

Strip Mine Reclamation Shows It Can Work

By ARTHUR HUTCHINSON
IR State Bureau

Early efforts at strip mining reclamation show some promise that the land scarred by coal mining can be restored to a semblance of its natural state.

At least that is the impression gained from a visit to Colstrip where Western Energy Co. and the Peabody Coal Co. are tearing up where Northern Pacific left off.

State and federal officials concerned with mining land reclamation toured four coal mining operations in eastern Montana last week under the auspices of the reclamation division of the state department of lands.

All four mines were in operation before the 1971 Legislature passed compulsory strip mining reclamation acts and qualified under a less stringent voluntary reclamation law passed in 1969 and administered by the state department of natural resources.

But under land department pressure, three of them — Knife River Coal Co. at Savage near Sidney, Western Energy and Decker Coal Co. at Decker indicate they'll accept reclamation contracts under the tougher new law and accept administration by the Land Department. Peabody still is dragging its feet.

The land agency was given a small budget for reclamation administration and is developing a staff of knowledgeable reclamationists. The personnel are developing because the science is developing. It's largely experimental — nobody is yet sure which techniques will be best and no one mine can be reclaimed quite the same as another mine.

Good Marks

This is illustrated by Western Energy, a subsidiary of the Montana Power Co., which can be given good marks for its efforts at a black hole in the ground called Pit No. 6, Rosebud Mine. At full production the firm will be ripping up 140 acres a year and hopefully restoring as much.

The work is under the direction of Richard L. Hodder of the Agricultural Experimental

Station at Montana State University supported by research grants and the coal firm.

One thing the Land Department specialists are pushing for is to make the companies save the topsoil before they begin stripping overburden and replace the mantle on the graded spoil banks after they are through mining.

Western Energy is doing some of this — stockpiling and later using the first 10 inches. However, Hodder didn't seem convinced this was always necessary.

Hodder has 50 plots of test plantings on topsoil, subsoil and raw spoils. "Raw spoils with straw mulch produced equally as well as topsoil," he said.

At Western Energy's pit, winter wheat is seeded to provide a cover that will hold the graded spoil banks and prevent erosion until native and hardy grass, forbs and legumes mixed in with the wheat take hold.

Western Energy is using one innovative technique Hodder is developing which he calls "surface manipulation."

After the spoil bank is graded, large basins are carved out with a bulldozer or small traps are gouged out of the surface or the top surface is loosened.

"They are all designed to trap water," Hodder said. The runoff from snow or rain is

caught. The treatment, he said, prevents erosion, provides moisture for vegetation and produces freezing and thawing which reduces compaction of the spoil material. Much of the spoils is a clay material that compacts so hard nothing would grow.

The operations visited received generally good marks for grading spoil banks. Work at Colstrip indicates that a slope of 2½ to 1 is the steepest that will hold without sloughing but most are being graded flatter than that.

Hodder displayed one seeded slope of about 6 to 1, or 15 percent where winter wheat was pushing up green shoots.

"If they bring it all back to that (slope), it's not going to be too bad," said Land Commissioner Ted Schwinden.

Western Energy was praised for its mining operations which permitted the worst soil to be buried in the lower part of the mined out pit and the better sandy material to be placed on top.

Peabody, several officials said, was doing some fair grad-

ing and leveling but had left the worst growing material — a goosy clay — on top. "They've got it upside down," said Reclamation Division Administrator Tom Goers.

Schwinden raised one problem with reclamation which probably will require further legislation.

One of the current experiments is how much and how long to fertilize. Everybody conceded fertilization for a considerable period will be necessary before the soil mantle is built up.

"Western Energy will be finished mining this pit by 1975," Schwinden said. "Who is going to fertilize it in 1985?"

There was no real answer, just a reply that whoever manages the land then will be responsible. There was some talk that some reclaimed areas could be restored to agricultural use and the lessee would fertilize but Western Energy's ultimate aim is wildlife habitat and recreation.

Using a combination of the techniques that prove to work best, it is hoped that a soil cov-

er can be built that will provide a climate where native grasses, brush, weeds and trees eventually will replace.

The Hope

"The hope is," Schwinden said, "that eventually it will become just what it would have been if we had left it alone."

Geologists in the party guessed that nature would have erased man's scarring hand in maybe 35,000 years.

Reclamationists hope they can speed it up to heal the

scars in a decade or generation.

Wheat and grasses were growing on the rough banks and green showed where men had been working. There is definite promise reclamation can work.

"We want all the reclamation we can get," Schwinden explained his agency's policy.

Goers said reclamation costs — even at a high estimate of \$1,000 per acre — cost the companies only two cents a ton on a 24-foot coal seam at Colstrip and one cent a ton on a 25-foot coal seam at Decker.

New Document Would Protect Environment

(Editor's Note — This is the 16th in a series of stories examining key provisions of the proposed new constitution and their effect on the people.)

By DENNIS E. CURRAN
IR State Bureau

Montana's proposed new constitution, like many politicians, promises to protect Montana's environment.

But it would be up to the politicians, especially the legislators, to make the constitutional promises come true, and actions speak louder than words.

Few articles in the new constitution have caused so much disagreement over the ultimate effect.

Some see it as the "strongest environmental article of any state" and say it will not only protect the environment but improve it. Others, disappointed over the lack of citizen enforcement powers, complain the section is merely nebulous window dressing which would not force the legislature to do anything it cannot do already.

But even in the new provisions serve only as a broad statement of public policy, most agree they have the potential to help insure Montana's environmental quality. The present constitution does not mention the environment.

Environmental protection in

the new constitution would be accomplished through a new article on environment and natural resources and a new "right to a clean and healthful environment" in the bill of rights.

The new constitution would direct the state and each person to "maintain and improve a clean and healthful environment for present and future generations."

The legislature would be directed to provide for enforcement of the duty and also to provide "adequate remedies" to protect the "environmental life support system" and to prevent "unreasonable depletion and degradation of natural resources."

Like many constitutional provisions, the effect depends on how the provisions are implemented and how key words like "improve" and "adequate" and "unreasonable" are defined.

What constitutes "improving" the environment, or what is an "adequate remedy" for protecting natural resources? When is depletion of natural resources unreasonable and when is it unreasonable?

But the potential is clearly there. The new provision could be used to justify strong state

air and water pollution standards; it could lead to limitations on clearcutting or strict controls on mineral extraction.

Another provision would require "reclamation" of all lands disturbed by the taking of natural resources but would not set any standard of reclamation. The legislature could require only a bare minimum or the best possible reclamation.

Legislative provision for enforcement also would help determine the ultimate effect of the article.

A strong minority wanted the constitution specifically to allow citizens to bring lawsuits against polluters even if they could not prove actual damages to their property. But the citizen suit concept was defeated repeatedly on the convention floor.

Proponents of citizen suits argue that environmental degradation harms everyone and that citizens should not have to wait until they can show damage to go to court to stop pollution. But a majority of delegates feared that citizens suits might result in legal harassment of polluters and should not be locked into the constitution.

be pulled out from under Montana as it has in this case," Dunkle said in a statement.

Dunkle Would Not Allow Pull Out

MISSOULA (AP) — Republican candidate for governor Frank Dunkle said Saturday all of Montana should be "concerned and upset" about the decision to halt construction of the Antiballistic Missile (ABM) site near Conrad.

"This kind of treatment of Montana by the federal government is one more reason why Montana should seek to develop economic growth within the state," Dunkle said.

He said he will, if elected governor, seek guarantees from the federal government that programs in the state would be "permanent and not based on crash programs."

Dunkle said he hoped the federal government would recognize its responsibility to the Conrad area, site of most of the ABM building activity, and take measures to stop economic damage.

"I would not allow the rug to

Fishermen Push F&G Commission

INDEPENDENT RECORD
State Bureau

The Montana Fish and Game Commission agreed Friday that it had no intention of ending its program of planting catchable trout until further studies are made.

Chairman Willis Jones, Billings, forcefully rejected a recommendation by a delegation from Trout Unlimited that planting of catchable (7 to 9-inch) trout be discontinued in blue ribbon streams and other waters where natural reproduction of trout is good.

The request from TU came on the heels of a recently released study which indicated that planting of the catchable fish in the Madison River and tributary O'Dell Creek harmed the native fish both in size and numbers.

Biologists concluded that the large numbers of hatchery-raised fish crowded out the natives in a stream which could naturally support only a limited number of fish.

"We're not going to be pushed into ending the program by TU or by the department itself," Jones said.

The chairman acknowledged that he was "personally put out" because results of the study were released before commissioners saw the study.

He also said he was upset because the study came to the commissioners without any recommendations.

"The results are not conclusive," Jones said. "We need more substantiating data. This is a study of two years on two streams that are unique to America."

Jones and Commissioner Arnold Rieder, Boulder, were upset at language in a letter from a TU member which referred to "polluting rivers with catchables." The letter said the planting program catered to "greedy and inconsiderate" amateur anglers while harming the re-

sources for the experienced angler with the ability to catch the native lunkers.

Commissioner Jack Cohn, Helena, said it was impossible to discontinue the planting program in streams and lakes that didn't reproduce naturally.

Jones said he wondered why TU came in with its recommendation so soon after the Madison study was released.

"I wonder if there is some collusion between the biologists and you," he told the delegation. However, the organization has been opposed to the catchable planting at least in good natural trout waters for nearly a decade.

Jones said he hears that ending the program will save money but said hatchery fish will be needed anyway and "we're not going to save any money."

He criticized one aspect of the report which said that each catchable trout that survived to be caught cost the state about \$2.50 and the program was economically unsound.

The chairman said if it cost some money to provide fish for Montanans to catch, "that's not economically unsound."

Candidates Mourn ABM

by THE ASSOCIATED PRESS

Two Republican U.S. Senate candidates Saturday bemoaned the fate of northcentral Montana now that ABM projects have been ordered cancelled — one citing "fickle federal programs," the other attacking "bungling congressional representation from Montana."

The U.S. — Soviet arms limitation agreement reached in Moscow Friday included a provision for the scrapping of the Montana missile sites near Conrad.

The comments came from Henry S. Hibbard and Norman C. Wheeler.

"This shows what can happen when you depend on fickle federal programs for your livelihood," Hibbard said. He said many businessmen will suffer the effects of the program cut-off for years because "they invested their hopes and money in businesses and services to support a boomtown, and now the rug has been pulled out from under them."

Magazine Merger Will Be Studied

INDEPENDENT RECORD
State Bureau

A proposal to merge its "Montana Outdoors" magazine with the private publication "Montana West" has been taken under study by the State Fish and Game Commission.

The merger was proposed by Dick Graetz, publisher of "Montana West," a quarterly which appeared in the spring of 1970.

"Montana Outdoors" was converted into a bi-monthly quality magazine in the fall of 1970. Both magazines are printed on slick paper, use color photographs extensively and have excellent color reproduction.

Graetz told the commission that he could save the department \$30,000 a year by merging their magazine with his. He proposed that the material appearing in the Fish and Game Department publication be prepared as at present and inserted in a special section in his magazine with no advertising.

Graetz noted he started his magazine before the fish and game agency. "I see no need for the state to compete with private enterprise," he said.

Both magazines cater to the outdoor enthusiast. "Our articles overlap theirs and theirs overlap ours," Graetz said.

He said a merger would "beef up their magazine and enhance our magazine."

"Montana Outdoors" has a press run of about 24,000 and a paid subscription of about

20,000. It sells for 50 cents a copy on newsstands and a one-year subscription is \$2.

Graetz declined to disclose the number of "Montana West" subscribers or sales but said the press run "soon will approach 50,000 copies."

He said there are no plans to distribute the magazine nationwide on newsstands and that would be the minimum required for distribution.

Graetz said the company was reorganizing and he was getting some new associates but would remain as head.

The commission heard the proposal and instructed its information and education section to discuss details with Graetz and report back to its June meeting.

Crab Flirt

The male fiddler crab has one very large claw which is used to signal females.

VALLEY NURSERY

... for the finest HARDY trees you can buy!!!
2801 N. Montana

Tom Judge Spaghetti Dinner

Wednesday, May 31
5:30-8:30 P.M.
St. Mary's Church Basement
ADULTS \$1.50
CHILDREN 50c
Local Democratic candidates will be present. Good food and entertainment, too! Do come for an enjoyable time.
Pd. Pol. Adv. by the Tom Judge for Governor Club, Sid Armstrong, Sec.



HERE'S ONE REASON WHY YOU SHOULD Support THE PROPOSED Constitution

The New Constitution guarantees your right to privacy, your right to know what your government is doing, and your right to participate in governmental decisions. The old Constitution does not. Establish these rights for the next generation.

VOTE FOR THE NEW CONSTITUTION, JUNE 6.

Pol. Adv. paid for by Citizens' Committee for Constitutional Improvement, Donna Muffick, Sec'y, Helena.

Check the window price on a 1972 Stran building

The windows might be "free" on your new Stran building system, if you figure in how much Stran can save you in construction costs. But we want to show you how Stran buildings can save you a lot more. Call us. We'll bring you the full story.



Johnson Builders

310 S. Park 442-3146
A Total Service Stran Franchised Builder.

Come on out and say hi!

OPEN TODAY
10 a.m. to 5 p.m.

STATE NURSERY
Greenhouse Garden Center
3 Mi. West on Missoula Hwy.

Capital Hill Shopping Center

Hennessy's
Phone 443-3000

SHOP TODAY AND MONDAY
12 to 5

All Steel 10' x 7' Arrow Storage House 10' x 10' Storage House \$99.95 \$128.95

Perma-Plate Finish in Sun Gold Walls with White Room and Trim, 10' x 10'5" D (exterior). Sturdy storage house... designed to withstand weather and use. Perfect protection for your lawn and garden equipment.

- 10x10 ft. Models Only
- Check These Features:
- Walk Around Headroom
- Deep ribbed overlapping panels
- Deluxe Gable Design
- Stainless steel, non-rust screws
- Galvanized steel foundation, frame
- Double sliding doors

Hennessy's OUTDOOR SHOP