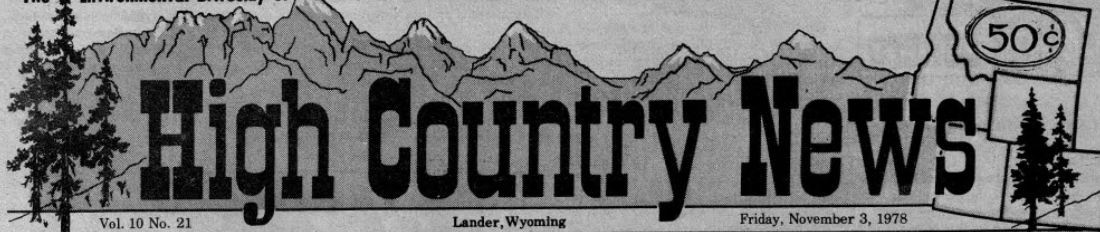


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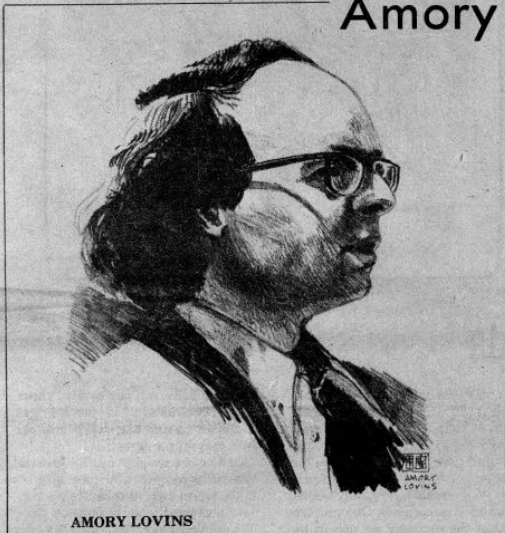


Vol. 10 No. 21

Lander, Wyoming

Friday, November 3, 1978

Amory Lovins brings good news



AMORY LOVINS

Cross-pollinator gadfly

by Alexis Parks

His admirers call 30-year-old energy and resource strategist Amory Lovins one of the few people in the world with original ideas. Lovins describes himself in humbler terms: "I'm just a cross-pollinator. A sort of roving synthesizer and gadfly."

It's a role he obviously relishes, carrying his strategies for energy transition—the move from hard to soft technologies over the next 50 years—to technical, governmental and public audiences around the world. Soft technologies, as Lovins defines them, are diverse, renewable, relatively simple and matched in scale to their end use needs.

Although his studies on energy strategies over the past decade have meandered between what he terms "heresy" and "beyond the pale," they have now become a

part of official government thinking. Lovins, who is the London representative for Friends of the Earth, continues to scout the way forward, delivering his "sermon" on the future with extraordinary confidence. He concentrates on solutions and places a strong emphasis on grassroots efforts. In fact, the ability of single individuals to effect dramatic changes is an essential part of his message.

At a recent energy conference in Denver, Lovins challenged the audience by telling them that there are already over 80 energy "wars" going on across the country—local wars where people are refusing to bear the environmental costs of other people's energy excesses. In fact, he says, most of the action in energy policy in the U.S. is now happening at local and state levels.

"There are several hundred towns and counties," he said "that are already on something very much like a soft energy path. They're not waiting for anybody."

Grassroots action is the good news Lovins brings to his audiences, for he feels that is where most of the technical and

(continued on page 6)

Wins in Colorado, Idaho Wilderness loses in RARE II opinion poll

by Dan Whipple

After analyzing the opinions of nearly 360,000 people on the subject of wilderness and roadless lands, the U.S. Forest Service is retiring into secrecy to develop its final proposals for the second Roadless Area Review and Evaluation (RARE II). The U.S. Forest Service headquarters distributed confidential evaluation criteria to the regions for determining wilderness recommendations, and the final recommendations will be shaped behind closed doors.

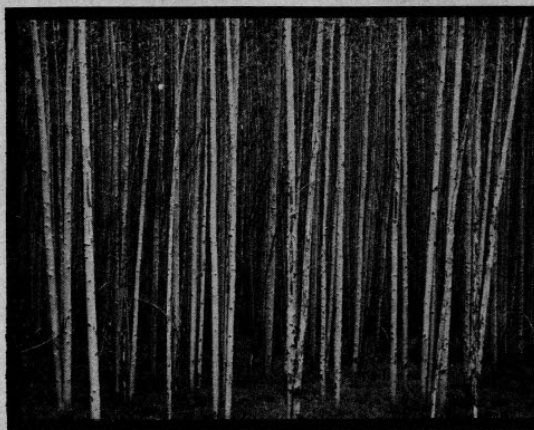
Assistant Secretary of Agriculture M. Rupert Cutler says that secrecy is necessary to assure that undue pressure isn't exerted on the agency.

Cutler says, "RARE II is as controversial as anything that's been done in this administration. I cannot have several different recommendations—one from staff, one from regional foresters and from each forest. There's no point in having every person's recommendation played off

"Carter favors expansion of the wilderness system, so there's no reason for environmentalists to be unduly concerned about the outcome."

against another's. From this point on, the process will be secret, just like the development of the federal budget."

The Forest Service's tally shows a great deal of anti-wilderness sentiment. Not everyone who wrote in suggested an overall policy—or "approach," in Forest Service lingo—but over 291,000 did. Of that number, about 19 percent wanted no more wilderness at all. An additional 17 percent



Aspen grove, San Juans Roadless Area, Colo.

Photo by David Sumner

said that all RARE II lands should be managed for multiple use, which the general public usually considers a vote against wilderness. Wilderness designation permits several uses, however.

Alternative W, the approach suggested by a coalition of pro-wilderness groups, was chosen by about six percent of the respondents, while an additional four percent said that all of the RARE II lands should be-

come wilderness.

Some of the other categories that the Forest Service analyzed are: no wilderness in a portion of a state, seven percent; all wilderness for a portion of a state, 0.6 percent; keep the RARE II lands natural and roadless, 3.3 percent; balance wilderness against resource needs, 1.8 percent. Most of

(continued on page 4)

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HCN
Letters

LAND TRADE INEQUITABLE

Dear Folks:

I think it should be noted that there is at least another side to the story of Sen. John Melcher's amendment curbing trades of Forest Service land for Burlington Northern land (see HCN 10-20-78, p. 7).

As permittees of the Custer National Forest we received copies of the Forest Service's proposal. Among the trades suggested were BN lands in western Montana for coal lands on Forest Service property in eastern Montana.

This seems to us highly inequitable in a number of ways. First of all with lots of hard work we were able to get a provision prohibiting mining on the Custer National Forest here in eastern Montana. We tried to get all national forests protected but were unable to do so. We feel that the intent of that act would be violated if the Forest Service were to trade such land with the BN.

Another problem is the way the grazing is set up here makes a very large community of ranches dependent upon the forest for our livelihoods. Our permits are based upon commensurability and our places have to adjoin the forest. A trade of Forest Service land here for BN land in another part of the state would mean making several places uneconomical. It should be noted that the grass on this district of the forest is in good shape by and large.

Besides all of the above, 177,000 acres is a great deal of land to allow to be traded without some sort of congressional oversight. The railroads have not exactly demonstrated that they are completely trustworthy in the past and why should we now, simply because it might facilitate one wilderness area, assume they are suddenly imbued with the best interests of all of the people?

Irv and Carolyn Alderson
 Bones Brothers Ranch
 Birney, Mont.



HOLOCAUST FOR RACES

Dear HCN,

Bruce Hamilton's article on endangered species is appreciated and timely. All forms of life (species) are essentially "races" of life. While Congress would certainly deplore the conscious decision to wipe out a race of our species, they narrow-mindedly plot a holocaust for other races of life.

Have the people of this country become so isolated from their living brotherhood (biosphere) that they will sit quietly and watch? Is Congress that confident in its Third Reich of science and technology to systematically destroy all races but their own?

I hope not, and your excellent news work maintains that hope. Thanks.

Mark R. Stromberg
 Zoology Department
 University of Wisconsin-Madison

Guest editorial

Utahns complacent about RARE II forest lands

Reprinted from The Salt Lake Tribune

Considering only one out of every 166 Utahns let the U.S. Forest Service know how they felt about designating parts of the national forest system in this state as official wilderness areas, it is easy to conclude they don't care, one way or the other, about the issue.

The Forest Service is now processing and evaluating the responses it has received from across the country. This evaluation will be used, in part, to determine which areas the agency will recommend Congress include in the national Wilderness Preservation System.

The Utah response to the months-long effort to generate public input concerning wilderness is disappointing. The sheer apathy indicates news accounts creating the impression that opposition toward wilderness was widespread in Utah were only indicating the hostility of a tiny, but highly vociferous, minority.

The Forest Service received only 4,206 responses from Utah and those contained a scant 7,637 signatures. The latest reasonably reliable estimate we have places Utah's population at 1,268,000 in 1977.

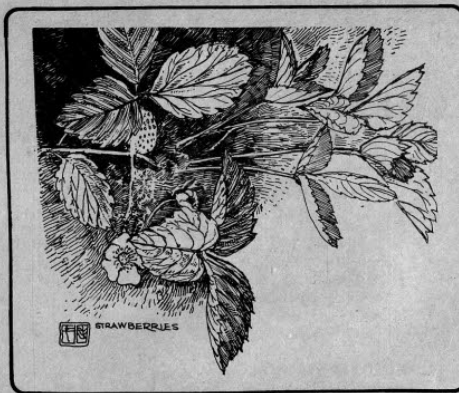
That would suggest that only about 0.6 percent of all Utahns were concerned enough to make the effort to express their opinion, pro or con, about the possibility of making wilderness out of any or all 130

roadless areas containing more than three million acres of national forest land in the state.

The national forests of Utah cover 8,000,169 acres, or about 15.2 percent of the state's land area. The lack of interest strongly suggests that all the highly-publicized complaints about the large federal ownership of land in Utah is not rep-

resentative of the feelings of most residents. Rather, it is reasonable to conclude, that the bulk of Utahns are content, or at least not dissatisfied, with present land ownership patterns in this state.

Guest editorials do not necessarily represent the opinions of the staff of HCN.



Dear Friends

No one at High Country News can sit back and call himself a specialist, although most have specialized skills. Take Hannah Hinchman, for example. She's an artist, but she also oversees every aspect of production, from proofreading the galley and designing the ads to running the presses. To the delight of her co-workers, she plants surprises in the course of doing routine chores. The label on the last paper's layout sketch, "Hikin' Tree News" was clearly her prank. On more serious matters, her keen eye for graphics and her knowledge of the natural world shape the paper in more ways than her simple title, "staff artist," would indicate.

This issue we're introducing a new feature inspired by Hannah's talents, as well as by a *Maine Times* column called "Weather Report" and an article written and sent to us by HCN reader Ed Foss. We're calling the new venture "Afield."

"Afield" is to be a cross between a naturalist's journal entry and a glorified weather report, which will reflect the time of year, the local surroundings and, occasionally, the disposition of the writer.

With help from items readers send from all over the Rockies and Great Plains, the column will chronicle our way of life and remind us how natural things shape and enrich existence here. In "Afield" you'll read about things like bird migrations, aphids, calving, frozen pipes, moonlit evenings, blizzards, dandelion greens, blistering drought and rattlesnakes. We hope "Afield" will sharpen the senses. We also hope you'll want to contribute by sending observations about your corner of the region to Hannah.

We trust the paper doesn't contain too many clues about how press week went this time. For a while we were resigned to having two different type styles and sizes on the front page. Not for the sake of bold, graphic experimentation — we would have gladly settled for dignified consistency. Our problem was that the computer we use in the typesetting process at the *Wyoming State Journal* turned all our thoughts to gibberish that looked like this:

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Jazmyn and Hannah tried trucking our stories 25 miles to the Riverton

High Country News

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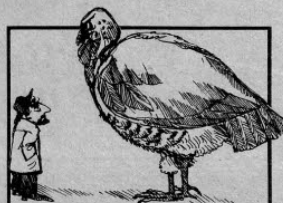
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 Write Box K, Lander, Wyoming 82520.

Ranger. After a lively evening there, they discovered that the Ranger computer turned our stories into one long, run-on paragraph.

Just before we gave up, the *Journal* revived its computer. As this copy goes to the typesetter, it looks like we may, very awkwardly, go to press on time. The opinion page, bless it, is the only serious casualty. It will be back next time.



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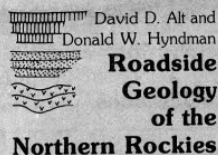
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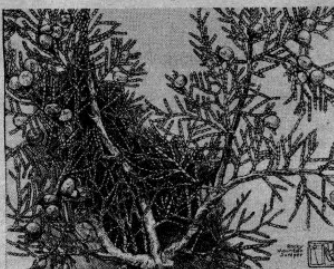
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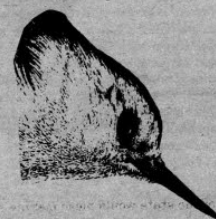


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Oct. 20, 1978)

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Wilderness loses opinion poll...

(continued from page 1)

the agency's other categories tallied much smaller percentages.

Because of the Carter administration's pro-wilderness stance, Cutler says environmental interests will be very important in the Forest Service's evaluation process. However, anti-wilderness forces could

he can change the recommendation but he must justify it.

If the public sentiment is between 71 percent and 85 percent on one side or the other, the Forest Service will apply other criteria, in addition to public input. Regional officials will assess the impact of a designation of an area on the basis of the

Nineteen percent of the respondents wanted no more wilderness at all. An additional 17 percent said that all RARE II lands should be managed for multiple use.

gain some advantage if they can show that wilderness designation would spur inflation. He says, "The only way they have an advantage is with anti-inflation arguments. If we don't come in with a program that balances with the president's concerns about inflation, it will be adjusted by the White House. But Carter favors expansion of the wilderness system, so there's no reason for environmentalists to be unduly concerned about the outcome."

Initial planning steps will, however, place significant emphasis on the results of the public comment process. A regional forest spokesman says, "The public input will be extremely important."

According to regional forest office sources, if 85 percent of the comments received on a roadless area indicate a preference for either wilderness, non-wilderness or further study, then the Forest Service will implement that as their option. If the regional forester finds that public opinion does not reflect the true value of the area,

effect on the production of goods and services, such as timber and minerals, and the effect on the wilderness system as a whole.

If the public response on an area is less than 71 percent in favor of any option, the Forest Service will conclude that the public hasn't indicated any strong preference.

Recommendations of the regional foresters are scheduled to be completed by the first week in November and sent to the Forest Service in Washington, D.C. There, the staff, the chief, and Cutler's office will go over the recommendations and come up with a departmental proposal.

Cutler says, "The key thing to report is that this proposal will be subject to review by all the departments of this administration. Those who have concerns about the outcome will be free to make recommendations to them."

Cutler says that the administration hopes to make a final decision on two-thirds of the 62 million acres of roadless lands, designating them either wilderness

or non-wilderness. The remainder would receive further study.

However, in the Overthrust Belt in western Wyoming, which is believed by the oil and gas industry to have substantial potential for petroleum production and is highly prized by environmentalists for its wilderness values, the Department of Energy has suggested the creation of a special category. Cutler calls it a "sort of wilderness escrow. Wilderness areas in the Overthrust Belt would be treated as a sub-category. These areas would be protected from other types of development, but would be opened for oil and gas exploration. Then later, after the exploration was complete, wilderness would be considered." No final decision has been made about whether to create such a category, however.

The first step of the evaluation procedure has been the compilation of public comments. The Forest Service has coded each message it received, which the agency calls an "input." Nationwide, there were 264,098 of these inputs, including letters, form letters and petitions, bearing 359,414 signatures. The Forest Service has divided these into a bewildering array of policy preferences, known as "approaches." The RARE II computer lists 99 categories of approaches.

The "approaches" describe, in a general way, attitudes toward wilderness and RARE II. Coded separately are the site-specific comments that the agency received.

The agency also coded the comments by method of communication. The largest single method of expressing an opinion was by "response form." Most often these were preprinted messages on which a person needed only check a box for "wilderness," "non-wilderness" or "further study." These forms were usually distributed by interest groups. Across the country, 38 percent of the total responses were on response forms.

The next highest category was personal letters, 32 percent. Petitions and form letters — letters using a standard format — accounted for 29 percent of the comments.

The Forest Service regional offices reportedly have been instructed to place more emphasis on personal communications than on petitions, response forms and form letters. This could be significant, because a number of commodity interest groups launched campaigns using these three techniques. Among the organizations using the tactics were Atlantic-Richfield, the Rocky Mountain Oil and Gas Association, the Montana-based Western Environmental Trade Association and an Indiana-based timber company. Oil companies launched particularly vigorous campaigns because they feared the potential "locking up" of valuable oil and gas lands in the Overthrust Belt, particularly in the Bridger-Teton National Forest in western Wyoming.

Nationally, most of the responses originated in Oregon, the second largest

"RARE II is as controversial as anything that's been done in this administration."

number were from Idaho and third, from California. The state with the least interest in RARE II was Delaware, which produced only 27 letters.

In the Rockies, the breakdown of responses generally reflects the tactics used by the pro- and anti-wilderness forces in each state. In Colorado and Idaho, where the pro-wilderness forces ran "response form" and petition campaigns, the registered pro-wilderness sentiment was strong

relative to the anti-wilderness sentiment. In Wyoming, Montana and Utah, where pro-wilderness organizers chose to rely on the strength of a personal message and the anti-wilderness forces launched a depersonalized campaign, the number of anti-wilderness responses significantly outnumbered the pro-wilderness ones.

One thing that could substantially alter the totals in some states is a last-minute decision by the Forest Service regarding Alternative W. Originally, the agency ruled that those letters would not be counted as pro-wilderness votes for the individual roadless areas recommended by Alternative W. At the last minute — in fact, after the computer tapes had already been run — the agency reversed itself and said that Alternative W should be counted as pro-wilderness recommendation for each area the proposal listed in a state. Consequently, some USFS regions did not have their corrected data at HCN press time.

STATE-BY-STATE

Of the Rocky Mountain states, Idaho generated the most RARE II responses. The comments in favor of Alternative W in Idaho slightly outnumbered the anti-wilderness letters. Of the people suggesting a policy approach, 13.5 percent favored Alternative W, while 12.5 percent favored "no new wilderness." However, a significant number (15.7 percent) wrote favoring "multiple use" of RARE II lands in Idaho,

The Forest Service has divided all the RARE II letters into a bewildering array of 99 policy preferences.

and 10.6 percent said that the Forest Service should emphasize the economy and jobs in the state.

Idaho did not have the corrected data for evaluating the response on each roadless area, and the regional forest office would not release the existing information.

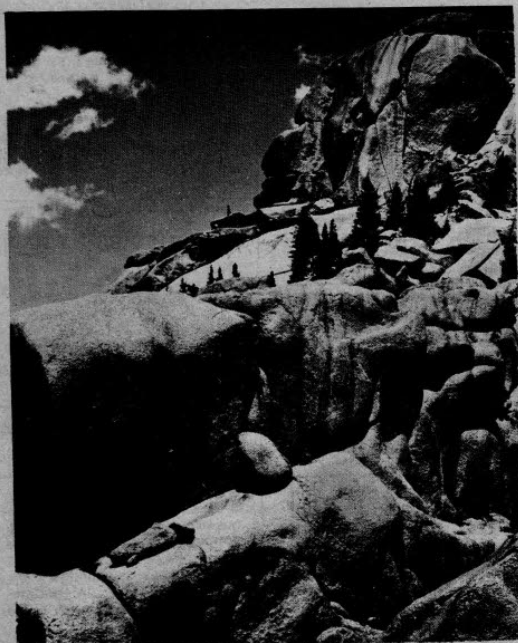
In Colorado, supporters of Alternative W outnumbered the "no wilderness" forces 19 percent to 13 percent. In addition, the respondents that wanted all wilderness, wilderness in a portion of the state or the roadless lands left natural and roadless totalled an additional 11 percent. Five percent of the respondents called for multiple use.

Individual areas of the most interest were Elk Mountain-Collegiate, with a 78 percent pro-wilderness vote (including Alternative W votes); Arapaho Creek, 66 percent pro-wilderness; Pagoda Peak, 66 percent pro-wilderness; Davis Peak, 71 percent pro-wilderness, and Mad Creek, 78 percent pro-wilderness.

In Montana, the two options that drew the most attention were "no wilderness" and Alternative W. Comments in favor of no wilderness outnumbered those for Alternative W 22 percent to 17 percent. About five percent wanted all wilderness, while seven percent urged multiple use and seven percent urged management for timber values.

Figures on the individual areas in Montana were not available at press time.

North Dakota's roadless grasslands have wilderness potential, according to environmentalists. However, of the people writing to the Forest Service, 19 percent asked for no grassland wilderness, 12 percent for no wilderness in a portion of the state, and six percent for no wilderness at



Lost Creek Roadless Area, Pike National Forest, Colo.

Photo by David Sumner



Photo by David Sumner
Snowy Range Roadless Area, Medicine Bow National Forest, Wyo.

The unanswered question is: How will the Forest Service interpret this data?

all. Most of the other policy options suggested were small percentages. The figures for individual areas in North Dakota had not been adjusted.

In Utah, 4.3 percent of the comments favored Alternative W. Anti-wilderness sentiment was heavy, with 24.4 percent saying "no more wilderness," 18.8 percent "emphasize mineral values," six percent "no wilderness in my part of the state," and 5.3 percent "emphasize economic needs." Another 6.6 percent said RARE II decisions should emphasize multiple use.

The most frequently mentioned roadless area in Utah was Mt. Naomi, with 28 percent favoring wilderness, 69 percent for non-wilderness and three percent for future planning.

In Wyoming, 49.4 percent of the respondents wanted "no more wilderness." Alternative W was favored by 13.2 percent and about three percent favored wilderness for all roadless lands. Other significant alternatives were: "No wilderness in my part of the state," 12.4 percent; emphasize resource and economic values, 3.8 percent; manage for multiple use, 2.3 percent; and "no action," 3.4 percent.

Regarding the individual roadless areas in Wyoming, however, pro-wilderness advocates have a mixed bag of results. Western Wyoming has been particularly controversial because it lies atop the Overthrust Belt. Of the two areas there that received the most attention, the Palisades received 62 percent vote for non-wilderness, and the West Slope of the Teton received a 58 percent vote for non-wilderness.

Several other areas of interest to environmentalists received strong support for wilderness, however. Pro-wilderness

comments were: Grayback, 77 percent; Teton Corridor, 80 percent; and Gros Ventre, 86 percent.

In other areas of interest in Wyoming, Huston Park received a 70 percent non-wilderness vote and the DuNoir area a 62.8 percent anti-wilderness tally. The City of Cheyenne hopes to obtain municipal water from the Huston Park area. The controversy over timber in the DuNoir has raged for years.

The central issue regarding the public comments is, "How will the Forest Service interpret this data?" The Forest Service is not saying. George Davis, who is in charge of RARE II for the agency in Washington, D.C., says, "You can be sure that it won't be a straight numbers game." However, some environmental activists are concerned that they paid too much attention to "quality" of their public input — by encouraging personal letters — when the government seems to be measuring "quantity."

The Forest Service hopes to have the regional recommendations completed by Nov. 7 and a tentative comprehensive plan by Nov. 21. The draft RARE II environmental impact statement is planned for publication on Dec. 29. Congress will make the final decision about the wilderness areas.

classifieds

WRITERS from Colorado, Montana, Idaho, Utah and Wyoming sought by HCN. We are interested in stories on Indian resources, alternative energy, conservation, agriculture, water development and people making environmental news. Pay is two cents to five cents per word for fair, accurate news reporting. One-sided diatribes unacceptable. Contact High Country News at Box K, Lander, Wyo. 82520 with story ideas.

Governors deny supporting veto

Two of the Western governors who reportedly supported President Jimmy Carter's veto of the \$10 billion public works bill last month are now saying that their positions were misunderstood by the White House staff. Newspaper accounts had said the governors' support was crucial in garnering enough votes in the House to sustain the veto.

Both Wyoming Gov. Ed Herschler and a spokesman for South Dakota Gov. Harvey Wollman say that they took a neutral position on the bill. The White House had said both of them, as well as governors of Oregon, Nebraska, Nevada and Idaho, supported the president's veto of the bill, which included six water projects that the president had consistently opposed.

Herschler says he was called by a White House aide and asked not to criticize the president for his veto. "I told him I wasn't going to chew him up because we had sufficient (federal) money to complete the stateline (Lyman) project and other reclamation projects, and Savery-Pothook was already authorized," Herschler says. As long as Congress or the president didn't act to deauthorize Savery-Pothook, Herschler figures the state can get the money later. Savery-Pothook, which is on the border between Wyoming and Colorado, was one of the projects Carter opposed.

However, when the White House said he endorsed the veto, Herschler was upset. "I wasn't going to lead the charge, but I did not endorse the veto."

South Dakota Gov. Harvey Wollman told the White House aide he would have to check with his staff and the state congressional delegation before agreeing to withdraw his opposition to the veto, according to the state policy director, Jody Severson. Severson says the governor considers it a misunderstanding—not a deliberate misrepresentation.

Gene Eidenberg, deputy assistant to the president, says he did misunderstand Herschler. "I took his statement further than it was meant to go. But you have to remember I talked to 10-11 people all over

Nov. 3, 1978 — High Country News-5



GOV. ED HERSCHLER

the country in two days," Eidenberg says.

However, he says Wollman apparently changed his mind after talking about the veto. "There was no ambiguity in my mind whatsoever about what he said," Eidenberg says. Eidenberg told Wollman no South Dakota projects would be affected, and he says Wollman said he would therefore support the veto.

Asked what effect the governors' support had on Congress, Eidenberg said that the fact that several Western and Eastern governors supported the veto did have an impact. It proved to Congress that it wasn't a regional debate, but that inflation and better water project planning were the real issues, he says.

Eidenberg said no other governors had accused him of misrepresenting or misunderstanding them.

Congress later passed a public works bill without the six projects Carter opposed. In addition to Savery-Pothook, the two other projects removed from the final bill were both in Colorado. Colorado Gov. Dick Lamm did not waver in his opposition to the president's veto.



GOV. HARVEY WOLLMAN

Montana builds bourbon-river coalition

Advocates of a free-flowing Yellowstone River are receiving help from an unexpected source — a bourbon distillery.

Glenmore Distilleries of Louisville, Ky., is on the verge of marketing a new product called Yellowstone Mellow Mash. Their advertising agency, Rand Public Relations Inc., has agreed to distribute the Montana Fish and Game Department's movie about the river to TV stations. When Mellow Mash goes on sale, leaflets will be distributed with it asking that donations be made to "Save the Yellowstone." Money collected will go to block construction of a proposed dam at Allenspur and other river-related projects.

The Yellowstone is the last free-flowing river in the U.S. but faces many threats as Montana's energy reserves are exploited.

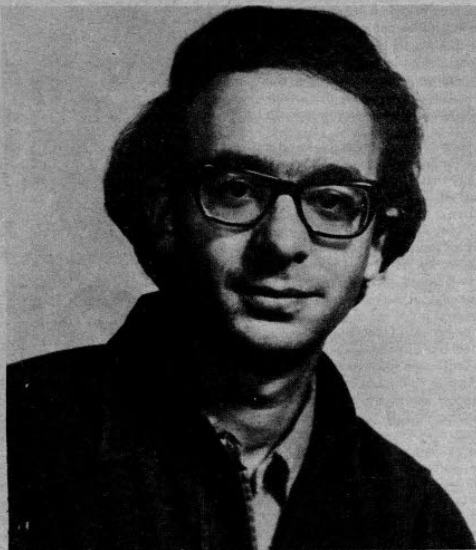
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6-High Country News — Nov. 3, 1978

Lovins brings good news. . .



AMORY LOVINS

(continued from page 1)
political innovation is going on. As he explains in this interview, the first three steps toward a soft energy future are simple:

Lovins: "In rural as in the urban areas, the first, second and third thing you do is conservation. That is, you wring the most

"I'm just a cross-pollinator. A sort of roving synthesizer and gadfly."

possible work from the energy you've got. In most parts of the country, by the time we've gotten through retrofitting the buildings in ways that are now cost-effective, we won't need any heating. Those who live in a very cold area will still need some heating.

"In cities, the retrofits will be mainly at a neighborhood scale, using district heating technology rather than one building at a time. In fact, the urban densities greatly improve solar economics because the heat loss is mostly into your neighbor's living space and not out into the countryside. This is why people living in apartments, other things being equal, need much less heat than people living in isolated, single family houses."

Parks: "In your figures, Amory, you indicate that if we began to use electricity efficiently and only for uses where it's justified, we can cut back to as little as eight percent of what we're now using. Where will these cutbacks be made?"

Lovins: "Well, 40 percent of our national electrical use today is for low-temperature heating and cooling, which is a grossly wasteful and uneconomic use of electricity. And it (heating and cooling) should be handled with things like insulation, weather stripping, overhangs and solar heating.

"If you're worried about air conditioning, you might reflect upon the statistic that in an average 10-story office building in

Manhattan, about half of the air conditioning is used to take away the heat of overhead lighting.

"Another 35 to 40 percent of the air conditioning restores the cool lost by over-ventilation and only 10 or 15 percent fights exterior heat—much of it from your neighbor's air conditioner and the rest of it by solar gain, much of which can be eliminated with dumb things like window overhangs (eaves) and venetian blinds.

"Another roughly 20 percent is for appropriately electrical uses, but it's also pure waste because it's for things like commercial overlighting. That leaves us with something like 40 percent and at this point we start to apply technical fixes to use that electricity more efficiently. For example, there's been a nice Danish study done recently of how we would design electrical household appliances to be cost-effectively efficient. If you had one of every kind of appliance and used them just as much as you do now, and they were efficiently designed, your household electric bill would drop by more than 70 percent."

Parks: "This is where our future 'new' energy supplies will be found. In fact, Gus Speth of the President's Council on Environmental Quality has recommended that utilities should be required to prove all other means of producing electricity, including conservation, have been exhausted before an application for a new power plant is made. Do you agree?"

Lovins: "Yes, if a utility says it wants to build a new power station or even a gas plant, they should have to show that it's the most economic way of meeting their customers' end-use energy needs. That means they should have to show that within their service area they have exhausted the potential for efficiency improvements, load-leveling (spreading the demand for power more evenly throughout the day) and renewable energy. If they can't show that, the plant shouldn't be built."

Parks: "Where would the money for the plant go then?"

Lovins: "What the utility should be doing instead is loaning out the money to

their customers. Say you've just borrowed \$2,000 from the utility to weatherstrip and insulate your house and maybe another \$1,000 to solarize it. All of that saves you, say \$300 a year off your utility bill. Then you pay it back at \$300 a year or a little less, so that your bill is the same as if you had done nothing. You therefore get a house that's cheaper to run without paying any more. Meanwhile, when the loan's paid

conservation, have been exhausted before opening a new mine?

Lovins: "I think that would be a good idea, but the way to do that is to prevent the federal government from adding bizarre subsidies at the ratepayers' and taxpayers' expense in order to get these Western coal and uranium systems built when the market is unwilling to finance them."

Do you think that coal and uranium mining companies operating in the Rocky Mountain states should also have to offer proof that all other means of producing electricity, including conservation, have been exhausted before opening a new mine?

off, say in 10 years or so, your bill goes down because, of course, you're using less.

"And the utility also benefits, because it saves money and improves its cash flow and avoids bankruptcy. Several states have mandated systems similar to this already. Conservation loans were originally invented by utilities because they save so much money.

"In fact, Oregon, California and New York are doing this now, with more on the way. And some utilities will even go further than this. For example, Puget Sound Power and Light in Seattle will give you zero-interest conservation loans, and they will come in and insulate your electrical water heater absolutely free because it saves them so much money.

"Pacific Power and Light, as I recall, will give you zero-interest loans which don't have to be paid back until you sell your house. Then, of course, you realize the extra value of the house. Surprising as it may sound, these kinds of give-aways greatly benefit the utilities as well as the customers, because mining the inefficiencies in the present energy system is the cheapest source of supply.

"The critical point is that the utilities would be co-opted into the transition process instead of being an enemy to them. It would be a better business to get into. It would keep them busy for the next 50 years, doing something that they do well, namely—merchant banking, while they gradually turn into a distribution service something like the phone company."

Parks: "Amory, here's another question that lies closer to home. Do you think that coal and uranium mining companies operating in the Rocky Mountain states should also have to offer proof that all other means of producing electricity, including

"Now there is a very good reason that the market is unwilling to finance them: they will give you much more expensive energy than conservation and renewables. Therefore, they should not be built. And if market economics played any part in these decisions, they wouldn't be built. I think the most important way to insure that they won't be built is to press for removal of the roughly \$100 billion a year of subsidies that now go into conventional energy systems."

Parks: "In addition to these subsidies, do you find that there is a tendency in government to concentrate on large-scale solar technologies and large companies rather than the small solar entrepreneurs?"

Lovins: "Yes, and it's very hard to fix that without changing the people who are there. Many of our worst institutional barriers live in DOE (the Department of Energy) and ought to be recycled."

On this note, our interview concluded. But I couldn't resist asking Lovins one last question that the interview had raised in my mind. Had he ever, I asked, considered taking a job with the government to direct us toward that soft energy future? The thought of Amory Lovins or "Amory clones" instituting the transition with the Department of Energy was somehow appealing.

Glancing quickly at his watch—his talk was about to begin—he responded without hesitation: "I make a good advisor but a bad bureaucrat. And I've made it quite clear that whatever value I have now comes from my mobility and independence. In other words, I'm not tied to any country or field or institution and I can and do say exactly what I like. I wouldn't have it any other way."

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WYOMING



Nov. 3, 1978 — High Country News-7

Eavesdropper

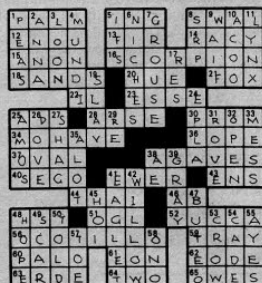
LOONEY LIMERICKS
by Zane E. Cology

Amory Lovins from FOE
Says solar's the way we should go.
He's known as a whiz
In the energy biz,
Let's hope he steals Schlesinger's show.

BIG WILDERNESS YEAR. The Sierra Club National News Report says that 1978 was the biggest year for wilderness since the passage of the Wilderness Act in 1964. Congress added 4.5 million acres to the 20 million acre wilderness system. The largest single package was almost two million acres in eight units of national parks. In the West, these park wildernesses included areas in Carlsbad Caverns, N.M.; Organ Pipe Cactus National Monument, Ariz.; and Theodore Roosevelt National Park, N.D. Congress also approved a 285,771 acre Great Bear Wilderness and a 60,000 acre addition to the Bob Marshall Wilderness, both in Montana. Combined with other bills approved this year — the Endangered American Wilderness Act, Absaroka-Beartooth (Mont.) and Indian Peaks (Colo.) — Congress established 14 new wilderness units and six expansions to existing units within the national forest system.

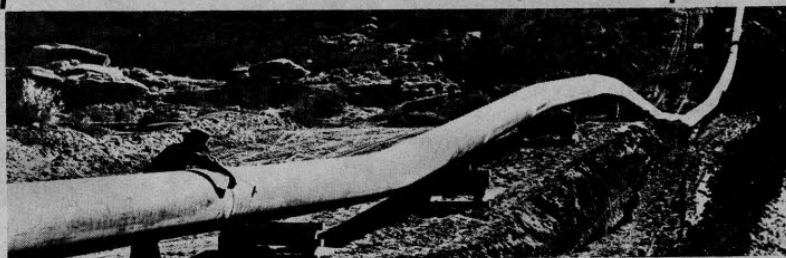
SMOG WAR REPORT. Pollution levels of several major pollutants are going down in Southern California, according to the Gannett News Service. The number of days when smog reaches health-alert levels in the Los Angeles area has dropped from an average of more than 200 several years ago to slightly more than 100. In addition to health problems, air pollution also is estimated to cause more than \$55 million a year in damage to farm crops throughout the state.

OFF THE BANDWAGON. Despite a nationwide campaign for greater use of mass transit, the use of subways, buses, trains and trolleys has decreased from 24 percent to 19 percent between 1970 and 1976 in 20 major cities. Of those who switched from private to public transportation during the year before the survey, only 28 percent liked mass transit better while 42 percent regretted the decision. The Census Bureau, which conducted the survey in 1976, says more than half of the workers drive to work alone.



THE SOLUTION to the Conservation Crossword on American deserts that we published in our Oct. 20 issue is shown above.

Congress phases out gas controls; pushes for conservation, solar power



Idaho Department of Commerce and Development photo

NATURAL GAS pricing held up work on the national energy bill. Photo of a natural gas pipeline in Idaho.

For the first time in history, the United States has a congressionally-sanctioned energy policy. Shortly before adjournment in October, after 18 months of intensive — and sometimes acrimonious — debate, Congress passed national energy legislation. The bill was substantially altered from President Carter's proposal made in the spring of 1977, which spurred the debate.

The energy package consists of four laws: natural gas pricing, general energy conservation, electric rate reform and coal conversion. Congress ignored what Carter said should have been the "centerpiece" of U.S. energy policy, a tax aimed at discouraging oil consumption by raising the price of domestic crude oil to the same levels as imported oil.

Carter had also asked for a tax on industries that would have forced a switch from oil and natural gas to other energy sources.

Both of these taxes were passed by the House, but not by the Senate. Senate opposition was so strong that the taxes were eliminated from the final bill.

The end result of Congress' work is an energy policy that even supporters are calling only a "beginning." Rep. Thomas Ashley (D-Ohio) told the *Los Angeles Times*, "It's not a full-fledged energy policy, but it does give us a foundation." Ashley was the House floor manager of the bills.

The most controversial aspect of the new law is the gradual deregulation of natural gas prices. Sen. James Abourezk (D-S.D.) filibustered for 15 hours against deregulation. The Senate finally voted to close debate and approved a compromise deregulation proposal.

Under the compromise, the price of natural gas from new wells will be allowed to double over the next seven years. After 1985, gas produced from new wells will be

completely deregulated. The current price of natural gas is \$1.45 per thousand cubic feet. Old gas — gas that is being produced from existing wells for out-of-state users — will be allowed to increase in price at a rate equal to the rate of inflation. However, it will not be deregulated.

In addition, federal controls were extended to gas produced for sale within a state. Previously, only gas shipped out of state was covered by price controls. As a result, about 90 percent of new gas production in recent years has been sold to the local or intrastate market, leaving shortages in areas that do not produce natural gas.

By extending controls to intrastate gas, Congress hopes that consumers in shortage areas will be able to compete for gas. Three major producing states — Texas, Oklahoma and Louisiana — have already said that they jointly will sue over this provision, contending that the federal government does not have authority over intrastate gas.

SOLAR INCENTIVES

In the area of energy conservation, the legislation gives some incentives to purchasers of solar heating equipment. Homeowners will be able to receive loans at interest rates of between seven and 15 percent. To insure these "reasonable" rates, Congress authorized the Government National Mortgage Association to purchase the loans from private lenders and resell them to consumers.

Homeowners can also take a tax credit of 30 percent on the first \$2,000 and 20 percent for the next \$8,000 — up to a total of \$2,200 — for the purchase and installation of solar, wind and geothermal equipment. The bill authorizes federal assistance for

installation of both active and passive solar energy modifications to existing houses.

The law also provides \$98 million for the purchase of photovoltaic — solar electric — cells. The House version of the conservation bill would have provided only one-third of that amount.

Accepting one of Carter's proposals, Congress also provided \$100 million for the installation of solar heating and cooling equipment in federal buildings.

One practice that has worried many environmentalists is the utility financing of the purchase and installation of home insulation. Activists have argued that direct utility involvement in conservation is a conflict, because the utilities are in the business of selling, not saving, power. The energy bill directs the Federal Trade Commission to study the effects of this practice and to report to the Congress in 18 months.

GAS-GUZZLER TAX

Another major conservation provision in the bill is the "gas-guzzler" tax. Beginning with the 1980 model year, people who purchase cars getting less than 15 miles per gallon will be taxed \$550. Standards will become more and more stringent until the 1986 model year. At that point, cars that get less than 12.5 miles per gallon will be taxed \$3,850. Cars getting better than 22.5 miles per gallon will be exempt from taxes.

In addition, the U.S. auto manufacturers' cars will be required to average 27.5 miles per gallon by the 1985 model year.

RATE REFORM

Congress passed a relatively weak bill on electric rate reform. State utility commissions will be required to consider alternative rate-making structures, but they are not required to implement them. Within three years the commissions must make findings of "appropriateness" of five standards: time of day rates, seasonal rates, cost of service pricing, interruptible rates and a prohibition against rates that decline as electric consumption increases.

COAL CONVERSION

The other major portion of the energy package is the coal conversion act. This bill forbids new power plants from using oil and natural gas in their boilers and provides authority for the administration to order existing plants to convert to coal.

Administration energy advisors say that the plan will reduce U.S. energy consumption by the equivalent of 2.5 million barrels of oil daily. Total current energy consumption in the U.S. is about 16 million barrels daily.

Congress takes back governors' right to require use of local coal

In a little-noticed provision of the energy conservation act — part of the Congressional energy package — the House and Senate adopted an amendment to the Clean Air Act Amendments of 1977.

The Clean Air Act Amendments gave the president or governors of states the authority to require that power plants within states burn only locally-produced coal, if necessary to minimize local economic disruption.

The legislation was strongly supported by Eastern coal miners, who feared that power plants would begin to

import low-sulfur Western coal to meet clean air requirements. Western environmentalists also saw the provision as one method of slowing Western coal production.

However, the new energy conservation law repeals the authority granted to the governor. The president may still require local coal burning, but only if he finds that it would result in no significant increase in energy consumption, would not mean significantly higher costs to consumers and would not violate any existing contractual relationships between coal suppliers and users.

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COTTONWOODS

"The leaves of the cottonwood trees that crowded the canyon caught reflections of the afternoon sun, hundreds of tiny mirrors flashing."
—Leslie Silko,
Ceremony

SACRED AND SENSIBLE

by Gary Paul Nabhan

Several years ago, a crew of Apache Indians were hired for a "phreatophyte control program", as the bureaucrats termed it. Early one morning, they were taken down to the banks of a nearby river, given chainsaws and told to cut down all the cottonwoods in sight.

When the government boss came back at noon to check on their progress, he found them sitting in the shade smoking, without having felled a single tree.

"Apaches can't kill cottonwoods," an Indian told him. "Something bad would happen."

However nonsensical this answer sounded to the boss, it reflects both ecological and cultural truths. Where cottonwoods have been decimated in the dry West, fertile flood plains have been left vulnerable to erosion. Culturally, the cottonwood has sacred associations for several Southwestern cultures; to waste them is a profane act.

In Indian languages of the Southwest, "tree" almost universally means "cottonwood." Linguists suggest that these Indians visualize the concept of "tree" through the image of "cottonwood" because it is the most outstanding tree in their landscape.

Cottonwoods' stature justifies this status. With trunks as large as 84 feet tall and six feet in diameter, crowns of old cottonwoods stretch more than 110 feet across.

Such an enormous canopy makes for a good shade tree. White immigrants to the West planted them around their upland homesteads. Yet, as Laguna Pueblo woman Leslie Silko writes, "The cottonwood trees... were much more than summer shade."

In Silko's *Ceremony*, they not only reflect the health of the environment near the river, but also affect the health of the humans living there. When one of *Ceremony's* characters sees a river "stolen away" and the cottonwoods drying up, her feeling inside was of "something beginning to shrink thin and dry like old newspapers gone yellow...." Later in the story, a Laguna Indian feels his broken life

healing as he enters "a world of crickets and wind and cottonwood trees."

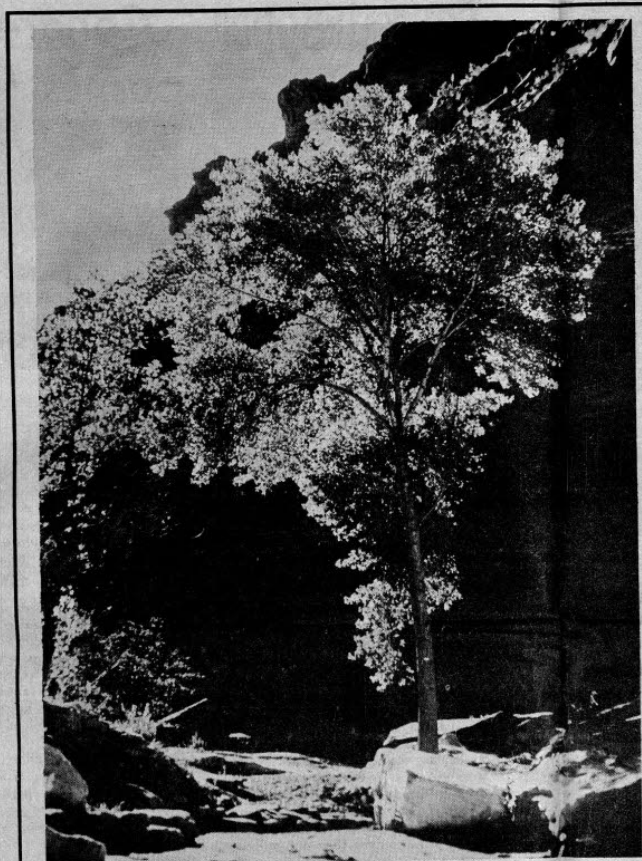
A healthy floodplain ecology is often indicated by a grove of cottonwoods of mixed age. These stands support the greatest diversity of higher animals known for any North American habitat. For a given acreage of land, cottonwood groves contain higher breeding bird densities than any other kind of forest.

For Native Americans, cottonwoods were not simply wildlife habitat. They contributed products for a working human community as well. Leaves were used as a dye and in a decoction for sore eyes. In early spring, Pima Indian boys would shinny up trunks to reach the cottony catkins and then shake them down. Eaten raw or cooked with chili, catkins offered desert peoples a break from their often monotonous winter diet. Supple twigs were woven into work baskets. Wood provided fuel, fencing and the raw stuff for carving katchinas, wooden dolls with spiritual significance.

Healthy cottonwood thickets are in turn dependent upon free-flowing streams. To regenerate, they need substantial streamflow during the brief period each spring when seeds are viable. Ironically, the same snowmelt floods that tend to topple aging trees usually plant new seeds in the moist soil along the high water mark. As a stream meanders, curved rows of cottonwoods are established across the breadth of a floodplain.

The damming and channelization of wild rivers has thus critically damaged the health and wealth of cottonwood groves. On the Colorado River alone, much more than half of the historic riverside forest acreage has been lost. Elsewhere in the Southwest, primeval floodplain forests stretching for miles have been left high and dry by groundwater pumping and river diversion.

Not all assaults on cottonwoods have been so indirect. Because they are classified as "phreatophytes"—plants with high rates of water consumption—they have been eliminated in some areas to make the water they would consume available for industrial-agricultural uses. In addition, flood-felled trees occasionally clog river channels, forcing high waters onto adjacent floodplain lands, sometimes resulting



A COTTONWOOD near Supai Indian village in the Grand Canyon.

Photo by Gary Nabhan

in property losses. After one such incident on the Gila River near Safford, Ariz., farmers formed a posse to tar-and-feather local Sierra Clubbers who had won an injunction to halt a phreatophyte control and channelization program there.

However, men and cottonwoods have teamed up in Sonora, Mexico, just 150 miles south of where Safford farmers view cottonwoods as a threat. By planting rows of cottonwood and willow saplings on the edge of fields along riverbeds, Sonorans create a "cushion" to protect their lands from the eroding power of floods. As these saplings mature, their roots anchor the riverbanks. Brush fill, woven between the trees, catches the nutrient-rich sediment of

the flood waters. The force of high waters is broken by the thicket, allowing the floods to spread gently out across the fields, fertilizing them.

Phreatophytic cottonwoods and willows form the base of a land conservation process that has given these Sonoran watersheds a degree of stability unknown to modern white men in the Southwest.

Of course, Indians who refuse to clearcut cottonwoods and Mexicans who plant them are part of the cultural backwaters of America. The flash flood of progress rushes by them. And as it does, they conserve some values and skills that may protect them from the devastating cultural erosion that accompanies such progress.



"Apaches can't kill cottonwoods. Something bad would happen."

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Photo by Sheridan

Cottonwood groves contain higher breeding bird densities than any other kind of forest

PRUNINGS from the upper branches of these cottonwoods in Sonora, Mexico, will be planted to create new groves.



IN SONORA, MEXICO, cottonwood saplings are planted in a row to simulate natural cottonwood corridors for erosion control.

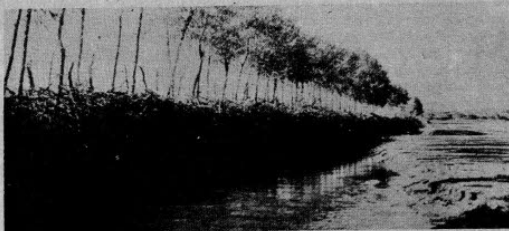


Photo by Sheridan

Indians who refuse to clearcut cottonwoods and Mexicans who plant them are part of the cultural backwaters of America.

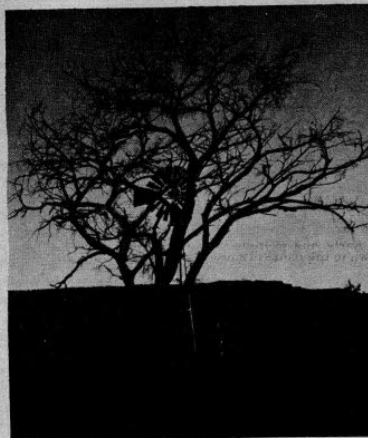


Photo by Gary Nabhan

THE OLD WATER PUMP and the new. A windmill for groundwater pumping has dropped the water level down below the roots of this cottonwood, killing it.

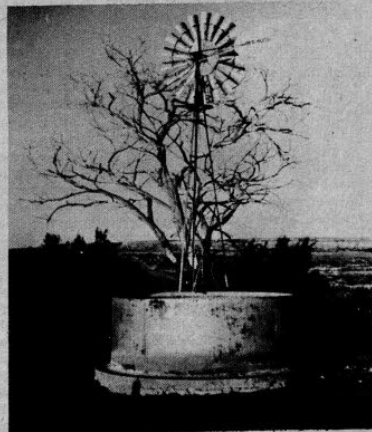


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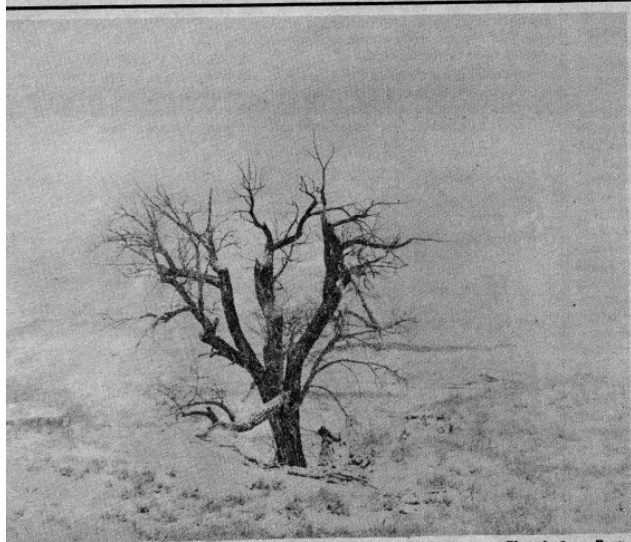


Photo by Lynne Bama

10-High Country News — Nov. 3, 1978



The HCN Hot Line

energy news from across the country

DETHRONE THE ENERGY CZAR

Ralph Nader, consumer advocate, has asked President Carter to fire Department of Energy Secretary James Schlesinger for promoting pro-industry policies. Nader met with a Carter aide at the White House to ask that Schlesinger be removed. Later he met with reporters. Nader says, "He (Schlesinger) has favored the energy policies of the large oil and gas corporations to the disadvantage of the energy

policies that would favor the consumers in this country from the health, safety and economic point of view." Nader says that the administration was "noncommittal" about whether Schlesinger would be removed.

SAUDI SOLAR SPLASH. The U.S. and Saudi Arabian governments have reached an agreement on a \$100 million joint solar energy research program. The two governments will share equally in the costs of developing solar energy technologies over a five-year period. The systems will then be sold to Saudi Arabia or other developing nations that can use the technology.

NUKE DELAYS SPELL POWER SHORTAGES. New England and New York can expect power shortages in the next 10 years if delays in the construction of nuclear power plants continue at their present rates according to a report pre-

pared for the Northeast Power Coordinating Council. However, political support for nuclear power in the Northeast appears to be waning. According to Gannett News Service, rising resentment on the part of consumers in New Hampshire, who are helping to finance the expensive Seabrook nuclear power plant, may be instrumental in the defeat of conservative incumbent Gov. Meldrim Thomson. Plant construction has resulted in substantial rate increases to consumers, and Thomson's opponent, Hugh Gallen, is making substantial political capital by attacking the Seabrook plant and the governor's support of it, according to Gannett.

OIL IMPORTS WILL INCREASE. Department of Energy Secretary James Schlesinger told a West German television interviewer that President Carter's goal of reducing U.S. oil imports to 6 or 7 million barrels daily by 1985 cannot be reached.

Schlesinger said that imports would instead climb to 9 or 10 million barrels, exceeding current import levels of about 8 million barrels daily. However, the energy secretary said that imports would rise even more if Carter's energy package had not been approved.

COPPER GRAB? Two congressmen have asked the Federal Trade Commission to "seriously consider prohibiting further copper acquisitions by American oil companies." Copper is an important element in active solar systems, and Reps. Leo J. Ryan (D-Calif.) and Robert F. Drinan (D-Mass.) point out that solar energy is a rival to the oil industry. Already Atlantic Richfield Co. has acquired the Anaconda Copper Co. in Montana. Oil companies now control 40 percent of known copper reserves and 37 percent of U.S. copper production, according to Ryan and Drinan.

Rally opposes storage of nuclear wastes in N.M.

by Dede Feldman

CARLSBAD, N.M. — In October over 200 people gathered in a sunny park here to protest the U.S. Department of Energy's plans to store radioactive wastes in underground salt deposits 27 miles southwest of the city. The project, known as the Waste Isolation Pilot Program (WIPP), is designed to provide permanent disposal of wastes from the government's nuclear weapons program and a limited amount of storage for the more dangerous wastes from nuclear power plants.

Carlsbad is expected to be the only disposal site in the country for wastes from weapons. Other sites all over the country are being considered for wastes from nuclear power plants.

The crowd at the rally, composed mainly

of Chicanos from Roswell, Carlsbad and other communities in southeastern New Mexico, cheered speakers from over 10 local anti-WIPP groups and, encouraged by members of a theater group, chanted, "No radiation without representation."

The performers, most of them young Chicanos from southern New Mexico, presented a short play about the federal government's nationwide search for a storage facility for nuclear wastes and their proposal to site such a facility in New Mexico.

"Let's locate it in New Mexico," the mock DOE representative shouts in the play. "All they have there is Chicanos, Native Americans and dumb cowboys — they'll never get together."

Rally participants cheered as Mailgrams were read from Mescalero Apache Tribe

President Wendell Chino and from N.M. Attorney General Toney Anaya. Both opposed WIPP. Chino, whose reservation is located west of the proposed site, said the Mescaleros oppose WIPP because it would expose the tribal population to dangers from the transportation of radioactive materials to the site.

One speaker at the rally, Carroll Wilson of Canyon, Tex., said many Texans opposed the WIPP project in New Mexico because radioactive materials would be transported through Texas. Wilson said that in his area the Chamber of Commerce, the county commission, the court judges and the Commissioners Association have passed resolutions opposing the disposal of nuclear waste in their county.

In Carlsbad, members of the Chamber of Commerce, the mayor and other city officials support the WIPP site because they feel it will bring jobs to the community and bolster the national push toward nuclear energy. No city, county, state or labor officials spoke at or attended the rally in Carlsbad.

Speakers at the rally said they think the government is too willing to go ahead with the WIPP project before studies proving its safety have been completed.

"If I went to the TWA office and asked to buy a ticket to Houston, and the fellow told me that he'd put me on the plane, but that he hadn't figured out how to make the en-

gine work properly and that the wings weren't on right, and he'd fix it in mid-air, why, I'd probably decide to start walking instead," Wilson said.

DOE plans to store the wastes in salt formations near Carlsbad. Critics question the stability of salt, saying it is a highly soluble medium, and water could dissolve a path for possible leakage.

"Geologically speaking, the WIPP site is not worth a darn," says Roxanne Kartchner, chairwoman of the Carlsbad Nuclear Waste Forum and a principal organizer of the rally. She criticizes the federal government for continuously changing its plans for what it plans to store there. In October 1977 New Mexicans were told the facility was primarily for defense wastes. However, at public hearings this spring, DOE officials said that wastes from commercial reactors, which are much more radioactive, would also be located at WIPP on an experimental basis.

Kartchner is also concerned about the loss of local resources. "There is \$1.3 billion worth of economically recoverable potash and lots of natural gas in the WIPP area — this will all be lost if WIPP goes through," she says.

Kartchner is careful to separate the rally's opposition to the WIPP site from opposition to the entire nuclear question. "We're not anti-nuclear; we're anti-WIPP," the young housewife says.

DOE officials explain plans

Department of Energy officials expect the Waste Isolation Pilot Program in Carlsbad, N.M., to be licensed by the Nuclear Regulatory Commission by mid-1979, if its environmental impact statement is approved. The target date for receiving radioactive wastes is 1985, according to WIPP Project Director Don Schueler.

Schueler says the site is planned for defense wastes, such as byproducts from the Rocky Flats nuclear weapons plant near Denver. "We anticipate that the site can accommodate all the medium-level defense wastes in the country," Schueler says. These wastes will be transuranic, meaning they're higher on the periodic table than uranium and non-heat generating.

In addition, the site will be used for a pilot project storing up to 1,000 spent fuel elements from commercial nuclear reactors. These wastes will generate heat, but the heat won't exceed the melting point of salt, according to Schueler.

DOE officials say salt is a safe medium for storage of radioactive wastes. It has been recommended by the National Academy of Sciences because it is self-sealing, meaning it has a plastic quality that would fill in any fracture through naturally existing geologic forces. "Despite the fact that salt is highly soluble in water, huge salt formations have existed under the United States for hundreds of millions of

years. The overlying geologic structures have protected them in the past and can be expected to do so in the future," John M. Deutch told a congressional committee in August. Deutch is director of DOE's office of energy research.

The transuranic weapons wastes and the spent fuel will remain radioactive for more than 250,000 years.

DOE is studying other salt formations — in Paradox Basin in southern Utah and in Texas and Louisiana. Different geologic formations also are being studied elsewhere in the country.

Because of the fears many New Mexicans have expressed about WIPP, DOE officials have promised that New Mexico can veto plans for the waste repository, although the exact means has not been determined.

However, outgoing Gov. Jerry Apodaca has recommended that no decision be made until a draft environmental impact statement is completed for the site, around Jan. 1.

Congress is considering legislation that would give the states an explicit right to prohibit radioactive waste disposal within their boundaries. According to the *Wall Street Journal*, 11 states have already voted to bar such disposal, although their legal right to do so is in question. The *Journal* says the Carter administration opposes the federal legislation on "constitutional grounds."



RALLY participants demanded "no radiation without representation." At right, Roxanne Kartchner, chairwoman of the Carlsbad Nuclear Waste Forum.

Photo by Dede Feldman

Nov. 3, 1978 — High Country News-11

WOC, miners settle desert uranium fight

The Wyoming Outdoor Council has reached an agreement with Minerals Exploration Co. over the company's proposed uranium mine in the Red Desert. WOC has agreed to drop its protest before the Wyoming Department of Environmental Quality over Minerals' mine, provided the company meets nine conditions that WOC and its four co-petitioners set forth.

The settlement was very controversial among the group's board members, a number of whom felt that the group should protest all uranium mining in the fragile southwestern Wyoming desert. However, upon reviewing their case, WOC attorneys decided that their case wasn't strong enough to win a denial of the mining permit under Wyoming's environmental protection laws.

WOC attorney Josephine Porter called the settlement a "major victory." Porter says, "We forced them to improve what was a totally incomplete environmental review... our compromise addresses the major environmental issues and insures that the company will have to mitigate the adverse effects the mining operation would have."

The settlement ends a long battle over the Minerals' permit. The state Department of Environmental Quality had rejected the permit request three times, calling it incomplete. The amended application, with its environmental restrictions,

will now go before the state Environmental Quality Council, which is expected to approve it.

Stanley Hathaway, attorney for the company, says that work will probably not begin on the mine until spring even if the permit is issued promptly.

WOC's major concern had been the Chain of Lakes area of the desert. The group feared that mining operations would dewater the area. To combat the problem, Minerals has agreed to complete a baseline study of the area, covering the period from May 1978 to May 1979. If mine operations lower the water in the lakes, the com-

pany has agreed to add water. The lakes provide important waterfowl habitat in the desert.

A second area of concern was the reclamation of the Battle Springs Flat area of the desert. Under its mine plan, Minerals would dewater the mine at a rate of 6,800 gallons per minute and leave the water on the flat. Under the terms of the settlement, the company agreed to limit their maximum average flow to the flat and to assure that total dissolved solids do not exceed 480 parts per million average over any three month period.

In addition to these conditions, the company agreed to monitor its discharges for concentrations of heavy metals, conduct

extensive large-scale reclamation experiments and eliminate unauthorized hunting.

A number of the WOC board members, while agreeing that the settlement imposed tough conditions, felt that the group should have pushed for a denial of the permit. However, Porter says, "The policy set by the board was to mitigate the impacts of the mine. The conditions address those concerns."

Co-petitioners with WOC were the Rawlins Rockhound Gem and Minerals Club, the Lower Green River Basin Chapter of the Izaak Walton League, the Wyoming Wildlife Federation and the National Wildlife Federation.



MINERALS EXPLORATION site on the Red Desert.

Photo by Mike McClure

Wyoming mine may test law restricting alluvial valley mining

For the second time Peter Kiewit Sons has filed a coal mining application for its proposed Whitney mine in Sheridan County, Wyo. The firm's first application was withdrawn two years ago after the Powder River Basin Resource Council objected to the proposed site, in an alluvial valley floor along the Tongue River.

The practice of mining in alluvial valleys is restricted by the federal strip mine bill passed last year. Sources in Cheyenne, Wyo., say that it appears from the mining application that Kiewit plans to challenge the constitutionality of the law.

Instead of filing a standard mine application form, the company submitted what almost amounts to a legal brief. Kiewit says in the application that denial of the permit on the grounds that the mine will be in an alluvial floor "would be an unconstitutional taking of the property without due process of law."

The application also says that if the permit is denied because the mine is located in

an alluvial valley floor, then the state should reimburse the company for the value of the coal, investment, and development costs, and the revenues and royalties lost.

Wyoming Assistant Attorney General E. Michael Weber says "These allegations usually are not made in a mine application, nor are they part of the DEQ mine application forms."

A spokesman for Peter Kiewit Sons says that speculation about any legal challenges is "premature." The spokesman says, "Nobody's going to prejudice this. I would surmise that we're just trying to make a full statement in the application. I hope and trust that we're going to get what we're after."

The state Department of Environmental Quality will review the application and should reach a decision about it in a few months.



which requires that Interior take certain steps to protect Jackson Hole's scenic and recreational values from drilling activities, however.

NUCLEAR REACTION CLOSES PLANT. The Idaho National Engineering Laboratory chemical processing plant was shut down for a week while Department of Energy officials investigated an accident that spilled a small amount of radioactive gases into the atmosphere. Dick Blackledge of DOE says, "There were no personnel exposures, no contamination inside the building, no damage to equipment and the environmental checks were all negative." Warning systems alerted the plant personnel, who immediately evacuated all employees and notified the state, according to Blackledge. DOE is still investigating the cause of the nuclear reaction. The plant reprocesses fuel rods of enriched uranium that have been used in nuclear reactors. Under normal operating conditions, the concentration of uranium in solution is not high enough to cause a sustained chain reaction, but on Oct. 17, such a reaction took place for an instant, according to the Idaho Statesman.

PEABODY COAL FINED. For the first time in its two-year history, the Colorado Mined Land Reclamation Board has fined a coal company for violating the state reclamation code. The *Rocky Mountain News* reports that the board imposed a \$19,000 fine on Peabody Coal Co. for failing to separate topsoil from overburden removed from 21 acres of the Seneca Mine near Hayden, Colo. Under state and federal law, topsoil must be saved and replaced when mined lands are reclaimed. The company has decided to waive its right to a hearing and will pay the fine.

JACKSON HOLE OIL WELL. The U.S. Forest Service has approved Getty Oil Co.'s application to drill an exploratory oil well in Jackson Hole, Wyo. The well will test the production potential of a portion of the Overthrust Belt. Unlike a previous drilling proposal on Cache Creek near Jackson Hole, the Getty well did not stir much controversy. Wyoming Sierra Club chairman Phil Hocker told the *Jackson Hole Guide*, "It looked like this well could be handled in an environmentally sound way." Both the Sierra Club and the Wilderness Society expressed concern that the Forest Service and the U.S. Geological Survey did not pay more attention to a 1947 Interior Department memorandum

GRAYROCKS DAM WORK CONTINUES. U. S. Eighth Circuit Court Judge Roy Stephenson has ruled that work can continue on Grayrocks Dam near Wheatland, Wyo., until his court hears arguments on the case Nov. 14. A lower court's injunction had stopped work on the dam and nullified federal loan guarantees for the power plant associated with it as a result of a suit brought by several environmental groups and the state of Nebraska. Wyoming Gov. Ed Herschler and Nebraska Gov. J.J. Exon have appointed an 18-member committee to try to achieve a compromise.

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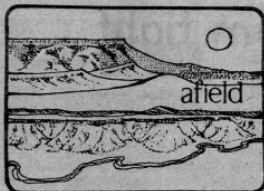
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12-High Country News — Nov. 3, 1978



by Hannah Hinchman

You no longer hear the white noise of a tree full of leaves in motion when you walk by the cottonwoods and aspens. You hear the scraping and clicking of just the handful of leaves left, each in its separate frenzy.

The cottonwood seems to be a favorite of insects. In the spring its tender leaves are sticky, sweet-smelling and often covered with ants. Since the cold nights have begun along the Wind River Range, aphids have been gathering on the undersides of cottonwood

leaves. They stand immobile, in clumps, and each morning a few more have turned black. When I brought a leaf inside, I didn't realize that the green aphids would revive so quickly, but they had dispatched themselves across the desk in a few moments.

Our Indian Summer days — extending through most of October — have been broken by one wet snowstorm, and the familiar winter pattern of a turbulent cloud ridge over the mountains has begun. When the sky becomes unsettled it produces an array of different cloud types — from low, broken, scudding forms to high sheets, blown out into huge streamers. They may all be present in the sky at once. In fair weather at dusk you can watch the cumuli disintegrate as the solar-heated thermals cease for the night.

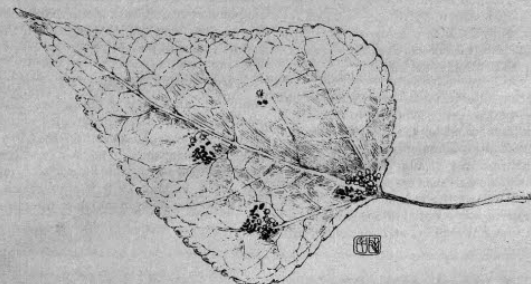
The forks of the Popo Agie River have maintained their flow this summer. The Wind River's polished boulders are exposed, but it is still flowing purposefully. There was enough water for us to relax about the drought; seeing the snowfields on the high slopes in August

reassured us, too. We haven't heard any firm predictions about the coming winter, but Steve Douglas at Crook's Mountain says his beavers haven't put by many boughs yet.

Most of the robins have come and gone in their nervous and restless way, dippers are appearing along lowland streams, and the duck migration is under way. We've seen a long list of

species at the nearby waterhole, including shovellers, ruddy ducks and buffleheads. Hunters say this is a good year for moose, but the elk have yet to descend from their summer haunts.

Can anyone out there tell me why flickers act so strangely in the fall? I see and hear them everywhere now, perched on telephone wires, horse trailers and rooftops, looking indecisive.



HCN Bulletin Board



SOUTHCENTRAL WYOMING COAL

A draft environmental statement on coal development in southcentral Wyoming is ready for public scrutiny. The area could be producing an additional 6 million tons of coal annually by 1990, according to the Bureau of Land Management document. Written comments should be sent by Nov. 20 to Ed Coy, Team Leader, Southcentral Wyoming Coal Environmental Statement, Bureau of Land Management, P.O. Box 670, Rawlins, Wyo. 82301. A public hearing will be held Nov. 21 in Rawlins.

POWDER RIVER BASIN COAL

The impacts of coal development in the Eastern Powder River Basin of Wyoming are discussed in a draft environmental statement recently published by the Bureau of Land Management. The area could produce about 173 million tons of coal annually by 1990, according to BLM. Copies of the statement are available from the state director, Bureau of Land Management, 2515 Warren Ave., P.O. Box 1828, Cheyenne, Wyo. 82001. Public hearings will be held Nov. 28 in Gillette, Wyo., and Nov. 29 in Casper, Wyo. Written comments should be sent by Nov. 27.

INDIANS AND SOLAR ENERGY

A conference on alternative energy for Indian reservations will be held in Albuquerque, N.M., Dec. 5-7 at the Albuquerque Convention Center. The agenda will include discussions of the sun in Indian culture, economic impacts of energy trends, community self-sufficiency through appropriate technology and existing alternative energy projects on reservations. Demonstrations and displays will be offered on solar energy applications. The registration fee is \$55. For more information, contact the sponsor of the conference, the Native American Natural Resources Development Federation at 910 15th St., Suite 840, Denver, Colo. 80202 or call (303) 534-4484.

SOLAR B.S.

Colorado Technical College in Colorado Springs, Colo., is offering a course designed to prepare students for employment as solar energy technicians. The course offers an associate degree in applied science after two years and bachelor of science degree in solar engineering technology after four years. For information contact Dr. Tom Forster at the college, 655 Elkton Drive, Colorado Springs, Colo. 80907.

UTAH'S AIR PLAN

Hearings on Utah's revised State Implementation Plan and Revised Air Conservation Regulations, which are designed to achieve compliance with federal air regulations, will be held before the State Board of Health and the Air Conservation Committee in December. The meetings will be Dec. 6 in Salt Lake City and Dec. 7

in Orem, Logan, Cedar City, Richfield, Vernal and Price. For more information contact the Utah Air Conservation Committee, P.O. Box 2500, Salt Lake City, Utah 84110.

RESOURCES CLINICS

The National Wildlife Federation is setting up two natural resources offices in Colorado to help train future lawyers and wildlife professionals in solving environmental problems. The clinics will also provide assistance on land use issues. Law students and those training to be wildlife professionals will work on environmental problem solving, including litigation, in such areas as air pollution, coal development and strip mining law enforcement. The clinic will have offices at the University of Colorado in Boulder and Colorado State University in Fort Collins. For more information, write NFW Natural Re-

sources Clinic, Campus Box 401, University of Colorado Law School, Boulder, Colo. 80309.

COLORADO'S AIR PLAN

Nov. 18-19 the Colorado Air Pollution Control Commission will hear public comment on its proposed State Implementation Plan, which describes the methods Colorado will use to reduce air pollution to meet federal air quality standards by 1982. The plan must be submitted to the Environmental Protection Agency for approval by Jan. 1. For more information contact the Colorado Department of Health, 4210 E. 11th Ave., Denver, Colo. 80220.



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Western Roundup

HCN

Nov. 3, 1978

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Nerve bombs make officials nervous

A potentially dangerous move of 900 Weteye nerve gas bombs from the Rocky Mountain Arsenal at Denver to the Tooele Army Depot in Utah is being fought by Utah's Gov. Scott Matheson. He is supported by many environmentalists, by Colorado Sens. Floyd Haskell and Gary Hart, and by Colorado Gov. Dick Lamm. Opponents of the move argue that the weapons are obsolete and should be detoxified at their present location. The Army's plan to ship the bombs by air and ground military transport would take the bombs near populated areas of Utah.

After the Army filed its original environmental impact statement on the project, three bombs were discovered to be leaking, each from identical welds. A supplementary impact statement was then filed, which stated that although there was stress at these welds, it wasn't of enough magnitude to produce "catastrophic stress corrosion cracks." The statement also maintained that "there will be trained technical personnel present (during the move) to deal with any leak."

Because of postal delays, the state of Utah received their copy of the supplemental statement only two weeks before the deadline for comments.

Matheson says papers have already been drawn up to file suit in U.S. District Court to stop the move. The suit is based on the failure of the Army to address all the issues of the move in the environmental statement.

Interior ponders how to guard Alaska

Since the legislation to protect Alaska's federal lands died when Congress adjourned, millions of acres could be open for development on Dec. 18. Interior Department Secretary Cecil Andrus intends to prevent this, however. A draft environmental impact statement just issued by In-

terior analyzes management alternatives designed to protect 99 million acres of Alaska until Congress can act on legislation in the 1979 session.

Some of the land is already partly protected under withdrawals made to protect the Alaskan natives' hunting and fishing rights. However, Andrus wants to add another layer of protection, since even these lands would be open to mining exploration if the Dec. 18 deadline passes and the administration does nothing. The lands could be protected under the Antiquities Act of 1906, which allows the president to set aside national monuments. The lands could also be studied for wilderness designation under the Bureau of Land Management's organic act.

Meanwhile, Sen. Henry Jackson (D-Wash.) has promised swift action on the bill when the Senate reconvenes in January. Rep. Morris Udall (D-Ariz.) is expected to push for action in the House.

Audubon begins grassland study

The National Audubon Society is studying four million acres of public lands known as the National Grasslands. The Forest Service administers these lands, which were damaged during the dustbowl years of the '30s.

The study team will visit the lands and discuss their management with ranchers, Forest Service officials, biologists and others. The purpose of the study is "to provide a broader base of public support for proper management of the grasslands," which are among the few samples of prairie ecosystems in the federal land system.

For more information, contact Eugene Knoder, 9250 West Fifth Ave., Lakewood, Colo. 80226.



Soil Conservation Service photo
GRASSLANDS need a broader base of public support, according to the National Audubon Society.



Alaskans consider homestead revival

A "homesteading" initiative will be on the Alaska ballot on Nov. 7, which, if passed, will put up to 30 million acres of state land up for grabs. The land, in 40- to 160-acre parcels, would be available to any Alaska residents who file for it, regardless of their intended use.

A public interest law group called Trustees for Alaska has challenged the initiative on the grounds the state's constitution prohibits "appropriation" by initiative, and that the U.S. Constitution prohibits the "Alaskans-only" requirement. The state's Supreme Court overturned a lower court's ruling in favor of Trustees for Alaska and ordered the initiative back on the ballot until the court can make a final determination.

The giveaway would include many state lands surrounded by federal lands now under consideration for wilderness designation.



Colorado Division of Wildlife photo by Don Domenick
THE BAN on coyote-killing Compound 1080 could be lifted by this spring, if federal studies convince the Secretary of Interior and the Environmental Protection Agency that the substance is not harmful to the environment.

Interior to rule on coyote-killing method

The Interior Department says it will decide before lambing season next spring whether to lift the federal ban on the use of poison Compound 1080 to kill coyotes.

Oct. 19, U.S. District Court Judge Ewing Kerr had told attorneys that the decision in a four-year-old court case over the poison ban was political, not legal — and therefore up to Interior Secretary Cecil Andrus. "I am of the opinion that he (Andrus) has a duty as a secretary and as a Westerner to

attempt to save this vital industry (the sheep industry) in the West," Kerr said.

The Interior Department responded to Kerr in a letter, explaining that two documents that would be the basis for Andrus's decision were almost completed. "We have not been idle," an Interior Department spokesman told HCN.

The spokesman said that Andrus's decision, expected in mid-winter, would be based on a report called *Predator Damage in the West: A Study of Coyote Management Alternatives*, which is being prepared by a panel of government, environmental and livestock interests, and on a Fish and Wildlife Service environmental statement on the current federal program to control coyotes. Public hearings on the draft statement will probably be held in mid-December, according to the department.

"We may ask for a lifting of the ban," the Interior spokesman says, "but at most it will be on an experimental basis. And we will be considering other predator control alternatives, too," he says.

The spokesman says Andrus has been hearing both from livestock interests, who say lifting the ban will cut their losses to predators, and from environmental and humane groups, who say the poison can harm other wildlife, dogs and people.

"It's been a tough one to handle. As governor of Idaho, he knew a lot of folks on both sides of the issue."

An Interior recommendation to lift the poison ban would have to be approved by the U.S. Environmental Protection Agency, which banned use or interstate transportation of Compound 1080 in 1972.

EPA recently refused Montana's request to use 1080 on an experimental basis, saying that the state's proposal would not provide any new information about the effects of the poison on non-target animals.

Radiation turns sewage to feed

Sandia Laboratories, supported by the Department of Energy and the U.S. Environmental Protection Agency, has opened a \$350,000 facility near Albuquerque, N.M., to explore possibilities for irradiating sewage sludge. It is hoped the process, which uses Cesium-137 as the radiation source, will produce a product useful as a soil conditioner, fertilizer or animal feed supplement.

Cesium-137 is a byproduct of uranium fission. The finished sludge product will be free of residual radioactivity, according to the Department of Energy.

Coming soon: avalanche zoning?

The 100-year flood theory also holds true for avalanches, according to the Institute of Arctic and Alpine Research in Boulder, Colo. And like flood plains, many proven avalanche runs in Colorado are being built up with condominiums, homes, and ski areas.

INSTAAR is leading an effort to train builders, the government, and the general population to avoid building in these areas.



THE SCHOOL LUNCH MENU

by Myra Connell

Each week I drool over the delicious-sounding school lunch menus printed in the newspaper. Last Tuesday, for instance, one of the local elementary schools was serving pizza, buttered corn, fruit jello with whipped topping, milk AND pickles. Actually, these "lunches" come close to being a full meal.

As the kids file into a shining, sanitary cafeteria to partake of a warm, balanced repast at nominal cost, I think they have no thought of how fortunate they are.

In the one-room log hut (13 feet by 22 feet) where the kids of my generation absorbed the rudiments of education, there

was no space for a cafeteria, no government subsidy, no experts whose job was to insist that children be well-nourished. Mothers packed sandwiches of homemade bread, butter and jelly--sometimes peanut butter or meat. An apple or banana was a big treat.

While weather was fine we enjoyed eating outdoors, picnic style. A lot of bartering went on when the other fellow's lunch looked yummier than one's own.

But when winter's blasts whistled through the chinking between the logs and snow blanketed the ground, the cold sandwiches were less appealing.

I was about halfway through the grades when one of our teachers initiated "hot lunches." Each day just before school closed, a hot dish for the next day was

selected and each family assigned its contribution to be brought to school the following morning. For example, if we chose potato soup: pupils A and B were to bring potatoes, C an onion, D a jar of milk and E some butter.

The first order of business the next morning was to get the soup cooking. Older girls, who had nearly always had had experience in their mothers' kitchens, peeled potatoes and onions and put them to boil in a big kettle on top of the potbellied coal heater.

Of course the teacher had to supervise, thus adding one more task to her arduous day of teaching all subjects to all eight

grades. (These superwomen who taught the rural schools are among our country's unsung heroes.)

The hot soup helped to hold the frigid weather at bay and made our afternoon studies less brain-curdling.

We also prepared cocoa, tomato soup, vegetable soup and mashed potatoes. Corn starch pudding laced with rich cream was a favorite. One time my mother sent elk and vegetable stew, already prepared--enough for the whole crew.

I think we gained other things than nourishment for our bodies by way of our hot lunch plan: a sense of cooperation, sharing and independence.

But the earth revolved, population increased and soon a strange word was bandied about--"consolidation." The gumbo roads were blacktopped and the orange busses appeared. The country schools gave way to complexes of brick and glass. And the school lunch evolved from the single kettle on top of the wood stove to the stainless steel efficiency of the modern school cafeteria.

Who can prove that the new way represents true progress?



State of Wyoming Public Notice

PURPOSE OF PUBLIC NOTICE

THE PURPOSE OF THIS PUBLIC NOTICE IS TO STATE THE STATE OF WYOMING'S INTENTION TO ISSUE WASTEWATER DISCHARGE PERMITS UNDER THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972 (FWPCA), P.L. 92-500 AND THE WYOMING ENVIRONMENTAL QUALITY ACT (35-11-101 et. seq., WYOMING STATUTES 1967, CUMULATIVE SUPPLEMENT 1973).

IT IS THE STATE OF WYOMING'S INTENTION TO ISSUE WASTEWATER DISCHARGE PERMITS TO (1) ONE SWIMMING POOL DISCHARGE AND (1) ONE OIL TREATER DISCHARGE, AND TO MODIFY (3) THREE INDUSTRIAL DISCHARGE PERMITS AND (13) THIRTEEN MUNICIPAL DISCHARGE PERMITS WITHIN THE STATE OF WYOMING.

APPLICANT INFORMATION

(1) APPLICANT NAME: CITY OF ROCK SPRINGS, WYOMING
"CIVIC CENTER SWIMMING POOL"

MAILING ADDRESS: CITY OF ROCK SPRINGS
P.O. BOX 698
ROCK SPRINGS, WYOMING 82901

APPLICATION NUMBER: Wy-0028061

The City of Rock Springs is constructing a swimming pool at the City's Civic Center. Backwash from the pool's filter system will be routed to Bitter Creek (Class IV stream).

Due to the fact that the quantity of discharge is expected to be small and because Bitter Creek is not managed as a fishery, the proposed permit contains no effluent limitations or self-monitoring requirements. The expiration date is November 30, 1983.

(2) APPLICANT NAME: PRENALTA CORPORATION

MAILING ADDRESS: P.O. BOX 2514
CASPER, WYOMING 82902

FACILITY LOCATION: PRENALTA GOVERNMENT 33-31-39-61
LEASE, SW 1/4, SE 1/4, SECTION 31, T39N,
R51W, NIOBRARA COUNTY, WYOMING

APPLICATION NUMBER: Wy-0028053

Facility is a typical oil treater located in Niobrara County, Wyoming. The produced water is separated from the petroleum product through the use of heater treaters and skim ponds. The discharge is to Bridge Creek (Class IV stream) via an unnamed drainage.

The discharge must meet Wyoming's Produced Water Criteria effective immediately. Chapter VII of the Wyoming Water Quality Rules and Regulations infers that as long as the Produced Water Criteria is met, the water is suitable for beneficial use. Because the discharge is to a Class IV stream, limitations more stringent than those indicated in the Produced Water Criteria are not necessary to insure compliance with Wyoming's Surface Water Quality Standards.

Semi-annual self-monitoring is required for all parameters with the exception of oil and grease which must be monitored quarterly. The proposed expiration date is December 31, 1982.

(3) PERMIT NAME: AMAX COAL COMPANY

MAILING ADDRESS: P.O. BOX 3005
GILLETTE, WYOMING 82716

FACILITY LOCATION: BELLE Ayr MINE
CAMPBELL COUNTY, WYOMING

PERMIT NUMBER: Wy-0003514

FACILITY LOCATION: EAGLE BUTTE MINE
CAMPBELL COUNTY, WYOMING

PERMIT NUMBER: Wy-0026018

The Amax Coal Company was last issued a permit to discharge from its Belle Ayr Mine on March 13, 1978, and its Eagle Butte Mine on April 10, 1978. Since that time the Company has requested permission to utilize a cationic polymer known as Dowell M181 to control the total suspended solids concentrations discharged at these facilities. Since this polymer can be toxic to aquatic life in the range of 3.5 mg per l, it is necessary to modify these permits to include limitations on the concentration of this material.

The four discharges from the Belle Ayr mine enter Caballo Creek which is a Class II stream with warm water game fish and which at times has very low flow volumes. It is, therefore, the position of this Department that an instantaneous maximum limitation of 3.0 mg per l is necessary to insure protection of aquatic life. Limitations on all other parameters remain unchanged and comply with national "best practicable" treatment standards. Periodic self-monitoring of the discharges is required with monthly reporting to the regulatory agency.

equal to the toxic limit (3.5 mg per l) is adequate to protect downstream fisheries where dilution water will be available. Limitations on all other parameters remain unchanged and comply with national "best practicable" treatment standards. Periodic self-monitoring of the discharges is required with quarterly reporting to the regulatory agencies.

Because of uncertainties concerning pending EPA regulations on toxic substances associated with coal mining, short term permits with expiration dates of December 31, 1980 are proposed.

(4) PERMIT NAME: THUNDER BASIN COAL COMPANY
A WHOLLY OWNED SUBSIDIARY OF THE
ATLANTIC RICHFIELD COMPANY

MAILING ADDRESS: P.O. BOX 1569
GILLETTE, WYOMING 82716

FACILITY LOCATION: BLACK THUNDER COAL MINE,
CAMPBELL COUNTY, WYOMING

PERMIT NUMBER: Wy-0024091

Atlantic Richfield's Black Thunder Coal Mine is a large open pit mine located near Reno Junction, Wyoming. The Company has requested that its existing discharge permit for this mine be modified to eliminate the total suspended solids limitation on discharge point 005 which consists of equipment washdown water. The Company indicates that no total suspended solids limitation is needed at this discharge point for the following reasons: (1) The discharge is routed to an unnamed playa which will not overflow under any reasonable foreseen precipitation event; (2) The soil of the playa is of poor quality and will be treated as "spoil" during mine reclamation; (3) The entire playa will eventually be mined; and, (4) The expenditure of \$50,000 to \$75,000 for suspended solids removal is not justified since suspended solids will not cause any environmental damage in this case.

The Department is in basic agreement with the Company in this matter and proposes removal of suspended solids limitations as requested. The limitation on oil and grease for this discharge will remain and the method and frequency of monitoring for that parameter will become more strict since it is the one pollutant which could have serious environmental effects in this case.

In addition it is proposed that the existing permit be modified to change the expiration date to December 31, 1980, from the existing expiration date of December 31, 1982. This change is necessary due to present uncertainty regarding future EPA regulations on toxic substances associated with coal mining.

The effluent limitations and self-monitoring requirements for all other discharge points (004, 006 and 007) remain unchanged from the existing permit. The effluent limitations are based on National Best Practicable Treatment Standards for the coal mining industry.

(5) PERMIT NAME: TOWN OF BAGGS, WYOMING

MAILING ADDRESS: P.O. BOX 300
BAGGS, WYOMING 82321

PERMIT NUMBER: Wy-0022888

(6) PERMIT NAME: FORT BRIDGER SEWER DISTRICT

MAILING ADDRESS: P.O. BOX 53
FORT BRIDGER, WYOMING 82933

PERMIT NUMBER: Wy-0022071

(7) PERMIT NAME: TOWN OF HULETT, WYOMING

MAILING ADDRESS: P.O. BOX 278
HULETT, WYOMING 82720

PERMIT NUMBER: Wy-0020214

(8) PERMIT NAME: TOWN OF LA GRANGE, WYOMING

MAILING ADDRESS: P.O. BOX 185
LA GRANGE, WYOMING 82221

PERMIT NUMBER: Wy-0021857

(9) PERMIT NAME: CITY OF LARAMIE, WYOMING

MAILING ADDRESS: P.O. BOX C
4TH AND IVINSON

Coal development dust plagues Powder River family

Paul Stuart, a 44-year-old rancher in Wyoming's Powder River Basin, thinks airborne dust is affecting the health of his family and his livestock. His son has had a respiratory infection for more than a year. His daughter has an incessant cough and sore throat. He and his wife both have lingering colds. And his cattle have an unusually high rate of pink eye — a viral disease Stuart claims is aggravated by dust.

Stuart's ranch has always been subject to a certain amount of dust — it's a fact of life in the semi-arid northeastern corner of the state. But Stuart says most of his problems are due to coal development.

The Stuart ranch is surrounded by coal-related activities. About 300 yards from the ranch house is a dirt road owned by the county that has become a major access route to two coal mines. The mines, operated by Kerr-McGee and Atlantic Richfield, are about 10 miles from the ranch. The livestock in the pasture next to the access road have the highest incidence of pink eye of any on his ranch.

Five miles from the ranch house is another major source of dust — the con-

struction site for a railroad line to haul coal from the mines. Burlington Northern is building the line from Gillette to Douglas, Wyo., to connect the mines in the Powder River Basin with two major east-west rail routes.

"The dust from the cut and fill operations is a major problem," says Stuart. "I wish those yahoos doing the railroad would clean it up or shut it down."

Richard Schrader, a district engineer with the air quality division of the Wyoming Department of Environmental Quality, has visited Stuart's ranch and says there is probably a significant violation of state ambient air standards caused by the access road and the railroad construction. He says he would have to set up a monitoring program to prove there is a violation and to require dust suppression practices.

Schrader says he hopes Stuart's problems will be solved without having to set up an elaborate monitoring program. He says representatives of Burlington Northern plan to meet with Stuart to talk about the

railroad dust problem. Schrader says the county road is bad now because it is under construction. It will eventually be paved — probably by next summer.

Last week Stuart took his six-year-old son, Troy, to see a lung specialist in Denver. Stuart says the doctor hasn't been able to link the ailment to the dust yet. While in Denver he spoke at public hearings held by the federal Office of Surface Mining on regulations to implement the federal strip mining act.

OSM's proposed regulations call for fugitive dust control during "site preparation, coal mining and reclamation operations." Haul roads and access roads are specifically mentioned as dust sources that should be regulated. Stuart believes his problem areas — a public road used for access to mines and a railroad that hauls coal — should be subject to regulation.

Dust control measures that could be required include watering or applying chemical stabilizers to dust sources, paving dirt roads, covering coal storage sites and prompt revegetation.



DUST from activities related to coal mining may be the cause of one Powder River Basin ranch family's suffering.

(10) PERMIT NAME:	TOWN OF LINGLE, WYOMING
MAILING ADDRESS:	P.O. BOX 448 LINGLE, WYOMING 82223
PERMIT NUMBER:	Wy-0021849
(11) PERMIT NAME:	TOWN OF MEDICINE BOW, WYOMING
MAILING ADDRESS:	P.O. BOX 156 MEDICINE BOW, WYOMING 82329
PERMIT NUMBER:	Wy-0020257
(12) PERMIT NAME:	TOWN OF MILLS, WYOMING
MAILING ADDRESS:	DRAWER 789 MILLS, WYOMING 82644
PERMIT NUMBER:	Wy-0020206
(13) PERMIT NAME:	TOWN OF MOORCROFT, WYOMING
MAILING ADDRESS:	P.O. BOX 96 109 CONVERSE STREET MOORCROFT, WYOMING 82721
PERMIT NUMBER:	Wy-0021741
(14) PERMIT NAME:	TOWN OF MOUNTAIN VIEW, WYOMING
MAILING ADDRESS:	P.O. BOX 249 MOUNTAIN VIEW, WYOMING 82939
PERMIT NUMBER:	Wy-0022896
(15) PERMIT NAME:	TOWN OF UPTON, WYOMING
MAILING ADDRESS:	P.O. BOX 203 UPTON, WYOMING 82730
PERMIT NUMBER:	Wy-0020605
(16) PERMIT NAME:	CITY OF WORLAND, WYOMING
MAILING ADDRESS:	P.O. BOX 226 WORLAND, WYOMING 82401 Wy-0020176

The existing permits for these Towns require only that the existing facilities be operated at maximum efficiency, however, the Towns have now been offered Federal construction grant funds which means the wastewater treatment facilities must now be upgraded to meet Federal effluent standards and Wyoming's in-stream water quality standards. The proposed permits include limitations on BOD₅, total residual chlorine, total suspended solids, fecal coliform bacteria and pH. A schedule of compliance to meet these limitations must be submitted by each Town by February 1, 1979. Upon receipt and approval, the schedule of compliance will become an enforceable part of each permit.

All of the proposed permits, with the exceptions of the Town of Upton and Worland, contain a limitation on ammonia which is designed to insure compliance with Wyoming's in-stream water quality standard for that parameter. Since the State considers ammonia removal to be tertiary treatment, the achievement of that limitation will be required only if Federal construction grant funds for tertiary treatment are offered.

At this time it appears that violation of Wyoming's in-stream standards for dissolved oxygen will not occur at any of these facilities provided National Secondary Treatment Standards are achieved. This position will continue to be evaluated (and the permits modified if necessary) as more information becomes available.

The proposed permits contain a section which requires the Towns to begin planning for expansion of the wastewater treatment facilities once 80 percent of the design flow is reached.

The proposed permits require the monitoring of all limited parameters on a routine basis with reporting of results quarterly. The permits are scheduled to expire October 31, 1983.

All of the Towns have been exempted from meeting Federal effluent requirements by July 1, 1977 since, in accordance with Federal requirements, they specifically requested an exemption due to the previous unavailability of Federal construction grant funds. In addition, the Towns requested and received less stringent limitations on

It should be noted that the existing waste treatment facilities at Mountain View are very new and it is very likely that this system will meet Secondary Treatment Standards without further upgrading.

(17) PERMIT NAME:	TOWN OF THAYNE, WYOMING
MAILING ADDRESS:	P.O. BOX 298 THAYNE, WYOMING 83127
PERMIT NUMBER:	Wy-0025895

The wastewater treatment facilities serving the Town of Thayne, Wyoming, consist of a two cell lagoon (first cell is aerated) followed by a spray irrigation system. For numerous reasons this system is not operating properly and partially treated waste is now being discharged across an open field and into Flat Creek (Class II stream). This discharge is not authorized by the Town's existing permit, however, verbal permission for this discharge was granted by this Department in April of 1978, when it became apparent that the existing system would not operate without significant modifications. In addition to the unauthorized discharge, there is a drain system which underlies the lagoon system. The purpose of the drain system is to lower the water table around the treatment facility. The drain system has two discharge points to Flat Creek: 001, which is the southernmost drain, and 002, which is the northernmost drain. As long as the lagoons are properly lined, it is not expected that the underdrains will discharge anything but uncontaminated groundwater, however, because of the potential for flaws in the lagoon liners, the underdrains do at least "threaten" to discharge pollution to surface waters of the State and therefore are required to be covered by a discharge permit in accordance with W.S. 35-11-301(a)(i). The proposed permit does not set any specific effluent limitations or self-monitoring requirements for discharges 001 and 002, however, the proposed permit contains language which would allow modification of the permit if the Department determined that such requirements were necessary in the future.

Because the existing system is not operating properly, the Town has been granted additional funds to upgrade the plant to meet the original objective which is to have no discharge of pollutants to surface waters of the State. It is anticipated that the modifications to the plant necessary to achieve that goal will be achieved by September 1, 1979, and all unauthorized discharges must end by that date.

The great majority of the waste being treated by the Town originates from the Star Valley Cheese Corporation's plant. There are two major problems with the current waste stream from the cheese plant which will have to be corrected before the Town's system, even after the modifications, can be expected to work. First, there is a large amount of lactose waste being discharged to the system. To date, the cheese plant has not agreed to remove this lactose waste. Second, the cheese plant has a large volume of uncontaminated cooling water which is being discharged to the Town's system which is reducing the treatment efficiency of the Town's plant. Again, to date, the cheese plant has not agreed to remove this waste stream.

The major modification to Thayne's permit concerns the Town's control of the cheese plant's discharge. The proposed permit requires the Town and the cheese plant to reach agreement on the following items: (1) A limitation on the amount of BOD₅ discharged by the cheese plant to the Town's system of 2,500 lbs per day; (2) A limitation on the flow volume discharged by the cheese plant to the Town which would require the cheese plant to eliminate the cooling water discharges to the Town's system; and, (3) A requirement that the Town and cheese plant reach agreement on monitoring and reporting the quality and quantity of wastewater being discharged by the cheese plant to the Town's system. Regardless of which party does the monitoring, the Town will be required to report the results on a monthly basis.

The actual limitations on flow and BOD₅ concentration must be achieved by September 1, 1979, which is the projected date for completion of the upgrading of the Town's wastewater treatment system. The proposed permit requires the Town to submit a draft agreement designed to meet items 1, 2 and 3 above to this Department on or before February 1, 1979. Within ten days of approval of the draft by this Department the draft must be presented to the cheese plant. The final agreement between the Town and the cheese plant must be finalized by June 1, 1979. The permit contains language which allows the Department to take enforcement action against either the Town or the cheese plant if good faith in negotiating the agreement is not shown.

The proposed permit contains an expiration date of November 30, 1983.

STATE-EPA TENTATIVE DETERMINATIONS

Tentative determinations have been made by the State of Wyoming in cooperation with the EPA staff relative to effluent limitations and conditions to be imposed on the permits. These limitations and conditions will assure that State water quality standards and applicable provisions of the FWPCA will be protected.

PUBLIC COMMENTS

Public comments are invited any time prior to December 4, 1978. Comment may be directed to the Wyoming Department of Environmental Quality, Water Quality Division, Permits Section, Hathaway Building, Cheyenne, Wyoming 82002, or the U.S. Environmental Protection Agency, Region VIII, Enforcement Division, Permits Administration and Compliance Branch, 1860 Lincoln Street, Denver, Colorado 80295. All comments received prior to December 4, 1978, will be considered in the formulation of final determinations to be imposed on the permits.

ADDITIONAL INFORMATION

Additional information may be obtained upon request by calling the State of Wyoming, (307) 777-7781, or EPA, (303) 327-3874, or by writing to the aforementioned addresses.

The complete applications, draft permits and related documents are available for review and reproduction at the

16-High Country News — Nov. 3, 1978

THE OUTLAW TRAIL

A JOURNEY THROUGH TIME

by Robert Redford, Grosset and Dunlap, New York, 1978. \$19.95, cloth, 223 pages. Photographs by Jonathan Blair.

Review by Peter Wild

Hang on activists, weary from long battles with oil conglomerates, lumber barons and other dividers of the land. Who is this riding out of the Old West bringing succor, the top of his sombrero shot away but both guns blazing? Is it Tom Mix, the Sundance Kid?

No, but almost. It's Robert Redford! Of *Jeremiah Johnson* and *The Great Gatsby* fame, Redford is no stranger to environmental imbrolios. A couple of years ago he teamed up with Ed Abbey and others to block construction of the Kaiparowits power plant. The technological gift to southern Utah would have blessed pristine wilderness with a permanent and noxious cloud. He was so successful that residents of Kanab burned Redford in effigy, then roasted hot dogs over the coals.

This book is the result of the actor's long love affair with wild country and his fascination with Western history. The *Outlaw Trail* was not so much a route of travel as a series of bandit hideaways in vast and rugged terrain between Montana and the Mexican border. Desperados Butch Cassidy, Jesse James and Calamity Jane withdrew to the strongholds of Hole-in-the-Wall, Brown's Park and Robbers' Roost to count their stolen gold, lick their wounds and make merry. On assignment for *National Geographic* magazine, in 1975 Robert Redford spent three weeks riding the section of the trail between Kaycee, Wyo., and Glen Canyon Dam in Arizona, "to see for myself what remained of the Outlaw Trail before it was too late."

We find that much indeed remains. With an "energy gained through passion," we

With its "shopping-center mentality," the nation is "losing too much of what was good," Redford says.

climb with Redford into outlaw caves, explore bandit cabins, and interview 90-year-old Lula Betenson, Butch Cassidy's sister. This is no frothy production of a Hollywood star trading on his name. Researcher Redford gives us more than an exuberant feel for the changing landscapes. He discusses the politics, the clashing personalities resulting in feuds and shoot outs, the bizarre romances between outlaws and mistresses. On page 188

Etta Place, granddaughter of the Earl of Essex and Butch Cassidy's lover haunts us with her grim beauty.

Redford is not a great writer. Occasionally he comes out with a sentence such as: "The only law was that of the fastest gun," the language of bad movies. But for most of the way he is a good writer, and as any good

In 1975 Robert Redford rode between Kaycee, Wyo., and Glen Canyon Dam in Arizona "to see for myself what remained of the Outlaw Trail before it was too late."

writer he lets his material present itself. Sympathetic Redford—who can get tight-lipped locals to open up—is especially interested in that dying breed, the range-hardened and now hard-pressed Westerner

who with a wink in his eye can spin a yarn and twirl a rope.

All along his route the local people speak, creating one of the richest and often most humorous aspects of the book. Slurping beer from cans and growing philosophic around a camp fire, Redford's band turns to the subject of marriage. Redford's sidekick, Ed Abbey, has little to say on the topic, but one cowboy admits he's had a few wives—then adds drolly that the "last one coulda hunted bear with a toothpick." Redford also hobnobs with ranchers and takes time out to stop in Lander, Wyo., and say hello to the HCN staff.

As to the photographs in this formatized volume, Jonathan Blair does what I would call a superb if not awesome job. He blends a pictorial account of the Redford trek with rare photographs of outlaws and lawmen. Among these photographic delights there is perhaps a surplus of full-page color pictures of Robert Redford—R.R. riding his horse, R.R. hitching his horse to a rail, R.R. getting blitzed with new-found friends. The bobbysoxers will squeal.

But the message? Beside the joy of the book, the message is always there. The author observes "the sprawling hand of the developer" cutting up the land around Rock Springs, Wyo., and the oil companies in Vernal, Utah, forcing out people who have lived and worked in the country for generations. The book is a statement of the environmental concerns that motivate Redford's activism. In his view, with its "shopping-center mentality," the nation is "losing too much of what was good."

HEAR THAT LONESOME WHISTLE BLOW

by Dee Brown, Holt, Rinehart and Winston, 1977. \$12.95 hardcover, 311 pages, illustrations.

Review by Dan Whipple

While I was laid up in the hospital recently, my friend Frank Odasz presented me with a copy of this Dee Brown book about the building of America's Western railroads. Frank, who is the Western regional manager for Energy Transportation Systems, Inc., the coal slurry pipeline company, has not built a reputation as a great fan of the railroads. So I immediately suspected that Brown's book might paint an unflattering portrait of them.

Well, coal slurry pipeline fans can rest assured that Dee Brown thinks as little of the railroads as they do. However, Brown has not written a diatribe, but simply an entertaining and thoroughly-researched account of the railroad-building fever that grabbed the nation's imagination in the late 1800s.

Brown lays out a fascinating story of greed, corruption and exploitation. He says, "By the 1880s, railroad-building in America had become the national get-rich-quick game. Promoters by the score leaped into the competition, building railroads helter-skelter across the face of the land. Few of them were planned to meet any transportation needs. They were built solely for the purposes of financial exploitation, not for the people of the nation, who ultimately paid for them over and over again . . . thus perpetuating the most absurd railway system in the world."

Brown's essential premise is that the railroads were built to allow the

speculators to grab the immense amounts of land that Congress authorized for each mile of track completed as the railroads pushed toward the Western sea. By the time rail lines extended from the Mississippi to the Pacific Ocean, private railroad companies had claimed 155 million acres of public lands — about one-tenth of the entire land area of the United States.

Throughout the early history of American railroading, few of the main characters can be called "heroes." Few can even be called honest, in Brown's account. The legislation that established the official sanction and the land grants for the rails west — the Pacific Railway Act — was passed after the liberal application of funds to influential congressmen and stock from one of the emerging railroad companies, the Union Pacific.

At the same time he was pushing the Pacific Railway Act, the head of the U.P., Dr. Thomas Durant, established the notorious Credit Mobilier. This "dummy corporation" assured that the dollar cost of the railroad would finally be about twice what it needed to be. The extra cash went to Durant and his fellow partners in the scam. The partners included a number of influential congressmen who had supported Durant's Pacific Railway Act.

Though scoundrels occupy center stage, there are also a number of impressive moments in this history — the feats of the immigrant Chinese and Irish laborers, the railroad-land settling Mennonites and the honest men who engineered the railroad, trying to do it at reasonable cost.

The only complaint to be raised with the book is that, in the early chapters, Brown assumes too much knowledge on the part of his readers. For instance, many people know that Credit Mobilier was a major American scandal, ranking right up there with Teapot Dome and Watergate. The railroad scandal nearly brought down one of the country's most popular presidents, Ulysses S. Grant. We all studied it in the fifth grade.

However, few of us actually know how the scam worked and Brown skims over it a little too quickly to provide a thorough understanding. But, for anyone interested in the roots of present-day railroad behavior, Brown's book makes fascinating reading. It could induce a few people to support a coal slurry pipeline.

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