

MINUTES OF THE MEETING  
NATURAL RESOURCES  
MONTANA STATE SENATE

April 7, 1979

The thirtieth meeting of the Natural Resources Committee was called to order by Senator George F. Roskie, Chairman, at 9:35 A.M., on the above date in Room 405 of the State Capitol Building.

ROLL CALL: Upon roll call all members were present with the exception of Senators Etchart, Lowe, Manley, and Story. Shortly after the hearing began Senator Lowe and Manley arrived. Senators Lockrem and Thiessen then left to attend another hearing.

Mr. Jim Lear, Staff Attorney from the Legislative Council, was also present. See attached visitors' register for the names of visitors present.

CONSIDERATION OF HJR 60: "A joint resolution of the Senate and the House of Representatives of the State of Montana requesting the Environmental Quality Council to study the laws relating to review procedures for permits required for projects which contemplate the use of the state's natural resources for the purpose of coordinating such permit procedures."

Chairman Roskie called on Representative Dennis Nathe, District 1, to present HJR 60 to the Committee. Representative Nathe said the purpose of the study if assigned to the Environmental Quality Council would be to streamline the permit procedures. He then passed around a flow chart of a permit procedure that had been considered and was going to be introduced in a bill during this Legislature but was not submitted in time.

Chairman Roskie called for any other proponents to the bill and there were none. He then called for any opponents to HJR 60 and there were none. The hearing was then opened to questions from the Committee.

Chairman Roskie elaborated on what Representative Nathe had said about the one stop permit bill that did not get introduced during this Legislative Session. He said he felt this idea deserves to be studied and felt the Environmental Quality Council was qualified to do the study. Chairman Roskie called on Mr. Jim Mockler, Montana Coal Council, for his opinion of the bill.

Mr. Mockler favored HJR 60 and said he felt something like this was necessary because the lack of inter-agency cooperation would make it almost impossible to streamline the present permit procedure.

Senator Manley asked why the study was being assigned to the Environmental Quality Council. Chairman Roskie asked Vice-Chairman Dover to chair the remainder of the hearing on HJR 60 so that he could respond to Senator Manley's question.

Chairman Roskie summarized why he felt the Environmental Quality Council would be the best qualified agency to handle the type of study called for in HJR 60.

DISPOSITION OF HJR 60: Senator Lowe moved that HJR 60 BE CONCURRED IN and Senator Roskie seconded the motion. All those present voted in favor of the motion.

CONSIDERATION OF HJR 51: "A joint resolution of the Senate and the House of Representatives of the State of Montana urging the Committee on Priorities to assign to the Environmental Quality Council a study of the problems of bentonite development in Montana."

Chairman Roskie called on Representative Verner Bertelson, District 27, to present HJR 51 to the Committee. Representative Bertelson explained why he felt a study of this nature was necessary and said he felt it was time we became informed about the total impact of bentonite on our state. He then submitted to the Committee for their consideration a map showing the bentonite deposits in Montana as well as some other information about bentonite that was prepared by the Environmental Quality Council (see attachment).

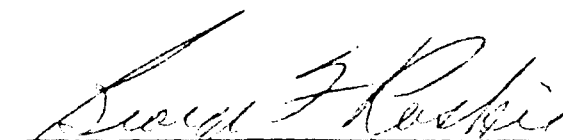
Chairman Roskie called for any other proponents to HJR 51. There were none. He then called for any opponents to HJR 51.

Mr. Jim Mockler, Montana Coal Council, spoke in opposition to HJR 51 and said he was speaking in behalf of Tom Harrison who represents Aura Industries. Mr. Mockler said HJR 51 was a negative resolution and felt if an industry is going to be studied the benefits should be studied as well as the problems.

Representative Bertelson closed by addressing the comments made by Mr. Mockler.

DISPOSITION OF HJR 51: Senator Jergeson moved that HJR 51 BE CONCURRED IN. Senator Manley made a substitute motion to amend the title of HJR 51 by inserting "and benefits" following "problems" on line 7 of the title. Senator Brown said he also had some amendments he wanted the Committee to consider. It was then decided that in order to save time the Committee would wait to amend HJR 51 on the floor. Senator Manley then withdrew his motion. All those present voted in favor of Senator Jergeson's motion except Senator Manley.

ADJOURNMENT: There being no further business the meeting adjourned at 10:00 A.M.

  
SENATOR GEORGE F. ROSKIE, CHAIRMAN

4/1/79

ROLL CALL

Natural Resources COMMITTEE

46th LEGISLATIVE SESSION - 1979

NAME	PRESENT	ABSENT	EXCUSED
ROSKIE, George F., Chairman	✓		
DOVER, Harold L., Vice-Chairman	✓		
BROWN, Steve	✓		
ETCHART, Mark		✓	
JERGESON, Greg	✓		
LOCKREM, Lloyd C., Jr.	✓		
LOWE, William R.	✓	✓	
MANLEY, John E.	✓	✓	
STORY, Pete		✓	
THIESSEN, Cornie R.	✓		

Each Day Attach to Minutes.

# STANDING COMMITTEE REPORT

..... April 7, ..... 19 79 .....

MR. President .....

We, your committee on Natural Resources .....

having had under consideration House Joint Resolution ..... Bill No. 60 .....

Respectfully report as follows: That House Joint Resolution ..... Bill No. 60 .....

BE CONCURRED IN

DO-PASS

*pd*

# STANDING COMMITTEE REPORT

April 7, 19 79

MR. President

We, your committee on Natural Resources

having had under consideration House Joint Resolution Bill No. 51

Respectfully report as follows: That House Joint Resolution Bill No. 51

BE CONCURRED IN  
UNANIMOUSLY

*GA.*



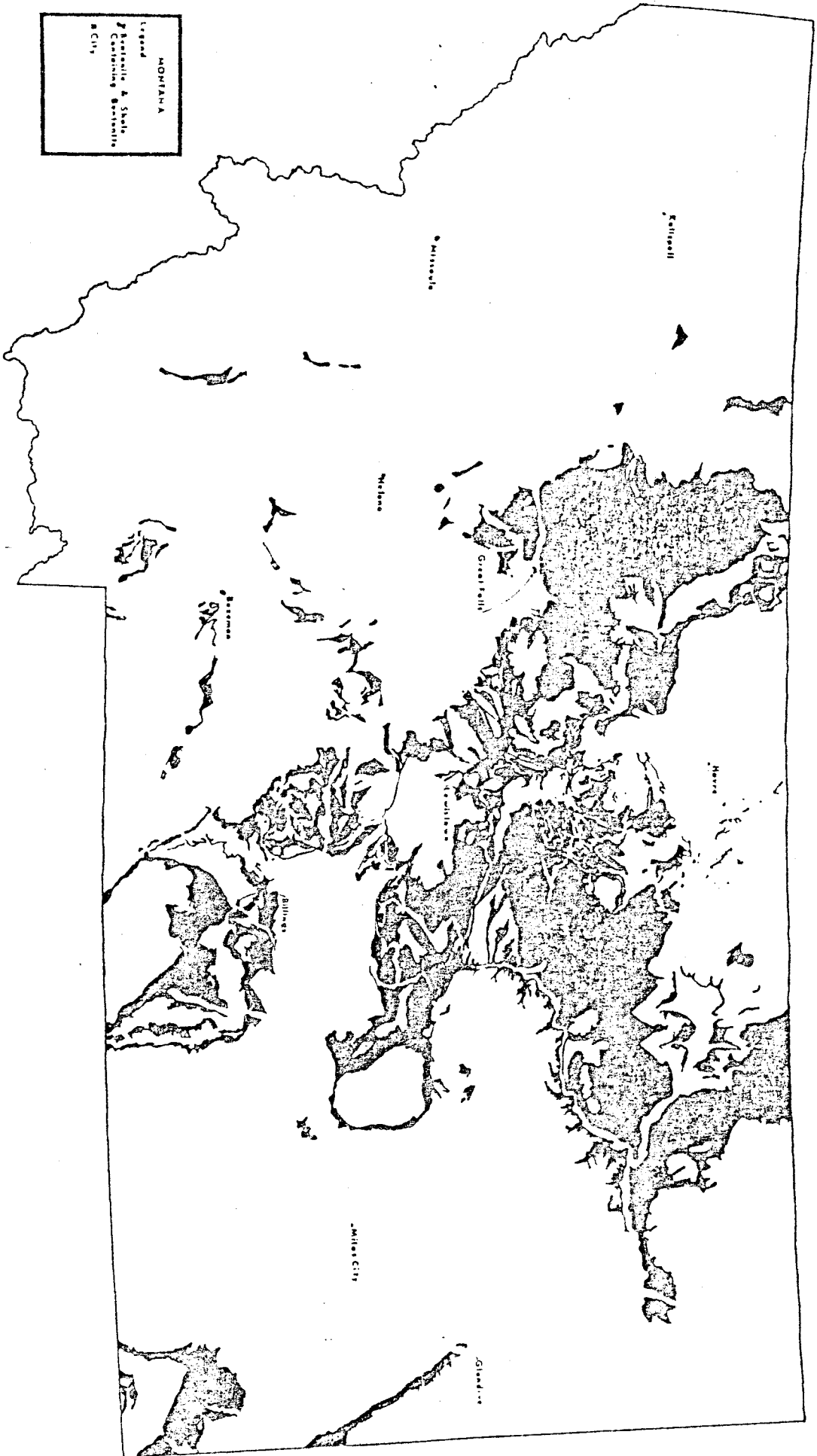


FIGURE 2b. BENTONITE DEPOSITS IN MONTANA.

Taken from: Bentonite Mining Related  
 Reclamation Problems  
 in the Northwestern States  
 by: D. Heineman, S. Johnson and R. Beck

## SHORT REPORT ON BENTONITE

Prepared by G. William Harbrecht  
Ecology Researcher  
Environmental Quality Council  
January 18, 1979

Bentonite exists in two forms--sodium bentonite or Western or Wyoming Bentonite is the form which exists in Montana. The other is calcium bentonite which is found primarily in the southern states. It is estimated that Montana, Wyoming and South Dakota have up to 95 per cent of the world's reserve of sodium bentonite, "the clay of 1000 uses."

At the present time, both Wyoming and South Dakota are on the downhill side of their reserves, i.e., they have mined greater than 50 per cent of the known deposits. Montana, on the other hand, has barely scratched the surface of its reserves. Once the deposits in Wyoming and South Dakota are gone, Montana could be in a very enviable position.

One of its chief uses is as a drilling mud for oil well operations. Other uses include foundry mouldings, sealants, binder for taconite, pencils, sheep and cattle dips, pesticides, concrete, stock feed, wood dips and many, many more.

Montana's tax on bentonite is .5 per cent of gross value. South Dakota charges 1 per cent of gross value unless the price of the mineral goes up 25 per cent--then the tax will be 4 per cent of gross value. Wyoming charges a 2 per cent excise tax which goes into the Mineral Trust Fund and a 2 per cent excise tax which is earmarked for the general fund. Compared to our two neighbors, our tax is quite low.

The plant at Malta should be capable of producing 550,000 tons per year at the start, with 1,000,000 tons per year forecast for 1986. At the latter rate, the Malta plant could run as long as 30 years. The plant at Glasgow should be capable of producing between 200,000 tons per year and 400,000 tons per year.

Bentonite reclamation appears to be very difficult to accomplish. First of all, the ground is very high in sodium. Secondly, there is very little, if any, top soil. At the present time, the Bureau of Land Management is monitoring two small pits, reclaimed in Phillips County. The Bureau of Land Management is seeking funding to monitor a reclamation study for the whole county.



Short Report on Bentonite  
page two

At the present time, mining is taking place in the Glasgow, Malta, Alzada and Belfry areas. There are reportedly good reserves in Chinook County and on the Crow Reservation, neither of which has been mined. A poor quality of bentonite exists in the Geyser, Stanford and Judith Basin area.

There has not been much information written on bentonite mining or reclamation. We are currently waiting for additional information from BLM in Denver and the School of Mines in Butte.

## BENTONITE AND THE LAW

Prepared by Duane Noel  
Ecology Researcher  
Environmental Quality Council  
January 18, 1979

Bentonite mining is regulated by the Open Cut Mining Act which affects bentonite, clay scoria, phosphate rock and sand or gravel mining. The law as it stands is lax due to the normally small operations which are presently mining the above minerals. Some of the weak structures of the law for large operations are listed below:

- A. Taxation levied on open cut minerals is minimal.
- B. The definition of reclamation provides a loophole should an operator be inclined to pursue a course of reclamation differing substantially from the Department of State Lands' recommendations. The definition says in part, ". . . to make the area suitable for productive use including but not limited to forestry, agriculture, grazing, wild-life, recreation, or residential and industrial sites." Productive use could mean anything productive without consideration of the previous land use or the best land use.
- C. Actions requiring penalties for violations are now processed by the county. Many times the county lacks the expertise or the time concerning mining violators and violations.
- D. The law provides for weak bonding requirements.-- One hundred dollars minimum per acre and one thousand dollars maximum per acre. It may be tempting for a large company to forfeit a bond.
- E. The law presently conflicts with the Montana Environmental Policy Act with its mandated application review period and its reasons for denying a permit.

This has been a brief summary of the Open Cut Mining Act and the problems that the Act would encounter if several large mines were to open under the Open Cut Act's jurisdiction. The law seems adequate for small mining operations; therefore a move to beef up the Open Cut Mining Act may damage the small operator dealing with other minerals. Separating bentonite from the Open Cut Act, such as from coal, may be the most desirable solution.

## BENTONITE

## What it Means to Montana

(This report was prepared by Charles Van Hook who presently works for the Environmental Information Center. The report was prepared, however, when he worked for the Department of State Lands. The Environmental Quality Council staff has reviewed the report and considers it a very good source of information.)

Background

The term "bentonite" refers to a distinct type of clay consisting of crystalline, clay-like minerals formed by the devitrification of a glassy, igneous material, usually a tuff in volcanic ash. In world trade and industry there are two broad divisions of commercial bentonite.

"Calcium bentonite" is commercially mined in the southern states of Texas, Mississippi and Alabama. Calcium type bentonite contains the element "calcium" (Ca++) as its principal exchangeable ion. This type of bentonite has negligible swelling when mixed with water. Calcium type bentonite is heavily used by the metalcasting industry.

"Sodium bentonite" contains the clay mineral "montmorillinite" as its chief constituent and the element sodium (Na+) as its predominant exchangeable ion. Sodium bentonite is also referred to as "Wyoming" or "Western" bentonite after the state or deposit from which it is mined. The most discerning fact about sodium type bentonite is that it most always expands in water. It has many uses including foundry mouldings, sealants, mud for oil-well drilling, and as a binder of taconite ore, to name only a few. In a September 26, 1972 newspaper article, the Belle Fourche (South Dakota) Daily Post referred to bentonite as "the clay of 1000 uses". It touches our lives virtually every day. The

tri-state area of Montana, Wyoming, and South Dakota contains over 90 percent of the World's commercially mineable sodium type bentonite. This paper is intended to briefly identify the potential social, economic, political, and environmental problems associated with anticipated future demands for bentonite.

### Present

Bentonite is presently being mined in four different locations around Montana: 1) Carter County near Alzada; 2) Carbon County just north of the Wyoming border near Warren; 3) Phillips County south of Malta; and 4) Valley County southwest of Glasgow. Bentonite from the Carter County area is shipped to Colony, Wyoming and Belle Fourche, South Dakota for processing while the Carbon County deposits are trucked to Lovell, Wyoming. Montana presently has two bentonite processing plants under construction. Federal Bentonite, a division of Aurora Metals, is constructing a plant 18 miles southwest of Glasgow that will be capable of producing 300,000 tons annually. The American Colloid Company is constructing the world's largest bentonite processing plant at Malta. Production will increase from 250,000 tons annually in 1979, to 1 million tons by 1984. Increased mining disturbances can also be expected as production increases.

Presently, Montana has in excess of 15,000 acres permitted for mining (approximately 7,000 acres under the 1971 Montana Open Cut or Strip Mined Land Reclamation Act and approximately 8,000 acres under the 1973 Open Cut Mining Act). It is not known exactly how many acres in Montana have been claimed for bentonite, but it is estimated to be in excess of 750,000 acres (nearly 1200 square miles). The four companies now mining in Montana have more than 71,000 acres of bentonite claims. Of the 15,000 acres permitted for

mining in Montana, approximately 1600 have been disturbed. One firm anticipates disturbing 2,000 acres within the next five years.

The increasing demand for energy in the form of crude oil will require increased production of sodium type bentonite. As stated earlier, bentonite is utilized extensively by the well drilling industry. Montana is just beginning to experience the impacts of bentonite development.

Since Montana, Wyoming, and South Dakota contain over 90 percent of the world's reserves of sodium type bentonite, a combination of political and economic problems are sure to arise.

In addition to income and property taxes, bentonite producers must also pay a Resource Indemnity Trust Tax. The Resource Indemnity Trust Tax is computed at a rate of one-half of one percent the gross value of the mineral at the mine head. Five thousand dollars is deducted from the gross value. The operator pays tax on the gross value over \$25,000 plus a \$25.00 annual fee. A company producing 300,000 tons annually, with a mine head gross value of \$3.00 per ton, would pay a tax of \$4,500. (The equivalent amount of coal with an average mine head value of \$4.50 per ton generates \$405,000 in revenue under the coal severance tax). Sooner or later the politicians will discover the revenue generating capabilities of bentonite. Especially when it becomes widely known that Montana has the lion's share of the world's reserves. Unfortunately, most politicians ignore the enormous impacts on the land resource in such instances. Areas subjected to bentonite mining are extremely difficult to restore. The predominantly clayey soil textures coupled with high levels of sodium produce an extremely harsh environment for plant establishment.

It is imperative then that Montana adopt a policy (preferably in the form of legislation) that requires high quality reclamation of mined areas and

protection of those lands unsuitable for mining while producing tax revenue at a rate commensurate with the demand and availability (world-wide) of the mineral.

Montana's present tax and reclamation laws concerning bentonite are grossly inadequate. The Open Cut Mining Act does not contain a selective denial clause, bonding limitations are unrealistic (\$1,000/acre maximum), enforcement and penalties must be strengthened, and provisions requiring in-depth baseline data need to be revised and expanded. In addition, existing regulations governing bentonite mining do not provide for adequate review and assessment required by MEPA.

Although impacts to the human environment have been moderate as compared to those associated with coal development, increased development of resources will undoubtedly trigger greater social impacts, especially in the less populated areas.

Therefore, in order for Montana to maintain control of bentonite mining activities within the State, it must assume a leadership role in adopting stringent, progressive controls and regulations that will preclude federal intervention.