratorium on any activity inimical to ultimate wilderness status for the Minam River. It has held off on recommending full wilderness status for the area, however, and perhaps Boise-Cascade reflects the unofficial attitude of the Forest Service when they suggest roadless areas. The latter have no permanent protection but could be raped while the public is too busy fighting some other brush fire. While the Forest Service is more aware of public pressure today than ever before, it is still imbued with the trees-are-to-cut philosophy.

Boise-Cascade opposes the wilderness designation of the Minam on the grounds that it will 1) raise local taxes, 2) trade seasonal recreation for permanent jobs, 3) mean no jobs for young people, who will then drift away from home, 4) restrict ready access for sportsmen, and 5) endanger fire protection of the forest. How many of these arguments do you buy?

On the other hand, what will wilderness designation do? The addition of more than a hundred thousand acres to the Eagle Cap Wilderness will give greater protection to the existing wilderness by the very increase in basic mass. Hunting and fishing can continue, and the quality of the hunting and fishing should not deteriorate. Camping, hiking and riding can continue with a lessened impact on the fragile areas of the back country that have been getting heavy traffic. Half-again as much area will tend to disperse the impact. With the passage of Ullman's bill — and Hatfield has said publicly that he'd go along with Ullman's additions — would increase the Eagle Cap Wilderness to 338,000 acres, a significant piece of property.

The spectacular glaciated canyon of the Minam — one of two unroaded canyons in northeastern Oregon — would remain unroaded as would the Little Minam and all those little additions around the edges of the wilderness for greater protection of the wilderness itself. As Annette Tussing, free-lance writer from Clarkston, Washington, pointed out in her testimony on a piece of similar legislation, "With one out of every three hospital beds now occupied by mental patients, how can you quibble about . . . a priceless place of serenity . . . ."

And as another wilderness appreciator has written, "I can see that as the population of the United States increases, the number of people wanting to get out into the wilderness increases as rapidly as the amount of wilderness they can get into decreases." As our wild areas decrease, our need for them increases — yet corporate structures such as Boise-Cascade would sell us the same set of false values that have led us to the brink of environmental disaster.

Senator Hatfield has had this to say about the Minam: "This is an area with which I am personally very familiar. I am convinced that its designation as wilderness area will definitely be in the best public interest." And Senator Hatfield is up for re-election this year.

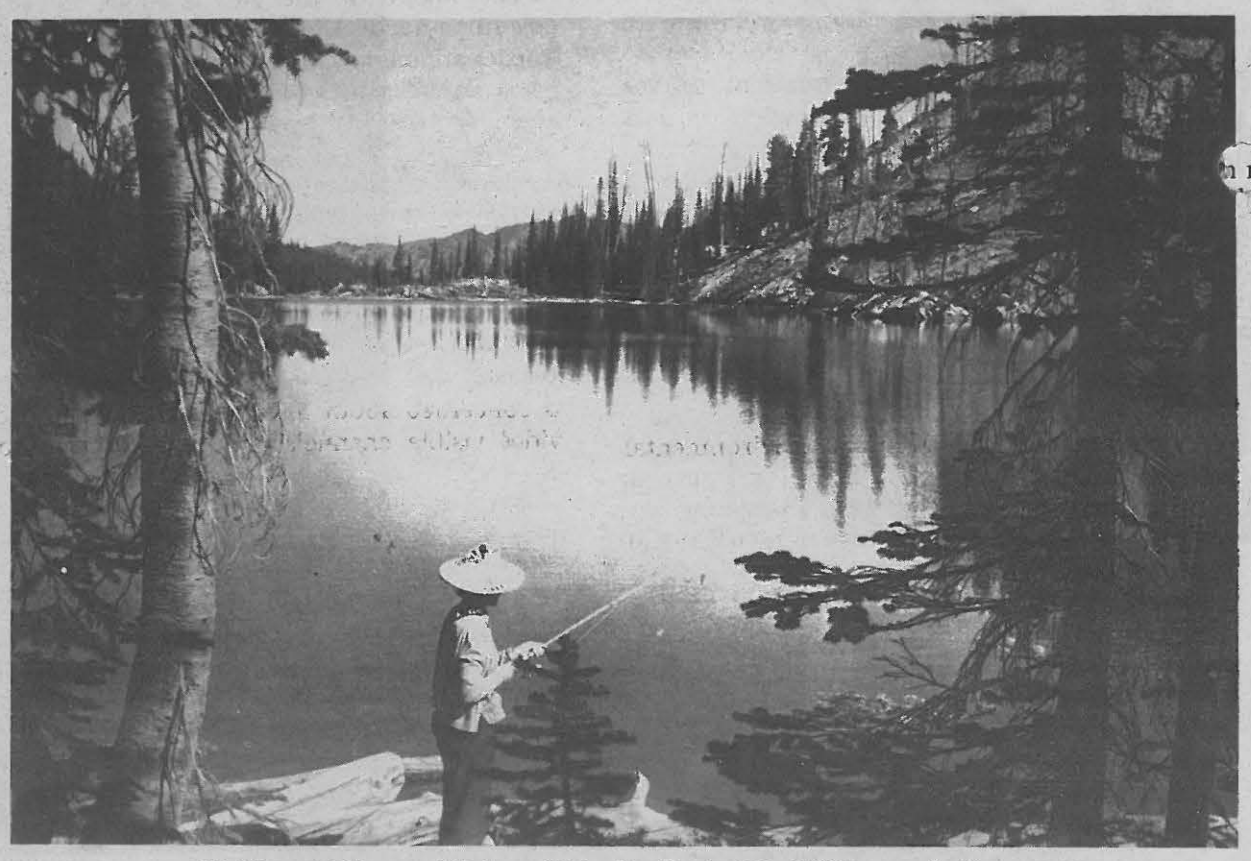
Oregon's other Senator, Robert Packwood, says, "The goals should and must be tempered with the condition that Oregon's natural environmental qualities remain untarnished. That is why I support the inclusion of the Minam River and Canyon into the Eagle Cap Wilderness Area."

And Representative Ullman, also up for re-election: "I went on a three-day pack trip into the Minam River Basin to personally view this area's wilderness qualities. I am convinced that this area should be added to the Eagle Cap Wilderness."

And an outsider who knows the area, Justice William O. Douglas: "If there is to be a true wilderness in the Wallowas where trees are thick, where the canyon is filled only with the murmur of pine and fir and with the whisperings of water, roads must be kept out. The bits of wilderness left to us are only tiny islands. The Minam River is one."

What can I add to eulogies? We need the Minam as wilderness, and Congressional action now can bring about the reality. Write your own Congressmena dn Senators, asking them to support S. 493 and HB 6446. Send a copy to Senator Hatfield and Representative Ullman so that they know they have your support.

And get into the Minam yourself so that you too may know the wonders of its canyon and its tributary streams; so that you too may know its solitude and tranquility.



Fishing at Diamond Lake within the Eagle Cap Wilderness in Oregon.

What An EQ Council Does

by George Darrow

The Environmental Quality Council is not a regulatory agency.

It is not an environmental control agency.

The functions of the Council are not based on a concept of "we the good guys" and some preconceived notion of a target group characterized as "polluters and despoilers."

The Environmental Policy Act recognizes the basic truth of Pogo's statement that, "We have met the enemy and they is us."

It recognizes that we have taken for granted the capacity of the land and natural systems can no longer be taken for granted and must be given explicit consideration.

A central concept of the Act is the ecological principle that all environmental problems are interwoven, interrelated and interacting. No project, no environmental action by any agency has only a single consequence.

The Council is responsible for maintaining a policy overview of state programs with environmental consequences. It is responsible for formulating recommendations to integrate and better coordinate the various state programs already in effect.

The Council might be characterized as an environmental clinic specializing in diagnosis and preventive medicine for environmental illnesses.

The Montana Environmental Policy Act explicitly states and reiterates in its provisions that environmental considerations must be elevated to full partnership with economic and technological factors in the decision-making processes of state government.

Inherent in these statements is the presumption that problem prevention is the best kind of problem solution. We are all familiar with the sayings of American folklore that "an ounce of prevention is worth a pound of cure" and "a stitch in time saves nine." These sayings imply a benefit-cost ratio for preventive efforts of somewhere between 16:1 and 9:1. The exact ratio is unimportant, but what is stated is the common sense conclusion that the money and effort spent to foresee and prevent problems is a profitable investment.

Characteristically, most of the environmental problems we now confront are not the result of a sudden crisis, but are the accumulating consequences of a gradual deterioration in our environment which is now reaching a critical stage. The renewable resources, which support the processes that support human life, are slowly losing their healthy resilience and their capacity for self-renewal, unnoticed by all but keen observers.

Natural geological processes, always dynamic, function naturally at rates of change which are usually imperceptible to individual people within their life span. However, man's activities can unnaturally accelerate these processes to produce unwanted consequences with which future generations will have to contend.

As Richard H. Slavin, President of the Council of State Planning Agencies, has said, "All of these problems are of a collective action. However, government typically reacts to situations after the fact. It has not been able to anticipate and respond to potential problems and gives little consideration to gradual changes which man is effecting. The crux of the environmental crisis is that it may now be too late to continue a policy of reacting only."

The role of the Montana Environmental Quality Council in discovering the source of our environmental problems, analyzing the causes, perceiving alternates, and recommending policies and programs which will allow "man and nature to coexist in harmony" is primarily a problem-preventing approach.

The Montana Environmental Policy Act recognizes the urgent need to anticipate and respond to potential problems and the ultimate disaster of continuing merely to react to crisis. The language used in spelling out the problems and duties of the Environmental Quality Council repeatedly emphasizes the fundamental premise that the Council will focus its efforts on foreseeing potential problems and not be forever chasing after them.

The Montana Environmental Policy Act repeatedly expresses this mandate to the Council with such phrases as:

"to enrich understanding
"to improve and coordinate
"to formulate and recommend
"to analyze and interpret
"to compile and submit
"to review and appraise
"to make recommendations
"to develop and recommend
"to analyze and assist
"to review and evaluate
"to identify and suggest
"to consult with."

Representative George Darrow is chairman of the Montana Environmental Quality Council. He also happened to be the author of the bill creating the Council. For that and his other efforts in conservation, he was named recipient of the Hilliard Award by the Rocky Mountain Center on Environment (see **High Country News**, May 28, 1972). He is a geologist who lives in Billings.

The following article appeared in the **Montana Environmentalist**, December, 1971.

The editor.

* * *

We already have state agencies and programs which attempt to deal with the flood of environmental side effects and downstream consequences which result from past failures to include environmental considerations in our land use decisions. The Council has been assigned the responsibility of moving upstream to discover the source of our problems, analyze primary causes and design alternative solutions.

The intent of the Act is to assure that governmental decisions with an environmental impact are made in all the privacy of a goldfish bowl. It affirms the value of public involvement in the decision-making process. To provide visibility in decision making, the Act assumes that vigilant news media will continue to inform the public and to then in turn provide a forum in which all of the public can participate. In a sense, it promotes participatory democracy and citizen involvement on a statewide scale. The Act restores a voice in decision making to the individual citizen who is concerned about his environment, and provides visible channels and opportunities for his input.

Laws are often regarded as mere "rules." Any law is more than a "rule," it is a public decision arrived at by the processes of representative democracy. It is also a commitment of public funds and administrative effort. Neither of these can be sustained without continued public support. Such support cannot exist in the absence of an informed awareness of the substance of the laws enacted and the programs by which they are being implemented.

The Environmental Policy Act, in common with any other legislative act, contains the implicit premise that its goals can only be achieved through sustained public support and citizen involvement. The statutory device of requiring environmental impact statements only becomes fully meaningful when there is an active participation by an informed, environmentally aware public. These environmental impact statements are not intended to be a bureaucratic exercise in paper shuffling. They are instead devised as an orderly, systematic review of the environmental consequences of state programs, and a full exploration of the possible alternatives.

Based upon this initial review, informed comments and constructive criticism by all interested public parties are given opportunity for expression in an open public dialogue. Thus examined and considered, environmental consequences are incorporated in a decision-making process which not only invites, but requires, continuing public participation if it is to be fully effective.

The Council has the responsibility of looking at environmental problems whole. It would indeed be pretentious if it were to assume that by the mere fact of being constituted in the name of environmental quality, it has been endowed with some special wisdom.

The ecological systems of the state are expressions of complex interrelationships. Any endeavor to harmoniously intermesh human activities with complex natural systems is a difficult and demanding task.

Gaining the knowledge and ecological understanding that is required to make a constructive contribution to environmental quality will of necessity require a continuing effort by the Council. Similarly, the steps necessary to acquire an interdisciplinary staff with expertise in the various environmental sciences and the capability of in-depth, critical ecosystems analysis must be a continuing project.

Acknowledging that the Council cannot pretend to have all of the answers to our environmental problems, nevertheless it must be assertive in asking the right questions. It must ask the questions concerning environmental consequences which have been heretofore unasked. Only by asking these questions can we forestall the unforeseen, unwanted and unintended consequences of man's impact on his environment which have brought us to the brink of our present crisis.

The first step in solving any problem is to ask the right questions and to examine the unexamined assumptions in order to find out what the problem really is. Ecology has been referred to as a "systems analysis of nature." Systems analysis is a new way of problem solving which recognizes that the solution to a problem may become self-evident if the **real** problems can be defined. The apparent problem may be only the surface expression of an underlying defect in the system itself. Rarely do the **symptoms** turn out to be the real problems. Treating the symptoms may only be wasted effort which solves nothing.

A characteristic of environmental problems is that the source of the problem may be far removed from the place where its consequences are finally felt. To discover the primary source of the problem may reveal a previously unsuspected solution to the problem. Hence, one of the primary functions of the Council will be to employ the principles of ecology in examining the un-examined assumptions and to frame the right questions so that better environmental solutions can emerge. Again, the solution to a problem may well be inherent in the proper formulation of that problem, within its overall ecological context.

The Council has been given broad legislative mandate to assure that environmental considerations become a new input in the decision-making process.

The huge, twin silos of Ayrshire Coal Co. (a subsidiary of American Climax Molybdenum) rear above the prairie in Wyoming's Powder River Basin. Coal from a strip mine (at right) will go to feed the power plants at some distant location in the east. An 18-mile spur from the Burlington Northern Railroad was built to haul the coal away. Additional developments such as this will lead to the strip mining of thousands of acres of this rural land.

OEP Reports on Energy

In a study which is of national significance, the President's Office of Emergency Preparedness has made some far-reaching suggestions in regard to energy. The essence of the report is that there is increasing concern over the exponential demand for energy, and that something must be done about it.

No recommendations are made in a 236-page report prepared by the study group. But it does list energy-saving ideas, and says that energy consumption could be cut by 25 percent by the decade of the 1990's. It says that to effect such savings will require stringent conservation measures, some new laws, and a change of attitude on the part of the public. It also says that powerful interests are likely to oppose any of the ideas to save energy.

The staff report says that conservative estimates indicate energy consumption in this country will increase by 39 percent in the 1980's, and be double the consumption rate of 1971 by 1990. It then points out, "Yet the large quantities, and the forms of energy currently used. . . are causing serious pollution problems."

Industry uses about 40 percent of total energy consumption, residential and commercial users take about 35 percent, and transportation consumes about 25 percent, according to the report.

It says large savings could be effected in industry alone by imposing an energy-use tax, and by tax incentives to encourage recycling and reuse of materials. It indicates that substantial amounts of energy could be saved by switching from throw-away containers to returnable ones.

The report says the use of mass transit and railroads, and a return to walking and bicycling could save great amounts of energy resources, but says these steps could have detrimental effects on the auto industry and others. It said discouraging the use of private autos could bring "possible strong resistance from highway and travel lobbies."

Other alternative suggestions are higher motor fuel taxes, selective registration of higher horsepower cars, and rationing of motor fuels.

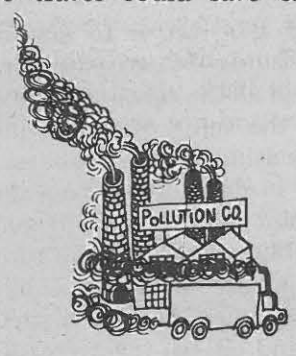
Over the longer term, it said new transportation methods and clustering facilities to reduce travel could save energy.

Teams Appointed

Reports filtering out of Washington indicate a comprehensive environmental study is about to be launched in the western coal areas of Montana, Wyoming and the Dakotas. The study will be a joint effort conducted under the Environmental Protection Agency, the Department of the Interior, the Department of Agriculture, and the Old West Regional Development Commission representing the states. Those four groups will compose a Program Review Committee

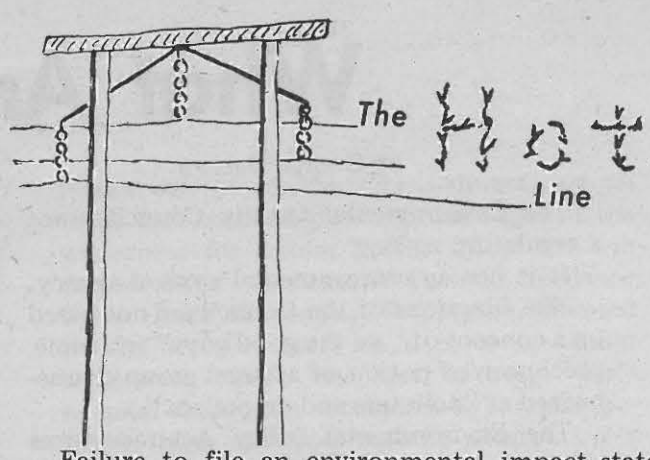
Members of the Committee are Thomas E. Carroll, Assistant Administrator for Planning and Management in EPA; John W. Larson, Assistant Secretary of the Interior for Programs; John R. McGuire, Chief of the U.S. Forest Service, and a representative yet to be named from the Old West Commission.

Coordinator for a Program Management Group is Bruce Hanshaw of the U.S. Geological Survey who will be based in Denver. Working with him in that top group will be Dr. Roger Bay of the U.S. Forest Service, Edwin Royce of EPA, and Warren Wood of the Old West Regional Development Commission.



Save on Energy

Scientists at Oak Ridge National Laboratory say increased efficiency of energy use would help to slow energy consumption growth rates. This would relieve pressure on scarce energy resources and help to reduce environmental problems associated with energy production and conversion. Transportation consumes about one-fourth of all energy used in the U. S., and the most inefficient users are automobiles, trucks and airplanes. But the scientists point out that residential space heating and cooling are also major energy consumers.



Failure to file an environmental impact statement on a $19-million powerplant now under construction has brought a suit against the Montana Power Co. An environmental group including a number of Montana ranchers, the Northern Plains Resource Council, has sought an injunction to stop construction on the plant. They say construction should not continue unless it fulfills the requirement of the Clean Air Act of Montana. That requires a detailed environmental impact statement. The powerplant is near Colstrip.

* * *

A Western States Water and Power Consumers Conference in Billings, Montana on September 25 and 26 turned into a national forum on energy policy. Democratic presidential candidate, Senator George McGovern, gave a major policy speech on natural resources while addressing the conference. Other participants included Kentucky strip-mine foe, attorney and author, Harry Caudill, and president of the National Coal Association, Carl Bagge of Washington, D. C.

* * *

A strip mining operation requiring four million tons of low-sulfur coal a year is to be opened near Hardin, Montana. The Sarpy Creek properties of Westmoreland Resources will be mined by Morrison-Knudsen Co. on a 20-year contract. The coal will be shipped in 115-car unit trains to St. Paul, Minnesota, for use in generating plants.

* * *

Consolidation Coal Co. (a subsidiary of Continental Oil Co.) says it anticipates opening a strip mine in the Bull Mountains south of Roundup which will supply a two-million tons a year requirement. The company does not yet have a contract but is seeking markets in the East.

* * *

Governor Stanley K. Hathaway of Wyoming, speaking at a news conference of the Federation of Rocky Mountain States, said the states can meet the demand for industrial development and still preserve their wide open spaces and clean environment. On the day he spoke, the Environmental Protection Agency took over administration of Wyoming's Air Quality Act because it was deficient and would allow unwanted air pollution.

* * *

Dr. Edward Teller, so-called "father of the H-bomb" told a Sheridan, Wyoming, news conference that the state ought to make all the money it can out of rich coal deposits and natural gas in rock formations. Dr. Teller severely criticized Wyoming Senator Gale McGee for obstructing the Wagon Wheel project. The latter would use five 100-kiloton nuclear devices to blast underground caverns and collect natural gas.

* * *

"Basically, the strategy for the decades of the 80's and 90's is pointed toward increasing use of our uranium and coal resources as other fossil fuels become more difficult to secure." These were the comments of Dr. Edward E. David, Jr., Director of the Office of Science and Technology, before the Joint Committee on Atomic Energy. But Dr. David also said, "I believe that our hydrocarbon resources are rapidly becoming too valuable a raw material to be burned directly. They are the principal raw material for plastics, many chemicals, and may become an important source of protein."

Western..... Roundup

Budget Increased

The U.S. Forest Service has received a $43 million increase in its budget for fiscal year 1973. However, $10 million of this will be for roads and trails. Most road building in the past has contributed to overcutting of the national forests.

Some $13 million in the additional funds will go for forest lands management, wildlife habitat research, forest disease and insect research, and cooperative forest management programs with states and others.

Appropriations for recreation were jumped to $7 million and for pollution control to more than $29 million.

Plant Closes

Air and Water News reports that Container Corporation of America is closing its paper recycling plant in Chicago. At its peak the plant employed 500 men and recycled 100,000 tons per year. The company says it can't compete with virgin fiber mills.

Meanwhile, Lloyd Tupling, in the Sierra Club Bulletin, reports that timber companys are receiving preferential capital gains rates on federal timber. Tupling points to a study done by the Treasury Department entitled, "The Economics of Federal Subsidy Programs."

Economist Emil M. Sunley, Jr., authored the report which shows that capital gains from timber cut on federal land are a significant factor in the $130-million to $140-million tax subsidy enjoyed annually by the timber industry.

Sunley concludes, "The timber subsidy may encourage the cutting of new timber rather than the recycling of paper and other wood products."

Hawks Moving

LINCOLN, Nebr. — The hawks are coming, not in bunches of 100 or 200, but singly or in pairs, as they work their way toward more southerly wintering grounds.

Unlike the sudden invasion of waterfowl each fall, hawks gradually build up from late September to mid-October. Some of the hardier birds winter here, but most have gone by early November.

Swainson's hawks, summertime residents of the state, have already begun leaving for their winter quarters in South America. Sparrow hawks and marsh hawks are now arriving. Shortly thereafter will come goshawks, red-tailed, rough-legged, Cooper's, and sharp-shinned hawks. A few golden eagles may also show up soon, but bald eagles will follow much later, sometime in December.

All of these hawks and eagles are now protected by federal and state law. Anyone shooting or otherwise harming one of these birds may be subject to fines up to $500 and a year in jail under the federal law.

Ideas Needed

LINCOLN, Nebr. — Nebraska's future plans for recreation are at least partially in the hands of 16,000 Nebraska householders, recent recipients of a Game and Parks Commission questionnaire on favorite outdoor activities.

The random survey is one step in the formulation of the state Comprehensive Outdoor Recreation Plan, which will play a big role in determining how federal matching funds will be spent for recreation developments in Nebraska. By responding to the questionnaire, those surveyed can give planners some idea of the state's present and future recreation needs and desires.

It was mailed September 5 from the Governor's office and includes questions on activities ranging from tennis and picnicking to deer hunting and ice fishing. It also seeks other information, such as place of residence, occupation, and education.

A timbering road into one of Wyoming's national forests illustrates the environmental damage of timbering operations. The U.S. Forest Service has recently been given more money to improve its operations and to correct situations such as this shown here.

Bull Elk Are Bugling

The legendary bugling of the mature bull elk will soon be echoing throughout the hills and valleys of Rocky Mountain National Park.

The elk or wapiti is not a timid animal by nature, since it is often seen grazing in the late afternoon hours in many of the meadows (parks) throughout the lower elevations. However, many visitors especially looking to view elk have been disappointed, probably due to the fact that they have created far too much social disturbance to the liking of the elk.

To those visitors who plan to listen to the thrilling bugling of the elk and perhaps see one that is actually in the process of bugling, we urge you to follow these simple rules:

1. Stay in your car, or just outside; shut the door quietly. **Do not walk into the meadows.**
2. When stopping where other cars are parked, immediately turn off your engine. Otherwise no one can hear the bugling.
3. Loud talking and laughing with occupants of your car disturbs others, and also the elk.
4. Drive with "dim" lights, not "brights," out of consideration of other drivers.
5. The use of intense spotlights tends to turn the elk back into the seclusion of the timber, and we would like to discourage their use.
6. Please refrain from using artificial elk bugle whistles. It usually only confuses things and disturbs the visitors.

The bugling, although biologically is a challenge or warning to other bulls, it often appears to be simply an expression of sheer exuberance with the mating season. Beginning with a low-pitched note which is not often heard, the call quickly rises to the high, drawn-out bugle and suddenly drops to a low cough or grunt which may be repeated several times. The elk is a polygamous animal, and each bull will attempt to gather and hold as many cows as he can. Fights among bulls are common, but while some are violent, most involve only preliminary sparring. Generally when harems are won or lost, it is by nothing more than a dominant bull shaking his head and pawing the ground.

The mating season begins about the first of September and lasts for some six weeks or more. Visitors to Rocky Mountain National Park are urged to abide by these simple rules so that all may possibly view elk and be enthralled by the magic of the sounds of nature.

Editorial . . .

era. The general public has a broad interest in watershed, scenic and recreation values. Idahoans are heavily dependent upon public land for hunting and fishing. Legislation that changes the rules for the public lands is critically important to the people of the state.

The House should not rush to a vote on this legislation. Congressman Aspinall, because of the seniority system, wields great power. But the House should pay more attention to the public's long-term interest in the public lands than the outdated views of the Interior chairman.

Thoughts from the Distaff Corner

By Marge Higley

Everybody knows about Spring Fever, but have you ever heard of Fall Fever? Neither have I, but if there is such a malady, I must surely have it! All week long I have been waiting impatiently for Saturday to happen, so I could spend a day in the mountains savoring the sights and smells of autumn in the high country.

Last night's weatherman had predicted a 40% chance of precipitation, with snow flurries at the higher elevations. Being an incurable optimist, I translated that to mean a 60% chance of sunshine, which seemed like pretty good odds. So I was pleased, but not surprised, when I awoke this morning to see a bright blue sky with just a few white clouds along the horizon. I loaded the camera, filled the thermos, made a sandwich, and headed for the hills.

The canyon walls were splashed with orange and red and yellow, and the waters of the Popo Agie sparkled in the sun. I crossed the bridge and started up the switchbacks. The road here zig-zags up the side of the mountain, and with each hairpin curve the scene changes. Going one direction I could see snowcapped peaks framed between tall pines; moments later I beheld a panorama of rocky cliffs with the valley stretching out pink and misty, far below.

As I rounded a curve near the top, three doe deer at the side of the road looked up in mild alarm. I eased to a stop and watched them move gracefully down the slope. Halfway down they turned to face me, standing in a row. Too well camouflaged for a photo, but no matter, it was a joy just to see them! I watched until they quietly melted into the colorful shrubbery, then went on.

Above the switchbacks, the road winds along more gently. Every turn revealed a new vista, each seeming more breathtaking than the last. A fiery red patch of brush, high on a hillside across a deep ravine; a row of quakers, shimmering gold against a background of dark symmetrical evergreen trees.

High on the mountain, I backed the car into a narrow spot just off the edge of the road, took the camera and started on foot toward the crest of an especially colorful ridge. The wind was brisk and chilly, but I was dressed warmly, so I kept on going. A vivid clump of yellow aspen caught my eye and I circled it to decide on the best vantage point for a picture. This decision made, I set the camera for the right exposure and aimed it at that shining golden scene. But just as I was about to snap the shutter, the sun turned off! I looked skyward to see how long I would have to wait for the cloud to drift by, and was surprised to note that it extended well beyond the edge of the ridge. Oh well, I might just as well climb on up— the cloud would pass by the time I reached the top, and I could get the picture on the way back down.

At the summit I ran smack-dab into that 40% chance of snow showers! The brisk chilly wind had turned raw and cold. The snowflakes came down, hesitantly at first, then thick and fast. I snuggled into my jacket and turned back towards the car. By the time I reached it, the snow was hail, and I was making black footprints in the thin white coating that covered the ground.

Inside the car, I unwrapped my sandwich and poured a steaming cup of coffee. The aroma mingled deliciously with the smell of wet spruce. I ate my belated lunch with relish.

The snow flurry passed almost as suddenly as it had appeared. I could hear a couple of squirrels chattering in the branches overhead. A young spiked buck crossed the road in front of me, stared curiously for a moment, then bounced off into the trees. I drank a leisurely second cup of coffee, waiting for the sun to come out, but the sky seemed to be one big cloud. The reds and yellows looked flat, against the dull grey.

I put away my camera and turned toward home. The sun was bright again before I reached the top of the switchbacks. I thought briefly of going back, but dismissed the thought. I was prefectly content with my day! How lucky I am to live amid all this beauty!

As I write this tonight, I can hear the wind blowing the branches of the mock-orange against the windowpane. The weatherman is again predicting a 40% chance of precipitation with snow flurries in the mountains. But that, of course, means a 60% chance of sunshine. . . I just might go back up there tomorrow. . .

Yes, I'm certain that I have a bad case of Fall Fever!

Photo by Marge Higley

URN OF GOLD

On yonder sapphire hills
There flaunts my wealth all told,
Of painted aspen frills,
A patch of burnished gold.
So like the rainbow end,
Brimful of hopes, to spend.

JESSA EULA WALLIS

Do Your Thing-But Do These

The National Wildlife Federation gives the following list of things you as an individual can do to help the cause of conservation.

*Do not use persistent pesticides such as DDT, Aldrin, Dieldrin, Heptachlor, Endrin, Lindane or Chlordane.

*For short distances, walk or ride a bike. Use public transportation instead of your car whenever possible.

*If you commute, fill your car with passengers. One car carrying four persons spews out only 25% as much pollution as four cars carrying only one.

*Tune up your car. Demand lead-free gas.

*Refuse to buy harmful detergents; go back to non-polluting laundry soap.

*If you know a company polluting the air, water or land, write the company president. Ask him what he is doing about it.

*Inform yourself, then write a letter to your local newspaper editor on any ecological issue about which you feel strongly.

*Write, phone, or tell your views to your township supervisor, alderman, state representative or congressman.

*If you're a stockholder in any utility or industry, write the president and ask him what "our company" is doing to improve environmental quality.

*If you're a farmer or landowner, leave some unmowed fence rows or brush piles for the birds and animals to live in.

*Call your grade school and high school principals. Ask them what their schools are teaching on ecology and the environment. And if nothing, why not?

Soaps Developed

According to The Kiplinger Magazine, Changing Times, the U.S. Department of Agricultural Research Service scientists announced the development of modified soaps that they claim perform as well in hard water and at low washing temperatures as phosphate- and carbonate-containing detergents without leaving a residue. They added a fat-based compound to plain soap that prevents the hard water curd from forming. To increase efficiency, they added a builder, the best of which — citrates, for example — are nontoxic and nonpolluting. (In most detergents the builders are phosphates.) The modified soaps appear to be completely and rapidly biodegradeable. This research has been made available to soap and detergent manufacturers, but has not yet yielded any commercially available products.

Shows Planned

PIERRE — South Dakota gem and mineral hobbyists are mailing thousands of posters and invitations which they hope will attract out-of-state rockhounds to shows at Plat[illegible] Murdo and Mitchell this autumn.

Smithsonian Institute gems which studded the AFMS birthday cake displayed in Washington, D. C. last May, are on display at the Central South Dakota Gem and Mineral Show at Murdo, Oct. 8. The gems adorn a miniature cake which will be shown by June Zeitner of Mission, who is national Silver Anniversary coordinator.

The show at Murdo will also include antique furniture and small-scale reproductions of pioneer items handcrafted from gemstones by B.T. Dahlberg, Minneapolis.

The Corn Palace Gem and Mineral Show is scheduled for Oct. 14-15 at Mitchell. Agates and artifacts will keynote the show, along with fossils, crystals, carvings and novelties.

All three shows are open to anyone interested in the earth sciences or lapidary arts, and all will have identification and field trip information booths.

Environmental Eavesdropper

LOONEY LIMERICKS

by Zane E. Cology

It's a fact — there's no doubt about it
Newspaper ads loudly tout it —
An ELECTRIC comb
In every home!
Just how have we managed without it?

* * *

U.S. News and World Report (Sept. 25, 1972) comments that the two presidential candidates will have to pay more attention to the "ecology vote" as a result of Rep. Wayne Aspinall's defeat. It also adds that a western congressman found his constituents favored tougher pollution laws in spite of plant closings because of antipollution orders.

* * *

The Audubon Society reports that this year's census of the rare Kirtland's warbler remains at 200 males. This is the same number as reported last year from the world's last known breeding population in the jack pines of Michigan.

* * *

The Ethiopian Delegation to the Second World Conference on Parks accused the U.S. of exporting pollution. The delegation asked Assistant Secretary of the Interior Nathaniel Reed why the American government continues to ship DDT to foreign countries while outlawing its use at home. Reed said the pesticide was sent only to those countries requesting it.

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The U.S. Bureau of Mines has received the go-ahead on a pilot plant to convert wood wastes from the timber industry into fuel oil. Use of the wastes to produce a fuel would also remove a source of air pollution. The question which must be answered by the pilot plant operation is whether it would require as much energy to produce the fuel as the fuel itself will produce.

* * *

Wisconsin Senator Gaylord Nelson has urged an immediate ban on the chemical herbicide, 2,4,5-T. The weed spray contains dioxin, a long-lasting, extremely toxic substance. Nelson noted that after botulinun toxin, dioxin is the most deadly substance known to man. The senator said there is evidence that it has already caused serious birth deformities in a substantial number of South Vietnamese children. It has been used extensively in the Vietnam war but is also used in the U. S.

* * *

Rhode Island Governor Frank Licht has appoin- a special task force to study all aspects of the state government's approach to environmental problems. The state now has nine different agencies dealing with one matter or another.

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Dr. Raymond L. Nace of the U.S. Geological Survey says large-scale water developments have been planned with little thought given to potential side effects and long-term ecological consequences. He warned of even greater consequences if proposed projects to shift water from Canada to North America, the "Congo Sea", and others were carried through.

JOHN'S COLUMN

Some feared that an end to the war would result in thousands of veterans flooding an already tight job market. "No one wants war," said Mrs. Deborah Dodson, the wife of an unemployed truck driver. "But hell, if it's the only way to stop a depression, I'd rather have a war."

From a story by Steven B. Roberts in *The New York Times*, Wednesday, Sept. 6, 1972.

Reprinted from THE MAINE TIMES
John Cole, Editor

Dear Mrs. Dodson,

If you believe in the transmigration of souls, then you must know that you were once Marie Antoinette. Surely Marie's solution to the problems of the starving French peasants — "Let them eat cake" — could be equalled in its innocent excess only by your comment — "I'd rather have a war." And, just as surely as Ms. Antoinette's observation marked the end of an Age, so yours tells us how bankrupt are the Industrial Age policies which have led you to the point where you justify slaughter to preserve growth economics.

Please don't misunderstand me. I am not recoiling from your words in pious horror. Instead, I see them as astonishing, but quite predictable. Your spontaneous, people's view of the necessity to consume is a critically significant insight. You tell us all, in five words, that the values of the Industrial Age have become so exaggerated that the death of our sons is more to be desired than the loss of our paychecks.

It is also accurate of you to see continued war as the solution to the maintenance of a growth economy. For war is the ultimate consumer. Massive amounts of money, people, non-renewable resources, cities and even entire nations can be consumed by war at a rate that not even the cleverest peace-time growth scheme could manage. As a nation seemingly irrevocably dedicated to an ever-growing gross national product, it is probably inevitable that this country is the world's biggest war maker. Mr. Nixon is the man who has ordered more bombs dropped than any man in history because he is also a believer in the sanctity of growth.

I don't expect I'll ever get the chance to try and change any president's views, so perhaps it would be better if both you and I forgot about Mr. Nixon and just talked with each other. If you have been reading Maine Times (which I rather doubt) you would know that I have been talking for some time now about the need to develop a Post-Industrial philosophy which could become the basis for the dawn of a new Post-Industrial Age. I have argued that the growthmania generated by the Industrial Age has become an illness which can destroy the planet.

Originally, I arrived at that view by simple arithmetic. I reasoned that if we lived in a finite world — a world in which the elements of the life-support system can be weighed and measured — then it must follow that we shall commit planetary suicide if we consume those non-renewable life-support elements faster than we can put them back. Yet, if you apply the same logic to understanding our national policy of continued growth, you must also, inevitably, realize that such a policy depends on more and more consumption — a consumption that can only be suicidal.

Therefore, I said, let us look for ways to slow growth, to arrive at a stationary, Post-Industrial state, so our life-support system can be put into balance: we put back as much as we take out. But until I read your words, I had no concept of how difficult the task might be. As a fourth or fifth-generation child of the Industrial Age, you have become quite terrified at the thought of being "unemployed" — which is an Industrial Age word that means you become a "non-consumer."

The thought that you might not be able to buy things is a thought so charged with fear that it pushes you into making the suggestion that wanton killing can be condoned as long as it insures your ability to consume. "I'd rather have a war," you say when asked to make the choice between war and being a non-consumer.

I don't believe you could have thought much about what you said. Not only is war a murder of the innocents; but a policy of consumption is global suicide. Now that you have brought the two together, I see their relationship more clearly than ever before. Without Post-Industrialism, we can never have peace.

And before we can begin to work out Post-Industrial ideas, you must learn not to be afraid of becoming a non-consumer, in the sense that an Industrial Age consumer is absolutely required to consume things he/she doesn't need. For there is, in our natural world, a life-support system for us all. I think perhaps you should start by coming to Maine. Because this state never quite became part of the Industrial Age, the era's excesses are not so extensive here. There are many "unemployed" people living quite well here, from the natural land.

They work hard and their job is not made any easier by the presence of the Industrial Age in their midst. But there are Maine people who work the land and the sea and the forests and rivers in ways which allow them to take what they need, while at the same time they restore what they have taken. Expanding on this theme, and adding the best of the technology the Industrial Age produced, each of us could learn to live in a stationary state, in harmony with each other and nature.

If you asked any of the Maine people now living from the natural land to make a choice between war and depression, they would choose neither; depression is an Industrial Age word which has little or no meaning for Pre-Industrial people. It is also a word which never should have grown so that it frightens you into opting for the death of others so you can stay a consumer. Yet that is the point we have reached, and, like the words fo your predecessor Marie, yours must also signal the start of a revolution.

Letters to the editor . . .

tance. It doesn't seem that we can support both kinds of animals on the land in question.

Morgan's story is supplemental to two other accounts of the bighorn sheep problem near Challis, Idaho. The first appeared in LIFE magazine in the issue of May 22, 1970 and called "Showdown on the Salmon River Range." The second article appeared in the Sierra Club Bulletin in the issue of May 1972 and called "Whose Home on the Range?"

It will be a real service if High Country News can prevail upon the BLM and the Idaho Game Dept. to present their solution for the saving of a small part for the exclusive use of the bighorn sheep. The truth will help us all understand the problem that exists.

Earl D. Sandvig
Portland, Oregon

A New Outlook For Parks?

Immediate steps should be taken to keep automobiles and other incompatible intrusions from destroying America's national park heritage, a far-ranging report by the Conservation Foundation urged yesterday.

The Washington-based nonprofit organization called for "an immediate moratorium on road building, parking lots, and other auto-oriented improvements" within the National Parks and recommended that Secretary of the Interior Rogers C.B. Morton appoint a special commission "to study the entire question of private automobiles in the parks and alternative methods of intra-park transportation."

These recommendations were among many in a report called "National Parks for the Future: An Appraisal of the National Parks as They Begin a Second Century in a Changing America." The report, released yesterday, is the result of a year of study by the Conservation Foundation, an environmental research and education organization dedicated to "encouraging human conduct to sustain and enrich life on earth." It was contracted by the National Park Service and the National Parks Centennial Commission, appointed by President Nixon to celebrate the 100th anniversary of the parks.

The Foundation's recommendations concerning the use of automobiles were part of a larger theme expressed repeatedly in the report — that the National Park System can best serve an increasingly urbanized America by strengthening its preservation mission, "no matter what human pressures are imposed upon it."

Again and again, the report said that the public and their political leaders "must reject the notion that the parks can be all things to all people."

In particular, the report said, "they must reject any suggestion that the National Park System has a responsibility to engage in programs which cover the entire spectrum of outdoor, historic, and cultural needs of the American people." In opposing such a widening of the parks' role, the Foundation said that "efforts to make the system all-inclusive are triply mistaken: first, such efforts will dilute the internal strength necessary to carry on a vital environmental preservation function; second, they will sap energies and ambitions at other levels of government; third, the American people ought not to expect a single federal agency to give adequate and properly balanced attention to the many separate strands of American society, culture, history, and environment." In fact the report recommends that the historical and cultural mission be separated from the environmental preservation mission of the National Park Service.

As for the relationship of the National Park Service to America's recreational needs, the Foundation report conceded that outdoor opportunities, particularly those offered by state and local government, are "disparate, fragmented, and uneven." In desperation, the report commented, "some suggest that the vacuums be filled by the National Park Service, that it bring all aspects of its program full-blown into the cities and other areas of proven need." This "is flattering to the Park Service," the report observed, "but could be disastrous for the park system."

In its four major recommendations — each of which was followed by a list of specifics — the Conservation Foundation said: (1) that the National Park System should reassert its traditional role as conservator of the timeless natural assets of the United States, (2) that greatly expanded citizen participation should be made fundamental in the planning and management of the National Park System, (3) that the National Park System should serve urban America by assuring a distinctive recreational opportunity based on natural values, and (4) that the National Park System should be used as a showcase of man's proper stewardhip of land, water and air.

Among the specific recommendations were the following:

* Lands, facilities and/or programs clearly inconsistent with the preservation function should be divested or transferred.

* Park facilities now operated by private concessioners should be phased into management by non-profit, quasi-public corporations.

* Federal information centers should be established in major metropolitan areas to instruct and guide visitors from cities in planning excursions to national parks and other public lands.

* The proposed New York and San Francisco Gateway National Recreation Areas, although desperately needed as regional recreation facilities, are not intrinsically national parks and are now scheduled to be managed by the National Park Service "because there was no immediate alternative." Both Gateways should be transferred to appropriate state or regional agencies for administration.

* A long-term program of concessioner replacement should be started on a pilot basis "and proceed according to an equitable timetable until the parks are free of major private entrepreneurs and the public has regained full control of facilities planning and operations."

* Because major new sources of federal funds must be developed to meet pressing needs for parks in urban areas, two sources would be both practical and appropriate: (a) capital gains tax revenues from sales of undeveloped lands, and (b) a five per cent excise tax on recreational vehicles and equipment.

The log buildings of Yellowstone's Old Faithful Inn hark back to the days of horse-drawn stagecoach when there were few visitors and the attendant problems. A report by the Conservation Foundation says the automobile and other incompatible intrusions are destroying America's national parks.

The Conservation Foundation report, prepared under contract with the National Park Service, was done at the behest of the National Parks Centennial Commission, created to commemorate the 100th birthday of the National Park System. The Commission asked the Foundation to conduct a citizens' appraisal of the system, submit a report discussing the basic problems facing the National Parks, and make recommendations concerning their future administration.

The work, authorized in August, 197[illegible] began with the appointment by the Con[illegible]vation Foundation of a 34-member advis[illegible] committee. This committee, in turn, assisted in the selection of 30 other individuals, each of whom served on one of five task forces on the following basic areas of inquiry: park "values," outdoor recreation, education and culture, urban needs, and ways and means. During the winter of 1971-72, the task forces met frequently. They reported their conclusions in February, 1972. In mid-April, the Foundation convened a Symposium on National Parks for the Future at Yosemite, with some 200 participants. The recommendations in the report, however, speak only for the Conservation Foundation, its president, Sydney Howe, emphasized.

The recommendations, as well as the task force findings and selected project papers, have been published in paperback book form. The book is available from the Foundation's offices at 1717 Massachusetts Avenue, N.W., Washington, D.C. The price is $3.50, prepaid.